

# Visvesvaraya Technological University, Belagavi



**REGULATIONS GOVERNING  
THE DEGREE OF BACHELOR OF ENGINEERING/ TECHNOLOGY (B.E/B.Tech)  
UNDER CHOICE BASED CREDIT SYSTEM (CBCS)  
Effective from the academic year 2017 – 18**

**AUGUST2017**

# Visvesvaraya Technological University, Belagavi

## REGULATIONS GOVERNING THE DEGREE OF BACHELOR OF ENGINEERING/ TECHNOLOGY (B.E/B.Tech) UNDER CHOICE BASED CREDIT SYSTEM (CBCS) Effective from the academic year 2017 – 18

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# Visvesvaraya Technological University, Belagavi

## REGULATIONS GOVERNING THE DEGREE OF BACHELOR OF ENGINEERING/ TECHNOLOGY (B.E/B.Tech) UNDER CHOICE BASED CREDIT SYSTEM (CBCS) Effective from the academic year 2017 – 18

### Definitions of Keywords

The following are the definitions/descriptions that have been followed for the different terms used in the Regulations of B.E/B.Tech. Programmes:

- 1) **Programme:** Is an educational programme in a particular stream/ branch of Engineering/branch of specialization leading to award of Degree. It involves events/activities, comprising of lectures/ tutorials/ laboratory work/ field work, outreach activities/ project work/ vocational training/ viva/ seminars/ Internship/ assignments/ presentations/ self-study etc., or a combination of some of these.
- 2) **Branch:** Means Specialization or discipline of B.E/B.Tech. Degree Programme, like Civil Engineering, Mechanical Engineering, Textile Engineering, etc.
- 3) **Semester:** Refers to one of the two sessions of an academic year (vide: serial number 4), each session being of sixteen weeks duration (with working days greater than or equal to ninety).The odd semester may be scheduled from August and even semester from February of the year.
- 4) **Academic Year:** Refers to the sessions of two consecutive semesters (odd followed by an even) including periods of vacation.
- 5) **Course:** Refers to usually referred to as ‘papers’ and is a component of a programme. All Courses need not carry the same weight. The Courses should define learning objectives and learning outcomes. A Course may be designed to comprise lectures/ tutorials/ laboratory work/ field work/ outreach activities/project work/ vocational training/ viva/ seminars/ term papers/assignments/ presentations/ self-study etc., or a combination of some of these.
- 6) **Credit:** Refersto a unit by which the Course work is measured. It determines the number of hours of instructions required per week. One credit is equivalent to one hour of lecture or two hours of laboratory/practical Courses/ tutorials/ fieldwork per week etc.
- 7) **Audit Courses:** Means Knowledge/ Skill enhancing Courses without the benefit of a grade or credit for a Course.
- 8) **Choice Based Credit System (CBCS):** Refers to customizing the Course work, through Core, Elective and soft skill Courses, to provide necessary support for the students to achieve their goals.
- 9) **Course Registration:** Refers to formal registration for the Courses of a semester (Credits) by every student under the supervision of a Faculty Advisor (also called Mentor, Counselor etc.,) in each Semester for the Institution to maintain proper record.
- 10) **Course Evaluation:** Means Continuous Internal Evaluation (CIE) and Semester End Examinations (SEE) to constitute the major evaluations prescribed for each Course. **SEE and CIE to carry 60% and 40% respectively, to enable each Course to be evaluated for 100 marks, irrespective of its Credits.**
- 11) **Continuous Internal Evaluation (CIE):** Refers to evaluation of students’ achievement in the learning process. CIE shall be by the Course Instructor and includes tests, homework, problem solving, group discussion, quiz, mini-project and seminar throughout the Semester, with weightage for the different components being fixed at the University level.

**Visvesvaraya Technological University, Belagavi**  
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- 12) **Semester end examinations (SEE):** Refers to examination conducted at the University level covering the entire Course Syllabus. For this purpose, Syllabi to be modularized and SEE questions to be set from each module, with a choice confined to the concerned module only. SEE is also termed as university examination.
- 13) **First Attempt:** Refers to a student who has completed all formalities and has become eligible to attend the SEE and has attended at least one head of passing, such attempt shall be considered as first attempt.
- 14) **Credit Based System (CBS):** Refers to quantification of Course work, after a student completes teaching – learning process, followed by passing in both CIE and SEE. Under CBS, the requirement for awarding degree is prescribed in terms of total number of credits to be earned by the students.
- 15) **Credit Representation:** Refers to Credit Values for different academic activities considered, as per the Table.1. Credits for seminar, project phases, project viva-voce and internship shall be as specified in the Scheme of Teaching and Examination (Annexure -1).

<b>Table 1: Credit Values</b>				
<b>Theory/Lectures (L)</b> <b>(hours/week/Semester)</b>	<b>Tutorials (T)</b> <b>(hours/week/Semester)</b>	<b>Laboratory/Practical (P)</b> <b>(hours/week/Semester)</b>	<b>Credits</b> <b>(L:T:P)</b>	<b>Total</b> <b>Credits</b>
4	0	0	4:0:0	4
3	0	0	3:0:0	3
2	2	0	2:1:0	3
2	0	2	2:0:1	3
2	2	2	2:1:1	4
0	0	6	0:0:3	3

**NOTE:** Activities like, practical training, study tour and participation in Guest lectures not to carry Credits.

- 16) **Letter Grade:** It is an index of the performance of students in a said Course. Grades are denoted by letters S, A, B, C, D, E and F.
- 17) **Grading:** Grade refers to qualitative measure of achievement of a student in each Course, based on the percentage of marks secured in (CIE plus SEE). Grading is done by Absolute Grading [Refer: 17OB6.0]. The rubric attached to letter grades are as follows:  
 S – Outstanding, A – Excellent, B – Very Good, C – Good, D – Above Average, E – Average and F – Fail.
- 18) **Grade Point (GP):** Refers to a numerical weightage allotted to each letter grade on a 10-point scale as under.

<b>Letter Grade and corresponding Grade Points on a typical 10 – Point scale</b>							
<b>Letter Grade</b>	S	A	B	C	D	E	F
<b>Grade Point</b>	10	09	08	07	06	04	00

- 19) **Passing Standards:** Refers to passing a Course only when getting GP greater than or equal to 04 (as per serial number 18).
- 20) **Credit Point:** Is the product of grade point (GP) and number of credits for a Course i.e.,  
**Credit Point (CrP) = GP × Credits for the Course**

- 21) **Semester Grade Point Average (SGPA):** Refers to a measure of academic performance of student/s in a semester. It is the ratio of total credit points secured by a student in various Courses of a semester and the total Course credits taken during that semester. [Refer:17OB6.0]
- 22) **Cumulative Grade Point Average (CGPA):** Is a measure of overall cumulative performance of a student over all semesters. The CGPA is the ratio of total credit points earned by a student in various Courses in all semesters and the sum of the total credits of all Courses in all the semesters. It is expressed up to two decimal places. [Refer: 17OB6.0]
- 23) **Transcript or Grade Card or Certificate:** Refers to a certificate showing the grades earned by a student. A grade certificate shall be issued to all the registered students after every semester. The grade certificate will display the programme details (Course code, title, number of credits, grades secured) along with SGPA of that semester and CGPA earned till that semester.
- 24) **University:** Visvesvaraya Technological University (VTU), Belagavi.



**Visvesvaraya Technological University, Belagavi**  
**Regulations Governing the Degree of Bachelor of Engineering/ Technology (B.E./B.Tech.)**  
**Under Choice Based Credit System (CBCS)**  
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<b>17OB 1.0</b>	<b>Title, Duration and Credits of the Programme of Study</b>
<b>17OB 1.1</b>	The programme of study shall be called the degree of Bachelor of Engineering (Subject of Specialization) /Bachelor of Technology (Subject of Specialization), abbreviated as B.E. / B.Tech. (Subject of Specialization).
<b>17 OB1.2</b>	<p>The program to which students are admitted to I semester of the programme shall be of four academic year duration divided into eight semesters and each semester is of 16 weeks duration.</p> <p>The programme to which students are admitted to III semester of the programme under lateral entry shall be of three academic year duration divided into six semesters and each semester is of 16 weeks duration.</p> <p>The programme (conducted during evening) to which students are admitted to III semester of the programme under lateral entry shall be of three academic year duration divided into six semesters and each semester is of 16 weeks duration. The deficit contact hours of the programme, conducted during evening on all working days, shall be compensated on all Sundays (except on general holidays).</p>
<b>17 OB 1.3</b>	The calendar of events in respect of the program of study shall be notified by the University in advance.
<b>17 OB 1.4</b>	The University examination in all programs of study shall be conducted at the end of each semester for all the eight semesters.
<b>17 OB 1.5</b>	<p><b>Maximum Duration for Programme Completion:</b></p> <p>a)</p> <ol style="list-style-type: none"> <li>i. Students admitted to I year B.E/ B.Tech shall complete the programme within a period of eight academic years from the date of first admission, failing which they have to discontinue the Course.</li> <li>ii. Students admitted II Year B.E./B.Tech. under lateral entry scheme shall complete the Programme within a period of six academic years from the date of first admission, failing which he/she has to discontinue the Course.</li> </ol> <p>b)</p> <ol style="list-style-type: none"> <li>i. A student who has not obtained the eligibility for III semester even after three academic years from the date of admission to I semester shall discontinue the Programme or get readmitted to I semester of first year B.E./B.Tech. with a new University Seat Number but retaining the same year of admission.</li> <li>ii. A student (under lateral entry scheme) who has not obtained the eligibility for V semester even after three academic years from the date of admission to III semester shall discontinue the Programme or get readmitted to III semester of II year B.E./B.Tech. with a new University Seat Number but retaining the same year of admission.</li> </ol>
<b>17 OB 1.6</b>	<p>Prescribed Number of Credits for the Programme:</p> <p>(a) The number of credits to be completed by students admitted I semester of B.E./B.Tech. programme shall be 200</p> <p>(b) The number of credits to be completed by students admitted to III semester of B.E./B.Tech. programme under lateral entry scheme shall be 152</p>

<b>17 OB2.0</b>	<b>Eligibility for Admission(As per the Government orders issued from time to time)</b>
<b>17 OB2.1</b>	<p>Admission to I year/ I semester Bachelor Degree in Engineering/ shall be open to the students who have passed the II PUC/ XII Standard/ Equivalent Examination with English as one of the Languages and obtained a Minimum of 45% of Marks in aggregate in Physics and Mathematics along with Chemistry / Bio-Technology / Biology / Electronics / Computer.</p> <p>In case of SC/ST, Category -1 and OBC (2A, 2B, 3A and 3B) category students from Karnataka (Karnataka candidates) the minimum marks for eligibility shall be 40 %.</p> <p>With regard to the qualification earned from foreign countries, Equivalence certificate from the Association of Indian Universities is Mandatory for admission to B.E./B.Tech. programme. In case of any dispute about the equivalence in qualification earned from foreign countries, the decision of the Equivalence committee shall be the final in establishing the eligibility of the student.</p> <p>Admission to II year/ III semester Bachelor Degree in Engineering/ Technology (Lateral Entry) shall be open to the Diploma holders and B.Sc. graduates.</p>
<b>17 OB2.2</b>	<p>(i) <b>Diploma Holders</b></p> <p>(a) Must have passed diploma or equivalent examination as recognized by University and secured not less than forty five percentage (45%) marks in the final year examination (fifth and sixth semesters) in the appropriate branch of engineering. In case of SC/ST and OBC students from Karnataka the minimum marks for eligibility shall be forty percent (40%).</p> <p>(b) Those candidates who have completed Diploma from other than Karnataka state shall provide the Equivalence/ Eligibility Certificate from the Director of Technical Education, Karnataka.</p> <p>(ii) <b>B.Sc. Graduates</b></p> <p>Must have passed B.Sc. degree from a recognized University under the UGC or equivalent qualification as recognized by University and secured not less than forty five percentage (45%) marks in aggregate (considering the marks of all six semesters). In case of SC/ST and OBC students from Karnataka (Karnataka candidates) the minimum marks for eligibility shall be forty percent (40%). Candidates must have studied Mathematics as subject of study at XII Standard.</p>
	<p>(i) <b>Diploma Holders for the programme conducted during evening</b></p> <p>A candidate who has passed diploma examination or equivalent examination and obtained an aggregate minimum of 45 % marks taken together in all the subjects of the final year (fifth and sixth semesters) diploma examination is eligible to B.E Courses, and 40 % of marks in case of SC/ST and backward classes of Karnataka candidates.</p> <p>In addition to this a candidate after passing the diploma, must have minimum of two years full time professional experience as on first September of the year of admission, in a registered firm/company/industry/ educational / Government / Autonomous organizations in the branch of Engineering/ Technology, in which the candidates hold a diploma, and in which admission is sought by him/her.</p>

<b>17 OB2.2</b> <b>(continued)</b>	<p>Further that employment shall be in an establishment situated within the 15 km from the place of the institution to which the candidate is seeking admission. Professional experience refers to the experience earned as an employee on regular basis in,</p> <p>(a) Government, Government Undertaking, Public Sector Undertaking, Corporation or,</p> <p>(b) In a private company registered under the Directorate of Industries and Commerce or the Directorate of Small Scale Industries or,</p> <p>(c) Government, Government recognized Institutions as technical staff.</p> <p>Provided that the period of apprenticeship undergone shall also be treated as professional experience, if sponsored by the Board of Apprenticeship Training, Southern Region, Chennai or by Government, Government undertakings and Public Sector undertakings.</p> <p>Further, those candidates who have completed Diploma from other than Karnataka state shall provide the Equivalence/ Eligibility Certificate from the Director of Technical Education, Karnataka.</p>
<b>17 OB2.3</b>	<p>Those students, who have passed a qualifying examination other than the PUC II examination of the Pre-University Education Board of Karnataka, have to obtain eligibility certificate for seeking admission to B.E./B.Tech. Degree Programme from Visvesvaraya Technological University, Belagavi.</p>
<b>17 OB3.0</b>	<b>Courses</b>
<b>17 OB3.1</b>	<p>There shall be the following types of Courses:</p> <p>a) Humanities and Social Sciences (HSS) including Management. These are mandatory for all disciplines.</p> <p>b) Basic Sciences (BS): Physics, Chemistry and Mathematics. These are mandatory for all disciplines.</p> <p>c) Engineering Sciences (ES): Materials, Workshop, Drawing, and Basics of Electrical/ Electronics/ Instrumentation/ Civil/ Mechanical/ Computer Engineering. These are mandatory for all disciplines.</p> <p>d) Professional Subjects (PS) - Core: Are the professional Core (PC) Courses, relevant to the chosen specialization/ branch. The core Courses are to be compulsorily studied by a student and are mandatory to complete them to fulfill the requirements of a programme.</p> <p>e) Professional Subjects (PS) - Elective: Are the professional Electives (PE), relevant to the chosen specialization/ branch and can be chosen from the pool of papers. It shall be supportive to the discipline providing extended scope/enabling an exposure to some other discipline /domain and nurturing student proficiency skills.</p> <p>f) Open Subjects - Electives (OE): Are from other technical areas and/ or from emerging fields.</p> <p>g) Mini project and Main Project: Carried out at the Institution or at an Industry.</p> <p>h) Seminar: Deliverable at the Institution under the supervision of a Faculty.</p> <p>i) Internship: Preferably at an industry/R and D organization/IT company/ Government organization of significant repute for a specified period mentioned in the Scheme of Teaching and Examination.</p> <p>j) Mandatory Courses (MC): These Courses are mandatory, without the benefit of a grade or credit, for students admitted to B.E./B.Tech. program. A pass in each mandatory Course is required to qualify for Degree award from the University.</p>



<p><b>17 OB3.1</b> (continued)</p>	<p>k) Audit Courses (AC): Knowledge/ skill enhancement Courses without the benefit of a grade or credit for a Course.</p> <p>i) The Audit Course/s (other than the Course/s considered for completing the prescribed program credits) can be any Course offered by the program to which the student is admitted to other programs offered in the institution, where the student is studying.</p> <p>ii) The students who are interested in audit Courses can register for one audit Course at a time during III to VIII semesters. Students, who have opted for audit Courses and considered on par with students registered for credit Courses, have to satisfy the attendance and CIE requirements. However, they need not have to appear for SEE. The number of registrations to an audit Course is restricted to 10 % of the AICTE intake.</p> <p>iii) Registration for any audit Course, in writing, shall be completed at the beginning of semesters. The Institution should intimate the Registrar (Evaluation) about the registration at the beginning of the semester and obtain a formal approval for inclusion of the audit Course/s in the Grade cards/ Transcripts issued to the students.</p>
<p><b>17 OB3.2</b></p>	<p>The minimum number of students registered to any Elective offered by the Departments shall be not less than ten.</p>
<p><b>17 OB3.3</b></p>	<p>A student shall exercise his option in respect of Elective Courses and register for the same at the beginning of the concerned semester. The student may be permitted to opt for a change of Elective Course within 15 days from the date of commencement of the semester as per the calendar of the University.</p>
<p><b>17 OB3.4</b></p>	<p><b>Course Registration:</b> Every student shall register for the Courses of a semester (Credits) under the supervision of a Faculty Advisor (also called Mentor, Counselor etc..) in each Semester for the Institution to maintain proper record.</p>
<p><b>17OB4.0</b></p>	<p><b>Internship/Professional Practice</b></p>
<p><b>17OB4.1</b></p>	<p><b>Internship / Professional Practice:</b></p> <ol style="list-style-type: none"> <li>1) The Internship shall be completed during the period specified in the Scheme of Teaching and Examination.</li> <li>2) The internship can be carried out in any industry/R and D Organization/Research Institute/ Educational institute of repute.</li> <li>3) (a) The Department/college shall nominate staff member/s to facilitate, guide and supervise students under internship. (b) The Internal Guide has to visit place of internship at least once during the student's internship.</li> <li>4) The students shall report the progress of the internship to the guide in regular intervals and seek his/her advice.</li> <li>5) After the completion of Internship, students shall submit a report with completion and attendance certificates to the Head of the Department with the approval of both internal and external guides.</li> <li>6) There will be 50 marks for CIE (Seminar: 25, Internship report: 25) and 50 marks for Viva – Voce conducted during SEE. The minimum requirement of CIE marks shall be 50% of the maximum marks. [To be read along with 17 OB 8.6 ]</li> <li>7) The internal guide shall award the marks for seminar and internship report after evaluation. He/she will also be the internal examiner for Viva – Voce conducted during SEE.</li> </ol>

	<p>8) The external guide from the industry shall be an examiner for the viva voce on Internship. Viva-Voce on internship shall be conducted at the college and the date of Viva-Voce shall be fixed in consultation with the external Guide. The Examiners shall jointly award the Viva - Voce marks.</p> <p>9) In case the external Guide expresses his inability to conduct viva voce, the Chief Superintendent of the institution shall appoint a senior faculty of the Department to conduct viva-voce along with the internal guide. The same shall be informed in writing to the concerned Chairperson, Board of Examiners (BOE).</p> <p>10) The students are permitted to carry out the internship anywhere in India or abroad. The University will not provide any kind of financial assistance to any student for carrying out the Internship.</p>																																							
<b>17OB4.2</b>	<b>Failing to undergo Internship:</b> Internship is one of the head of passing. Completion of internship is mandatory. If any student fails to undergo /complete the internship, he/she shall be considered as failed in that Course and shall not be permitted to appear for SEE in that Course. However, student shall appear for SEE after satisfying the conditions prescribed for Internship. The reappearance shall be considered as an attempt.																																							
<b>17OB5.0</b>	<b>Seminar and Project</b>																																							
<b>17OB5.1</b>	<p><b>Seminar:</b> Seminar is one of the head of passing.</p> <p>i) Each candidate shall deliver seminar as per the Scheme of Teaching and Examination on the topics chosen from the relevant fields for about 30 minutes.</p> <p>ii) The Head of the Department shall make arrangements for conducting seminars through concerned faculty members of the Department. The committee constituted for the purpose by the Head of the Department shall award the CIE marks for the seminar. The committee shall consist of three faculty from the Department and the senior most acting as the Chairman/Chairperson. [To be read along with 17 OB 8.6].</p>																																							
<b>17OB5.2</b>	<p><b>Project Work:</b> Project is one of the head of passing.</p> <p>Project work shall preferably be batch wise, the strength of each batch shall not exceed maximum of four students.</p>																																							
<b>17OB5.3</b>	Viva-voce examination in project work shall be conducted batch-wise.																																							
<b>17OB 6.0</b>	<b>Computation of SGPA and CGPA</b>																																							
<b>17OB 6.1</b>	<p>(i) The University adopts absolute grading system wherein the marks are converted to grades, and every semester results will be declared with semester grade point average (SGPA) and Cumulative Grade Point Average (CGPA). The CGPA will be calculated for every semester, except for the first semester.</p> <p>(ii) The grading system with the letter grades and the assigned range of marks under absolute grading system are as given below:</p>																																							
	<table border="1"> <thead> <tr> <th>Level</th> <th>Outstanding</th> <th>Excellent</th> <th>Very Good</th> <th>Good</th> <th>Above Average</th> <th>Average</th> <th>Fail</th> </tr> </thead> <tbody> <tr> <td>Letter Grade</td> <td>S</td> <td>A</td> <td>B</td> <td>C</td> <td>D</td> <td>E</td> <td>F</td> </tr> <tr> <td>Grade Points</td> <td>10</td> <td>9</td> <td>8</td> <td>7</td> <td>6</td> <td>4</td> <td>00</td> </tr> <tr> <td rowspan="2">Percentage of Marks Scored in a Course</td> <td>≥ 90</td> <td>&lt;90</td> <td>&lt; 80</td> <td>&lt; 70</td> <td>&lt; 60</td> <td>&lt; 45</td> <td>&lt; 40</td> </tr> <tr> <td>(90 -100)</td> <td>≥80</td> <td>≥70</td> <td>≥60</td> <td>≥ 45</td> <td>≥40</td> <td>(0 - 39)</td> </tr> </tbody> </table>	Level	Outstanding	Excellent	Very Good	Good	Above Average	Average	Fail	Letter Grade	S	A	B	C	D	E	F	Grade Points	10	9	8	7	6	4	00	Percentage of Marks Scored in a Course	≥ 90	<90	< 80	< 70	< 60	< 45	< 40	(90 -100)	≥80	≥70	≥60	≥ 45	≥40	(0 - 39)
Level	Outstanding	Excellent	Very Good	Good	Above Average	Average	Fail																																	
Letter Grade	S	A	B	C	D	E	F																																	
Grade Points	10	9	8	7	6	4	00																																	
Percentage of Marks Scored in a Course	≥ 90	<90	< 80	< 70	< 60	< 45	< 40																																	
	(90 -100)	≥80	≥70	≥60	≥ 45	≥40	(0 - 39)																																	

	<p>(iii) A student obtaining Grade 'F' in a Course shall be considered failed and is required to reappear in subsequent SEE. Whatever the letter grade secured by the student during his / her reappearance shall be retained. However the number of attempts taken to clear a Course shall be indicated in the grade cards/ transcripts.</p>
<p><b>17OB 6.2</b></p>	<p><b>Computation of SGPA and CGPA (as per UGC Guidelines)</b></p> <p>The following procedures shall be used to compute the Semester Grade Point Average (SGPA) and Cumulative Grade Point Average (CGPA) respectively:</p> <p>i) The SGPA is the ratio of sum of the product of the number of credits with the grade points secured by a student in all the Courses taken by him/her and the sum of the number of credits of all the Courses undergone by a student, i.e.,</p> $SGPA = \frac{\sum (C_i \times G_i)}{\sum C_i}$ <p>Where <math>C_i</math> is the number of credits of the <math>i^{\text{th}}</math> Course and <math>G_i</math> is the grade point scored by the student in the <math>i^{\text{th}}</math> Course.</p> <p>ii) The CGPA is also calculated in the same manner taking into account all the Courses undergone by a student over all the semesters of a programme, i.e.,</p> $CGPA = \frac{\sum (C_i \times S_i)}{\sum C_i}$ <p>Where <math>S_i</math> is the SGPA of the <math>i^{\text{th}}</math> semester and <math>C_i</math> is the total number of credits in that semester.</p> <p>The SGPA and CGPA shall be rounded off to 2 decimal places and reported in the transcripts.</p>

17OB 6.2  
(continued)

### Illustration for Computation of SGPA and CGPA

#### Computation of SGPA

Illustration No.1				
Course	Credit	Grade letter	Grade point	Credit Point = (Credit × Grade)
Course 1	4	B	08	$4 \times 08 = 32$
Course 2	4	D	06	$4 \times 06 = 24$
Course 3	4	C	07	$4 \times 07 = 28$
Course 4	3	S	10	$3 \times 10 = 30$
Course 5	3	E	04	$3 \times 04 = 12$
Course 6	3	D	06	$3 \times 06 = 18$
Course 7	2	A	09	$2 \times 09 = 18$
Course 8	2	D	06	$2 \times 06 = 12$
Total	25	--	--	174

Thus,  $SGPA = 174/25 = 6.96$

Illustration No.2				
Course	Credit	Grade letter	Grade point	Credit Point = (Credit × Grade)
Course 1	4	B	08	$4 \times 08 = 32$
Course 2	4	D	06	$4 \times 06 = 24$
Course 3	4	C	07	$4 \times 07 = 28$
Course 4	3	S	10	$3 \times 10 = 30$
Course 5	3	F	00	$3 \times 00 = 00$
Course 6	3	D	06	$3 \times 06 = 18$
Course 7	2	A	09	$2 \times 09 = 18$
Course 8	2	D	06	$2 \times 06 = 12$
Total	25	--	--	162

Thus,  $SGPA = 162/25 = 6.48$

If a Student secures letter grade C during reappearance then the SGPA is Calculated as shown below.

#### Illustration No. 2(a)

Course	Credit	Grade letter	Grade point	Credit Point = (Credit × Grade)
Course 5	3	C	07	$7 \times 03 = 21$

Total Credit Points = Credit Points of first Attempt) + Credit Points of subsequent attempt  
 $= 162 + 21 = 183$

Total credits of the semester = 25

Thus,  $SGPA = 183/25 = 7.32$

Illustration No.3				
Course	Credit	Grade letter	Grade point	Credit Point = (Credit × Grade)
Course 1	4	B	08	$4 \times 08 = 32$
Course 2	4	D	06	$4 \times 06 = 24$
Course 3	4	C	07	$4 \times 07 = 28$
Course 4	3	S	10	$3 \times 10 = 30$
Course 5	3	A	09	$3 \times 09 = 27$
Course 6	3	D	06	$3 \times 06 = 18$
Course 7	2	A	09	$2 \times 09 = 18$
Course 8	2	D	06	$2 \times 06 = 12$
Total	25	--	--	189

Thus,  $SGPA = 189/25 = 7.56$

$CGPA$  (from illustrations 2 and 3) =  $\frac{25 \times 7.32 + 25 \times 7.56}{50} = 7.44$

<b>17OB 6.2</b> (continued)	<b>Semester</b>	<b>I</b>	<b>II</b>	<b>III</b>	<b>IV</b>	<b>V</b>	<b>VI</b>	<b>VII</b>	<b>VIII</b>
	Credits of the semester	24	24	27	27	24	24	24	26
	SGPA	7.00	8.50	9.20	6.86	8.18	7.73	8.68	9.40
	<b>Thus CGPA</b> $= \frac{(24 \times 7.00 + 24 \times 8.50 + 27 \times 9.20 + 27 \times 6.86 + 24 \times 8.18 + 24 \times 7.73 + 24 \times 8.68 + 26 \times 9.40)}{200} = 8.20$								
<b>17OB 6.3</b>	<b>Transcript Format:</b> Based on the secured letter grades, grade points, SGPA and CGPA, the transcript for each semester and a consolidated transcript indicating the performance in all semesters shall be issued.								
<b>17OB 7.0</b>	<b>Conversions of Grades into Percentage and Declaration of Class</b>								
<b>17OB 7.1</b>	Conversion Formula For The Conversion Of CGPA Into Percentage Is Given Below Percentage Of Marks Secured, $P = [CGPA \text{ Earned} - 0.75] \times 10$ <b>Illustration For A CGPA Of 8.20:</b> $P = [CGPA \text{ Earned } 8.2 - 0.75] \times 10 = 74.5 \%$								
<b>17OB 7.2</b>	<b>Class Declaration:</b> After the conversion of final CGPA into percentage of marks (P), a graduating student is declared to have passed in (i) First Class with Distinction (FCD) if $P \geq 70\%$ (ii) First Class (FC) if $P \geq 60\%$ but $<70\%$ and (iii) Second Class (SC) if $P < 60\%$ .								
<b>17OB8.0</b>	<b>Continuous Internal Evaluation</b>								
<b>17OB8.1</b>	For each theory and practical paper, the CIE marks shall be 40. For Technical seminar, the CIE marks shall be 100. For Internship/ Professional Practice, the CIE marks shall be 50. For Project Phase –I and Project seminar and Project Phase –II, the CIE shall be 100 respectively.								
<b>17OB8.2</b>	CIE Marks in each theory Course shall be the sum of marks prescribed for test and assignment. Marks prescribed for test shall be 30 and that for assignment is 10. The CIE marks for test in a theory Course shall be based on three tests generally conducted at the end of fifth, tenth and fourteenth week of each semester. Each test shall be conducted for a maximum of 30 marks and the final marks shall be the average of three tests. The remaining 10 marks shall be awarded based on the evaluation of Assignments/Unit tests/written Quizzes that support to cover some of the Course/program outcomes. Final CIE marks awarded shall be the sum of these two out of maximum of 40 marks. The candidates shall write the Internal Assessment Tests and Assignments/Unit-tests/written Quizzes in Blue Books which shall be preserved by the Principal/ Head of the Department for at least three years after the announcement of University results and shall be made available for verification at the direction of the Registrar (Evaluation).								

<b>17OB8.3</b>	In the case of a Practical, the CIE marks shall be based on the laboratory journals/ records (30 Marks on continuous evaluation based on conduct of experiment, viva and report writing) and one practical test (10 Marks) to be conducted at the end of the semester.
<b>17OB8.4</b>	(i) The CIE marks for I year Computer Aided Engineering / Drawing: a) 24 marks for class work (sketching and Computer Aided engineering Drawing). b) 16 marks for test conducted in the same pattern as that of SEE (The marks secured can be taken as best of the two tests). (ii) The CIE marks for other Drawings/ Design Drawings offered by various branches shall be based on the evaluation of the sheets and one test in the ratio 60:40.
<b>17OB8.5</b>	The CIE marks in the case of projects and seminars in the final year shall be based on the evaluation at the end of VIII semester by a committee consisting of the Head of the concerned Department and two senior faculty members of the Department, one of whom shall be the project / seminar guide.
<b>17OB8.6</b>	i. For theory Courses, there shall not be any minimum requirements of CIE marks. ii. Minimum requirement of CIE marks for Practical/ Internship/Project work shall be 50% of the maximum marks. iii. For seminar, the minimum requirement of CIE marks shall be 40% of the maximum marks.
<b>17OB8.7</b>	i) Students failing to secure a minimum of 50% of the CIE marks in Practical/ Internship/Project work shall not be eligible for the Practical / Internship/Project examination conducted by the University and they shall be considered as failed in that/those Course/s. However, they can appear for University examinations conducted in other Courses of the same semester and backlog Courses if any. Students after satisfying the prescribed minimum CIE marks in the Course/s when offered during subsequent semester shall appear for SEE. ii) If any student fails to secure a minimum of 40% of the maximum CIE marks in seminar/ fails to deliver the seminar, he/she shall be considered as failed in that Course and shall not be eligible for the award of degree. However, the student shall become eligible for the award of degree after satisfying the requirements prescribed for seminar during the subsequent semester/s. iii) The Course/s under 17OB8.6 (ii) and (iii), when repeated are considered as attempts.
<b>17OB8.8</b>	CIE marks of those students, who come under 17OB8.7, shall be sent separately to the Registrar (Evaluation).
<b>17OB8.9</b>	If a student remains absent for all the CIE tests conducted, the CIE Marks shall be marked as AB for the Courses against the University Seat Number (USN) of the student in the marks sheet submitted to the University by the Principal of the College.
<b>17OB8.10</b>	Improvement of CIE marks shall not be allowed in a. Theory Courses and b. Laboratory/Workshop/Seminar/Internship/Project where the student has already secured the minimum required marks.
<b>17OB8.11</b>	The final list, incorporating corrections (if any) of CIE marks awarded to the students in the Theory/Practical/Internship/Project work/ Seminar, shall be displayed on the notice board of the college at least seven days before the closure of the semester and a certified copy of the same shall be sent by the Principal to the University Examination Section within the stipulated date. Every page of the CIE marks sheet shall bear the signatures of the concerned Teacher/Teachers, Head of the Department and Principal.
<b>17OB8.12</b>	Any corrections or overwriting of CIE marks shall bear the signature(s) of concerned Teacher(s) and in such cases the Head of the Department shall indicate the number of corrections on every sheet and attest it with his/her signature.

<b>17OB8.13</b>	CIE marks shall reach the University before the commencement of examination as per the notification issued from the office of the Registrar (Evaluation) from time to time. After the submission of CIE marks to the University, any request under any circumstances for change of CIE marks shall not be considered.
<b>17OB 9.0</b>	<b>Eligibility for Passing and Award of Degree(To be read along with 17OB4.2, 5.1, 5.2, 8.6 and 8.7)</b>
<b>17OB 9.1</b>	<p>(a) For a pass in a theory Course/Drawing, the student shall secure minimum of 35% of the maximum marks prescribed in the University examination and in total 40% of the maximum marks (i.e., prescribed for SEE and CIE) including the CIE marks secured by the student.</p> <p>(b) The Minimum Passing letter grade in a Course is 'E'.</p> <p>(c) For a pass in a Practical/Internship/Project/Viva-voce examination, a student shall secure a minimum of 40% of the maximum marks prescribed for the University Examination. The Minimum Passing Grade in a Course is 'E'.</p>
<b>17OB 9.2</b>	<ol style="list-style-type: none"> <li>1) A student who obtain any grade from 'S' to 'E' shall be considered as passed.</li> <li>2) If a student secure F grade in any of the head of passing (17 OB 4.2, 17 OB 5.1, 17 OB 5.2 and 17 OB 11.2) he/she has to reappear in that head for the SEE.</li> <li>3) A student will be declared successful at the end of academic year if he/she has not more than four 'F' grades in the immediate preceding two semesters.</li> <li>4) A student will be declared successful at the end of program, when he/she has none of the Courses remaining with F grade and shall have CGPA of greater than or equal to 5.00.</li> <li>5) In case, the CGPA falls below 5.00 at the end of the program, the student shall be permitted to appear again for SEE in full or part of the previous semester Courses by rejecting the performance for required number of Course/s (other than seminar, Project and Practical's) and times, subject to the provision of 17OB1.5, to make up CGPA equal to or greater than 5.0. The student should reject the SEE results of the previous attempt and obtain written permission from the Registrar (Evaluation) to reappear in the subsequent SEE.</li> </ol>
<b>17OB 9.3</b>	<p>The students who do not satisfy the provision 17OB9.2 (1) and the students who remain absent for the University examinations shall be deemed to have failed in that Course/s. They have to reappear for the University examination in the subsequent examinations. The CIE marks awarded to the student/s at first attempt in the concerned theory Course/s will be carried forward.</p> <p>Revised CIE marks are considered only in cases under the provisions of 17OB8.7.</p>
<b>17OB 9.4</b>	Students who pass a Course of a semester as per 17OB 9.1 and has earned CGPA equal to or greater than 5.00 shall not be allowed to appear for any individual Course/s again, unless they opt for rejection of results of entire semester as per 17OB 9.5.
<b>17OB9.5</b>	A student may, at his/her desire, reject the total performance of a semester (including CIE marks) or reject only the result of his/her performance in University examination of a semester. The rejection is permitted only once during the entire programme of study.
<b>17OB9.6</b>	The student who desires to reject the results of a semester shall reject performance in all the Courses of the semester, irrespective of whether the student has passed or failed in any Course. However, the rejection of performance of VIII semester project shall not be permitted.

<b>17OB9.7</b>	<p>A student, who desires to reject the total performance of a semester including CIE marks, has to take readmission for that semester.</p> <p>Application for approval of readmission shall be sent to the Registrar through the Principal of College within 30 days from the date of the announcement of the results. Late submission of application shall not be accepted for any reasons.</p> <p>Readmission to First semester in such cases shall not be considered as fresh admission and therefore the student will continue to have the same University Seat Number, which was allotted earlier. The Course duration (as per 17OB1.5) will be counted with reference to old USN.</p>
<b>17OB9.8</b>	<p>The student, who rejects only the results of University examination of a semester, shall be permitted to re-appear for University examinations of all the Courses of that semester in the subsequent examinations. However, the CIE marks obtained by the student in the rejected semester shall be retained.</p> <p>Applications for rejection and approval to reappear for University examination shall be sent to the Registrar (Evaluation) through the Principal of the College within 30 days from the date of announcement of the results. Late submission of applications shall not be accepted for any reasons.</p> <p>If the rejection of results of University examination is of odd semester, the student shall be allowed to take admission to the immediate next even semester. However, if the rejection of results of University examination is of even semester, then the student shall not be allowed to take admission to the next odd semester (as per 17OB11.2).</p>
<b>17OB9.9</b>	<p>Students who opt for rejection of results of University examination are eligible for the award of class and distinction, but are not eligible for the award of ranks.</p>
<b>17OB9.10</b>	<p>A student shall be declared to have completed the program of B.E. / B.Tech. degree, provided the student has undergone the stipulated Course work as per the Scheme of Teaching and Examination and has earned the prescribed number of credits as per the provision 17OB1.6, having CGPA <math>\geq 5</math> with none of the registered courses remaining with 'F' grade.</p>
<b>17OB10.0</b>	<p><b>Attendance Requirement</b></p>
<b>17OB10.1</b>	<p>Courses of each semester shall be treated as a separate unit for calculation of the attendance. The candidate has to put in a minimum attendance of 85% in each Course with a provision to condone 10% of the attendance by the Vice-Chancellor on the specific recommendations of the Principal of the college where the candidate is studying, based on medical grounds, participation in University/State/ National/ International level sports and cultural activities, seminars, workshops, paper presentation etc., of significant value. The supporting documents for condoning the shortage of attendance are to be submitted along with the recommendations.</p>
<b>17OB 10.2</b>	<p>The datum for the calculation of attendance shall be the number of Teaching hours prescribed for a Course [50 hours for 04 credit Courses (theory), and 40 hours for 03 credit Courses (theory) counted from the date of commencement of the semester. In case of Laboratories, the number of classes (deemed as teaching hours) is equal to the number of experiments prescribed under main heading].</p> <p>In case of late admission, approved by competent authority (DTE/VTU), to I semester/III semester (lateral entry scheme)/ III semester (lateral entry scheme) of Engineering programme conducted during evening the attendance shall be reckoned from the date of admission to the programme.</p>



<b>17OB10.3</b>	The Course Instructor/ Mentor/College shall inform the students as well as their parents about the attendance status periodically. Students who are facing the shortage of attendance be mentored to make up the shortage. Principals shall also notify every month, the list of candidates who are under short of attendance.
<b>17OB10.4</b>	A candidate, who does not satisfy the attendance requirement (in one or more Courses) as mentioned in 17OB10.1 shall not be eligible to appear for the SEE of that semester and shall not be permitted to take admission to next higher semester. The candidate shall be required to repeat that semester during the subsequent year.
<b>17OB 10.5</b>	The list of the candidates falling short of attendance shall be sent to Registrar (Evaluation) at least once in a month and final list shall be sent one week prior to the commencement of the examination. The detained students should obtain permission from Registrar, VTU for readmission to the semester concerned as a repeater.
<b>17OB 11.0</b>	<b>Promotion and Eligibility</b>
<b>17OB 11.1</b>	There shall be no restriction for promotion from an odd semester to the next even semester, provided the student has fulfilled the attendance requirement.
<b>17OB 11.2</b>	A student shall be eligible for promotion from an even semester to next odd semester if the student has not failed in more than four heads of passing of the immediately preceding two semesters and has passed in all the Courses of all the lower semester examinations. Each credit Course shall be treated as a head of passing. <b>Illustrations:</b> a) A student seeking eligibility to III semester should not have failed in more than 4 heads of passing of I and II semesters considered together. b) A student seeking eligibility to V semester should have passed in all the subjects of I and II semesters and should not have failed in more than 4 heads of passing of III and IV semesters considered together. c) A student seeking eligibility to VII semester should have passed in all the subjects up to IV semester and should not have failed in more than 4 heads of passing of V and VI semesters considered together. <b>Lateral entry scheme:</b> a. A student seeking eligibility to V semester should not have failed in more than 4 heads of passing of III and IV semesters considered together. b. A student seeking eligibility to VII semester should have passed in all the subjects of III and IV semesters and should not have failed in more than 4 heads of passing of fifth and sixth semesters considered together.

<b>17OB 11.3</b>	<p>a. All students admitted to I semester and to III semester under lateral entry scheme to B.E./B.Tech. programme have to undergo the Mandatory non – credit Courses viz., Environmental Studies and English Language. However these Courses shall not be considered for the Eligibility criterion prescribed for promotion, award of Class, calculation of SGPA and CGPA.</p> <p>b. The Courses viz., Advanced Mathematics I and II, to be completed by the candidates (diploma holders) admitted to III semester under lateral entry scheme shall not be considered for the eligibility criterion prescribed for promotion, award of Class, calculation of SGPA and CGPA. However, a pass in the above Courses is mandatory for the completion of the programme and award of degree.</p> <p>c. The Courses Viz., (i) Computer Aided Engineering Drawing (ii) Programming in C and Data structure and (iii) Environmental Studies (if not studied at B.Sc. level), to be completed by the candidates who have passed B.Sc. degree and admitted to III semester of the programme, shall not be considered for the award of Class, calculation of SGPA and CGPA. However, a pass in the above Courses is mandatory for the completion of the programme and award of degree.</p>
<b>17OB 12.0</b>	<b>Temporary Discontinuation/Break in the Program</b>
<b>17OB 12.1</b>	<p>a) If a candidate, for any reason, temporarily discontinues the Programme or take a break from the programme during any semester intentionally, he/she may be permitted to continue the programme by registering to the same semester of the prevailing scheme. The candidate shall complete all the remaining Course work subject to the provision 17 OB 1.5. Also the Candidates may have to complete additional Course/s, if any, as per the decision of concerned Board of Studies and approval of Dean, Faculty of Engineering, on establishing equivalence between two schemes. A Grade card shall be issued to that effect. Additional Course/s shall not be considered for the eligibility criterion prescribed for promotion. However, based on the individual cases, it is considered to decide the SGPA and CGPA to admit the student for the award of degree. Such candidates shall not be eligible for the award of rank.</p> <p>b) Candidates who takes admission to any semester of the existing scheme from another scheme, as a repeater/fresher because of various reasons have to complete additional Course/s, if any, as per the decision of concerned Board of Studies and approval of Dean, Faculty of Engineering, on establishing equivalence between two schemes. A Grade card shall be issued to that effect. Additional Course/s shall not be considered for the eligibility criterion prescribed for promotion. However, based on the individual cases, it is considered to decide the SGPA and CGPA to admit the student for the award of degree. Such candidate shall not be eligible for the award of rank.</p>

<b>17OB 13.0</b>	<b>Award of Prizes, Medals and Ranks</b>
<b>17OB 13.1</b>	For the award of Prizes and Medals, the conditions stipulated by the Donor shall be considered subject to the provisions of the statutes framed by the University for such awards.
<b>17OB 13.2</b>	<p>1) For award of rank in a Specialization of Bachelor of Engineering/ Technology, the CGPA secured by the students from III to VIII semester is considered.</p> <p>2) A student shall be eligible for a rank at the time of award of degree of Bachelor of Engineering/ Technology, provided the student,</p> <p>a)</p> <p>(i) Has passed I to VIII semester in all the Courses in first attempt only in case of candidates admitted I year.</p> <p>(ii) Has passed III to VIII semester in all the Courses in first attempt only in case of candidates admitted under lateral entry scheme.</p> <p>(iii) Has completed all the prescribed Audit/mandatory Courses.</p> <p>b) Is not a repeater in any semester because of rejection of result of a semester/ shortage of attendance etc.</p> <p>c) Has completed all the semesters without any break/discontinuity.</p> <p>d) Has completed all the semesters (I to VIII/III to VIII) in VTU constituent college or in any VTU affiliated non-autonomous college.</p> <p>e) Has not been transferred from autonomous institution affiliated to VTU or from any other University.</p> <p>3) The total number of ranks awarded shall be 10% of total number of students appeared in VIII semester subject to a maximum of 10 ranks in a Specialization.</p> <p>4) For award of ranks in a Specialization, a minimum of 10 students should have appeared in the VIII semester examination.</p> <p><b>Illustration:</b></p> <p>a. If 1228 students appeared for the VIII semester in Electronics and Communication Engineering programme, the number of ranks to be awarded for Electronics and Communication Engineering shall be 10.</p> <p>b. If 90 students appeared for the VIII semester in Biomedical Engineering, the number of ranks to be awarded for Biomedical Engineering will be 09.</p> <p>5) In case of fractional number of ranks, it is rounded to higher integer only when the first decimal place value is greater than or equal to 5.</p>
<b>17 OB 13.3</b>	Ranks are awarded based on the merit of the students as determined CGPA. If two or more students get the same CGPA, the tie shall be resolved by considering the number of times a student has obtained higher SGPA. If it is not resolved even at this stage, the number of times a student has obtained higher grades like S, A, B etc., shall be taken into account to decide the order of the rank.

<b>17OB 14.0</b>	<b>Transfers of Students</b>
<b>17OB 14.1</b>	<p>Transfer of students from one college to another college within Karnataka state shall be permitted only at the beginning of third, fifth, and seventh semesters, subject to availability of seats within the permitted intake in respective Colleges and subject to the prior approval of the University.</p> <p>(a) Transfer of students from one non - autonomous to another non – autonomous college affiliated to VTU is permitted with the approval of the Registrar, VTU subject to the provision 17OB11.2.</p> <p>The students seeking transfer shall have to,</p> <ol style="list-style-type: none"> <li>(i) Obtain No Objection certificate for admission from the University and from both the colleges before the commencement of term as notified by VTU.</li> <li>(ii) Complete the programme subject to the provision 17OB1.5.</li> </ol> <p>(b) Transfer of students from an autonomous to non – autonomous college affiliated to VTU is permitted with the approval of the Registrar, VTU provided the candidates have passed in all the Courses of the previous semesters.</p> <p>The students seeking transfer shall have to,</p> <ol style="list-style-type: none"> <li>(i) Obtain No Objection certificate for admission from the University and from both the colleges before commencement of term as notified by VTU.</li> <li>(ii) Complete additional Course/s, if any, as per the decision of concerned Board of Studies and approval of Dean, Faculty of Engineering, on establishing equivalence between two schemes. A Grade card shall be issued to that effect.</li> </ol> <p>Additional Course/s shall not be considered for the Eligibility criterion prescribed for promotion, Class, calculation of SGPA and CGPA. However, a pass in the Additional Courses, if any, is mandatory before the completion of Degree.</p> <ol style="list-style-type: none"> <li>iii) Complete the programme subject to the provision 17OB1.5.</li> </ol> <p>(c) In the case of students from Universities other than VTU, the students must have passed in all the Courses of I and II semesters for admission to III semester and all the Courses of I to IV semesters for admission to V semester and all the Courses of I to VI semesters for admission to VII semester.</p> <p>The students seeking admission from other Universities to VTU shall have to,</p> <ol style="list-style-type: none"> <li>i) Apply for establishment of equivalence with prescribed fees as notified by the VTU and obtain No Objection certificate for admission from the University before commencement of term as notified by VTU.</li> <li>ii) Produce No Objection certificate for admission from both the colleges before commencement of term as notified by VTU.</li> <li>iii) Complete additional Course/s, if any, as per the decision of concerned Board of Studies and approval of Dean, Faculty of Engineering, on establishing equivalence between two schemes. A Grade card shall be issued to that effect.</li> </ol> <p>Additional Course/s shall not be considered for the eligibility criterion prescribed for promotion, Class, calculation of SGPA and CGPA. However, a pass in the additional Courses, if any, is mandatory before the completion of Degree.</p> <ol style="list-style-type: none"> <li>(ii) Complete the programme subject to the provision 17OB1.5.</li> </ol>
<b>17 OB 14.2</b>	Transfer of students within the College from one branch to another branch at the start of III semester shall be permitted with the approval of the Registrar, VTU subject to the provisions made by the Government of Karnataka and AICTE in this behalf.
<b>17OB 14.3</b>	The University may prescribe fee for administrative purpose, which shall be notified from time to time, for transfer from one college to another (Change of College) or one branch to another branch (change of branch within the college).

<b>17 OB 15.0</b>	<b>Applicability and Power to Modify</b>
<b>17 OB15.1</b>	The regulations governing the Degree of Bachelor of Engineering/Technology of Visvesvaraya Technological University shall be a binding on all concerned.
<b>17 OB15.2</b>	<ul style="list-style-type: none"><li>i) Notwithstanding anything contained in the foregoing, the University shall have the power to issue directions/ orders to address any difficulty.</li><li>ii) Nothing in the foregoing may be construed as limiting the power of the University to amend, modify or repeal any or all of the above.</li></ul>



**Visvesvaraya Technological University, Belagavi**  
**Regulations Governing the Degree of Bachelor of Engineering/ Technology (B.E/B.Tech)**  
**Under Choice Based Credit System (CBCS)**  
(w.e.f. the academic year 2017 – 18)

**Annexure -1**

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI**  
**Scheme of Teaching and Examination 2017-2018**  
**Choice Based Credit System (CBCS)**

**I SEMESTER B.E./B.Tech. (PHYSICS GROUP)**

Sl. No	Course Code	Course Title	Teaching Department	Board	Teaching Hours /Week		Examination				Credits
					Theory	Practical/ Drawing	Duration in hours	SEE Marks	CIE Marks	Total Marks	
1	17MAT11	Engineering Mathematics -I	Mathematics	Basic Science	04	--	03	60	40	100	4
2	17PHY12	Engineering Physics	Physics	Basic Science	04	--	03	60	40	100	4
3	17CIV13	Elements of Civil Engineering and Mechanics	Civil Engineering	Civil Engineering	04	--	03	60	40	100	4
4	17EME14	Elements of Mechanical Engineering	Mechanical Engineering	Mechanical Engineering	04	--	03	60	40	100	4
5	17ELE15	Basic Electrical Engineering	E and E Engineering	E and E Engineering	04	--	03	60	40	100	4
6	17WSL16	Workshop Practice	ME, Auto, IP, IEM, Mfg Engineering	Mechanical Engineering	01Hour Instruction 02Hour Practical		03	60	40	100	2
7	17PHYL17	Engineering Physics Laboratory	Physics	Basic Science	01Hour Instruction 02Hour Practical		03	60	40	100	2
8	17ENG18	Language – English (Audit Course)	Humanities	--	01		--	--	--	--	--
<b>TOTAL</b>					<b>Theory:21 hours Practical: 06 hours</b>		<b>21</b>	<b>420</b>	<b>280</b>	<b>700</b>	<b>24</b>

**II SEMESTER B.E./B.Tech. (CHEMISTRY GROUP)**

1	17MAT21	Engineering Mathematics -II	Mathematics	Basic Science	04	--	03	60	40	100	4
2	17CHE22	Engineering Chemistry	Chemistry	Basic Science	04	--	03	60	40	100	4
3	17PCD23	Programming in C and Data Structures	Any Engineering Department	Computer Science and Engineering	04	--	03	60	40	100	4
4	17CED24	Computer Aided Engineering Drawing	ME, Auto, IP, IEM, Mfg Engineering	Mechanical Engineering	02Hour Instruction 04-Hour Practice		03	60	40	100	4
5	17ELN25	Basic Electronics	ECE/EEE/TC/E and I.	E and C Engineering	04	--	03	60	40	100	4
6	17CPL26	Computer Programming Laboratory	Any Engineering Department	Computer Science and Engineering	01Hour Tutorial 02Hour Practical		03	60	40	100	2
7	17CHEL27	Engineering Chemistry Laboratory	Chemistry	Basic Science	01Hour Tutorial 02Hour Practical		03	60	40	100	2
8	17CIV28	Environmental Studies (Audit Course)	Civil/ Environmental Engineering	Civil Engineering	01Tutorial		--	30	20	50	--
<b>TOTAL</b>					<b>Theory:21 hours Practical: 08 hours</b>		<b>21</b>	<b>450</b>	<b>300</b>	<b>750</b>	<b>24</b>

**Visvesvaraya Technological University, Belagavi**  
**Regulations Governing the Degree of Bachelor of Engineering/ Technology (B.E./B.Tech.)**  
**Under Choice Based Credit System (CBCS)**  
(w.e.f. academic year 2017 – 18)

**Annexure -1**

<b>VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI</b>												
<b>Scheme of Teaching and Examination 2017-2018</b>												
<b>Choice Based Credit System (CBCS)</b>												
<b>I SEMESTER B.E./B.Tech (CHEMISTRY GROUP)</b>												
Sl. No	Course Code	Course Title	Teaching Department	Board	Teaching Hours /Week		Examination				Credits	
					Theory	Practical/ Drawing	Duration in hours	SEE Marks	CIE Marks	Total Marks		
1	17MAT11	Engineering Mathematics -I	Mathematics	Basic Science	04	--	03	60	40	100	4	
2	17PHY12	Engineering Chemistry	Chemistry	Basic Science	04	--	03	60	40	100	4	
3	17PCD13	Programming in C and Data Structures	Any Engineering Department	Computer Science and Engineering	04	--	03	60	40	100	4	
4	17CED14	Computer Aided Engineering Drawing	ME, Auto, IP, IEM, Mfg Engineering	Mechanical Engineering	02Hour Instruction 04Hour Practice		03	60	40	100	4	
5	17ELN15	Basic Electronics	ECE/EEE/TC/E and I.	E and C Engineering	04	--	03	60	40	100	4	
6	17CPL16	Computer Programming Laboratory	Any Engineering Department	Computer Science and Engineering	01Hour Tutorial 02Hour Practical		03	60	40	100	2	
7	17CHEL17	Engineering Chemistry Laboratory	Chemistry	Basic Science	01Hour Tutorial 02Hour Practical		03	60	40	100	2	
8	17CIV18	Environmental Studies (Audit Course)	Civil/ Environmental Engineering	Civil Engineering	01HourTutorial		--	30	20	50	--	
<b>TOTAL</b>					<b>Theory:21 hours Practical: 08 hours</b>		<b>21</b>	<b>450</b>	<b>300</b>	<b>750</b>	<b>24</b>	
<b>II SEMESTER B.E./B.Tech (PHYSICS GROUP)</b>												
1	17MAT21	Engineering Mathematics -II	Mathematics	Basic Science	04	--	03	60	40	100	4	
2	17PHY22	Engineering Physics	Physics	Basic Science	04	--	03	60	40	100	4	
3	17CIV23	Elements of Civil Engineering and Mechanics	Civil Engineering	Civil Engineering	04	--	03	60	40	100	4	
4	17EME24	Elements of Mechanical Engineering	Mechanical Engineering	Mechanical Engineering	04	--	03	60	40	100	4	
5	17ELE25	Basic Electrical Engineering	E and E Engineering	E and E Engineering	04	--	03	60	40	100	4	
6	17WSL26	Workshop Practice	ME, Auto, IP, IEM, Mfg Engineering	Mechanical Engineering	01-Hour Instruction 02-Hour Practical		03	60	40	100	2	
7	17PHYL27	Engineering Physics Laboratory	Physics	Basic Science	01-Hour Instruction 02-Hour Practical		03	60	40	100	2	
8	17ENG28	Language – English (Audit Course)	Humanities	--	01		--	--	--	--	--	
<b>TOTAL</b>					<b>Theory:21 hours Practical: 06 hours</b>		<b>21</b>	<b>420</b>	<b>280</b>	<b>700</b>	<b>24</b>	

**Visvesvaraya Technological University, Belagavi**  
**Regulations Governing the Degree of Bachelor of Engineering/ Technology (B.E/B.Tech.)**  
**Under Choice Based Credit System (CBCS)**  
(w.e.f. academic year 2017 – 18)

**Annexure -1**

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI**

Scheme of Teaching and Examination 2017-2018  
Choice Based Credit System (CBCS)

B.E./B.Tech \_\_\_\_\_

**III SEMESTER**

Sl. No	Course Code	Course	Course Title	Teaching Department	Teaching Hours /Week		Examination				Credits
					Theory	Practical/ Drawing	Duration in hours	SEE Marks	CIE Marks	Total Marks	
1	17MAT31	Core Course	Engineering Mathematics-III		04	--	03	60	40	100	4
2	17XX32	Core Course			04	--	03	60	40	100	4
3	17XX33	Core Course			04	--	03	60	40	100	4
4	17XX34	Core Course			04	--	03	60	40	100	4
5	17XX35	Core Course			04	--	03	60	40	100	4
6	17XX36	Foundation Course			03	--	03	60	40	100	3
7	17XXL37	Laboratory			01-Hour Instruction 02-Hour Practical		03	60	40	100	2
8	17XXL38	Laboratory			01-Hour Instruction 02-Hour Practical		03	60	40	100	2
9	17KL/CPH39/49	Core Course	Kannada/Constitution of India, Professional Ethics and Human Rights	Humanities	01		01	30	20	50	01
<b>TOTAL</b>					<b>Theory:24hours Practical: 06 hours</b>		<b>25</b>	<b>510</b>	<b>340</b>	<b>850</b>	<b>28</b>

**1. Core Course:** This is the course, which is to be compulsorily studied by a student as a core requirement to complete the requirement of a programme in a said discipline of study.

**2. Foundation Course:** The courses based upon the content that leads to Knowledge enhancement.

**3. Kannada/Constitution of India, Professional Ethics and Human Rights:** 50 % of the programs of the Institution have teach Kannada/ Constitution of India, Professional Ethics and Human Rights in cycle based concept during III and IV semesters.

**4. Audit Course:**

(i) All lateral entry students (except B.Sc candidates) have to register for Additional Mathematics – I which is 04 contact hours per week.

(ii) Language English (Audit Course) be compulsorily studied by all lateral entry students (except B. Sc candidates)



**Visvesvaraya Technological University, Belagavi**  
**Regulations Governing the Degree of Bachelor of Engineering/ Technology (B.E/B.Tech.)**  
**Under Choice Based Credit System (CBCS)**  
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**Annexure -1 (page -4)**

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI**

Scheme of Teaching and Examination 2017-2018  
Choice Based Credit System (CBCS)

B.E./B.Tech \_\_\_\_\_

**IV SEMESTER**

Sl. No	Course Code	Course	Course Title	Teaching Department	Teaching Hours /Week		Examination				Credits
					Theory	Practical/ Drawing	Duration in hours	SEE Marks	CIE Marks	Total Marks	
1	17MAT41	Core Course	Engineering Mathematics-IV		04	--	03	60	40	100	4
2	17XX42	Core Course			04	--	03	60	40	100	4
3	17XX43	Core Course			04	--	03	60	40	100	4
4	17XX44	Core Course			04	--	03	60	40	100	4
5	17XX45	Core Course			04	--	03	60	40	100	4
6	17XX46	Foundation Course			03	--	03	60	40	100	3
7	17XXL47	Laboratory			01-Hour Instruction 02-Hour Practical		03	60	40	100	2
8	17XXL48	Laboratory			01-Hour Instruction 02-Hour Practical		03	60	40	100	2
9	17KL/CPH39/49	Core Course	Kannada/Constitution of India, Professional Ethics and Human Rights	Humanities	01		01	30	20	50	01
<b>TOTAL</b>					<b>Theory:24hours Practical: 06 hours</b>		<b>25</b>	<b>510</b>	<b>340</b>	<b>850</b>	<b>28</b>

**1. Core Course:** This is the course, which is to be compulsorily studied by a student as a core requirement to complete the requirement of a programme in a said discipline of study.

**2. Foundation Course:** The courses based upon the content that leads to Knowledge enhancement.

**3. Kannada/Constitution of India, Professional Ethics and Human Rights:** 50 % of the programs of the Institution have teach Kannada/ Constitution of India, Professional Ethics and Human Rights in cycle based concept during III and IV semesters.

**4. Audit Course:**

(i) All lateral entry students (except B. Sc candidates) have to register for Additional Mathematics – II which is 04 contact hours per week.

(ii) Language English (Audit Course) be compulsorily studied by all lateral entry students (except B. Sc candidates)

**Visvesvaraya Technological University, Belagavi**  
**Regulations Governing the Degree of Bachelor of Engineering/ Technology (B.E./B.Tech.)**  
**Under Choice Based Credit System (CBCS)**  
(w.e.f. academic year 2017 – 18)  
**Annexure -1 (page -5)**

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI**

Scheme of Teaching and Examination 2017-2018  
Choice Based Credit System (CBCS)

B.E./B.Tech \_\_\_\_\_

**V SEMESTER**

Sl. No	Course Code	Course	Course Title	Teaching Department	Teaching Hours /Week		Examination				Credits
					Theory	Practical/ Drawing	Duration in hours	SEE Marks	CIE Marks	Total Marks	
1	17XX51	Core Course	Management and Entrepreneurship <b>Excluding CSE, ISE and EV Programs.</b> (The course must be related to Management and Entrepreneurship. However, the title and syllabus content can be as per the programme requirement).		04	--	03	60	40	100	4
2	17XX52	Core Course			04	--	03	60	40	100	4
3	17XX53	Core Course			04	--	03	60	40	100	4
4	17XX54	Core Course			04	--	03	60	40	100	4
5	17XX55X	Professional Elective			03	--	03	60	40	100	3
6	17XX56Y	Open Elective			03	--	03	60	40	100	3
7	17XXL57	Laboratory			01-Hour Instruction 02-Hour Practical		03	60	40	100	2
8	17XXL58	Laboratory			01-Hour Instruction 02-Hour Practical		03	60	40	100	2
<b>TOTAL</b>					<b>Theory:22hours Practical: 06 hours</b>		<b>24</b>	<b>480</b>	<b>320</b>	<b>800</b>	<b>26</b>

**Electives**

Professional Elective		Open Elective <sup>***</sup> Offered by the Department of _____	
Courses under Code 17XX55X	Course Title	Courses under Code 17XX56Y	Course Title
17XX551		17XX561	
17XX552		17XX562	
17XX553		17XX563	
17XX554		17XX564	

\*\*\* Students can select any one of the open electives offered by any Department (Please refer to consolidated list of VTU for open electives). Selection of an open elective is not allowed provided;

- The candidate has pre – requisite knowledge.
- The candidate has not studied during I and II year of the programme.
- The syllabus content of open elective is similar to that of Departmental core courses or professional electives.
- A similar course, under any category, is prescribed in the higher semesters.

Registration to electives shall be documented under the guidance of Programme Coordinator and Adviser.

**1. Core subject:** This is the course, which is to be compulsorily studied by a student as a core requirement to complete the requirement of a programme in a said discipline of study.

**2. Professional Elective:** Electives relevant to chosen specialization/ branch.

**3. Open Elective:** Electives from other technical and/ or emerging subject areas.

**Visvesvaraya Technological University, Belagavi**  
**Regulations Governing the Degree of Bachelor of Engineering/ Technology (B.E./B.Tech.)**  
**Under Choice Based Credit System (CBCS)**  
(w.e.f. academic year 2017 – 18)  
**Annexure -1 (page -6)**

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI**

Scheme of Teaching and Examination 2017-2018

Choice Based Credit System (CBCS)

B.E./B.Tech \_\_\_\_\_

**VI SEMESTER**

Sl. No	Course Code	Course	Course Title	Teaching Department	Teaching Hours /Week		Examination				Credits
					Theory	Practical/ Drawing	Duration in hours	SEE Marks	CIE Marks	Total Marks	
1	17XX61	Core Course	Management and Entrepreneurship <b>Excluding CSE, ISE and EV Programs.</b> (The course must be related to Management and Entrepreneurship. However, the title and syllabus content can be as per the programme requirement).		04	--	03	60	40	100	4
2	17XX62	Core Course			04	--	03	60	40	100	4
3	17XX63	Core Course			04	--	03	60	40	100	4
4	17XX64	Core Course			04	--	03	60	40	100	4
5	17XX65X	Professional Elective			03	--	03	60	40	100	3
6	17XX66Y	Open Elective			03	--	03	60	40	100	3
7	17XXL67	Laboratory			01-Hour Instruction 02-Hour Practical		03	60	40	100	2
8	17XXL68	Laboratory			01-Hour Instruction 02-Hour Practical		03	60	40	100	2
<b>TOTAL</b>					<b>Theory:22hours Practical: 06 hours</b>		<b>24</b>	<b>480</b>	<b>320</b>	<b>800</b>	<b>26</b>

**Electives**

Professional Elective		Open Elective *** Offered by the Department of _____	
Courses under Code 17XX65X	Course Title	Courses under Code 17XX66Y	Course Title
17XX651		17XX661	
17XX652		17XX662	
17XX653		17XX663	
17XX654		17XX664	

\*\*\* Students can select any one of the open electives offered by any Department (Please refer to consolidated list of VTU for open electives). Selection of an open elective is not allowed provided;

- The candidate has pre – requisite knowledge.
- The candidate has not studied during I and II year of the programme.
- The syllabus content of open elective is similar to that of Departmental core courses or professional electives.
- A similar course, under any category, is prescribed in the higher semesters.

Registration to electives shall be documented under the guidance of Programme Coordinator and Adviser.

**1. Core subject:** This is the course, which is to be compulsorily studied by a student as a core requirement to complete the requirement of a programme in a said discipline of study.

**2. Professional Elective:** Electives relevant to chosen specialization/ branch.

**3. Open Elective:** Electives from other technical and/ or emerging subject areas.

**Visvesvaraya Technological University, Belagavi**  
**Regulations Governing the Degree of Bachelor of Engineering/ Technology (B.E./B.Tech.)**  
**Under Choice Based Credit System (CBCS)**  
(w.e.f. academic year 2017 – 18)  
**Annexure -1 (page -7)**

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI**

Scheme of Teaching and Examination 2017-2018  
Choice Based Credit System (CBCS)

B.E./B.Tech \_\_\_\_\_

**VII SEMESTER**

Sl. No	Course Code	Course	Course Title	Teaching Department	Teaching Hours /Week		Examination				Credits
					Theory	Practical/ Drawing	Duration in hours	SEE Marks	CIE Marks	Total Marks	
1	17XX71	Core Course			04	--	03	60	40	100	4
2	17XX72	Core Course			04	--	03	60	40	100	4
3	17XX73	Core Course			04	--	03	60	40	100	4
4	17XX74 X	Professional Elective			03	--	03	60	40	100	3
5	17XX75Y	Professional Elective			03	--	03	60	40	100	3
6	17XXL76	Laboratory			01-Hour Instruction 02-Hour Practical		03	60	40	100	2
7	17XXL77	Laboratory			01-Hour Instruction 02-Hour Practical		03	60	40	100	2
8	17XXP78	Core Course	Project Phase – I and Project seminar			03	--	--	100	100	2
<b>TOTAL</b>					<b>Theory:18 hours Practical and Project: 09 hours</b>		<b>21</b>	<b>420</b>	<b>380</b>	<b>800</b>	<b>24</b>

**Electives**

**Professional Elective**

**Professional Elective**

Courses under Code 17XX74X	Course Title	Courses under Code 17XX75Y	Course Title
17XX741		17XX751	
17XX742		17XX752	
17XX743		17XX753	
17XX744		17XX754	

**1. Core subject:** This is the course, which is to be compulsorily studied by a student as a core requirement to complete the requirement of a programme in a said discipline of study.

**2. Professional Elective:** Electives relevant to chosen specialization/ branch.

**3. Project Phase – I and Project seminar:** Comprises of Literature Survey, Problem identification, Objectives and Methodology. CIE marks shall be based on the report covering Literature Survey, Problem identification, Objectives and Methodology and seminar presentation skill.

**Visvesvaraya Technological University, Belagavi**  
**Regulations Governing the Degree of Bachelor of Engineering/ Technology (B.E./B.Tech.)**  
**Under Choice Based Credit System (CBCS)**  
(w.e.f. academic year 2017 – 18)  
**Annexure -1 (page -8)**

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI**

Scheme of Teaching and Examination 2017-2018  
Choice Based Credit System (CBCS)

B.E./B.Tech \_\_\_\_\_

**VIII SEMESTER**

Sl. No	Course Code	Course	Course Title	Teaching Department	Teaching Hours /Week		Examination				Credits
					Theory	Practical/ Drawing	Duration in hours	SEE Marks	CIE Marks	Total Marks	
1	17XX81	Core Course			04	--	03	60	40	100	4
2	17XX82	Core Course			04	--	03	60	40	100	4
3	17XX83X	Professional Elective			03	--	03	60	40	100	3
4	17XX84	Core Course	Internship/ Professional Practice		Working hours of the place of Internship		03	50	50	100	2
5	17XXP85	Core Course	Project work Phase -II		--	06	03	100	100	200	6
6	17XXS86	Core Course	Technical Seminar		--	04	--	--	100	100	1
<b>TOTAL</b>					<b>Theory:11 hours Project and Seminar: 10 hours</b>		<b>15</b>	<b>390</b>	<b>310</b>	<b>700</b>	<b>20</b>

**Professional Electives**

Courses under Code 17XX83X	Course Title
17XX831	
17XX832	
17XX833	
17XX834	

**1. Core subject:** This is the course, which is to be compulsorily studied by a student as a core requirement to complete the requirement of a programme in a said discipline of study.

**2. Professional Elective:** Electives relevant to chosen specialization/ branch.

**3. Internship/ Professional Practice:** To be completed between the V and VI semester vacation and/or VI and VII semester vacation period.



# Visvesvaraya Technological University, Belagavi



**REGULATIONS GOVERNING  
THE DEGREE OF MASTER OF TECHNOLOGY (M.Tech.)  
UNDER CHOICE BASED CREDIT SYSTEM (CBCS) SCHEME  
(Full Time and Part Time)  
Effective from academic year 2016 -17**

**Visvesvaraya Technological University, Belagavi**  
**Regulations Governing the Degree of Master of Technology (M.Tech.)**  
**Under Choice Based Credit System (CBCS) Scheme**  
**(Full Time and Part Time)**  
**Effective from academic year 2016 -17**

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# Visvesvaraya Technological University, Belagavi

## Regulations Governing the Degree of Master of Technology (M.Tech.) Under Choice Based Credit System (CBCS) Scheme (Full Time and Part Time) Effective from academic year 2016 -17

### Definitions of Keywords

The following are the definitions/descriptions that have been followed for the different terms used in the Regulations of M.Tech Programmes:

- 1) **Programme:** Is an educational programme in a particular stream/ branch of Engineering/branch of specialization leading to award of Degree. It involves events/activities, comprising of lectures/ tutorials/ laboratory work/ field work, outreach activities/ project work/ vocational training/ viva/ seminars/ Internship/ assignments/ presentations/ self-study etc., or a combination of some of these.
- 2) **Branch:** Means Specialization or discipline of M.Tech Degree Programme, like Power Electronics, Structures, Machine Design, etc.
- 3) **Semester:** Refers to one of the two sessions of an academic year (vide: serial number 4), each session being of sixteen weeks duration (with working days greater than or equal to ninety).The odd semester may be scheduled from August and even semester from February of the year.
- 4) **Academic Year:** Refers to the sessions of two consecutive semesters (odd followed by an even) including periods of vacation.
- 5) **Course:** Refers to usually referred to as 'papers' and is a component of a programme. All Courses need not carry the same weight. The Courses should define learning objectives and learning outcomes. A Course may be designed to comprise lectures/ tutorials/ laboratory work/ field work/ outreach activities/project work/ vocational training/ viva/ seminars/ term papers/assignments/ presentations/ self-study etc., or a combination of some of these.
- 6) **Credit:** Refers to a unit by which the Course work is measured. It determines the number of hours of instructions required per week. One credit is equivalent to one hour of lecture or two hours of laboratory/practical Courses/ tutorials/ fieldwork per week etc.
- 7) **Audit Courses:** Means Knowledge/ Skill enhancing Courses without the benefit of a grade or credit for a Course.
- 8) **Choice Based Credit System (CBCS):** Refers to customizing the Course work, through Core, Elective and soft skill Courses, to provide necessary support for the students to achieve their goals.
- 9) **Course Registration:** Refers to formal registration for the Courses of a semester (Credits) by every student under the supervision of a Faculty Advisor (also called Mentor, Counselor etc.,) in each Semester for the Institution to maintain proper record.
- 10) **Course Evaluation:** Means Continuous Internal Evaluation (CIE)and Semester End Examinations (SEE) to constitute the major evaluations prescribed for each Course.CIE and SEE to carry 20 % and 80 % respectively, to enable each Course to be evaluated for 100 marks, irrespective of its Credits.
- 11) **Continuous Internal Evaluation (CIE):** Refers to evaluation of students' achievement in the learning process. CIE shall be by the Course Instructor and includes tests, homework, problem solving, group discussion, quiz, mini-project and seminar throughout the Semester, with weightage for the different components being fixed at the University level.



- 12) **Semester end examinations (SEE):** Refers to examination conducted at the University level covering the entire Course Syllabus. For this purpose, Syllabi to be modularized and SEE questions to be set from each module, with a choice confined to the concerned module only. SEE is also termed as university examination.
- 13) **First Attempt:** Refers to a student who has completed all formalities and has become eligible to attend the SEE and has attended at least one head of passing, such attempt shall be considered as first attempt.
- 14) **Credit Based System (CBS):** Refers to quantification of Course work, after a student completes teaching – learning process, followed by passing in both CIE and SEE. Under CBS, the requirement for awarding degree is prescribed in terms of total number of credits to be earned by the students.
- 15) **Credit Representation:** Refers to Credit Values for different academic activities considered, as per the Table.1. Credits for seminar, project phases, project viva–voce and internship shall be as specified in the Scheme of Teaching and Examination (Annexure -1).
- 16) **Letter Grade:** It is an index of the performance of students in a said Course. Grades are denoted by letters S, A, B, C, D, E and F.

<b>Theory/Lectures (L)</b> <b>(hours/week/Semester)</b>	<b>Tutorials (T)</b> <b>(hours/week/Semester)</b>	<b>Laboratory/Practical (P)</b> <b>(hours/week/Semester)</b>	<b>Credits</b> <b>(L:T:P)</b>	<b>Total</b> <b>Credits</b>
4	0	0	4:0:0	4
3	0	0	3:0:0	3
2	2	0	2:1:0	3
2	0	2	2:0:1	3
2	2	2	2:1:1	4
0	0	6	0:0:3	3

**NOTE:** Activities like, practical training, study tour and participation in Guest lectures not to carry Credits.

- 17) **Grading:** Grade refers to qualitative measure of achievement of a student in each Course, based on the percentage of marks secured in (CIE plus SEE). Grading is done by Absolute Grading [Refer: 16OMT6.0]. The rubric attached to letter grades are as follows:  
S – Outstanding, A – Excellent, B – Very Good, C – Good, D – Above Average, E – Average and F – Fail.
- 18) **Grade Point (GP):** Refers to a numerical weightage allotted to each letter grade on a 10-point scale as under.

Letter Grade	S	A	B	C	D	E	F
Grade Point	10	09	08	07	06	04	00

- 19) **Passing Standards:** Refers to passing a Course only when getting GP greater than or equal to 04 (as per serial number 18).
- 20) **Credit Point:** Is the product of grade point (GP) and number of credits for a Course i.e.,  
**Credit points (CrP) = GP × Credits for the Course.**

- 21) **Semester Grade Point Average (SGPA):** Refers to a measure of academic performance of student/s in a semester. It is the ratio of total credit points secured by a student in various Courses of a semester and the total Course credits taken during that semester. [Refer:16OMT6.0]
- 22) **Cumulative Grade Point Average (CGPA):** Is a measure of overall cumulative performance of a student over all semesters. The CGPA is the ratio of total credit points earned by a student in various Courses in all semesters and the sum of the total credits of all Courses in all the semesters. It is expressed up to two decimal places. [Refer: 16OMT6.0]
- 23) **Transcript or Grade Card or Certificate:** Refers to a certificate showing the grades earned by a student. A grade certificate shall be issued to all the registered students after every semester. The grade certificate will display the programme details (Course code, title, number of credits, grades secured) along with SGPA of that semester and CGPA earned till that semester.
- 24) **University:** Visvesvaraya Technological University (VTU), Belagavi.



**Visvesvaraya Technological University, Belagavi**  
**Regulations Governing the Degree of Master of Technology (M.Tech.)**  
**Under Choice Based Credit System (CBCS) Scheme**  
**(Full Time and Part Time)**  
**Effective from academic year 2016 -17**

<b>16OMT1.0</b>	<b>Title, Duration and Credits of the Programme of Study</b>
<b>16OMT1.1</b>	The Programme shall be called Master of Technology (Subject of Specialization), abbreviated as M.Tech. (Subject of Specialization).
<b>16 OMT1.2</b>	There shall be two categories of Programme: 1) Full Time Programme (FT), and 2) Part Time Programme (PT)
<b>16OMT1.3</b>	<b>Full Time Programme:</b> The Programme shall extend over a period of four semesters and each semester shall have 16 weeks duration.
<b>16OMT1.4</b>	<b>Part Time Programme:</b> (a) The Programme shall be of 6 semesters. (b) Each semester shall be 16 weeks duration. (c) First, second, third and fourth semesters shall comprise course work and fifth and Sixth semesters shall be same as that of III and IV Semesters of the Full time Programme. (d) The candidate shall register for a maximum of three courses per semester. (e) The candidates shall register for Laboratory course and Seminar in first and second semesters along with the regular three courses.
<b>16OM 1.5</b>	<b>Maximum Duration for Programme Completion:</b> (a) A Full Time candidate shall be allowed a maximum duration of 4 years from the first semester of admission to become eligible for the award of Master's Degree, failing which he/she may discontinue the programme or register once again as a fresh candidate to I semester of the programme. (b) A Part Time candidate shall be allowed a maximum of 6 years duration from the first semester of admission to become eligible for the award of Master's Degree, failing which he/she may discontinue the programme or register once again as a fresh candidate to I semester of the programme.
<b>16OMT1.6</b>	Prescribed Number of Credits for the Programme: The number of credits to be completed for the award of degree shall be 85.
<b>16OMT1.7</b>	The Calendar of events in respect of the Programme shall be notified by the University in advance.
<b>16OMT2.0</b>	<b>Eligibility for Admission(As per the Government orders issued from time to time)</b>
<b>16OMT2.1</b>	Admission to I year/I semester Master of Technology Programme shall be open to all the candidates who have passed B.E./ B. Tech. Examinations of VTU or any other recognized University/ Institution. The decision of the Equivalence committee shall be final in establishing the eligibility of candidates for a particular Programme. For the foreign degrees, Equivalence certificate from the Association of Indian Universities is a must. The candidates who have completed their degree through the distance mode education from any University (National or International) are not eligible for admission to M.Tech. Programs under any quota.

<b>16OMT2.2</b>	AMIE in respective branches shall be equivalent to B.E./ B. Tech. Programs of VTU for admission to M.Tech.
<b>16 OMT2.3</b>	Admission to M.Tech. Programme shall be open to the candidates (as per 16OMT 2.1 and 2.2) who have passed the prescribed qualifying examination with not less than 50% of the marks in the aggregate of all the years of the degree examination. However, in the case of candidates belonging to SC/ST and Category I, the aggregate percentage of marks in the qualifying examinations shall not be less than 45%. Rounding off of percentage secured in qualifying examination is not permissible.
<b>16OMT2.4</b>	<p><b>For admissions under GATE/ PGCET qualification and Roaster system of Government of Karnataka:</b> The candidates should be GATE qualified or should have appeared for the Entrance Examination conducted by an authority recognized by Government of Karnataka (PGCET)/VTU/any other University on approval by Government of Karnataka.</p> <p><b>For admissions under Management Quota:</b> The candidates should be GATE qualified or should have appeared for the Entrance Examination conducted by an authority recognized by Government of Karnataka PGCET/VTU/any other University on approval by Government of Karnataka. Further, there shall be an Admissions Committee for PG Programme in each college for each branch of PG studies consisting of the Principal of the College as the Chairman, Head of the concerned Department, one senior faculty of the concerned Department as members. The Admissions Committee shall conduct the interview and select the candidates for admissions.</p> <p><b>For admissions under Sponsored Quota:</b> The candidates should be GATE qualified or should have appeared for the Entrance Examination conducted by an authority recognized by Government of Karnataka PGCET/VTU/any other University on approval by Government of Karnataka.</p>
<b>16OMT2.5</b>	<p>The candidates, who are qualified in the GATE Examination for the appropriate branch of engineering, shall be given priority. They are exempted from taking Entrance Examination.</p> <p>In case a GATE qualified Candidate appears for entrance examination and become qualified to claim a seat under entrance examination quota, he/she will be considered in the order of merit along with other candidates appeared for the entrance examination.</p>
<b>16OMT2.6</b>	If sufficient number of GATE qualified candidates are not available, the remaining vacant seats shall be filled from amongst the candidates appeared for Entrance Examination in the order of merit.
<b>16OMT2.7</b>	The intake under various categories (regular, sponsored candidates and SC/ST) shall be as sanctioned by the AICTE, State Government and VTU, from time to time.

<b>16OMT2.8</b>	Subject to the provisions of 16OMT2.1 and 16OMT2.2, members of the Teaching/Research Staff working in any Engineering College recognized by AICTE either in the State of Karnataka or outside and who have put in a minimum of 03 years of teaching experience on full-time basis in Engineering Colleges, Polytechnic institutions / any other institutions imparting Engineering education shall be eligible for admission to PG Programs under sponsored quota, if they are sponsored by the respective Institutions / DTE.
<b>16OMT2.9</b>	Subject to the provisions of 16OMT 2.1 and 16OMT 2.2, members working in the State Government/ Central Government/ Quasi Government Organizations/ Public Sector Industries / Reputed Private Industries, who have put in a minimum of 03 years of working experience and sponsored by the concerned Organizations, shall also be eligible to seek admissions to PG Programs against sponsored quota. Preference for admission under 16OMT2.8 and 2.9 shall be given to candidates sponsored by organizations of State and Central Governments.
<b>16OMT2.10</b>	Further that employment of Part time students shall be in an establishment situated within the 100 km from the place of the institution to which the candidate is seeking admission.
<b>16OMT2.11</b>	The Engineering graduates other than the Karnataka candidates shall obtain Eligibility Certificate from VTU to seek admission to P.G. Programme in any of the colleges (Autonomous or Non - Autonomous) affiliated to VTU.
<b>16OMT2.12</b>	<b>Admission to vacant seats:</b> Seats remaining vacant (unfilled), after the completion of PG admission process by Karnataka Examination Authority, shall be filled by the Institution by inviting applications through Press notification. The seats shall be filled by Candidates preferably who have valid GATE/ PGCET score. In the absence of such Candidates, admission shall be based on merit in the entrance test conducted at the Institution level. An Admissions Committee, consisting of the Principal of the College, Head of the concerned Department and the subject experts, shall be in charge of admissions.
<b>16MT3.0</b>	<b>Courses</b>
<b>16OMT3.1</b>	The curriculum of the Programme shall be any combination of following type of courses: i) One Course on Mathematics supportive to the concerned programme in the first semester. ii) Professional Core Courses (PC) - relevant to the chosen specialization/ branch [May be split into Hard (no choice) and Soft (with choice), if required]. The core course is to be compulsorily studied by a student and is mandatory to complete the requirements of a programme in a said discipline of study. iii) Professional Electives Courses (PE) - relevant to the chosen specialization/ branch: these are the courses, which can be chosen from the pool of papers. It shall be supportive to the discipline/ providing extended scope/enabling an exposure to some other discipline / domain / nurturing student skills.

<p><b>16OMT3.1</b> <b>(continued)</b></p>	<p>iv) Open Electives Courses (OE), from other technical and/ or emerging specialization areas.</p> <p>v) Project Work, Seminar.</p> <p>vi) Audit Courses (AC):</p> <p>(a) The Audit course can be any credit course offered by the program to which the Candidate is admitted (other than the courses considered for completing the prescribed program credits) or other programs offered in the institution, where the student is studying.</p> <p>(b) The students who are interested in audit courses can register for one audit course at a time during II and IV semesters. Students who have registered to audit the courses, considered on par with students registered to the same course for credit, have to satisfy attendance and CIE requirements. However, they need not have to appear for SEE.</p> <p>(c) Registration for any audit course, in writing, shall be completed at the beginning of II and IV semesters. The Institution should intimate the Registrar (Evaluation) about the registration at the beginning of the semester and obtain a formal approval for inclusion of the audit course/s in the Grade cards/ Transcripts issued to the students.</p> <p>vii) Internship: Preferably at an industry/R and D organization/IT company/ Government organization of significant repute for a specified period mentioned in Scheme of Teaching and Examination.</p>
<p><b>16OMT4.0</b></p>	<p><b>Internship</b></p>
<p><b>16OMT4.1</b></p>	<p><b>Internship:</b> The student shall undergo Internship for 16 weeks as per the Scheme of Teaching and Examination.</p> <ol style="list-style-type: none"> <li>1. The internship can be carried out in any industry/R&amp;D Organization/Research Institute/Institute of repute.</li> <li>2. (a) The Department/college shall nominate a faculty to facilitate, guide and supervise students under internship. (b) The Internal Guide has to visit work place at least once during the student's internship.</li> <li>3. The students shall report the progress of the internship to the internal guide in regular intervals and seek his/her advise.</li> <li>4. The Internship shall be completed during the period specified in Scheme of Teaching and Examination.</li> <li>5. After completion of Internship, students shall submit a report to the Head of the Department with the approval of both internal and external guides.</li> <li>6. There will be 50 marks for CIE (Seminar: 25, Internship report: 25) and 50 marks for Viva – Voce conducted during SEE. [To be read along with 16OMT 8.8 and 8.9]</li> <li>7. The internal guide shall award the CIE marks for seminar and internship report after evaluation. He/she will also be the internal examiner for Viva – Voce conducted during SEE.</li> <li>8. The external guide from the industry has to be an examiner for the viva voce on Internship. Viva-Voce on internship shall be conducted at the college and the date of Viva-Voce shall be fixed in consultation with the external Guide. The Examiners shall jointly award the Viva - Voce marks.</li> </ol>

<b>16OMT4.1(continued)</b>	<p>9. In case the external Guide expresses his inability to conduct viva voce, the Chief Superintendent is permitted to make alternate arrangements with the permission of the concerned BOE Chairperson.</p> <p>10. The students are permitted to carry out the internship anywhere in India or Abroad. The University will not provide any kind of Financial Assistance to any student for internship and for the conduct of Viva-Voce on internship.</p>
<b>16OMT4.2</b>	<p><b>Failing to undergo Internship:</b> Internship is one of the head of passing. Completion of internship is mandatory. If any student fails to undergo/complete the internship, he/she shall be considered as failed in that Course and shall not be permitted to appear for SEE in that Course. However, student shall appear for SEE after satisfying the conditions prescribed for Internship. The reappearance shall be considered as an attempt.</p>
<b>16OMT5.0</b>	<p><b>Seminar and Project</b></p>
<b>16OMT5.1</b>	<p><b>Seminar:</b> Seminar is one of the head of passing.</p> <p>i) Each candidate shall deliver seminar as per the Scheme of Teaching and Examination on the topics chosen from the relevant fields for about 30 minutes.</p> <p>ii) The Head of the Department shall make arrangements for conducting seminars through concerned faculty members of the Department. The committee constituted for the purpose by the Head of the Department shall award the CIE marks for the seminar. The committee shall consist of three faculty from the Department and the senior most acting as the Chairman/Chairperson. [To be read along with 16OMT8.8]</p>
<b>16OMT5.2</b>	<p><b>Project Work:</b> Project is one of the head of passing.</p> <p>Project work shall preferably be on individual basis.</p> <p>The candidate shall submit a soft copy (CD) of the dissertation work to the University. The CD should contain the entire Dissertation in monolithic form as a PDF file (not separate chapters).</p> <p>The Guide, after checking the report for completeness shall upload the Dissertation along with name, University Seat Number, address, mobile number of the candidate, etc., as prescribed in form available on online Dissertation evaluation portal. The guide shall submit a panel of four approved University Examiners for evaluation of dissertation.</p>
<b>16OMT5.3</b>	<p><b>Plagiarism Check</b></p> <p>Once the Guide uploads the dissertation, the same shall be linked for plagiarism check. The allowable plagiarism index is less than or equal to 25%.</p> <p>If the check indicates a plagiarism index greater than 25% :</p> <ul style="list-style-type: none"> <li>• for the first time, the candidate has to resubmit the dissertation, to the Registrar (Evaluation), Regional Center/Head Office, VTU along with the penal fees of Rs. 2000/- (Rupees Two thousand only) in person.</li> <li>• for the second time, the candidate has to resubmit the dissertation along with the penal fees of Rs. 4000/- (Rupees four thousand only) in person.</li> <li>• If the dissertation is rejected again during second resubmission with reference to plagiarism index, the candidate shall redo the project and submit after a semester's time subject to provisions of 16OMT1.5.</li> </ul>
<b>16OMT5.4</b>	<p>The dissertation shall be sent through email for evaluation to two examiners - one internal examiner (guide/co-guide) and one external examiner (first) appointed by the University. The evaluation of the dissertation shall be made independently by each examiner.</p>

<b>16OMT5.5</b>	Examiners shall evaluate the dissertation normally within a period of not more than two weeks from the date of receipt of dissertation through email.
<b>16OMT5.6</b>	The examiners shall independently submit the marks through the specified link.
<b>16OMT5.7</b>	Average of the marks awarded by the two Examiners shall be the final evaluation marks for the Dissertation.
<b>16OMT5.8</b>	<p>(a) Viva-voce examination of the candidate shall be conducted as per 16OMT5.10, if the dissertation work and the reports are accepted by the external examiner (first).</p> <p>(b) If the external examiner (first) finds that the dissertation work and the report are not up to the expected standard and the minimum passing marks cannot be awarded, the dissertation shall not be accepted for SEE. The external examiner (first) can recommend for modifications/suggestions of dissertation or totally reject the dissertation. The examiner shall offer suggestions for improvement of the dissertation for resubmission or list the reasons for rejection of the dissertation.</p> <p>(c) The resubmitted Dissertation incorporating the modifications/suggestions [as per 16OMT5.8(b)] of the external examiner (first) and satisfying the provision 16OMT5.3 shall be sent again to the external examiner (first) for evaluation. If the dissertation and the report are accepted by the external examiner (first), Viva-voce examination of the candidate shall be conducted as per 16OMT5.10.</p> <p>(d) In case of rejection of Dissertation by the external examiner (first), the same will be sent to a Second Examiner (external) approved by the University. The decision of the Second Examiner (external) is final. If the dissertation and the report are accepted by the Second Examiner (external), Viva-voce examination of the candidate shall be conducted as per 16OMT5.10. If the Second Examiner (external) rejects the dissertation and the report, the candidate shall have to carry out the dissertation work once again and submit the dissertation subject to provisions of 16OMT1.5. In such cases of rejection, the candidate shall redo the entire procedure starting from the submission of Dissertation in soft copy.</p> <p>(e) In case of rejection of Dissertation, with reasons, by the external examiner (first) [as per 16OMT5.8 (b)], the same will be sent to a Second Examiner (external) [not necessarily the same examiner considered under 16OMT5.8 (d)] approved by the University. The decision of the Second Examiner (external) is final. If the dissertation and the report are accepted by the Second Examiner (external), Viva-voce examination of the candidate shall be conducted as per 16OMT5.10. If the Second Examiner (external) rejects the dissertation and the report, the candidate shall have to carry out the dissertation work once again and submit the dissertation subject to provisions of 16OMT1.5. In such cases of rejection, the candidate shall redo the entire procedure starting from the submission of Dissertation in soft copy.</p>
<b>16OMT5.9</b>	The candidate, whose Dissertation is rejected, can rework on the same topic or choose another topic of dissertation under the same Guide or new Guide if necessary. In such an event, the report shall be submitted within four years in case of full time student and six years in case of part time student respectively from the date of admission to the Programme.
<b>16OMT5.10</b>	Viva-voce examination of the candidate shall be conducted by the external examiner and internal examiner/ guide. Internal examiner as per the direction of the University shall have to arrive at a mutually convenient date for the conduct of viva-voce examination of the concerned candidate with an intimation to the Registrar (Evaluation). In case one of the examiners expresses his/her inability to attend the viva-voce, the Registrar (Evaluation) shall appoint a substitute examiner in his/her place.
<b>16OMT5.11</b>	The relative weights for the evaluation of dissertation and the performance at the viva voce shall be as per the scheme of teaching & examination.



<b>16OMT5.12</b>	The marks awarded by both the Examiners at the viva voce Examination shall be sent jointly to the University immediately after the examination.																																								
<b>16OMT5.13</b>	Examination fee as fixed from time to time by the University for evaluation of dissertation report and conduct of viva voce shall be remitted through the Head of the Institution as per the instructions of Registrar (Evaluation) from time to time.																																								
<b>16OMT5.14</b>	The candidates who fail to submit the dissertation work within the stipulated time have to submit the same at the time of next ensuing examination.																																								
<b>16OMT6.0</b>	<b>Computation of SGPA and CGPA</b>																																								
<b>16OMT6.1</b>	<p>(i) The University adopts absolute grading system wherein the marks are converted to grades, and every semester results will be declared with semester grade point average (SGPA) and Cumulative Grade Point Average (CGPA). The CGPA will be calculated for every semester, except for the first semester.</p> <p>(ii) The grading system with the letter grades and the assigned range of marks under absolute grading system are as given below:</p> <table border="1"> <thead> <tr> <th>Level</th> <th>Outstanding</th> <th>Excellent</th> <th>Very Good</th> <th>Good</th> <th>Above Average</th> <th>Average</th> <th>Fail</th> </tr> </thead> <tbody> <tr> <td>Letter Grade</td> <td>S</td> <td>A</td> <td>B</td> <td>C</td> <td>D</td> <td>E</td> <td>F</td> </tr> <tr> <td>Grade Points</td> <td>10</td> <td>9</td> <td>8</td> <td>7</td> <td>6</td> <td>4</td> <td>00</td> </tr> <tr> <td>Percentage of Marks</td> <td>≥ 90</td> <td>&lt;90 ≥80</td> <td>&lt; 80 ≥70</td> <td>&lt; 70 ≥60</td> <td>&lt; 60 ≥ 55</td> <td>&lt; 55 ≥50</td> <td>&lt; 50</td> </tr> <tr> <td>Scored in a Course</td> <td>(90 -100)</td> <td>(80 - 90)</td> <td>(70 - 79)</td> <td>(60 - 69)</td> <td>(55 - 59)</td> <td>(50- 54)</td> <td>(0 - 49)</td> </tr> </tbody> </table> <p>(iii) A student obtaining Grade F in a Course shall be considered failed and is required to reappear in subsequent SEE. Whatever the letter grade secured by the student during his /her reappearance shall be retained. However the number of attempts taken to clear a Course shall be indicated in the grade cards/ transcripts.</p>	Level	Outstanding	Excellent	Very Good	Good	Above Average	Average	Fail	Letter Grade	S	A	B	C	D	E	F	Grade Points	10	9	8	7	6	4	00	Percentage of Marks	≥ 90	<90 ≥80	< 80 ≥70	< 70 ≥60	< 60 ≥ 55	< 55 ≥50	< 50	Scored in a Course	(90 -100)	(80 - 90)	(70 - 79)	(60 - 69)	(55 - 59)	(50- 54)	(0 - 49)
Level	Outstanding	Excellent	Very Good	Good	Above Average	Average	Fail																																		
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Scored in a Course	(90 -100)	(80 - 90)	(70 - 79)	(60 - 69)	(55 - 59)	(50- 54)	(0 - 49)																																		
<b>16OMT6.2</b>	<p><b>Computation of SGPA and CGPA (as per UGC Guidelines)</b></p> <p>The following procedures shall be used to compute the Semester Grade Point Average (SGPA) and Cumulative Grade Point Average (CGPA) respectively:</p> <p>i) The SGPA is the ratio of sum of the product of the number of credits with the grade points secured by a student in all the Courses taken by him/her and the sum of the number of credits of all the Courses undergone by a student, i.e.,</p> $SGPA = \frac{\sum (C_i \times G_i)}{\sum C_i}$ <p>Where <math>C_i</math> is the number of credits of the <math>i^{th}</math> Course and <math>G_i</math> is the grade point scored by the student in the <math>i^{th}</math> Course.</p>																																								

**16OMT6.2**  
(continued)

ii) The CGPA is also calculated in the same manner taking into account all the Courses undergone by a student over all the semesters of a programme, i.e.,

$$CGPA = \frac{\sum (C_i \times S_i)}{\sum C_i}$$

Where  $S_i$  is the SGPA of the  $i^{th}$  semester and  $C_i$  is the total number of credits in that semester.

The SGPA and CGPA shall be rounded off to 2 decimal places and reported in the transcripts.

**Illustration for Computation of SGPA and CGPA**

**Computation of SGPA**

**Illustration No.1**

Course	Credit	Grade letter	Grade point	<b>Credit Point = (Credit × Grade)</b>
Course 1	4	B	08	4 × 08 = 32
Course 2	4	D	06	4 × 06 = 24
Course 3	4	C	07	4 × 07 = 28
Course 4	3	S	10	3 × 10 = 30
Course 5	3	E	04	3 × 04 = 12
Course 6	3	D	06	3 × 06 = 18
Course 7	2	A	09	2 × 09 = 18
Course 8	2	D	06	2 × 06 = 12
Total	25	--	--	174

Thus, **SGPA = 174/25 = 6.96**

**Illustration No.2**

Course	Credit	Grade letter	Grade point	<b>Credit Point = (Credit × Grade)</b>
Course 1	4	B	08	4 × 08 = 32
Course 2	4	D	06	4 × 06 = 24
Course 3	4	C	07	4 × 07 = 28
Course 4	3	S	10	3 × 10 = 30
Course 5	3	F	00	3 × 00 = 00
Course 6	3	D	06	3 × 06 = 18
Course 7	2	A	09	2 × 09 = 18
Course 8	2	D	06	2 × 06 = 12
Total	25	--	--	162

Thus, **SGPA = 162/25 = 6.48**

If a Student secures letter grade C during reappearance then the SGPA is Calculated as shown below.

**Illustration No. 2(a)**

Course	Credit	Grade letter	Grade point	<b>Credit Point = (Credit × Grade)</b>
Course 5	3	C	07	7 × 03 = 21

Total Credit Points = Credit Points of first Attempt) + Credit Points of subsequent attempt  
= 162 + 21 = 183

Total credits of the semester = 25

Thus, **SGPA = 183/25 = 7.32**

<b>16OMT6.2</b> <b>(continued)</b>	<b>Illustration No.3</b>																		
	<b>Course</b>	<b>Credit</b>	<b>Grade letter</b>	<b>Grade point</b>	<b>Credit Point = (Credit x Grade)</b>														
	Course 1	4	B	08	4 x 08 = 32														
	Course 2	4	D	06	4 x 06 = 24														
	Course 3	4	C	07	4 x 07 = 28														
	Course 4	3	S	10	3 x 10 = 30														
	Course 5	3	A	09	3 x 09 = 27														
	Course 6	3	D	06	3 x 06 = 18														
	Course 7	2	A	09	2 x 09 = 18														
	Course 8	2	D	06	2 x 06 = 12														
Total	25	--	--	189															
Thus, SGPA = $189/25 = 7.56$																			
<b>CGPA (from illustrations 2 and 3) = <math>\frac{25 \times 7.92 + 25 \times 7.56}{50} = 7.44</math></b>																			
<table border="1"> <thead> <tr> <th>Semester</th> <th>I</th> <th>II</th> <th>III</th> <th>IV</th> </tr> </thead> <tbody> <tr> <td>Credits of the semester</td> <td>24</td> <td>24</td> <td>24</td> <td>24</td> </tr> <tr> <td>SGPA</td> <td>7.08</td> <td>6.08</td> <td>7.92</td> <td>9.24</td> </tr> </tbody> </table>					Semester	I	II	III	IV	Credits of the semester	24	24	24	24	SGPA	7.08	6.08	7.92	9.24
Semester	I	II	III	IV															
Credits of the semester	24	24	24	24															
SGPA	7.08	6.08	7.92	9.24															
<b>Thus CGPA = <math>\frac{(24 \times 7.08 + 24 \times 6.08 + 24 \times 7.92 + 24 \times 9.24)}{96} = 7.58</math></b>																			
<b>16OMT6.3</b>	<b>Transcript Format:</b> Based on the secured letter grades, grade points, SGPA and CGPA, the transcript for each semester and a consolidated transcript indicating the performance in all semesters shall be issued.																		
<b>16OMT7.0</b>	<b>Conversions of Grades into Percentage and Declaration of Class</b> Conversion Formula For The Conversion Of CGPA Into Percentage Is Given Below Percentage Of Marks Secured, <b>P = [CGPA Earned - 0.75] × 10</b> <b>Illustration For A CGPA Of 8.20:</b> <b>P = [CGPA Earned 8.2 - 0.75] × 10 = 74.5 %</b>																		
<b>16OMT7.1</b>	<b>Class Declaration:</b> After the conversion of final CGPA into percentage of marks (P), a graduating student is declared to have passed in (i) First Class with Distinction (FCD) if $P \geq 70\%$ (ii) First Class (FC) if $P \geq 60\%$ but $< 70\%$ and (iii) Second Class (SC) if $P < 60\%$ .																		
<b>16OMT8.0</b>	<b>Continuous Internal Evaluation and Semester End Evaluation</b>																		
<b>16OMT8.1</b>	For each theory and practical paper, the CIE marks shall be 20. For seminar, the CIE marks shall be 100. For Internship, the CIE marks shall be 50. For Project Phase –I and Project Phase –II the CIE marks shall be 50 respectively. [To be read along with 16OMT8.8]																		
<b>16OMT8.2</b>	CIE Marks shall be based on a) Tests (for 10 Marks) and b) Assignments, Quiz, Simulation, Experimentation, Mini project, oral examination, field work etc., (for 10 Marks) conducted in respective courses.																		

<b>16OMT8.3</b>	The CIE marks in a theory course, for 10 marks, shall be based on two tests covering the entire syllabus. An additional test may be conducted for the needy students to provide an opportunity to improve their CIE Marks before the end of the semester. The CIE marks shall be the average of the marks scored in at least two of the above tests. [To be read along with 16OMT8.8]
<b>16OMT8.4</b>	The candidates shall write the Tests in Blue Book/s. The Blue book/s and other documents relating to award of CIE marks under 16OMT8.2 (b) shall be preserved by the Principal / Head of the Department for at least six months after the announcement of University results and made available for verification at the directions of the Registrar (Evaluation).
<b>16OMT8.5</b>	Every page of the CIE marks list shall bear the signatures of the concerned Teacher, Head of the Department and the Principal.
<b>16OMT8.6</b>	The CIE marks list shall be displayed on the Notice Board and corrections, if any, shall be incorporated before submitting to the University.
<b>16OMT8.7</b>	The CIE marks shall be sent to the university by the Principals well in advance before the commencement of Semester End Examinations. No corrections of the CIE marks shall be entertained after the submission of marks list to the University.
<b>16OMT8.8</b>	Candidates obtaining less than 50% of the CIE marks in any course (Theory/Laboratory/Seminar/Internship/Project) shall not be eligible to appear for the University examination in that course/s. In such cases, the Head of the Department shall arrange for the improvement of CIE marks in the course/ Laboratory when offered in the subsequent semester subject to the provision of 16OMT1.5.
<b>16OMT8.9</b>	<b>Semester End Evaluation:</b> There shall be a University examination at the end of each semester.
<b>16OMT8.10</b>	There shall be double valuation of theory papers. The theory Answer booklets shall be valued independently by two examiners appointed by the University.
<b>16OMT8.11</b>	If the difference between the marks awarded by the two Examiners is not more than 15 per cent of the maximum marks, the marks awarded to the candidate shall be the average of two evaluations.
<b>16OMT8.12</b>	If the difference between the marks awarded by the two Examiners is more than 15 per cent of the maximum marks, the answer booklet shall be evaluated by a third Examiner appointed by the university. The average of the marks of nearest two valuations shall be considered as the marks secured by the candidate. In case, if one of the three marks falls exactly midway between the other two, then the highest two marks shall be taken for averaging.
<b>16OMT9.0</b>	<b>Eligibility for Passing and Award of Degree</b>
<b>16OMT9.1</b>	A student who obtains any grade S to E shall be considered as passed and if a student secure F grade in any of the head of passing he/she has to reappear in that head for the SEE.
<b>16OMT9.2</b>	For a pass in a theory course, the student shall secure minimum of 40% of the maximum marks prescribed in the Semester End Examination and 50% of marks in CIE and 50% in the aggregate of CIE and SEE marks. The Minimum Passing Grade in
<b>16OMT9.3</b>	For a pass in Internship/Practical/Project/Dissertation/Viva-voce examination, a student shall secure a minimum of 50% of the maximum marks prescribed for the SEE in Internship/Practical/Project/Dissertation/Viva-voce. The Minimum Passing Grade in a course is E.
<b>16OMT9.4</b>	For a pass, a candidate shall obtain a minimum of 50% of maximum marks in Seminar.

<b>16OMT9.5</b>	IV semester Full time candidates having backlog courses are permitted to upload the dissertation report and to appear for SEE. The IV semester grade card shall be released only when the candidate completes all the backlog courses and become eligible for the award of degree. [To be read along with 16OMT11.2] VI semester Part time candidates having backlog courses are permitted to upload the dissertation report and to appear for SEE. The VI semester grade card shall be released only when the candidate completes all the backlog courses and become eligible for the award of degree. [To be read along with 16OMT11.2]
<b>16OMT9.6</b>	A candidate may at his/her desire reject his/her latest semester results of University examination in respect to all courses of that semester. However, in the IV semester the rejection shall not include the Project work. Rejection shall be permitted only once during the entire Programme. The CIE marks of the rejected semester shall remain the same. Rejection of results of the University examination including CIE marks is not
<b>16OMT9.7</b>	If the rejection of the University examination results of the semester happens to be of an odd semester, the candidate can take admission to the immediate next even semester. However, if the rejection of the University result is of even semester, the candidate cannot take admission to the next odd semester.
<b>16OMT9.8</b>	Application for rejection shall be submitted to the Registrar (Evaluation) through the Principal of the college, within thirty days from the date of announcement of results.
<b>16OMT9.9</b>	A candidate, who opts for rejection of results of a semester shall be eligible for the award of class and distinction, but shall not be eligible for the award of rank.
<b>16OMT9.10</b>	<b>Eligibility for Award of Degree:</b> A student shall be declared to have completed the degree of Master of Technology, provided the student has undergone the stipulated course work as per the regulations and has earned the prescribed Credits, as per the Scheme of Teaching and Examination, of the programme.
<b>16OMT10.0</b>	<b>Attendance Requirement</b>
<b>16OMT10.1</b>	<b>Registration and Enrolment:</b> i) Except for the first semester, registration for a semester will be done during a specified week before the semester end examination of the previous semester. ii) The registration sheet should have the Candidate details, course name and code, number of credits and category (core/elective/audit) for each course of that semester. iii) The Faculty Adviser, assigned by the Head of the Department, will counsel the students in planning their courses of study and provide guidance, motivation, emotional support, and enable the mentees to reach the desired professional and career goals.
<b>16OMT10.2</b>	Courses of each semester shall be treated as a separate unit for calculation of the attendance.
<b>16OMT10.3</b>	The candidate has to put in a minimum attendance of 85% in each course with a provision to condone 10% of the attendance by the Vice-Chancellor on the specific recommendation of the Principal of the college where the candidate is studying, based on medical grounds, participation in University/ State/ National/ International level sports and cultural activities, seminars, workshops, paper presentation etc., of significant value. The necessary documents in support are to be submitted along with recommendations to condone the shortage.
<b>16OMT10.4</b>	In case of late admission, approved by competent authority (DTE/VTU), to I semester of the programme the attendance shall be reckoned from the date of admission to the programme.

<b>16OMT10.5</b>	A candidate, who does not satisfy the attendance requirement (in one or more Courses) as mentioned in 16OMT10.3 shall not be eligible to appear for the SEE of that semester and shall not be permitted to take admission to next higher semester. The candidate shall be required to repeat that semester during the subsequent year.
<b>16OMT10.6</b>	Principals of the concerned colleges shall notify regularly, the list of candidates who fall short of attendance.
<b>16OMT10.7</b>	The list of the candidates falling short of attendance shall be sent to the University at least one week prior to the commencement of the examination.
<b>16OMT11.0</b>	<b>Promotion and Eligibility</b>
<b>16OMT11.1</b>	<b>Promotion:</b> There shall be no restriction for promotion from an odd semester to the next even semester, provided the student has fulfilled the attendance requirement.
<b>16OMT11.2</b>	The Mandatory non – credit courses, if any, shall not be considered for the Eligibility criterion prescribed for promotion, award of Class, calculation of SGPA and CGPA. However, a pass in the above courses is mandatory before the completion of Degree.
<b>16OMT12.0</b>	<b>Temporary Discontinuation/Break in the Program</b>
<b>16OMT12.1</b>	(a) If a candidate, for any reason, temporarily discontinues the Programme or take a break from programme during any semester, he/she may be permitted to continue in the programme by registering to the same semester of the prevailing scheme. The candidate shall complete all the remaining course work subject to the provision 16OMT1.5. Also the Candidates may have to complete additional course/s, if any, as per the decision of concerned Board of Studies and approval of Dean, Faculty of Engineering, on establishing equivalence between two schemes. A Grade card shall be issued to that effect. Additional course/s shall not be considered for the eligibility criterion prescribed for promotion. However, based on the individual cases, it is considered to decide the SGPA and CGPA to admit the student for the award of degree. Such candidate shall not be eligible for the award of rank.
<b>16OMT12.1 (continued)</b>	(b) Candidates who takes admission to any semester of the existing scheme from another scheme, as a repeater/fresher because of various reasons have to complete additional course/s, if any, as per the decision of concerned Board of Studies and approval of Dean, Faculty of Engineering, on establishing equivalence between two schemes. A Grade card shall be issued to that effect. Additional course/s shall not be considered for the eligibility criterion prescribed for promotion. However, based on the individual cases, it is considered to decide the SGPA and CGPA to admit the student for the award of degree. Such candidate shall not be eligible for the award of rank.
<b>16OMT13.0</b>	<b>Award of Prizes, Medals and Ranks</b>
<b>16OMT13.1</b>	For the award of Prizes and Medals, the conditions stipulated by the Donor shall be considered subject to the provisions of the statutes framed by the University for such awards.

<b>16OMT13.2</b>	<p>(1) For award of rank in a Specialization of Master of Technology, the CGPA secured by the student from I to IV semester is considered.</p> <p>(2) A student shall be eligible for a rank at the time of award of degree of Master of Technology, provided the student</p> <ol style="list-style-type: none"> <li>a. Is not a repeater in any semester</li> <li>b. Has not rejected the results of any semester.</li> <li>c. Has passed I to IV semester in all the courses in first attempt only</li> </ol> <p>(3) The total number of ranks awarded shall be 10% of total number of students appeared in IV semester subject to a maximum of 10 ranks in a Specialization.</p> <p>(4) For award of ranks in a Specialization, a minimum of 10 students should have appeared in the IV semester examination.</p> <p><b>Illustration:</b></p> <ol style="list-style-type: none"> <li>(a) If 150 students appeared for the IV semester in VLSI Design and Embedded Systems Branch, the number of ranks to be declared in VLSI Design and Embedded Systems will be 10.</li> <li>(b) If 84 students appeared for the IV semester in Nano Technology, the number of ranks to be declared for Nano Technology will be 08.</li> <li>(c) In case of fractional number of ranks, it is rounded to higher integer only when the first decimal place value is greater than or equal to 5.</li> </ol> <p>(5) Students under Part time Programme are not considered for Rank declaration.</p>
<b>16OMT13.3</b>	<p>Ranks are awarded based on the merit of the students as determined CGPA. If two or more students get the same CGPA, the tie shall be resolved by considering the number of times a student has obtained higher SGPA. If it is not resolved even at this stage, the number of times a student has obtained higher grades like S, A, B etc., shall be taken into account to decide the order of the rank.</p>
<b>16OMT14.0</b>	<b>Applicability and Power to Modify</b>
<b>16OMT14.1</b>	<p>The regulations governing the Degree of Master of Technology of Visvesvaraya Technological University shall be binding on all concerned.</p>
<b>16OMT14.2</b>	<ol style="list-style-type: none"> <li>i) Notwithstanding anything contained in the foregoing, the University shall have the power to issue directions/ orders to address any difficulty.</li> <li>ii) Nothing in the foregoing may be construed as limiting the power of the University to amend, modify or repeal any or all of the above.</li> </ol>



**VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI**  
**REGULATIONS GOVERNING THE DEGREE**  
**OF**  
**DOCTOR OF PHILOSOPHY(Ph.D) - Amended 2017**  
**[ With effect from June 2017 ]**

**Preamble**

*These Regulations Governing the Degree of Doctor of Philosophy (Ph.D.)-Amended 2017 have been framed to **amend** the earlier Regulations of 2014 on this subject with a view to fulfill the provisions in the UGC (Minimum Standards and Procedure for Award of M.Phil./Ph.D. Degrees) Regulations, 2016 and UGC Gazette Notification (Specification of Degrees), 2014. They also take into account the experience of the University in conducting the Ph.D. programme during the last decade or so and aim at ensuring a high standard for the Ph.D. conferment by the University.*

**Ph.D.-1 SHORT TITLE AND COMMENCEMENT**

- Ph.D.- 1.1** These Regulations shall be called “VTU Regulations Governing the Degree of Doctor of Philosophy (Ph.D.)-Amended 2017”.
- Ph.D.-1.2** These shall come into force from the date of their notification by the University and be applicable for the candidates seeking registration for Ph.D. in the Faculty of Engineering, Faculty of Architecture, Faculty of Science, Faculty of Management Studies and Interdisciplinary Subject Areas.
- Ph.D.-1.3** All correspondence with the University regarding the Ph.D. programme, like Reports/Presentation /Thesis shall be in English language only.

**Ph.D.-2 DEFINITIONS**

- Ph.D.-2.1** In these Regulations unless the context requires otherwise or it is specifically so defined:
- a) ‘Academic Senate (AS)’, ‘Board of Studies (BoS)’, ‘Executive Council (EC)’, ‘Faculty’ mean the respective Authorities of the University.
  - b) ‘Admissions Committee’ means a committee constituted by the University to carry out the activities concerning the admission of students to the Ph.D. programme.
  - c) ‘AICTE’ means the All India Council for Technical Education established at New Delhi by an Act of Parliament in 1987.
  - d) ‘Coursework’ means the courses prescribed as a part of the Ph.D. programme, which the candidate shall successfully complete as a pre-requisite.
  - e) ‘Co-supervisor’ means the additional Research Supervisor who supervises/ guides the doctoral research of a candidate along with the Research Supervisor.
  - f) ‘Degree at Undergraduate/Postgraduate/Doctor of Philosophy level’ means UG/PG/Ph.D.
  - g) ‘Doctoral Committee’ means the Research Advisory Committee constituted by the University to review the research progress of a candidate for Ph.D.
  - h) ‘FIP’ means the Faculty Improvement Programme of UGC.
  - i) ‘GoI’ means the Government of India.
  - j) ‘GoK’ means the Government of Karnataka.
  - k) ‘Intake’ means the number of students sanctioned for admission to a Research Centre/Faculty of the University in a year.



- l) 'Integrated Degree' means a higher degree award combining the requirements of two Degrees in sequence conducted in a shorter time frame, e.g., M.Sc.(Engg.) by Research / M. Tech. + Ph.D. Degree in less than *five* years.
- m) 'NRI/FN/PIO' means Non-Resident Indian/Foreign National/Person of Indian Origin in abbreviated form.
- n) 'QIP' means Quality Improvement Programme of the GoI.
- o) 'Refereed Journal' means a reputed professional journal or literary journal or a publication in which the research articles or papers are selected for publication by a panel of expert referees in the field.
- p) 'Registrar' and 'Registrar (Evaluation)' mean respectively the Registrar and Registrar (Evaluation) of the University.
- q) 'Research Centre' means a College/Institute/Department/Research Laboratory and the like recognized by the University for the candidates to pursue Ph.D./M.Sc.(Engg) by Research in an approved discipline.
- r) 'Research Supervisor' means a qualified faculty member or a scientist recognized by the University to supervise/guide the candidates for Ph.D./M.Sc.(Engg.) by Research.
- s) 'UGC' means the University Grants Commission established at New Delhi by an Act of Parliament in 1956.
- t) 'University' means the Visvesvaraya Technological University (VTU) with its Headquarters at Belagavi, Karnataka.
- u) 'Vice Chancellor' means the Vice Chancellor (VC) of the University.
- v) 'Viva-Voce Board' means a committee of experts appointed by the University to conduct the final viva-voce on the Thesis submitted by the candidate.
- w) 'VTU-ETR' means VTU Eligibility Test for Research conducted by the University for admitting students to Ph.D. programme.
- x) 'VTU-RC' means Research Center recognized / identified by the University.
- y) 'Website' means the website of the University at [www.vtu.ac.in](http://www.vtu.ac.in);

**Ph.D.-3****BOARDS AND COMMITTEES****Ph.D.-3.1****Constitution of Boards/Committees**

The University shall constitute the following Boards/ Committees for monitoring the Ph.D. Programme:

- a) Admissions Committee
- b) Doctoral Committee
- c) Viva - Voce Board
- d) Such other Boards/Committees, as may be required.

The composition, duties and responsibilities of the Boards and Committees shall be as given below:

**Ph.D.-3.1.1****Admissions Committee**

- a) The Admissions Committee to be constituted by the Vice Chancellor for each Faculty, shall consist of:
 

1. Dean of the Faculty,	-Chairperson
2. Nominee of the Executive Council	-Member
3. Nominee of the Academic Senate	-Member
4. Nominee of the Vice Chancellor	-Member
5. Registrar	-Member Convener

- b) If there is no Dean appointed for a Faculty, the Vice Chancellor may nominate one among the other Deans to be the Chairperson of the Admissions Committee for that Faculty.
- c) The Admissions Committee shall be responsible for :
  - (i) Identification and notification of intake
  - (ii) Getting the eligibility test conducted
  - (iii) Getting the merit list(s) prepared
  - (iv) Interview for candidates organized
  - (v) The Reservation Policy followed
  - (vi) Pre-registration interview facilitated
  - (vii) Conducting such other tasks connected with the admission of the candidates for the Ph.D. programme.
- d) The tenure of the Committee shall be three years and the constitution of the Committee shall be aligned with the academic year at the University. The Committee shall meet as often as required.

### Ph.D.-3.1.2 Doctoral Committee

- a) The Head of the Institute shall propose a Doctoral Committee to be constituted by Vice-Chancellor for each candidate with the following composition:
  - 1. Head of the Institute -Chairperson  
(or his/her Nominee)
  - 2. Head of the Research Centre/Department -Member
  - 3. Two domain experts, (at least one expert external to the Research Center in the same domain) both identified jointly by the Head of the Research Center & Research Supervisor -Members
  - 4. Research Supervisor -Member Convener
  - 5. Co-Supervisor (if any) -Joint Member Convener
- b) The Doctoral Committee shall be responsible to review and monitor the progress of the candidate in Ph.D. research work from its commencement until submission of the Thesis. The Committee shall meet as often as required, but at least once in every six months before forwarding the Six-Monthly Progress Report of the candidate to the University.
- c) If the Head of the Institute/Research Centre is also the Research Supervisor of the candidate concerned, the VC shall appoint an alternate Chairperson/Member from the same institute for this Committee.
- d) Also, the Committee shall have the same composition for all the candidates registered under one Research Supervisor.
- e) The VC shall appoint alternate domain expert(s) on the Committee in consultation with the Head of the Institute, if any of the appointees is unable to attend the deliberations of the Committee for more than two half-year periods at a time.
- f) All the expenses related to the functioning of the Doctoral Committee shall be met by the institute concerned.

**Ph.D.-3.1.3 Viva-Voce Board**

- a) The viva-voce Board shall be constituted by the Vice Chancellor for each candidate soon after receipt of favourable Reports from all the adjudicators. It shall have the following composition:
- |                               |                 |
|-------------------------------|-----------------|
| 1. Research Supervisor        | -Chairperson    |
| 2. Co- Supervisor (s), if any | -Co-Chairperson |
| 3. Identified Adjudicator     | -Member         |
- b) The board shall conduct the final viva-voce for the candidate to defend his/her Ph.D. thesis.
- c) The board shall submit its detailed report in the prescribed format to the University.

**Ph.D.-3.1.4 Other Boards and Committees**

- a) The Vice Chancellor may constitute other Boards/Committees in connection with other specific requirements in the conduct of the Ph.D. programme.
- b) The duties/responsibilities and other details of these Boards/Committees shall be notified by the University as and when they are constituted.

**Ph.D.-4 SUBJECT/TITLE OF RESEARCH AND NATURE OF RESEARCH PROGRAMME****Ph.D.-4.1 List of Faculties**

The University shall permit the registration for Ph.D. in the following Faculties, namely,

- Faculty of Engineering
- Faculty of Architecture
- Faculty of Science
- Faculty of Management Studies

**Ph.D.-4.2 Inter-Disciplinary Subject Areas**

- a) It shall also be possible for a candidate to pursue Ph.D. research in a subject area of inter-disciplinary nature in the same Faculty in which the candidate has obtained the PG degree or across two or more Faculties in the University.
- b) The admission of such candidates shall be subject to Ph.D. – 5.2.5

**Ph.D.-5 ELIGIBILITY FOR ADMISSION****Ph.D.-5.1 Eligibility Requirements**

The eligibility requirements for candidates to get admitted to the Ph.D. programme shall include the following:

**Ph.D.-5.1.1 Categories of Candidates and Other Requirements**

There shall be provision for the following categories of candidates for admission to Ph.D:

- Full-Time:** Candidates to pursue Ph.D. research on full time basis shall also include QIP/FIP scholars and those belonging to Integrated Degree programmes such as M.Sc.(Engg.) by Research/(Full-Time)M.Tech. /M.Arch. + Ph.D.
- Part-Time:** In-service candidates having a minimum professional experience of one year after their PG Degree from among the regular faculty members working in any Engineering College /Polytechnic / University / Deemed to be University (recognized / accredited by appropriate bodies in India) or research staff of public / private organizations shall be eligible to pursue Ph.D. research on a part time basis.
- Full-Time (Special):**NRI/FN/PIO candidates shall be eligible for admission to Full

Time Ph.D. research as indicated in 5.1.1 a). However, the candidates shall have passed the UG / PG programmes with medium of instruction in English or qualified in TOEFL/ELTS, or equivalent and be able to communicate in English and also submit the thesis in English language only.

- d) **Integrated Degree:** Students registered for M.Sc.(Engg.) by Research(Full- Time)/ M.Tech./M.Arch, may be allowed to upgrade to Ph.D. as per 5.2.1 a) as applicable on a case by case basis.
- e) **Distance mode:** Candidates with MBA and MCA Degrees obtained through distance mode from UGC/DEC approved institutions may be allowed to register for Ph.D. as per UGC/AICTE norms on condition of two years teaching/research experience after completion of their PG Degree award.

### Ph.D.-5.1.2 Study leave/Employment/Clearances

- a) Employed candidates, who take up Ph.D. Programme on full time basis, shall produce NOC from their employer/organization(s) with a sanctioned study leave for a minimum period of three years with full salary.
- b) Unemployed Candidates who take up Ph.D. programme on full time basis shall not be allowed to take up any employment during such period of Ph.D. work. However, they can apply for scholarship / fellowship / stipend/ assistantship, if any, with intimation to the University.
- c) Foreign students shall hold valid passport/visa, clearance from MHRD and other documents as mandated by the GoI throughout their studentship at the University.

### Ph.D.-5.2 Minimum Qualifications to be Satisfied

The minimum academic qualifications required for seeking admission to the Ph.D. Programme, shall be as given below in respect of the different Faculties:

#### Ph.D.-5.2.1 Faculty of Engineering

- a) The candidates shall possess a Master's Degree in Engineering / Technology or equivalent or M.Sc.(Engg.) by Research degree from the University or any other University recognized by it, with a minimum CGPA of 6.75 out of 10 or 60% aggregate marks at either the Bachelor's or the Master's Degree.
- b) The candidates possessing Bachelor's Degree in Engineering / Technology or equivalent recognized by the University with outstanding merit, having either a minimum CGPA of 7.75 out of 10 or 70% aggregate marks and published research papers in refereed journals or filed/ obtained patents shall also be eligible for admission, subject to approval by the Admissions Committee.
- c) The candidates pursuing M.Sc.(Engg.) by Research Degree at the University who have successfully completed the prescribed coursework in the first two semesters of study with outstanding merit of either a minimum CGPA of 7.75 out of 10 or 70 % aggregate marks and published research papers in refereed journals or filed/obtained patents shall be eligible for up-gradation to the Ph.D. Integrated degree programme, subject to approval by the Admissions Committee.
- d) The candidates pursuing M. Tech. Degree at the University who have successfully completed the prescribed coursework in the first three semesters of study with outstanding merit of either a minimum CGPA of 7.75 out of 10 or 70 % aggregate marks and published research papers in refereed journals or filed/obtained patents shall

be eligible for up-gradation to the Ph.D. Integrated Degree Programme, subject to approval by the Admissions Committee.

#### **Ph.D.-5.2.2 Faculty of Architecture**

- a) The candidates shall possess Master's Degree in Architecture / allied specialization or equivalent recognized by the University, with a minimum CGPA of 6.75 out of 10 or 60% aggregate marks at either the Bachelor's or the Master's Degree in the respective discipline.
- b) The candidates possessing Bachelor's Degree in Architecture or equivalent recognized by the University with outstanding merit, having either a minimum CGPA of 7.75 out of 10 or 70% aggregate marks and published research papers in refereed journals or filed/ obtained patents shall also be eligible for admission to the Ph.D. Integrated degree programme, subject to approval by the Admissions Committee.
- c) The candidates possessing Bachelor's Degree in Architecture or equivalent recognized by the University, with 10 years of experience in teaching/research/ professional practice in Architecture shall also be eligible for admission, subject to approval by the Admissions Committee.
- d) The candidates pursuing M. Arch. Degree at the University who have successfully completed the prescribed coursework in the first three semesters of study with outstanding merit having either a minimum CGPA of 7.75 out of 10 or 70 % aggregate marks and demonstrated good research aptitude shall be eligible for up-gradation to the Ph.D. Integrated Degree Programme, subject to approval by the Admissions Committee.

#### **Ph.D.-5.2.3 Faculty of Science**

The candidates shall possess M.Sc. / M.Phil. Degree in Physics/ Chemistry/ Mathematics/ MCA, and such other allied disciplines, recognized by the University with a minimum CGPA of 6.75 out of 10 or 60 % aggregate marks at either the Bachelor's or the Master's Degree.

#### **Ph.D. 5.2.4 Faculty of Management Studies**

The candidates shall possess MBA/equivalent Degree from a recognized University with a minimum CGPA of 6.75 out of 10 or 60% aggregate marks at the Master's degree.

#### **Ph.D.-5.2.5 Inter-Disciplinary Subject Areas**

The candidates desirous of pursuing Ph.D. in subject areas of interdisciplinary nature (as per Ph.D.-4.2) shall fulfill the following eligibility requirements:

- a) The candidate shall possess the Master's Degree in appropriate branch/subject/discipline recognized by the University, with a minimum CGPA of 6.75 out of 10 or 60% aggregate marks.
- b) The candidate shall submit the title of the research area and the research proposal along with his/her application for admission.
- c) The research areas /proposal shall receive commendation /positive recommendation of the Admission Committee, who may, under approval of the Vice Chancellor, constitute expert Committee to evaluate the same.
- d) In such cases, the Degree shall be awarded in the subject/ discipline in which the candidate has registered for the Ph.D. programme.
- e) Further, if required, Co-Supervisor(s) from appropriate discipline(s) may be assigned

**Ph.D.-5.2.6 Other**

- a) Foreign candidates for Full-Time – Special Ph.D. programme shall have obtained their UG and/or PG Degrees in the appropriate branch (as specified under Regulations Ph.D. 5.2.1-5.2.5) from a University recognized/accredited by approved bodies in India.
- b) They shall have adequate proficiency in English as demonstrated by qualifying in the relevant National/International tests.

**Ph.D.-5.3 Relaxation of Minimum Requirements**

A candidate belonging to SC/ST/Category-I/ differently-abled or any other reserved category as notified by GoK from time to time shall have relaxation of 5% or equivalent grade in the minimum prescribed qualification level for the general category.

**Ph.D.-5.4 Admission for Research Supervisor**

A Research Supervisor can also be a Research Scholar under this University.

**Ph.D.-6 RECOGNITION / FUNCTIONING OF RESEARCH SUPERVISOR****Ph.D.6.1 Procedure for Recognition**

- a) The University shall invite applications periodically on its website or by notification, from eligible faculty members, scientists and others for being recognized as Research Supervisors under all its Faculties. The prospective Research Supervisors shall apply in the prescribed format, with all the necessary supporting documents to the University in response to such a notification.
- b) An Expert committee under each Faculty, constituted by the Vice-Chancellor shall scrutinize the applications received and recommend the names of selected persons to be recognized as Research Supervisors to the AS and EC for their approval. On getting approved, each Research Supervisor shall receive a communication from the University clearly indicating relevant provisions in these Regulations and the UGC norms to be adhered to, along with an Identity Card specifying his/her Research Supervisor Registration Identity (RSRI). The list of Research Supervisors along with their research areas shall be updated periodically, notified to all the Research Centres and widely publicized on the University website.
- c) Upon Recognition, a Research Supervisor shall become eligible to supervise/guide the Ph.D. candidates of the University as prescribed under Ph.D.-7.1. The validity period of RSRI shall be up to the end of the academic year in which the Research Supervisor attains the age of 62 years. However, the recognition shall stand withdrawn if any Research Supervisor fails to supervise at least one Ph.D. candidate in a continuous period of five years. In such a case, fresh registration shall be sought if required by the faculty member/scientist by going through the procedure outlined under a) and b) above.

**Ph.D.-6.2. Eligibility for Recognition as Research Supervisor**

- a) A Faculty member working in a recognized academic institution and/or a Scientist/Engineer working in a recognized research establishment/ industry shall be eligible for recognition, provided he/she has:
  - (i) Ph.D. degree from a recognized University in the relevant discipline(s).
  - (ii) A minimum of two research papers in refereed journals during the preceding five years.

(iii)Independent research experience of at least one academic year, after obtaining the provisional Ph.D. degree award

- b) A person awarded Ph.D. degree from Foreign University shall submit an equivalence certificate obtained from UGC/AIU and VTU to be recognized as Research Supervisor under VTU.

### Ph.D.-6.3 Functioning of Research Supervisor

- a) There shall be a possibility of allowing a Co-Supervisor in addition to Research Supervisor for a candidate registered for the Ph.D. Degree at a Research Centre.
- b) In the case of interdisciplinary subject area(s), a candidate may have two supervisors, of which one shall be designated as the Research Supervisor and the other as the Co-Supervisor, with either of them being from the Research Centre where the candidate has registered for Ph.D.
- c) A Research Supervisor shall not opt to become Co-Supervisor for more than *five* candidates at any time.
- d) No Research Supervisor/Co-Supervisor shall supervise his/her close relative or spouse for Ph.D. Degree of VTU.

### Ph.D.-7 INTAKE

#### Ph.D.-7.1 Number of Candidates per Research Supervisor

The following norms / procedure shall be strictly adhered to while assigning Research Supervisors to the candidates admitted at a Research Centre. Any violation of these norms/ procedure shall result in the University taking serious steps like de-recognition of the Research Centre or the Research Supervisor.

- a) Each Research Supervisor/Co-Supervisor shall supervise/guide at a time, not more than:
- Eight candidates if he/she is Professor;
  - Six candidates if he/she is Associate Professor; and
  - Four candidates if he/she is Assistant Professor.

Category of Supervisor/ Co-Supervisor	Maximum no. of candidates	SC/ST/ Cat-I candidates	Differently-abled or any other reserved category candidates	Foreign candidates	General Merit candidates
Professor Level	08	01	01	02	04
Associate Professor level	06	01	01	01	03
Assistant Professor level	04	01	01	nil	02
If a guide does not enroll a foreign candidate, the vacant seat may be shifted to General Merit					

This shall include the candidates registered under the same Research Supervisor/Co-

- Supervisor at other Universities, if any, with the prior written approval of the VC.
- b) Of the number of candidates permitted to be registered under a Research Supervisor as above, there shall be seats reserved for SC/ST/Category-1/Differently-abled candidates in each case as per the Reservation Policy of GoK.
  - c) The seats reserved for SC/ST/Category-1/ Differently abled candidates shall be mutually interchangeable as per UGC norms, but not transferrable to the General Pool.
  - d) The candidates registered for Ph.D. under a Research Supervisor/Co-Supervisor who have completed the final Viva-Voce shall not be considered while counting the number of candidates assigned to a Research Supervisor/ Co-Supervisor.
  - e) A Research Supervisor shall not be assigned more than 25% of the permitted allocation (as per Ph.D.-7.1 a)) of the newly admitted candidates during an academic year.
  - f) The Admissions Committee shall have the power to allocate up to a maximum of 50% of the permitted allocation of the newly admitted candidates to a Research Supervisor during an academic year under very special circumstances, subject to approval by the VC.
  - g) A Research Supervisor shall not be assigned any new candidates for Ph.D. at a Research Centre if he/she has less than three years of service left before the prescribed age of retirement from the Centre concerned as on the opening day of the academic year.
  - h) Reservation Policy  
The University shall follow the Reservation Policy of GoI and GoK as applicable from time to time, for the total number of candidates admitted to the Ph.D. programme in an academic year.

#### **Ph.D.-7.2 Change of Research Centre**

- a) The candidates shall have the possibility to shift from one Research Centre to another within the University due to reasons like, lack of research facilities, non-availability of Research Supervisor(s) and need for special facilities in the case of women candidates.
- b) In all such cases, the decision of the Admissions Committee shall be final and binding.

#### **Ph.D.-8 NOTIFICATION**

##### **Ph.D.-8.1 University Notification**

The University may call for Applications for Admissions normally once in an academic year covering :

- (i) The procedure to be followed for Ph.D. admissions;
- (ii) Eligibility requirements, i.e., Ph.D.-5 to be satisfied for getting admitted;
- (iii) Number of seats to be filled branch/ subject area-wise at each VTU-RC;
- (iv) Division of seats to be filled in the general and the reserved categories;
- (v) VTU-ETR details-Dates, Centres, Syllabi etc., and How to apply;
- (vi) Calendar for pre-registration interview, semesters, other events;
- (vii) Information on available scholarships, assistantships, if any.

The admissions shall be made twice annually at the beginning of each semester based on the candidate's rank in the VTU-ETR and the pre-registration interview performance, both being conducted only once in a year.

#### **Ph.D.-9 SUBMISSION OF APPLICATIONS AND THEIR PROCESSING**



Applications from the eligible candidates shall be submitted as follows:

All eligible candidates satisfying the requirements as in Ph.D. – 5 shall submit their applications for VTU-ETR and Ph.D. admission to the University in the prescribed format along with necessary documents; viz., attested copies of degree certificate(s), marks cards of all the related examinations, employer's certificate if employed, and such other documents as may be prescribed.

#### **Ph.D.-9.2 Functions/Responsibilities of the Admissions Committee**

The Admissions Committee shall arrange for:

- (i) Scrutinizing of the applications to determine their eligibility, including those eligible for exemption from the VTU-ETR;
- (ii) Conducting the VTU-ETR and getting the answer scripts evaluated;
- (iii) Preparation of the merit- list(s) of candidates based on the VTU-ETR score in percentile format;
- (iv) Deciding on the number of candidates from the merit list(s) to be called for pre-registration interview for VTU-RC;
- (v) Conducting pre-registration interview for such short listed candidates.

#### **Ph.D.-10 VTU-ETR**

##### **Ph.D.- 10.1 Conduct of VTU-ETR**

- a) All the eligible applicants shall appear for the VTU-ETR which shall be arranged to determine the candidate's aptitude for research. The percentile score obtained by the candidates in the VTU-ETR shall form the basis for preparing the merit list of successful candidates which shall be valid for *two* academic years only.
- b) Separate merit lists so organized for the General and Reserved category candidates shall be notified by the Admissions Committee at the University Office, VTU Regional Centre Offices and on its website.
- c) Only those candidates having percentile score in the VTU-ETR of  $\geq 50$  in the case of General category and  $\geq 45$  in the case of Reserved category shall be in the list(s) of short listed candidates for being called for the pre-registration interview during the year.
- d) Eligible candidates shall be free to re-appear at the VTU-ETR again in a later year, if required to improve their percentile score to get into the merit list(s).

##### **Ph.D.-10.2 Exemption from VTU-ETR**

The following categories of candidates may be exempted from appearing at VTU-ETR with the approval of Admissions Committee:

- (i) Full-time (Special) candidates.
- (ii) Faculty members selected under QIP / FIP.
- (iii) Candidates qualified in the UGC-NET(including JRF)/UGC-CSIR NET (including JRF) / SLET / GATE/ CAT or other similar national tests and having qualifying percentile scores in their respective validity periods;
- (iv) Candidates with M.Phil. Degree or equivalent as recognized by the University.

##### **Ph.D.-10.3 Eligibility for Pre-Registration Interview**

- a) Candidates successful in VTU-ETR as per Ph.D.-10.1 and those from the categories

listed in Ph.D.-10.2(iii-iv) shall be included in the lists of qualified candidates to appear for the pre-registration interview. However, candidates under Ph.D.-10.2(i-ii) shall be considered for admission on a case by case basis by following AICTE/UGC directions.

- b) The number of candidates to be called for pre-registration interview at a Research Centre shall be determined from the lists in a) above by the Admissions Committee based on the intake capacity in the year.

## **Ph.D.-11 PRE-REGISTRATION INTERVIEW**

### **Ph.D.-11.1 Expert Committees**

- a) The Admissions Committee shall arrange the conduct of pre-registration interview of those candidates called for this purpose as per Ph.D.-10.3 b). The object of pre-registration interview shall be to assess the suitability of a candidate to take up the proposed research work.
- b) For this purpose, the VC shall constitute Expert Committees for each subject area in which the candidates are being considered for admission, based on the Admissions Committee recommendation.

### **Ph.D.-11.2 Conducting Interview**

- a) The Expert Committee meetings for pre-registration interview shall be held on date/time and at venue(s) as decided by the Admissions Committee and notified to the Expert Committee(s) and the candidates concerned.
- b) The scope of interview shall be to judge the candidate's knowledge and experience in the subject area concerned and his/her preparations to take up the proposed research work.
- c) Only those candidates successful in the pre-registration interview shall be considered for provisional admission as students for Ph.D.

### **Ph.D.-11.3 Interview Performance**

- a) If the performance of a candidate is not satisfactory at pre-registration interview, the Admissions Committee may provide one more chance subsequently to the candidate to appear at the Pre-Registration interview provided he/she meets the validity requirements for eligibility as per Ph.D.-10.1 and Ph.D.-10.2.
- b) The Admissions Committee may suggest to such candidates as in a) above improvements if any, in the Title/Synopsis presented by each of them at the interview, with a view to assist them in the future.
- c) The candidate(s) failing in the interview even in the second attempt shall not be eligible for being considered further for Ph.D. admission. Such candidate(s) shall have to appear for VTU-ETR afresh to become eligible again, if required.

## **Ph.D.-12 PREPARATION OF MERIT LIST OF SUCCESSFUL CANDIDATES FOR PROVISIONAL REGISTRATION**

### **Ph.D.-12.1 Merit Lists after Pre-Registration Interview**

- a) Separate merit lists for all the General and Reserved Category candidates shall be prepared by the Admissions Committee for the candidates from the lists in Ph.D.-10.3 based on their performance in the pre-registration interview and also in the qualifying examination in the ratio of 70:30.

- b) Candidates who have cleared the national tests and those with M.Phil. Degree as per Ph.D.-10.2(iii-iv) shall be placed in separate lists in order of their merit in the pre – registration interview and the qualifying examination.

### Ph.D.-12.2 Preparation of Consolidated Merit List

- a) The Admissions Committee shall prepare a consolidated merit list of candidates qualifying for Ph.D. admission immediately after the pre-registration interview as per Ph.D.-12.1 and notify the same at the University/Regional Centres and on the web site.
- b) Only the candidates in the consolidated merit list shall be considered for filling the existing vacancies at the respective Research Centres in both the semesters (I and II) of the year.

### Ph.D.-12.3 Admissions Procedure

- a) The Admissions Committee shall submit the consolidated merit list to the University for facilitating the provisional registration of candidates as per their rank in the list.
- b) The University shall communicate the merit list of selected candidates to each Research Centre along with the semester (I or II) in the year preferred by the candidate to get admitted.
- c) All candidates unsuccessful in completing the process of admission for any reason may approach the Admissions Committee for reconsideration, if required.
- d) Upon successful interaction with the proposed Research Supervisor(s), each candidate shall submit his/her Research Proposal/Outline in the prescribed format to the University through the Research Centre concerned for the purpose of provisional registration to the Ph.D. Programme. This shall be mandatory for all the candidates.
- e) The Research Proposal/Outline shall consist of the state-of-the-art, objectives, methodology, work plan and relevance of the proposed research area. The candidate shall also indicate therein, the related branch of Engineering/Technology, Architecture, Science, Management Studies, Inter-disciplinary areas and/or allied fields.
- f) A candidate desirous of upgrading his/her M.Sc. (Engg.) by Research registration to the M.Sc.(Engg.) by Research + Ph. D Integrated Degree programme, shall submit his/her research proposal to the University before the end of the *third* Semester in the programme, which shall be the basis to determine his/her research capabilities by the Admissions Committee.
- g) A candidate desirous of upgrading his/her M.E./ M. Tech. / M. Arch. registration to M.E./M. Tech./M.Arch. + Ph. D Integrated Degree programme, shall submit his/her research proposal to the University before the end of the *third* Semester, which shall be the basis to determine his/her research aptitude by the Admissions Committee.
- h) Each candidate shall have to seek admission only in such branch of major discipline for which the department concerned is recognized as Research Centre by the University.
- i) The provisional registration of the candidate shall commence from the beginning of I or II semester as preferred in the application for admission to the Ph.D. programme.
- j) At this stage, each candidate shall also submit to the University a panel of *four* domain experts proposed by the Research Supervisor(s) assigned through the Research Centre for constituting the Doctoral Committee.
- k) Prescribed fees shall be paid by each candidate to the University for completing the provisional Ph.D. registration.

**Ph.D.-12.4 The Ph.D. Programme**

- a) Upon receiving the research proposal / outline and the panel of domain experts proposed along with the prescribed fees for the candidate, the Vice Chancellor shall constitute the Doctoral Committee as per Ph.D. 3.1.2.
- b) After provisional registration, the Ph.D. programme of the candidate shall consist of three parts to be cleared in sequence, namely,
  - Part-I : Coursework
  - Part-II : Comprehensive Vice-Voce
  - Part-III : Pre-Submission Colloquium, Synopsis and Thesis Submissions.
 These shall be followed by Thesis evaluation and its defense by the candidate at the end.
- c) The Coursework for all candidates listed under Ph.D.- 5.2 shall be as prescribed under Ph.D.- 14.
- d) Each candidate shall be free to apply for a change in the Research topic /Coursework for the consideration of the Doctoral Committee before the completion of Part-I. But, the candidate shall not be permitted to change the Research topic after the completion of Part-II of the programme.
- e) All the Ph.D. registrations shall be provisional initially and they shall be confirmed only on the successful completion of both Part-I and Part-II.

**Ph.D.-12.5 Role of Doctoral Committee**

- a) The Doctoral Committee shall scrutinize and approve the Coursework (Part-I), conduct Comprehensive Viva-Voce (Part-II), and review/monitor periodically (at least once in six months) the research progress of each candidate concerned until submission of his/her Ph.D. Thesis.
- b) The Progress report of the candidate shall be forwarded by the Doctoral Committee to the University regularly only after conducting his/her six-monthly review.

**Ph.D.-13 CHANGE OF RESEARCH SUPERVISOR****Ph.D.-13.1 Procedure to be Followed**

- a) The request by a candidate for change of Research Supervisor and/or Co-Supervisor shall be permitted by the University only under exceptional circumstances, as determined by the Research Centre and the Doctoral Committee.
- b) In other cases like transfer, retirement or resignation of the Research Supervisor/Co-Supervisor before the candidate's submission of the thesis, the Dean shall normally permit the candidate to continue to work under the same Research Supervisor/Co-Supervisor or in exceptional cases, permit an alternative arrangement with the consent of the Doctoral Committee

**Ph.D.-13.2 Handling of Conflict**

In the case of any conflict between the Research Supervisor and/or Co-Supervisor and the candidate, the Research Centre shall on receipt of request letter from either of the parties or both refer the matter to the Vice Chancellor. The decision of the Vice Chancellor shall be final in this regard.

**Ph.D.-14 PART-I :COURSEWORK**

**Ph.D.-14.1 Proposing Coursework**

- a) Each candidate provisionally registered for the Ph.D. programme shall have to go through the prescribed coursework choosing four subjects for Faculty of Engineering and Faculty of Architecture and 6 subjects for Faculty of Science and Faculty of Management Studies out of which one subject namely Research Methodology is compulsory. The remaining three courses shall be pertaining to their Research work as decided by the Doctoral Committee and obtain a minimum of 60 % in each course registered.
- b) The coursework shall include Research Methodology covering areas such as quantitative methods, computer applications, research ethics, reviewing of published research in the relevant field, field work, statistical methods, intellectual property rights and related topics.
- c) The remaining credit requirements in each case shall be met from advanced level courses in the relevant areas as approved by the BoS concerned and the AS and as notified by the University. Courses from these lists shall be prescribed by the Research Supervisor and Co-Supervisor (if any) in consultation of the Research Centre and approved by the Doctoral Committee concerned.
- d) Courses prescribed for the Coursework shall be selected from different groups in such a way that there shall be a minimum of one course, but not more than two courses from the same group, if grouped by the Faculty/ BoS concerned.
- e) The University shall have the freedom to revise and notify the approved courses in the list(s) from time to time
- f) In all the cases, the prescribed coursework may be completed satisfactorily within the first two semesters of provisional registration of the candidate(s). However, in no case the time period for completing the coursework shall exceed four semesters.
- g) The University may arrange the approved course on Research Methodology at one or more of its campuses as often as required and the provisionally registered candidates shall avail of this facility.
- h) Candidates undergoing Coursework shall submit their applications in the prescribed format together with the relevant fees to the University for course-end Examination as and when notified by the University.
- i) Candidates already having M.Sc.(Engg.) by Research degree or those who have completed their coursework for these degrees and got admitted to the Integrated Ph.D. programme shall be exempted from the above coursework.  
Provided they have undergone a course on Research Methodology as prescribed by the University.

**Ph.D.-14.2 Setting up of Question Papers**

- a) Question papers shall be set by the identified examiners appointed for this purpose by the University from the panel recommended by the Admissions Committee.
- b) Each question paper shall be set for maximum marks of 100 and it shall have similar format as prescribed for Master's degrees of VTU.
- c) The question paper setters and answer paper valuers shall have Ph.D. Degree in the relevant field.

**Ph.D.-14.3 Evaluation of Answer Scripts**

Answer scripts of all the candidates shall be valued independently by two valuers.

#### **Ph.D.-14.4 Averaging of Marks Awarded**

If the difference between the marks awarded by the two valuers is  $\leq 14\%$ , the marks awarded to the candidate shall be the average of the two valuations.

#### **Ph.D.-14.5 Appointment of Third Examiner**

If the difference between the marks awarded by the two examiners is  $\geq 15\%$ , a third examiner shall be appointed to evaluate the answer script(s) concerned. The average of the marks of the nearest two valuations shall be considered as the marks secured by the candidate. However, if one of the three evaluations is exactly midway between the other two, then the higher two marks shall be taken for averaging and the resulting average shall be awarded to the candidate.

#### **Ph.D.-14.6 Prescribed Passing Standards**

- a) For passing the Coursework (Part-I), the candidate shall obtain a minimum of 60% marks in each course registered.
- b) Candidates shall be required to pass in each course in a maximum of two attempts i.e. within one year in two semesters.
- c) The University shall have the provision to issue Marks Card(s) to the candidates for the completion of the coursework.

#### **Ph.D.-14.7 Norms for Maintaining Provisional Registration**

The following norms/standards shall be applicable to all the candidates for maintaining their provisional registration:

- a) The coursework shall be completed and cleared by each candidate with a minimum of 60% marks in each course within two consecutive coursework examinations conducted by the University from the date of provisional registration.
- b) The provisional registration of candidates failing to fulfill the above requirements shall be automatically cancelled. Such candidates shall seek provisional registration for Ph.D. afresh, if required.

#### **Ph.D.-15 PRESCRIBED RESIDENCE PERIOD**

##### **Ph.D.-15.1 Mandatory Residence Period for Part-Time Candidates**

- a) A Part-Time Research candidate shall put in a minimum of *fifteen* days of residence in every semester at his/ her Research Centre before every review of the Doctoral Committee till the submission of the final Synopsis. This residence requirement shall be utilized by the candidate for the purpose of coursework preparation as well as formulation/investigation of the research problem.
- b) Each Part-Time candidate shall submit to the University through his/her Research Centre a Certificate issued by the Research Supervisor/Co-Supervisor for completing the above residence requirement.

#### **Ph.D.-16 PROGRESS REPORTS / PERIODIC REVIEW BY THE DOCTORAL COMMITTEE**

##### **Ph.D.-16.1 Procedure for Review**

- a) The Doctoral Committee shall periodically review the research progress of the

candidate, at least once in six months until the submission of the Thesis.

- b) Each candidate shall submit a research progress report in the standard format to the Doctoral Committee, *two* weeks prior to the schedule of the meeting. The half-yearly progress report shall cover the aspects such as, new data collected / obtained, techniques developed, progress in research, discussion of the work done during the review period, new findings and work plan for the future. Research papers prepared/published, if any, shall also be submitted.
- c) The candidate shall make oral presentation of the research progress before the Doctoral Committee. And, the Doctoral Committee shall communicate the satisfactory research progress or otherwise of the candidate to the Research Centre for onward transmission to the University.

#### **Ph.D.-16.2 Cancellation of Registration**

- a) The Doctoral Committee shall be free to recommend the cancellation of Ph.D. registration of the candidate if,
  - (i) Two consecutive research progress reports not adjudged to be satisfactory, and/or
  - (ii) Two consecutive research progress reports not submitted;
- b) Before recommending cancellation of registration, the Doctoral Committee shall issue a show-cause notice to the candidate, seeking his/her explanation.
- c) If the explanation is not agreed by the Doctoral Committee, the candidate shall be free to appeal to the Vice-Chancellor with valid reasons, seeking intervention. The decision of the Vice-Chancellor in this regard shall be final.

#### **Ph.D.-16.3 The Integrated Degree Programme**

The above procedure shall also be applicable for candidates registered for the Integrated Ph.D. programme.

#### **Ph.D.-17 PART-II: COMPREHENSIVE VIVA- VOCE**

##### **Ph.D.-17.1 Requirements to be satisfied for Comprehensive Viva-Voce**

- a) In the case of full-time candidates, the comprehensive Viva-Voce shall be conducted within three semesters from the date of provisional registration. And this can be held within four semesters from the date of provisional registration in the case of part time candidates.
- b) Each candidate shall be required to submit a written request to the University through his/her Research Centre for the conduct of his/her comprehensive Viva-Voce, within six months of the successful completion of Coursework (Part-I).
- c) In the case of health / employment related problems of a candidate unable to take the comprehensive Viva-Voce as above, the University shall be free to allow a further period of six months for this purpose, on receipt of a written request from the candidate with the recommendations of his/her Research Supervisor(s) and the Doctoral Committee forwarded through the Research Centre.
- d) However for whatever reason(s), if the comprehensive Viva-Voce is not completed within three years from the date of provisional registration, the admission of the candidate shall stand automatically cancelled.

##### **Ph.D.-17.2 Scheduling Comprehensive Viva-Voce**

The Research Centre, in consultation with the Doctoral Committee and the University, shall schedule the date/time for the comprehensive Viva-Voce preferably within four weeks upon

receipt of the written request from the candidate for this.

**Ph.D.-17.3 Conduct of Viva-Voce**

- a) The Doctoral Committee shall conduct the comprehensive Viva-Voce in English language only.
- b) The comprehensive Viva-Voce shall be a closed-door oral examination consisting of the Doctoral Committee members (as examiners), and the candidate. The Doctoral Committee shall be free to invite additional examiner(s) if need be for assisting it in the Viva-Voce, chosen from amongst a panel of two experts recommended by the Research Supervisor.

**Ph.D.-17.4 Content and Form of Viva-Voce**

- a) The Comprehensive Viva-Voce shall consist of a presentation by the candidate on his/her topic of research, including the work done till date and the proposed future work.
- b) The Doctoral Committee (and the additional examiner(s), if present) shall test the candidate for fundamental concepts in the coursework and applied knowledge to carry out the proposed research work.

**Ph.D.-17.5 Performance Standards at Viva-Voce**

The Doctoral Committee shall communicate the result of the Comprehensive Viva-Voce to the University through the Research Centre as:

- a) The Committee is satisfied at the successful completion of Viva-Voce and the candidate shall continue the research work. OR
- b) The Committee indicates the deficiencies in specific areas in which the candidate needs strengthening of knowledge and suggesting a date preferably within the next three months for re-examination.
- c) If the Doctoral Committee does not recommend the continuation of research work by the candidate even after the second attempt, the provisional registration of the candidate shall stand cancelled automatically.

**Ph.D.-18 CONFIRMATION OF Ph.D. REGISTRATION**

**Ph.D.-18.1** After the successful completion of coursework (Part-I) and the Comprehensive Viva-Voce (Part-II), the Doctoral Committee shall recommend to the University for issuance of notification to the candidate on Confirmation of Registration.

**Ph.D.-18.2 Issue of Notification**

- a) The University shall issue a notification within fifteen days from the date of receipt of the communication from the Doctoral Committee.
- b) The Notification shall specify the date from which the candidate's registration for the Ph.D. programme is confirmed.

**Ph.D.- 19 OPEN SEMINARS**

**Ph.D.-19.1 Mandatory Pre-Ph.D. Seminars to be given**

- a) Prior to the submission of the Synopsis (required under Part-III), each candidate shall give two pre-Ph.D. presentations, commonly known as, open seminars at the Research Centre.



- b) These Seminars shall be open to all the faculty members and research scholars and arranged with the object of getting feedback and comments/suggestions from them, for being suitably incorporated into the Ph.D. Thesis, under the advice of the Research Supervisor/Co-Supervisor.

#### **Ph.D.-19.2 Pre-Submission Colloquium**

- a) The candidate shall also present a pre-submission colloquium before the Doctoral Committee, demonstrating his/her preparedness to submit the Synopsis to the University.
- b) The Candidate shall be free to submit the Synopsis to the University at this stage, together with the recommendations of the Doctoral Committee on the Open Seminars and the Pre-Submission Colloquium of the candidate, if both of them are satisfactory.
- c) However, if the performance of the candidate in the Pre-Submission Colloquium is not satisfactory, the Doctoral Committee may point out the deficiencies, if any and ask the candidate to repeat the Colloquium once more within three months. And, only on satisfactory performance at this stage, the Doctoral Committee shall be free to permit the candidate to submit the Ph.D. thesis.

#### **Ph.D.-19.3 Permission for Submission of Thesis**

Considering the research work of the candidate, his/her performance in the pre-submission colloquium and other technical aspects, the Doctoral Committee shall be free to permit the candidate to submit the Thesis.

#### **Ph.D.-19.4 Anti-Plagiarism Check and Submission of the Thesis**

- a) The candidate's thesis shall undergo plagiarism check as per the norms of VTU.
- b) The plagiarism shall be checked by software approved by VTU and the percentage of plagiarism (similarity Index) shall be as permitted by VTU owing to software limitation to identify the self-written research papers and definitions and common theory.
- c) The candidate may be given two more chances by the University to re-submit the thesis for plagiarism checking, if the plagiarism level is found unacceptable.
- d) Suitable fees shall be charged to the candidate by the University for Plagiarism checks conducted.

#### **Ph.D.-20 PUBLICATION REQUIREMENTS**

##### **Ph.D.-20.1 Mandatory Publications requirement**

Each candidate shall publish a minimum of two research papers in Refereed Journals based on his/her research work for the Ph.D. degree, before submission of the Synopsis for adjudication, and produce evidence for the same in the form of reprint or acceptance letter from the Publisher(s) of the Journal.

#### **Ph.D.-21 VALIDITY PERIOD OF REGISTRATION**

##### **Ph.D.-21.1 Maintenance of Registration**

During the period when the registration of the candidate is in force, the candidate shall pay the prescribed tuition and other fees to the University/Research Centre at the notified time intervals

##### **Ph.D.-21.2 Minimum Period for Submission of Thesis by Full-Time Candidates**

Full-Time candidates for the Ph.D. Degree including those upgraded to the M.Sc.(Engg.) by Research /M.Tech./M. Arch. + Ph.D. Integrated programmes, shall be normally eligible for submission of the thesis after a minimum period of three years from the date of provisional registration, subject to fulfillment of all the prescribed requirements.

#### **Ph.D.-21.3 Minimum Period for Submission of Thesis by Part-Time Candidates**

Part -Time candidates for the Ph.D. Degree shall be normally eligible for submission of the thesis after a minimum period of four years from the date of provisional registration, subject to fulfillment of all the prescribed requirements.

#### **Ph.D.-21.4 Maximum Period for Submission of Thesis by Full-Time Candidates**

- a) The maximum period for submission of the Ph.D. Thesis by Full-Time candidates including those upgraded to the M.Sc. (Engg.) by Research/M. Tech./M. Arch. + Ph.D. Integrated programmes, shall be six years from the date of provisional registration.
- b) But, the Vice Chancellor shall have the powers to extend the maximum period for submission of the Ph.D. thesis by such a candidate on the specific recommendations of the Doctoral Committee forwarded through the Research Centre on receipt of a request for extension from the candidate not less than three months prior to the completion of the stipulated period.
- c) The decision of the Vice Chancellor in this regard shall be final.
- d) In the case of failure of the candidate to submit the thesis even after the extended period, the registration shall be cancelled, after issuing a show-cause notice to the candidate.
- e) The University shall give special consideration to women and persons with disability (>40% disability) and give further relaxation of up to two years if the candidates request for the same.
- f) In addition, women candidates shall avail of Maternity Leave/Child Care Leave of up to 240 days once during their Ph.D. programme.

#### **Ph.D.-21.5 Maximum Period for Submission of Thesis by Part-Time Students**

- a) The maximum period for submission of the thesis for Part-Time candidates shall be six years from the date of provisional registration.
- b) But, the Vice Chancellor shall have the powers to extend the maximum period for submission of the Thesis by such a candidate on the specific recommendations of the Doctoral Committee forwarded through the Research Centre on receipt of a request for extension from the candidate not less than six months prior to the completion of the stipulated period.
- c) The decision of the Vice Chancellor in this regard shall be final.
- d) In the case of failure of the candidate to submit the thesis even after the extended period, the registration shall be cancelled, after issuing a show-cause notice to the candidate.
- e) The University shall give special consideration to women and persons with disability (>40% disability) and give further relaxation of up to two years if the candidates request for the same.
- f) In addition, women candidates shall avail of Maternity Leave/Child Care Leave of up to 240 days once during their Ph.D. programme.

## Ph.D.-22

## PART III: SUBMISSION OF SYNOPSIS AND THESIS

## Ph.D.-22.1

## Eligibility

- a) Upon qualifying successfully in the Coursework (Part-I) and the Comprehensive Viva-Voce (Part-II) and satisfactory research progress followed by publication(s) in Refereed Journal(s) and Pre-Submission Colloquium, the candidate shall be ready to submit the Research work to the Doctoral Committee.
- b) The Doctoral Committee after considering the progress made by the candidate may recommend the candidate to take steps to submit to the University the Synopsis first followed by the Thesis within the validity period.

## Ph.D.-22.2

## Submission of Synopsis

- a) At least three months prior to the submission of the thesis, the candidate shall submit a Synopsis of the thesis in English language. The Synopsis shall be in the standard format prescribed by the University.
- b) It shall be submitted to the University through the Research Centre concerned in two hard copies and one soft copy together with:
  - (i) Application for adjudication of the thesis.
  - (ii) Certificate from the Research Supervisor(s) stating the candidate's fulfillment of various requirements specified under Ph.D.-17 to Ph.D-21.
  - (iii) The certificate shall also state that there is *prima facie* case for thesis submission at this stage and that the thesis does not contain any work previously submitted for any award of the degree anywhere.
- c) It shall be ensured by the Research Supervisor(s) that "The thesis is based on the individual, original work of the candidate which is previously unpublished research work" by obtaining a suitable undertaking from the candidate.
- d) The Research Supervisor(s) shall also ensure that the thesis shall not contain any material infringing on the copyright of any individual/organization and does not hurt the sentiments of any individual or religion.
- e) It shall be ascertained by the Research Supervisor(s) that information such as text, tables, equations, diagrams, figures, charts, graphs, photographs taken from various sources has been cited appropriately by the candidate in the thesis.
- f) Further, the Supervisor(s) shall also certify that the opinions expressed or implied in the thesis shall be entirely of the candidate.
- g) There shall also be a Certificate from the Research Centre that there are no arrears/dues from the candidate up to the date of submission of the thesis.

## Ph.D.-22.3

## Submission of the Thesis

- a) After getting the clearance from the University in this regard, the candidate shall submit two hard copies and one soft copy of the Ph.D thesis based on the research work conducted in the prescribed format to the Research Centre within three months from the date of submission of the Synopsis.
- b) The Research Centre shall forward *two* hard copies and *one* soft copy of the thesis to the University for taking further steps on it.
- c) In case the candidate is unable to submit the thesis within *three* months from the date of submission of the Synopsis, he/she shall be free to seek extension of time from the VC supported by the recommendations of the Research Supervisor(s) and the Doctoral

Committee forwarded through the Research Centre.

- d) The candidate shall also pay the prescribed thesis fees to the University and produce the 'No Dues Certificate' from the Research Centre while submitting the thesis.

## **Ph.D.-23 ADJUDICATION OF Ph.D. THESIS**

### **Ph.D.-23.1 Panel of Adjudicators**

The period of three months between the submissions of Synopsis and the Thesis by the candidate shall be used by the University for deciding the panel of adjudicators.

### **Ph.D.-23.2 Selection of Adjudicators**

- a) The Research Centre shall arrange to forward to the University the proposed panel containing details of *twelve* experts for adjudication of the thesis as approved by the Doctoral Committee, of whom *few* experts shall be from abroad. This list shall be forwarded to the University along with the Synopsis.
- b) The complete postal address, e-mail ID, Telephone and fax numbers and the broad area of specialization of each adjudicator shall also be provided in the panel submitted.
- c) The Vice Chancellor shall choose *two* adjudicators from the suggested panel for adjudication of the thesis, with at least *one* being from outside the country/ Institutes of National Importance such as, IIT's, IISc, NIT's and REC's or National Laboratories and National Research Organisations and send invitation letters to them along with a copy of the Synopsis in each case.
- d) Their acceptance shall be preferably obtained within *one month* from the date of invitation, before taking any further steps on the subject.

### **Ph.D.-23.3 Appointment of Adjudicators to Evaluate the Thesis**

- a) The University shall arrange for the thesis to be evaluated by the Research Supervisor (and jointly by the Co-Supervisor, if any) and two more Adjudicators identified as per Ph.D- 23.2 c) and d).
- b) The three adjudicators as in a) above shall be appointed by the Vice Chancellor to adjudicate the thesis submitted by the candidate.

### **Ph.D.-23.4 Dispatch of Copies of Theses to Adjudicators**

- a) The University shall send a copy of the thesis to each adjudicator for evaluation, with a request to evaluate the thesis and send the evaluation report(s) preferably within a period of three months.
- b) If the Report is not received from the Adjudicator(s) within this period, a reminder once in a month to that effect shall be sent to the Adjudicator(s) concerned.
- c) If any adjudicator does not send the report even after three reminders or does not reply to the communications from the University, the Vice Chancellor shall identify and appoint another adjudicator either from the panel or outside the panel under special circumstances.

### **Ph.D.-23.5 Receipt of Thesis Reports at the University**

- a) All the adjudicators shall evaluate the thesis and send their reports (at least 250 words in length) independently to the Registrar (Evaluation). However, it shall be possible to submit a Joint Report in the case of Research Supervisor and Co-Supervisor adjudicating a thesis.

- b) The Reports shall include:
- i. A critical analysis of the work of the candidate as embodied in the thesis and an evaluation of the work in terms of its contribution to the advancement of knowledge.
  - ii. List of questions to be asked or points to be clarified if any, by the candidate at the final viva -voce.
  - iii. A definite recommendation as to whether the thesis attains the standard for the award of Ph.D. degree or not.
- c) The Adjudicators shall make any one of the following recommendations that the:
- (i) Thesis is accepted in the present form and recommended for the award of Ph.D. degree. OR
  - (ii) Thesis needs minor clarifications indicated in the report which need to be clarified by the candidate at final Viva-Voce and it is recommended for the award of Ph.D. degree. OR
  - (iii) Thesis needs minor corrections to be made by the candidate as indicated in the report, which need to be incorporated in the thesis and clarified at the final Viva-Voce and it is recommended for the award of Ph.D. degree. OR
  - (iv) Thesis needs major corrections as indicated in the report and the revised thesis to be referred back to the adjudicator concerned for fresh evaluation. OR
  - (v) Thesis is rejected for the reasons specified in the report and *not* recommended for award of Ph.D. Degree.

#### **Ph.D.-23.6 Consideration of Thesis Reports**

On receiving favourable recommendations from all the adjudicators, including the Research Supervisor(s), the Registrar (Evaluation) shall convey the same to the Research Supervisor(s) along with copies of the Reports received and request to conduct the final Viva-Voce of the candidate.

#### **Ph.D.-23.7 Scheduling of Final Viva-Voce**

- a) The composition of the Viva-Voce Board shall be as specified under Ph.D.-3.1.3.
- b) In case, the identified adjudicator informs in writing his / her inability to be present at the Viva-Voce, the Research Supervisor (s) shall intimate the same to the Registrar (Evaluation), who shall get another examiner from the panel of examiners appointed after approval by the Vice Chancellor.
- c) The date/time of the Viva-Voce shall be fixed by the Research Supervisor(s) in consultation with the other member(s) of the Board, the Research Centre and the University.
- d) The candidate shall provide clarification(s) to all the queries of the adjudicators satisfactorily at the time of Viva-Voce.

#### **Ph.D.-23.8 Rejection of Thesis, based on Negative Reports**

- a) If both the external adjudicators (other than the Supervisor(s)) do not recommend the candidate for the award of the Ph.D. degree, the thesis shall be rejected.
- b) It shall be open for the candidate to seek registration for this degree at the University, afresh, if required.

#### **Ph.D.-23.9 Appointment of Additional Adjudicator, if necessary**

- a) The Thesis shall not be accepted for award of the degree if any one of the Adjudicators (other than the Research Supervisor(s)) finds that the research work is not up to the expected standard, as given in his/her report along with detailed reasons for the same.
- b) In such a case, the Report shall be considered by the Doctoral Committee concerned to decide on the need to appoint an additional adjudicator.
- c) A fourth Adjudicator shall be appointed by the University from the panel, based on this decision, who shall be invited for this purpose, by following Ph.D. 23.2.
- d) If the fourth Adjudicator, after evaluating the thesis gives a favorable Report, the Registrar (Evaluation) shall initiate further steps as per Ph.D. 23.5.
- e) If the fourth Adjudicator also does not approve the thesis, then the thesis shall be rejected.
- f) However, it shall be open for the candidate to seek Ph.D. registration at the University, afresh, if required.

## **Ph.D.-24 CONDUCT OF FINAL VIVA-VOCE**

### **Ph.D.-24.1 Procedure for Final Viva-Voce**

- a) The final Viva-Voce shall be conducted by the Viva-Voce Board at a venue approved by the University, which shall, normally be the Research Centre in which the research work was carried out or the Regional Centre of VTU or the institution where the Research Supervisor/Co-Supervisor is based.
- b) The composition of Viva-Voce Board shall be as per Ph.D.-3.1.3.
- c) The procedure for conducting the Viva-Voce shall be as follows:
  - i. The Research Supervisor(s) shall fix the date/time and venue for the Viva-Voce in consultation with the adjudicator identified by the VC, the VTU-RC concerned and the University and inform the same to the candidate and the Registrar (Evaluation) in advance.
  - ii. The Research Supervisor(s) shall invite the head of the institution, members of the teaching staff and other research scholars to attend the Viva-Voce. The candidate shall make a brief presentation of the research work carried out highlighting the important findings/conclusions. After the completion of the presentation, the Research Supervisor(s) shall give opportunity to the invitees to seek clarifications, if any, from the candidate.
  - iii. After this, the Board only shall examine the candidate to test his/her understanding of the subject matter of the thesis and seek answers to the written queries by the adjudicators in the Thesis Evaluation Reports, if any. The candidate shall be required to produce all the documents, data and analysis in support of the research work presented in the Thesis.
  - iv. On completing the Viva-Voce, the Board shall submit a report to the Registrar (Evaluation) indicating clearly whether the performance of the candidate was satisfactory and if so, giving specific recommendation for the award of the Ph.D. degree to the candidate.
  - v. In case, the performance of the candidate is not satisfactory, the Board shall report accordingly, giving reasons for the same and recommending another Viva-Voce to be conducted after three months. The University shall arrange another Viva-Voce as required, with the composition of the Board unchanged.

### **Ph.D.-24.2 Consolidated Report**

- a) After successful completion of the Viva-Voce, the Viva-Voce Board shall prepare and forward the Consolidated Report along with duly corrected versions of both the hard and the soft copies of the thesis through the Research Centre to the University.
- b) Then the University with the approval of its authorities shall award the Ph.D. degree to the Candidate.

**Ph.D.-24.3 Handling of Plagiarism Issues**

- a) The Vice Chancellor shall have the powers to constitute Expert Committees to investigate into plagiarism issues connected with any Ph.D thesis submitted to the University, in the case of receipt of complaints either from the adjudicator(s), other individuals or any other sources.
- b) In the event of a thesis being proved to be copied, plagiarized or misrepresented academically, the University shall have the powers to rescind the degree. Such a candidate shall not be eligible to register for any degree programme at the University in the future.

**Ph.D.-25 AWARD OF Ph.D. DEGREE**

**Ph.D.-25.1 Degree Certificates**

- a) Upon the approval by the EC, the University shall issue a Provisional Ph.D degree certificate to the candidate certifying that the degree has been awarded in accordance with the “VTU Regulations Governing the Degree of Doctor of Philosophy (Ph.D.) – 2017”.
- b) The University shall award the Ph.D degree certificate to the candidate during the forthcoming Convocation.
- c) In the case of candidates for the Integrated Ph.D. Degrees, there shall be a specific mention in the Certificate that the Degree conferred is an M.Sc.(Engg.) by Research +Ph.D./M. Tech.+ Ph.D./ M. Arch.+ Ph.D. Integrated Degree as the case may be.
- d) The University shall hold the *Copy Right* of all the Theses after conferring the Ph.D degree.

**Ph.D.-26 DEPOSITORY WITH UGC AND THE UNIVERSITY**

**Ph.D.-26.1 Submission to UGC**

- a) Following the successful completion of the evaluation process and announcement of the award of the Ph.D degree, the University shall submit a final (corrected) soft copy of the Ph.D. thesis to the UGC within a period of thirty days for hosting the same on its Information and Library Network (abbreviated as INFLIBNET), accessible to all the Institutions / Universities.
- b) The University shall also maintain a repository of such Ph.D theses in its Library.

**Ph.D.-27 PROHIBITIONS**

**Ph.D.-27.1 Prohibition of Statutory Officers from Ph. D. Registration**

The Statutory Officers of the University shall not be permitted to register for the Ph.D degree of the University during the period of their tenure at the University.

**Ph.D.- 27.2 Prohibition of Candidates from Registering for any other Degree**

No Ph.D. candidate of the University shall be permitted to pursue any other degree programme within the University or at other Universities / Institutions, concurrently with his/her on-going registration as a candidate for the Ph.D. degree.

**Ph.D.-28**

**REPEAL AND SAVINGS**

- a) Notwithstanding anything contained in these Regulations, the provisions of any guidelines, orders, rules or regulations in force at the University shall be inapplicable to the extent of their inconsistency with these Regulations.
- b) The University shall issue such orders/instructions, and prescribe such format/procedure, as it may deem fit to implement the provisions of these Regulations.

**Ph.D.-29**

**INTERPRETATION**

- a) Any question as to the interpretation of these Regulations shall be decided by the University, whose decision shall be final.
- b) The University shall have the powers to issue clarifications to remove any doubt, difficulty or anomaly which may arise during the implementation of the provisions of these Regulations.



**ELIGIBILITY FOR ADMISSION TO VARIOUS PROGRAMS (TENTATIVE)**

**B.E./ B. Tech./B. Arch. Programs**

Sl. No.	Course	Eligibility
B.E./ B.Tech.	Bachelor of Engineering / Bachelor of Technology	<p>a) Second year Pre-University or XII standard or equivalent examination recognized by the University (with Physics and Mathematics as compulsory subjects, along with any one of the following subjects, namely, Chemistry, Bio-Technology, Computer Science, Biology and Electronics)</p> <p>b) Admission to II year/ III semester Bachelor Degree in Engineering/ Technology (Lateral Entry) shall be open to the candidates who are holders of a diploma or equivalent qualification as recognized by University</p>
B.Arch.	Bachelor of Architecture	<p>(a) Two year Pre-University examination conducted by the Karnataka State Pre-University Board with Mathematics as a subject of study; or</p> <p>(b) 10+2 of the Central Board of Secondary Education (C.B.S.E.) with Mathematics as a subject of study; or</p> <p>(c) Three-Year Diploma in any stream recognized by Government of Karnataka, or any other State government or Central government or any other Diploma qualification considered equivalent there to by this University</p> <p>(d) International Baccalaureate Diploma, after 10 years of Schooling; or</p> <p>(e) Any other examination recognized by the University as equivalent thereto.</p>

**M.E./M.TECH./M.ARCH. Programs**

Sl. No.	Course	Eligibility
1	Aeronautical Engineering	Bachelor's Degree Engineering in Aeronautical/ Mechanical Engineering/ Electrical & Electronics Engineering/Electronics & Communication Engineering/ Civil Engineering/ Industrial Engineering& Management/Industrial Production/ Automobile Engineering or equivalent degree; AMIE in appropriate branch. GATE: ME, EE, EC, CE, PI
2	Automotive Engineering.	Bachelor's Degree in Mechanical Engg. / Automobile Engineering / Industrial Production & Engineering / Manufacturing Science & Engineering / Industrial Engineering & Management.
3	Bio-Medical Electronics and Industrial Instrumentation	Bachelor's Degree in Bio-Medical Engineering/ Medical Electronics / Electrical & Electronics/ Electronics & Communication / Instrumentation Engineering/ Electronics & Telecommunication/ Telecommunication or equivalent degree; AMIE in appropriate branch. GATE: EE, EC, IN

4	Bio-Medical Signal Processing and Instrumentation	Bachelor's Degree in Bio-Medical Engineering/ Medical Electronics / Electrical & Electronics/Electronics & Communication/ Instrumentation Engineering/ Computer Science & Engineering/Electronics & Telecommunication / Telecommunication or equivalent degree; AMIE in appropriate branch. GATE: EE, EC, IN, CS
5	Building Construction and Management	Bachelor's Degree in Civil Engineering/Transportation Engineering / Architecture, or equivalent degree; AMIE in appropriate branch, GATE: CE, AR
6	Chemical Engineering	Bachelor's Degree in Chemical Engineering / Polymer Engineering/ Ceramics & Cement Tech./ Bio-Technology or equivalent degree; AMIE/AMICHE in appropriate branch. GATE: CH
7	Computational Fluid Dynamics	Bachelor's Degree in Mechanical Engineering / Automobile Engineering / Industrial Production & Engineering / Manufacturing Science & Engineering / Industrial Engineering & Management / chemical Engineering / Biotechnology.
8	Communication Systems	Bachelor's Degree in Electronics & Communication / Electronics & Telecommunication/ Telecommunication or equivalent degree; AMIE in appropriate branch. GATE: EC
9	Computer Aided Design of Structures	Bachelor's Degree in Civil Engineering or equivalent degree; AMIE in appropriate branch. GATE: CE
10	Computer Aided Design of Structures and Substructures	Bachelor's Degree in Civil Engineering or equivalent degree; AMIE in appropriate branch. GATE: CE
11	Computer Application in Industrial Drives	Bachelor's Degree in Electrical & Electronics / Electronics & Telecommunication/ Electronics & Communication/Telecommunication / Instrumentation Tech. or equivalent degree; AMIE in appropriate branch. GATE: EE, EC,IN
12	Computer Engineering	Bachelor's Degree in Computer Science & Engineering / Electronics & Communication Engineering/ Electrical & Electronics Engineering/ Information Science & Engineering/ Instrumentation/Electronics & Telecommunication Engineering/ Telecommunication Engineering, or equivalent degree; AMIE in appropriate branch. GATE: CS, EC, EE, IT,IN
13	Computer Integrated Manufacturing	Bachelor's Degree in Mechanical Engineering/ Industrial Production Engineering/ Automobile Engineering/ Manufacturing Engineering/ Industrial Engineering & Management/ Industrial Engineering & Manufacturing or equivalent degree; AMIE in appropriate branch. GATE: ME, PI
14	Computer Network Engineering	Bachelor's Degree in Electronics & Communication / Electronics & Telecommunication / Telecommunication / Computer Science & Engineering / Information Science & Engineering or equivalent degree; AMIE in appropriate branch. GATE: EC, CS, IT

15	Computer Science and Engineering	Bachelor's Degree in Computer Science and Engineering/ Electronics & Communication Engineering/ Electrical & Electronics Engineering/Information Science Engineering/ Instrumentation/Telecommunication Engineering or equivalent degree; AMIE in appropriate branch, GATE: CS,EC,EE,IN,IT
16	Construction Engineering and Management	Bachelor's Degree in Civil Engineering / Architecture or equivalent degree; AMIE in appropriate branch. GATE: CE, AR
17	Construction Technology	Bachelor's Degree in Civil Engineering/ Transportation Engineering or equivalent degree; AMIE in appropriate branch. GATE: CE
18	Design Engineering	Bachelor's Degree in Mechanical Engineering /Industrial Production Engineering / Automobile Engineering / Manufacturing Engineering/ Industrial Engineering & Manufacturing or equivalent degree; AMIE in appropriate branch, GATE: ME, PI
19	Digital Communication Engineering	Bachelor's Degree in Electronics & Communication/ Electronics & Telecommunication / Telecommunication / Instrumentation Technology or equivalent degree; AMIE in appropriate branch, GATE: EC, IN
20	Digital Communication and Networking	Bachelor's Degree in Electronics & Communication Engineering/ Telecommunication Engineering/ Information Technology/ Computer Science & Engineering or equivalent degree; AMIE in appropriate branch, GATE : CS, EC, IT
21	Digital Electronics	Bachelor's Degree in Electronics & Communication/ Instrumentation Technology/ Electronics & Telecommunication / Telecommunication / Electrical & Electronics / Computer Science & Engineering/ Information Science & Engineering/Bio-Medical Engineering / Medical Electronics or equivalent degree; AMIE in appropriate branch. GATE: EC, IN, EE, CS, IT
22	Digital Electronics and Communication	Bachelor's Degree in Electronics & Communication/ Instrumentation Technology / Electronics & Telecommunication / Telecommunication, or equivalent degree; AMIE in appropriate branch. GATE: EC, IN
23	Digital Electronics and Communication Systems	Bachelor's Degree in Electronics & Communication/ Instrumentation Technology/ Electronics & Telecommunication /Telecommunication, or equivalent degree; AMIE in appropriate branch. GATE: EC, IN
24	Electrical Energy Systems	Bachelor's Degree in Electrical & Electronics Engineering /Instrumentation or equivalent degree; AMIE in appropriate branch. GATE: EE, IN
25	Electronics	Bachelor's Degree in Electronics & Communication/ Instrumentation Technology/ Electronics & Telecommunication / Telecommunication / Electrical & Electronics / Bio-Medical Engineering/ Medical

		Electronics or equivalent degree; AMIE in appropriate branch. GATE: EC, IN, EE
26	Electronics and Communication	Bachelor's degree in Electronics & Communication/ Tele-communication or equivalent degree; AMIE in appropriate branch. GATE: EC
27	Energy Systems and Management	Bachelor's Degree in Electrical & Electronics/ Mechanical/ Industrial Production/Industrial Engineering & Management or equivalent degree; AMIE in appropriate branch. GATE: EE, ME, PI
28	Energy System Engineering	Bachelor's Degree in Mechanical Engineering/ Industrial & Production Engineering/ Automobile Engineering/Electrical & Electronics Engineering/ Chemical Engineering/ Metallurgy Engineering/ Industrial Engineering & Management / Manufacturing Engineering or equivalent degree; AMIE in appropriate branch. GATE: ME, EE, CH, MT, PI
29	Engineering Analysis and Design	Bachelor's Degree Engineering in Mechanical Engineering/ Automobile Engineering/ Industrial production Engineering/ Manufacturing Science/ Industrial Engineering/ Production Engineering or equivalent degree; AMIE in appropriate branch. GATE: ME, PI
30	Environmental Engineering	Bachelor's Degree in Environmental Engineering / Civil Engineering / <b>Construction Technology &amp; Management</b> /Chemical Engineering /Polymer Sc. & Tech. or equivalent degree. Also candidates holding Mechanical Engineering/ Mining Engineering with 3 Years Experience in Environmental Dept/Organization; AMIE in appropriate branch. GATE: CE,CH, ME, MN
31	Geo - informatics	Bachelor's Degree in Civil Engineering/ Mining/ Transportation Engineering/ Environmental Engineering/Agricultural Engineering/ Architecture or equivalent degree; Computer Science, Information Technology, Electronics & Communication Engg, Electrical & Electronics Engg., AMIE in appropriate branch. GATE: CE, MN, AG, AR
32	Geo-Technical Engineering	Bachelor's Degree in Civil Engineering/Transportation Engineering or equivalent degree; AMIE in appropriate branch. GATE: CE
33	Ground Engineering	Bachelor's Degree in Civil Engineering / Transportation Engineering or equivalent degree; AMIE in appropriate branch. GATE: CE
34	Industrial Automation and Robotics	Bachelor's Degree in Mechanical Engineering/ Automobile Engineering/ Industrial & Production Engineering / Industrial Engineering & Management / Manufacturing Science & Engineering / Electrical and Electronics Engineering / Electronics & Communication Engineering /Industrial Engineering& Manufacturing/Instrumentation Technology/ Computer Science & Engineering or equivalent degree; AMIE in appropriate branch. GATE: ME, EE, EC,PI, IN, CS

35	Industrial Electronics	Bachelor's Degree in Electronics & Communication / Instrumentation Technology / Electronics & Telecommunication/ Telecommunication/ Electrical & Electronics/ Bio-Medical Engineering/ Medical Electronics or equivalent degree; AMIE in appropriate branch. GATE: EC, IN, EE
36	Industrial Structures	Bachelor's Degree in Civil Engineering or equivalent degree; AMIE in appropriate branch. GATE: CE
37	Information and Communication Systems	Bachelor's Degree in Electronics & Communication/ Electronics & Telecommunication / Telecommunication / Instrumentation Engineering or equivalent degree; AMIE in appropriate branch. GATE: EC, IN
38	Information Technology	Bachelor's Degree in any branch of Engineering (other than CS&E and IS&E), or equivalent degree; GATE: AR,CE,CH,EC,EE,IN,ME,MN,PI, MT,TF, AG, GG, MA
39	Health Sciences and Water Engineering	Bachelor's degree in Civil Engineering / Environmental Engineering / Transportation Engineering / Medicine or equivalent degree; AMIE in appropriate branch. GATE: CE
40	Highway Engineering	Bachelor's Degree in Civil Engineering/ Transportation Engineering or equivalent degree; AMIE in appropriate branch. GATE: CE
41	Highway Technology	Bachelor's Degree in Civil Engineering / Transportation Engineering or equivalent degree; AMIE in appropriate branch. GATE: CE
42	Hydraulics	Bachelor's Degree in Civil Engineering / Environmental Engineering or equivalent degree; AMIE in appropriate branch. GATE: CE
43	Machine Design	Bachelor's Degree in Mechanical Engineering/ Industrial & Production Engineering/ Automobile Engineering/ Manufacturing Engineering/ Industrial Engineering & Mgmt, or equivalent degree; AMIE in appropriate branch, GATE: ME,PI
44	Maintenance Engineering	Bachelor's Degree in Mechanical Engineering/ Industrial & Production Engineering/ Automobile Engineering/ Industrial & Manufacturing Engineering/Industrial Engineering & Management/ Electrical & Electronics / Metallurgy/ Mining Engineering or equivalent degree; AMIE in appropriate branch. GATE: ME, EE, MT, MN, PI
45	Manufacturing Science and Engineering	Bachelor's Degree in Mechanical Engineering/ Industrial Production Engineering/ Automobile Engineering/ Manufacturing Engineering/Industrial Engineering & Management or equivalent degree; AMIE in appropriate branch, GATE: ME,PI

46	Master of Engineering Management	Bachelor's Degree in any branch of Engineering or equivalent degree; AMIE in appropriate branch. GATE: AR, CE, CH, CS, EC, EE, GG, IN, IT, MA, ME, MN, MT, PI, TF
47	Micro-Electronics and Control Systems	Bachelor's Degree in Electrical & Electronics Engineering / Electronics & Communication or equivalent degree; AMIE in appropriate branch, GATE: EE, EC
48	Networking and Internet Engineering	Bachelor's Degree in Electronics & Communication/ Electronics & Telecommunication /Telecommunication / Electrical & Electronics / Computer Science & Engineering / Information Science & Engineering or equivalent degree; AMIE in appropriate branch. GATE: EC, EE, CS, IT
49	Polymer Science & Technology	B.E. / B.Tech in Polymer Technology / Rubber Technology / Plastic Technology / Chemical Engineering / Mechanical engineering / Industrial and Production Engineering / Textile Technology. Or equivalent degree; AMIE in appropriate branch.
50	Power Electronics	Bachelor's Degree in Electronics & Communication/ Instrumentation Technology/ Telecommunication / Electrical & Electronics / Bio-Medical Engineering/ Medical Electronics equivalent degree; AMIE in appropriate branch GATE: EC, IN, EE
51	Power and Energy Systems	Bachelor's Degree in Electrical and Electronics, or equivalent degree; AMIE in appropriate branch. GATE: EE
52	Power System Engineering	Bachelor's Degree in Electrical & Electronics Engineering or equivalent degree; AMIE in appropriate branch. GATE: EE
53	Power System and Power Electronics	Bachelor's Degree in Electrical & Electronics Engineering or equivalent degree; AMIE in appropriate branch, GATE: EE
54	Pre-Stressed Concrete	Bachelor's Degree in Civil Engineering or equivalent Degree, AMIE in appropriate branch. GATE: CE
55	Product Design and Manufacturing	Bachelor's Degree in Mechanical Engineering/ Industrial & Production Engineering/ Automobile Engineering/ Manufacturing Engineering/Industrial Engineering & Management or equivalent degree; AMIE in appropriate branch, GATE: ME, PI
56	Production Engineering	Bachelor's Degree in Mechanical Engineering/ Industrial & Production Engineering/ Automobile Engineering/ Manufacturing Engineering/Industrial Engineering & Management or equivalent degree; AMIE in appropriate branch, GATE: ME, IP

57	Production Engineering and System Technology	Bachelor's Degree in Mechanical Engineering/ Industrial & Production Engineering/ Automobile Engineering/ Manufacturing Engineering/ Industrial Engineering & Management or equivalent degree, AMIE in appropriate branch, GATE : ME,PI
58	Production Management	Bachelor's Degree in Mechanical Engineering/ Industrial & Production Engineering/ Automobile Engineering/ Manufacturing Engineering/Industrial Engineering & Management or equivalent degree; AMIE in appropriate branch, GATE: ME, PI
59	Production Technology	Bachelor's Degree in Mechanical Engineering/ Industrial & Production Engineering/ Automobile Engineering/ Manufacturing Engineering/Industrial Engineering & Management or equivalent degree; AMIE in appropriate branch, GATE: ME,PI
60	Signal Processing	B.E. / B.Tech. in Electrical & Electronics Engineering / Instrumentation Technology / Electronics & Telecommunication Engineering / Electronics & Communication Engineering / Telecommunication Engineering / Medical Electronics / Biomedical Engineering.
61	Software Engineering	Bachelor's Degree in Computer Science Engineering / Electronics & Communication Engineering/ Information Science and Engineering or equivalent degree; AMIE in appropriate branch. GATE: CS, EC, IT
62	Structural Engineering	Bachelor's Degree in Civil Engineering or equivalent branch; AMIE in appropriate branch. GATE: CE
63	Textile Technology	Bachelor's Degree in Textile Technology/ Silk Technology or equivalent degree; AMIE in appropriate branch. GATE: TF
64	Thermal Engineering Systems Technology	Bachelor's Degree in Production Engineering/ Mechanical Engineering/ Manufacturing Sciences or equivalent degree; AMIE in appropriate branch, GATE: ME,PI
65	Thermal Power Engineering	Bachelor's Degree in Mechanical Engineering/ Industrial Production Engineering/ Automobile Engineering/ Manufacturing Engineering/Industrial & Manufacturing Engineering or equivalent degree; AMIE in appropriate branch, GATE: ME, PI
66	Thermal Sciences Engineering	Bachelor's Degree in Mechanical Engineering/ Manufacturing Science & Engineering/ Industrial Engineering & Maintenance/ Industrial Production Engineering, or equivalent degree; AMIE in appropriate branch GATE: ME, PI
67	Tool Engineering	Bachelor's Degree in Mechanical Engineering/ Industrial Production Engineering/ Manufacturing Engineering/Industrial Engineering & Management/ Automobile Engineering or equivalent degree; AMIE in appropriate branch, GATE: ME, PI

68	Transportation Engg. & Mgmt.	Bachelor's Degree in Civil Engineering/ Transportation Engineering or equivalent degree; AMIE in appropriate branch; GATE: CE.
69	VLSI Design and Embedded Systems	Bachelor's Degree in Electronics & Communication/Instrumentation Engineering / Electronics & Telecommunication / Telecommunication/Electrical & Electronics/ Bio-Medical Engineering/Medical Electronics or equivalent degree; AMIE in appropriate branch. GATE: EC, IN, EE
70	Water and Land Management	Bachelor's Degree in Civil Engineering,/ Environmental Engineering/Transportation Engineering or equivalent degree; AMIE in appropriate branch. GATE: CE
71	Water Resource Engineering	Bachelor's Degree in Civil Engineering or equivalent degree; AMIE in appropriate branch. GATE: CE
72	M.Arch. (Habitat Design)	B.Arch or equivalent
73	M.Arch. (Urban Design)	B.Arch or equivalent
74	Computer Cognition Technology	M.Sc - Computer Science, Information Science, MCA - provided the candidate has a B.Sc degree with Mathematics as an optional subject, BE/B.Tech-Computer Science and Information Science, BE/B.Tech in other branches of Engineering and Technology / M.Sc in Electronics / M.Sc in Physics / M.Sc in Statistics / M.Sc. in Mathematics – provided the candidates with these qualification should have completed a computer based project work or should have worked on computers at least for one full year in their professional career (However the top preference shall be given to cognate candidates) Institutions / Research organisations / industries are encouraged to depute their candidates. But they have to go through same mode of selection. No special reservation is made.
75	Computer Science and Technology	M.Sc. in any discipline / MBA/MCA with Mathematics as an optional subject at graduate level or BE/B.Tech in any branch
76	Industrial Mathematics and Computer Applications	B.Sc. Degree from recognized university with mathematics as one of the subjects. or B.E/ B.Tech. / B.Sc(Engineering) .
77	M. Arch. (Construction & Project Management)	Bachelor's Degree in Architecture/ Civil Engineering



78	M. Arch. ( Landscape Architecture)	Bachelor's Degree in Architecture / Bachelor's Degree Landscape Architecture GATE – in Architecture
79	Earthquake Engineering	B.E. in Civil Engineering
80	Advanced Material Technology	B.E. in Mechanical, Manufacturing, Metallurgy, Industrial Engineering Management, Industrial Production
81	Control and Instrumentation	B.E. in Electrical , Electronics, Instrumentation, Medical Electronics, Telecommunication, Bio-Medical
82	Bio informatics	B.E. in chemical, Biotechnology, Computer Science, Information Science, Medical Electronics
83	Web Technologies	B.E. in any branch of Engineering
84	Computational Analysis of Mechanical Sciences	B.E. in Mechanical Engineering

### **MBA / MCA Programs**

84	Master of Business Studies	Any Bachelor Degree from recognized University
85	MBA Infrastructure	Graduates in all disciplines of Engineering
86	Master of Computer Applications	Any Bachelor Degree from recognized University

**CHOICE BASED CREDIT SYSTEM (CBCS)**  
**REGULATIONS GOVERNING**  
**THE DEGREE OF BACHELOR OF ENGINEERING / TECHNOLOGY**  
**(B.E./B.Tech.)**

**DEFINITIONS OF KEY WORDS:**

1. **University:** Visvesvaraya Technological University, Belagavi.
2. **Academic Year:** Two consecutive (one odd + one even) semesters constitute one academic year.
3. **Semester:** Each semester will consist of 15-18 weeks of academic work equivalent to 90 actual teaching days. The odd semester may be scheduled from August to January and even semester from February to July.
4. **Choice Based Credit System (CBCS):** The CBCS provides choice for students to select from the prescribed courses (*core, elective and Foundation Courses*).
5. **Credit Based Semester System (CBSS):** Under the CBSS, the requirement for awarding a degree or certificate is prescribed in terms of number of credits to be earned by the students.
6. **Programme:** An educational programme leading to award of a Degree or certificate.
7. **Course:** Usually referred to, as 'papers' is a component of a programme. All courses need not carry the same weightage. The courses should define learning objectives and learning outcomes. A course may be designed to comprise lectures/ tutorials/laboratory work/ field work/ outreach activities/ project work/ vocational training/viva/ seminars/ term papers/assignments/ presentations/ self-study etc. or a combination of some of these.
8. **Branch:** Specialization or discipline of B.E./B.Tech. Degree Programme, like Civil Engineering, Textile Engineering, etc.
9. **Letter Grade:** It is an index of the performance of students in a said course. Grades are denoted by letters S, A, B, C, D, E and F.
10. **Grade Point:** It is a numerical weightage allotted to each letter grade on a 10-point scale.
11. **Credit:** A unit by which the course work is measured. It determines the number of hours of instructions required per week. One credit is equivalent to one hour of teaching (lecture or tutorial) or two hours of practical work/field work per week.
12. **Credit Point:** It is the product of grade point and number of credits for a course.
13. **Semester Grade Point Average (SGPA):** It is a measure of academic performance of student/s in a semester. It is the ratio of total credit points secured by a student in various courses registered in a semester and the total course credits

taken during that semester. It shall be expressed up to two decimal places.

- 14. Cumulative Grade Point Average (CGPA):** It is a measure of overall cumulative performance of a student over all semesters. The CGPA is the ratio of total credit points earned by a student in various courses in all semesters and the sum of the total credits of all courses in all the semesters. It is expressed up to two decimal places.
- 15. First Attempt:** If a student has completed all formalities and become eligible to attend the examinations and has attended at least one head of passing, such attempt (first sitting) shall be considered as first attempt.
- 16. Transcript or Grade Card or Certificate:** Based on the grades earned, a grade certificate shall be issued to all the registered students after every semester. The grade certificate will display the course details (code, title, number of credits, grade secured) along with SGPA of that semester and CGPA earned till that semester.

**Choice Based Credit System (CBCS):** The CBCS provides choice for students to select from the prescribed courses.

Sequencing Plan for the B.E. / B.Tech. Degree Curriculum

<b>Semesters</b>	<b>Course Coverage</b>
I –II	HSS, BS and ES; Common for all Branches; Mandatory Courses
III-IV	BS Common for all Branches and ES; PS – Core/Elective
V-VII	PS- Core & Electives; Other Electives; Branch-wise Orientation
VIII	PS-Electives/Elective ; Other Electives, Internship, Project work

**Abbreviations:**

HSS - Humanities and Social Sciences  
 BS - Basic Sciences  
 ES - Engineering Sciences  
 PS - Professional Subjects

**Credit Structure for Course Work**

Lectures (hrs/wk /Sem)	Tutorial (hrs/wk/ Sem)	Lab. Work (hrs/wk/Sem)	Credits (Lec:instruction:Lab)	Credits (Total)
4	0	0	4:0:0	4
3	0	0	3:0:0	3
0	1	2	0:1:2	2

**CHOICE BASED CREDIT SYSTEM (CBCS)  
REGULATIONS GOVERNING  
THE DEGREE OF BACHELOR OF ENGINEERING / TECHNOLOGY  
(B.E./B.Tech.)**

15OB 1	<b>TITLE AND DURATION OF THE PROGRAMME OF STUDY</b>
15OB 1.1	The program of study shall be called the degree Program of study in Bachelor of Engineering / Technology, abbreviated as B.E. / B.Tech.
15OB 1.2	The program shall be of four academic years duration divided into eight semesters, each semester having duration of 16 weeks. For evening courses the contact hours are to be satisfied by working extra on afternoons of Saturdays and Sundays.
15OB 1.3	The calendar of events in respect of the program of study shall be fixed by the University from time to time.
15OB 1.4	The examination in all programs of study shall be conducted at the end of each semester for all eight semesters.
15OB 2	<b>ELIGIBILITY FOR ADMISSION</b> (The Government orders issued from time to time in this regard shall prevail).
15OB 2.1	Admission to I year / I semester Bachelor Degree in Engineering / Technology shall be open to the students who have passed the second year Pre-University or XII standard or equivalent examination recognized by the University. For the prerequisite qualification earned from foreign countries, Equivalence certificate from the Association of Indian Universities is Mandatory. The decision of the Equivalence committee shall be final in establishing the eligibility of student.
15OB 2.2	In addition to 15OB 2.1, the student shall have secured not less than forty five percent (45%) marks in the aggregate with Physics and Mathematics as compulsory subjects, along with any one of the following subjects, namely, Chemistry, Bio-Technology, Computer Science, Biology and Electronics or as decided by the Government of Karnataka. Provided that, the minimum marks for the purpose of eligibility shall be forty percent (40%) in optional subjects in case of students belonging to SC/ST and OBC students from Karnataka or as decided by the Government of Karnataka. Provided further that, the student shall have studied and passed English as one of the subjects.
15OB 2.3	Admission to II year/ III semester Bachelor Degree in Engineering/ Technology (Lateral Entry) shall be open to the students <b>Diploma Holders</b> <ul style="list-style-type: none"> <li>• Must have passed diploma or equivalent qualification as recognized by University and secured not less than forty five percentage (45%) marks in the final year examination (fifth and</li> </ul>

	<p>sixth semesters) in the appropriate branch of engineering. In case of SC/ST and OBC students from Karnataka the minimum marks for eligibility shall be forty percent (40%).</p> <ul style="list-style-type: none"> <li>• Who have completed their Diploma from other than Karnataka state shall provide the Equivalence/ Eligibility Certificate from the Director of Technical Education, Karnataka.</li> <li>• Who are seeking admission under lateral entry shall also clear prescribed Bridge courses (Advanced Mathematics – III and IV) and Mandatory subjects (CPH and CIV) as specified by the University.</li> </ul> <p><b>B.Sc. Graduates</b></p> <ul style="list-style-type: none"> <li>• <b>Must have</b> passed B.Sc. degree from a recognized University as defined by the UGC or equivalent qualification as recognized by University and secured not less than forty five percentage (45%) marks in aggregate (including all six semesters). In case of SC/ST and OBC students from Karnataka the minimum marks for eligibility shall be forty percent (40%). Should have studied Mathematics as subject of study at XII Standard.</li> <li>• Further, all the B.Sc. students seeking admission to lateral entry shall also clear the following subjects before entering into V Semester <ul style="list-style-type: none"> <li>I. Computer Aided Engineering Drawing (CAED) and</li> <li>II. Programming in C and Data Structures</li> <li>III. CPH and CIV (if not studied at B.Sc. Level).</li> </ul> </li> </ul>
15OB 2.4	<p>Admission to Evening Programme of study shall be open to a student Who on the first day of the term notified by the University for the year of admission has at least one-year professional experience in the branch of engineering / technology, in which the student holds a diploma.</p> <p>Explanation: Professional experience means employment on regular basis</p> <ul style="list-style-type: none"> <li>a. in Government, Government undertaking, Public Sector undertaking, Corporations or</li> <li>b. in a private company registered under the Directorate of Industries and Commerce or the Directorate of Small Scale Industries or</li> <li>c. In Government, Government recognized institutions as technical staff.</li> </ul> <p>Provided that the period of apprenticeship undergone shall also be treated as professional experience, if sponsored by the Board of Apprenticeship Training, Southern Region Chennai or by any Government, Government undertaking or Public Sector undertaking.</p> <p>Provided further that employment shall be in an establishment situated within the urban agglomeration of city in which the professional institution is situated.</p>
15OB 2.5	Those students, who have passed a qualifying examination other than

	the PUC II examination of the Pre-University Education Board of Karnataka, have to obtain eligibility certificate for seeking admission to B.E./B.Tech. Degree Programme from Visvesvaraya Technological University, Belagavi or from the Principal of concerned Engineering College of Karnataka State.
15OB 3	<b>ATTENDANCE REQUIREMENT</b>
15OB 3.1	Each semester is considered as a unit and the student has to put in a minimum attendance of 85% in each Course with a provision of condonation of 10% of the attendance by the Vice-Chancellor on the specific recommendation of the Principal of the college where the student is studying, showing reasonable cause such as medical grounds, participation in University level sports, cultural activities, seminars, workshops, paper presentation, etc.
15OB 3.2	The basis for the calculation of the attendance shall be the number of hours prescribed by the University by its calendar of events. For the first semester students, the same shall be reckoned from the date of admission to the course as per CET allotment.
15OB 3.3	The students shall be informed about their attendance status periodically by the colleges so that the students shall be cautioned to make up the shortage. The Principals of the affiliated Colleges shall submit the list of students who have been detained for shortage of attendance by the end of the semester to the Registrar (Evaluation) with a copy to the Registrar. Provided that mere omission by the college to inform the student about the shortage of attendance shall not entitle him to appear for examination.
15OB 3.4	A student having shortage of attendance in one or more subjects shall have to repeat the whole semester and such students shall not be permitted to take admission to next higher semester. Such students shall take readmission to the same semester in the subsequent academic year.
15OB 3.5	<b>TEMPORARY DISCONTINUATION OF THE PROGRAM:</b> A student, who wishes to temporarily discontinue the program and continue the same subsequently, has to obtain prior permission from the University by applying through the Principal. Such students have to take readmission to the same semester/year in the subsequent academic year. However, the student shall complete the course as per 15OB 6.2.
15OB 4	<b>INTERNAL ASSESSMENT MARKS</b>
15OB 4.1	There shall be a maximum of 20 Internal Assessment Marks in each theory or practical paper. For seminars, the Internal Assessment marks shall be 50.

15OB 4.2	The Internal Assessment marks in a theory paper shall be based on two tests generally conducted at the end of 6 <sup>th</sup> and 12 <sup>th</sup> week of each semester. An additional test may be conducted for the desirous students before the end of the semester to give an opportunity to such students to improve their Internal Assessment Marks, subject to the provisions of 15OB 4.13. The test shall be answered in Blue Books with pages serially numbered. These blue books shall be kept in the custody of the Principal of the College until after one month from the date of announcement of the result by the University. These shall be made available to University authorities for verification as per the directions of the Registrar (Evaluation)/ Registrar.
15OB 4.3	Average of the better marks obtained from any two tests shall be the Internal Assessment Marks for the relevant subject.
15OB 4.4	If a student remains absent for all the Internal Assessment tests conducted, the Internal Assessment Marks shall be marked as AB for the subject against the University Seat Number (USN) of the student in the marks sheet submitted to the University by the Principal of the College.
15OB 4.5	In the case of a Practical, the IA marks shall be based on the laboratory journals/reports and one practical test.
15OB 4.6	The IA marks for I year Computer Aided Engineering / Drawing: a) 12 marks for class work (sketching and Computer Aided engineering drawing). b) 08 marks for test in the same pattern as that of the main examination (better of the two tests) ii) The IA marks for other Drawings and Design Drawings offered by various branches shall be based on the evaluation of the sheets and one test in the ratio 60:40.
15OB 4.7	The IA marks in the case of projects and seminars in the final year shall be based on the evaluation at the end of 8 <sup>th</sup> semester by a committee consisting of the Head of the concerned Department and two senior faculty members of the Department, one of whom shall be the project / seminar guide.
15OB 4.8	The final list, incorporating corrections (if any) of IA marks awarded to the students in the Theory/Practical/Internship/Project work/Seminar, shall be displayed on the notice board of the college at least seven days before the closure of the semester and a certified copy of the same shall be sent by the Principals to the University Examination Section within the stipulated date. Every page of the IA marks sheet shall bear the signatures of the concerned Teacher/Teachers, Head of the Department and Principal.
15OB 4.9	Any corrections or over writing of IA marks shall bear the signature(s) of concerned Teacher(s) and in such cases the Head of the Department shall on every sheet indicate the number of corrections and attest it with his signature.

15OB 4.10 (a)	A student failing to secure a minimum of 50% of the IA marks in Practical/Internship/Project work shall not be eligible for the Practical /Internship/Project of the University examination.
15OB 4.10 (b)	For seminars, the minimum requirement of IA marks shall be 40% of the maximum.
15OB 4.11	Such students as mentioned in 15OB 4.10 shall repeat the laboratory work/Internship/project work during the subsequent semester(s) and secure at least the minimum marks prescribed.
15OB 4.12	For theory subjects, there shall not be any minimum requirements of IA marks.
15OB 4.13	Improvement of IA marks shall not be allowed a. In theory subjects and b. In Laboratory/Workshop/Seminar/ Internship / Project where the student has already secured the minimum required marks.
15OB 4.14	IA marks of those students to whom 15OB 4.11 is applicable, shall be sent separately to the Registrar (Evaluation).
15OB 4.15	IA marks shall reach the University before the commencement of examination as per the notification from the office of the Registrar (Evaluation) from time to time. After the submission of Internal Assessment marks to the University, any request for change of IA marks shall not be considered under any circumstances.
15OB 5	<b>ELIGIBILITY FOR PASSING</b> A student who obtained Grades O to E shall be considered as passed and if a student secured “F” grade in any of the head of passing he /she has to reappear for the examination.
15OB 5.1 (a)	For a pass in a theory subject/drawing, the student shall secure minimum of 35% of the maximum marks prescribed in the University examination and 40% of marks in the aggregate inclusive of the IA marks. i.e. Minimum Passing Grade is “E”.
15OB 5.1 (b)	For a pass in a Practical/Internship/Project/Viva-voce examination, a student shall secure a minimum of 40% of the maximum marks prescribed for the University Examination in the relevant Practical/Internship/Project/Viva-voce. i.e. Minimum Passing Grade in a course is “E”.
15OB 5.1 (c)	For a pass in Seminar, a student shall secure a minimum of 40% of the maximum marks prescribed. i.e. Minimum Passing Grade is “E”.
15OB 5.2	The students who do not satisfy the condition 15OB 5.1 and the student who remains absent shall be deemed to have failed in that subject and may reappear for the University examination in the subsequent examinations. However, the IA marks awarded to the student/s at first attempt in the concerned theory subject will be carried forward. In case of Practical/Internship/Projects/Seminar revised marks will be taken as per regulations 15OB 4.10 (a & b) and 15OB 4.11.
15OB 5.3	The student who passes a course of a semester as per 15OB 5.1 shall



	not be allowed to appear for the same again, unless he/she opts for rejection of results as per 15OB 5.4, 5.5, 5.6, 5.7 & 5.8.
OB 5.4	A student may, at his/her desire, reject his/her total performance of a semester (including IA marks) or he/she may reject the result of his/her performance in University examination of a semester only. The rejection is permitted only once during the entire course of study.
15OB 5.5	The student who desires to reject the performance as per 15OB 5.4 shall reject performance in all the courses of the semester, irrespective of whether the student has passed or failed in any subject. However, the rejection of performance of 8 <sup>th</sup> semester project result shall not be permitted.
15OB 5.6	A student, who desires to reject the total performance of the semester including Internal Assessment, has to take readmission for the relevant semester. Application for such readmission shall be sent to the Registrar through the Principal of College within 30 days from the date of the announcement of the results. Late submission of application shall not be accepted for any reasons. Readmission to First semester in such cases shall not be considered as fresh admission i.e., the student will continue to have the same University Seat Number, which was allotted earlier. The course duration permitted (as per 15OB 6) will be counted as per old USN.
OB 5.7	The student, who desires to reject only the results of University examination of a semester and does not desire readmission, shall be permitted to re-appear for examinations of all the subjects of the semester in the subsequent examinations. However, the IA marks obtained by the student in the rejected semester shall be retained. Applications for such rejection shall be sent to the Registrar (Evaluation) through the Principal of the College within 30 days from the date of announcement of the results. Late submission of applications shall not be accepted for any reasons. If the rejection of the University examination results of the semester happens to be of the odd semester, the student shall be allowed to take admission to the immediate next even semester. However, if the rejection of the University result is of the even semester, the student shall not be allowed to take admission to the next odd semester (as per 15OB 7.2).
15OB 5.8	Such students who opt for rejection at final year are eligible for the award of class and distinction at the B.E./ B.Tech. degree level, but are not eligible for the award of ranks.
15OB 5.9	A student shall be declared to have completed the program of B.E. / B.Tech., degree, provided the student has undergone the stipulated course work as per the regulations and has earned at least 200 Credits.
15OB 6	<b>MAXIMUM DURATION FOR COURSE COMPLETION</b>
15OB 6.1	A student who has not obtained the eligibility for third semester after a

	<p>period of three academic years from the date of first admission shall discontinue the course. However, the student is eligible for readmission for first year B.E./B.Tech. in respective College of the University and he/ she shall be allotted a University Seat Number (USN) without any change in the year of admission in the USN but the serial number of the student shall start with six hundred (6XX) series in the same branch.</p>
15OB 6.2	<p>The student admitted to 1<sup>st</sup> year B.E/ B.Tech. shall complete the course within a period of eight academic years from the date of first admission, failing which he/she has to discontinue the course.</p> <p>The students admitted under lateral entry scheme (2nd Year B.E./B.Tech.) shall complete the course within a period of six academic years from the date of first admission, failing which he/she has to discontinue the course.</p>
15OB 7	<b>PROMOTION AND ELIGIBILITY FOR THE EXAMINATIONS</b>
15OB 7.1	<p>There shall not be any restriction for promotion from an odd semester to the next even semester, provided the student has fulfilled the attendance requirement.</p>
15OB 7.2	<p>A student shall be eligible for promotion from an even semester to the next odd semester (i.e. of the next academic year) if the student has not failed in more than four heads of passing of the immediately preceding two semesters and has passed in all the subjects of all the lower semester examinations. A theory or practical shall be treated as a head of passing.</p> <p><b>Illustrations</b></p> <ol style="list-style-type: none"> <li>A student seeking eligibility to 3<sup>rd</sup> semester should not have failed in more than 4 heads of passing of first and second semesters taken together.</li> <li>A student seeking eligibility to 5<sup>th</sup> semester should have passed in all the subjects of 1<sup>st</sup> and 2<sup>nd</sup> semesters and should not have failed in more than 4 heads of passing of third and fourth semesters taken together.</li> <li>A student seeking eligibility to 7<sup>th</sup> semester should have passed in all the subjects up to 4<sup>th</sup> semester and should not have failed in more than 4 heads of passing of 5<sup>th</sup> and 6<sup>th</sup> semesters taken together.</li> </ol> <p><b>The Subjects:</b></p> <ol style="list-style-type: none"> <li>Constitution of India, Professional Ethics and Human Rights, and</li> <li>Environmental Studies</li> </ol> <p>are Mandatory Non-Credit Courses; these subjects shall not be considered for the Eligibility for promotion, award of Class, calculation of SGPA and CGPA. However, a pass in the above subjects is mandatory before the completion of Degree.</p>
15OB 8	<b>COURSES</b>

15OB 8.1	<p>There will be Four types of courses</p> <p><b>(i) Core Courses:</b> This is the course which is to be compulsorily studied by a student as a core requirement to complete the requirements of a program in a said discipline of study. These courses will have 4 credits per course.</p> <p><b>(ii)Foundation Courses:</b> The Foundation Courses are of two kinds: <i>Compulsory Foundation</i> and <i>Elective foundation</i>.</p> <p>“Compulsory Foundation”: These courses are the courses based upon the content that leads to Knowledge enhancement. They are mandatory for all disciplines. These courses will have 4 credits per course.</p> <p>“Foundation Electives”: These are value based courses aimed at man making education. These courses will have 3 credits per course.</p> <p><b>(iii)Elective Courses:</b> This is course, which can be chosen from the pool of papers. It may be supportive to the discipline/ providing extended scope/enabling an exposure to some other discipline / domain / nurturing student proficiency skills. These courses will have 3 credits per course.</p> <p><b>(iv)Mandatory Non-Credit Courses:</b> These courses are mandatory for students joining B.E./B.Tech. Program and students have to successfully complete these courses before the completion of degree.</p>
15OB 8.2	The minimum number of students to be registered for an Elective to be offered shall be not less than ten.
15OB 8.3	A student shall exercise his option in respect of the electives and register for the same at the beginning of the concerned semester. The student may be permitted to opt for change of elective subject within 15 days from the date of commencement of the semester as per the calendar of the University.
15OB 9	<b>INTERNSHIP</b>
15OB 9.1	<p><b>Internship:</b> The student shall undergo an Internship for 8 weeks i.e. starting from the end of 7<sup>th</sup> semester Examination after availing one week vacation and completing during the initial period of 8<sup>th</sup> semester.</p> <ol style="list-style-type: none"> <li>1. The college shall nominate a faculty for a group of students to prepare the students for internship.</li> <li>2. The students shall report the progress of the internship to the guide in regular intervals and may seek his/her advise.</li> <li>3. The Internship shall be completed between 7<sup>th</sup> and 8<sup>th</sup> semesters.</li> <li>4. After completion of 7<sup>th</sup> semester Theory and Practical examinations, the students shall have one week vacation.</li> <li>5. Immediately after availing one week vacation, the students shall undergo internship (without waiting for the results) which may be a period of 4/5 weeks.</li> </ol>

6. The remaining period of internship; i.e. 4/3 weeks shall be completed during the initial period of the 8<sup>th</sup> semester.
7. After completion of Internship, students shall submit a report to the college with the approval of both internal and external guides.
8. There will be 50 IA and 50 External marks for Internship.
9. The guide shall be the internal examiner and IA marks out of 50 are to be awarded by the internal guide after evaluating the Internship Report submitted by the student.
10. Viva-Voce on internship shall be conducted at the college and the date of Viva-Voce shall be fixed in consultation with the external Guide.
11. Viva-Voce on internship shall be conducted by both internal and external guides and jointly evaluate the internship report for 50 marks. The expenses of external guide are to be borne by the student/college.
12. In case of the non availability of external guide for the conduct of viva-voce, the Principal shall appoint a senior faculty of the department to conduct viva-voce along with the internal guide, and they jointly evaluate the internship report for 50 marks.
13. The students are permitted to carry out the internship outside India with the following conditions:
  - a. The entire expenses are to be borne by the student or college and the University will not give any financial assistance.
  - b. The Internal Guide has to visit at least once during the student's internship; the expenses of the visit are to borne by the student/college.
  - c. The external guide from the industry has to be an examiner for the viva voce on Internship, and the expenses are to be borne by the student/ college.
  - d. The University will not provide any kind of Financial Assistance to any student for internship and for the conduct of Viva-Voce on internship.

15OB9.2	<b>Report on Internship:</b> The College shall facilitate and monitor the student internship program. The internship report of each student shall be submitted to the Head of the Department of the college with the approval of the Guide.																											
15OB9.3	<b>Failing to undergo Internship:</b> Completion of internship is mandatory; if any student fails to complete internship, he/she will not be eligible for the award of degree.																											
15OB9.4	<b>Non-completion of Internship:</b> In such cases, the student has to redo the internship.																											
15OB 10	<b>SEMINAR AND PROJECT</b>																											
15OB 10.1	Seminar topic shall be selected from the emerging technical areas only.																											
15OB 10.2	Project work at 8 <sup>th</sup> semester shall be completed batch wise, each batch consisting of minimum of two students and maximum four students.																											
15OB 10.3	<i>Viva-voce</i> examination in project work shall be conducted batch-wise.																											
15OB 11	<b>COMPUTATION OF SGPA AND CGPA</b>																											
	<p>i. The VTU adopts absolute grading system wherein the marks are converted to grades, and every semester results will be declared with semester grade point average (SGPA) and Cumulative Grade Point Average (CGPA). The CGPA will be calculated every semester, except the first semester.</p> <p>ii. The grading system is with the following letter grades as given below:</p> <p><b>Grades and Grade Points</b></p> <table border="1"> <thead> <tr> <th>Level</th> <th>Out-standing</th> <th>Excellent</th> <th>Very Good</th> <th>Good</th> <th>Above Average</th> <th>Average</th> <th>Poor</th> <th>Fail</th> </tr> </thead> <tbody> <tr> <td><b>Letter Grade</b></td> <td><b>O</b></td> <td><b>S</b></td> <td><b>A</b></td> <td><b>B</b></td> <td><b>C</b></td> <td><b>D</b></td> <td><b>E</b></td> <td><b>F</b></td> </tr> <tr> <td><b>Grade Points</b></td> <td><b>10</b></td> <td><b>9</b></td> <td><b>8</b></td> <td><b>7</b></td> <td><b>6</b></td> <td><b>5</b></td> <td><b>4</b></td> <td><b>00</b></td> </tr> </tbody> </table> <p>iii. A student obtaining Grade “F” shall be considered failed and will be required to reappear in the examination. Such students after passing the failed subject in subsequent examination/s will be awarded with “E” grade irrespective of marks he/she scores in the subsequent examination/s. Number of attempts taken to clear a subject/s shall be shown in the transcripts.</p>	Level	Out-standing	Excellent	Very Good	Good	Above Average	Average	Poor	Fail	<b>Letter Grade</b>	<b>O</b>	<b>S</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>	<b>Grade Points</b>	<b>10</b>	<b>9</b>	<b>8</b>	<b>7</b>	<b>6</b>	<b>5</b>	<b>4</b>	<b>00</b>
Level	Out-standing	Excellent	Very Good	Good	Above Average	Average	Poor	Fail																				
<b>Letter Grade</b>	<b>O</b>	<b>S</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>																				
<b>Grade Points</b>	<b>10</b>	<b>9</b>	<b>8</b>	<b>7</b>	<b>6</b>	<b>5</b>	<b>4</b>	<b>00</b>																				

### Grade Points Scale

Level	Out-standing	Excellent	Very Good	Good	Above Average	Average	Poor	Fail
Letter Grade	O	S	A	B	C	D	E	F
Grade Points	10	9	8	7	6	5	4	00
Score (Marks) Range (%)	≥ 90	<90	< 80 ≥70	< 70 ≥60	< 60 ≥50	< 50 ≥45	<45 ≥40	< 40

### **Computation of SGPA and CGPA**

The following procedure to compute the Semester Grade Point Average (SGPA) and Cumulative Grade Point Average (CGPA):

- i. The SGPA is the ratio of sum of the product of the number of credits with the grade points scored by a student in all the courses taken by a student and the sum of the number of credits of all the courses undergone by a student, i.e

$$\text{SGPA (Si)} = \frac{\sum(C_i \times G_i)}{\sum C_i}$$

where  $C_i$  is the number of credits of the  $i^{\text{th}}$  course and  $G_i$  is the grade point scored by the student in the  $i^{\text{th}}$  course.

- ii. The CGPA is also calculated in the same manner taking into account all the courses undergone by a student over all the semesters of a programme, i.e.

$$\text{CGPA} = \frac{\sum(C_i \times S_i)}{\sum C_i}$$

where  $S_i$  is the SGPA of the  $i^{\text{th}}$  semester and  $C_i$  is the total number of credits in that semester.

- iii. The SGPA and CGPA shall be rounded off to 2 decimal places and reported in the transcripts.

## **Illustration for Computation of SGPA and CGPA**

### **Computation of SGPA**

#### **Illustration No.1**

<b>Course</b>	<b>Credit</b>	<b>Grade letter</b>	<b>Grade point</b>	<b>Credit Point (Credit x Grade)</b>
Course 1	4	A	8	4x8 = 32
Course 2	4	C	6	4x6 = 24
Course 3	4	B	7	4x7 = 28
Course 4	3	O	10	3x10= 30
Course 5	3	D	4	3x4 = 12
Course 6	3	C	6	3x6 = 18
Course 7	2	S	9	2x9 = 18
Course 8	2	C	6	2x6 = 12
	25			174

Thus, **SGPA= 174/25=6.96**

#### **Illustration No.2**

<b>Course</b>	<b>Credit</b>	<b>Grade letter</b>	<b>Grade point</b>	<b>Credit Point (Credit x Grade)</b>
Course 1	4	A	8	4x8 = 32
Course 2	4	C	6	4x6 = 24
Course 3	4	B	7	4x7 = 28
Course 4	3	O	10	3x10= 30
Course 5	3	F	0	3x0 = 00
Course 6	3	C	6	3x6 = 18
Course 7	2	S	9	2x9 = 18
Course 8	2	C	6	2x6 = 12
	25			162

Thus, **SGPA= 162/25=6.48**

#### **Illustration No.2(a)**

<b>Course</b>	<b>Credit</b>	<b>Grade letter</b>	<b>Grade point</b>	<b>Credit Point (Credit x Grade)</b>
Course 5	3	E	4	3x4 =12
	25			Ci (First Attempt)162 + Ci (subsequent attempt) 12= 174

Thus, **SGPA= 174/25=6.96**

#### **Illustration No.3**

<b>Course</b>	<b>Credit</b>	<b>Grade letter</b>	<b>Grade point</b>	<b>Credit Point (Credit x Grade)</b>
Course 1	4	A	8	4x8 =32
Course 2	4	C	6	4x6 =24

Course 3	4	B	7	4x7 =28
Course 4	3	O	10	3x10=30
Course 5	3	S	9	3x9 =27
Course 6	3	C	6	3x6 =18
Course 7	2	S	9	2x9 =18
Course 8	2	C	6	2x6 =12
	25			189

Thus, **SGPA= 189/25=7.56**

$$CGPA = \frac{25 \times 6.96 + 25 \times 7.56}{50} = 7.26$$

**CGPA after Final Semester**

Sem. - 1	Sem. - 2	Sem. - 3	Sem. - 4	Sem. - 5	Sem. - 6	Sem. - 7	Sem. - 8
Credit : 24 SGPA:7	Credit:24 SGPA:8.5	Credit : 27 SGPA:9.2	Credit : 27 SGPA:6.86	Credit :24 SGPA:8.18	Credit : 24 SGPA:7.73	Credit : 24 SGPA:8.68	Credit : 26 SGPA:9.4

Thus, **CGPA=  $\frac{24 \times 7 + 24 \times 8.5 + 27 \times 9.2 + 27 \times 6.86 + 24 \times 8.18 + 24 \times 7.73 + 24 \times 8.68 + 26 \times 9.4}{200} = 8.2$**

**Transcript (Format):** Based on the above recommendations on Letter grades, grade points, SGPA and CCPA, the transcript for each semester and a consolidated transcript indicating the performance in all semesters may be issued.

15OB 12

**CONVERSION OF GRADES INTO PERCENTAGE:**

Conversion formula for the conversion of GPA into Percentage is [CGPA Earned - 0.75] x 10= Percentage of marks scored.

**Illustration:** [CGPA Earned 8.2 - 0.75]x 10 = 74.5%

15OB 13

**AWARD OF PRIZES, MEDALS & RANKS**

15OB 13.1

For the award of Prizes and Medals, the conditions stipulated by the Donor may be considered subject to the provisions of the statutes framed by the University for such awards.

15OB 13.2

For award of ranks in a branch, a minimum of 10 students should have appeared in the 8<sup>th</sup> semester examination. The total number of ranks awarded shall be 10% of total number of students appeared in 8<sup>th</sup> semester or 10 students, whichever is less in that branch.

Illustration:

1. If 1028 students appeared for the 8<sup>th</sup> semester in Electronics and Communication Engineering Branch, the number of ranks to be awarded for Electronics and Communication Engineering will 10.
2. If 90 students appeared for the 8<sup>th</sup> semester in Biomedical Engineering Branch, the number of ranks to be awarded for Biomedical Engineering will be 09.

15OB  
13.3

For award of rank in a branch of Engineering / Technology, the CGPA secured by the student from

- a) 1<sup>st</sup> to 8<sup>th</sup> semester for the students admitted to B.E./B.Tech. Program from 1<sup>st</sup> year, and



	<p>b) 3<sup>rd</sup> to 8<sup>th</sup> semester for the students admitted to B.E./B.Tech. Program from 2<sup>nd</sup> year (Lateral Entry) shall be considered.</p> <p>A student shall be eligible for a rank at the time of award of degree in each branch of Engineering / Technology, provided the student</p> <p>a. Has passed 1<sup>st</sup> to 8<sup>th</sup> (students joining from 1<sup>st</sup> semester) or 3<sup>rd</sup> to 8<sup>th</sup> (in case of lateral entry) semester in all the subjects in first attempt only</p> <p>b. Has not repeated/rejected any of the lower semesters.</p>
15OB 13.4	<p>If two students get the same CGPA, the tie should be resolved by considering the number of times a student has obtained higher SGPA; but, if it is not resolved even at this stage, the number of times a student has obtained higher grades like O, S, A, B etc shall be taken into account in rank ordering of the students in a program.</p>
15OB 14	<b>TRANSFER OF STUDENTS</b>
15OB14.1	<p>Transfer of students from one college to another college within Karnataka state shall be permitted only at the beginning of third, fifth, and seventh semesters, subject to availability of seats within the permitted intake in respective Colleges and subject to the prior approval of the University and the provisions of 15OB 7.2.</p> <p>In the case of students from Universities other than VTU the students should have passed in all the courses of 1<sup>st</sup> &amp; 2<sup>nd</sup> semesters for admission to 3<sup>rd</sup> semester and all the courses of 1<sup>st</sup> to 4<sup>th</sup> semesters for admission to 5<sup>th</sup> semester and all the courses of 1<sup>st</sup> to 6<sup>th</sup> semesters for admission to 7<sup>th</sup> semester.</p> <p>The students seeking admission from Universities other than VTU shall have to</p> <p>a. apply for establishment of equivalence with prescribed fees as notified by the VTU and</p> <p>b. Obtain No Objection for admission from the university before commencement of term as notified by VTU.</p>
15OB14.2	<p>Transfer of students within the College from one branch to another branch at 3<sup>rd</sup> semester shall be permitted with the prior approval of the VTU and subject to the provisions made by the Government of Karnataka and AICTE in this behalf.</p>
15OB14.3	<p>The University may prescribe fee for administrative purpose (for updating of the records), which shall be notified from time to time, for transfer from one college to another (Change of College) or one branch to another branch (change of branch within the college).</p>

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**NOTE: These regulations governing the Degree of Bachelor of Engineering/Technology of Visvesvaraya Technological University shall be binding on all and may be modified from time to time.**

## **Norms for the post of Principal**

### **Qualification:**

BE/B.Tech & ME/ M.Tech in relevant branch with 1st class or equivalent either in BE/B.Tech or ME/M.Tech. and PhD or equivalent, in appropriate discipline. Post PhD publications and guiding PhD students is highly desirable.

### **Experience:**

Minimum of 10 years experience in teaching / Research / Industry out of which at least 3 years shall be at the level of Professor. or Minimum of 13 years experience in teaching and/ or Research and/or Industry In case of research experience, good academic record and books / research paper publications / IPR / patents record shall be required as deemed fit by the expert members of the Selection committee. If the experience in industry is considered, the same shall be at managerial level equivalent to Professor level with active participation record in devising / designing, developing, planning, executing, analyzing, quality control, innovating, training, technical books / research paper publications / IPR / patents, etc. as deemed fit by the expert members of the Selection committee. Flair for Management and Leadership is essential. In case of Architecture, Professional Practice of 10 years as certified by the Council of Architecture shall also be considered valid.

### **Age Limit:**

Less than 65 Years.

**FACULTY NORMS - PRESCRIBED BY AICTE  
FOR VARIOUS PROGRAMMES  
(Engineering & Technology, Architecture, Planning, Pharmacy,  
MBA & MCA)**

All India Council for Technical Education, New Delhi vide Notification F.No.37-3/Legal/2010 issued pay scales, Service conditions & qualifications for teachers and other academic staff in Technical institutions (Degree) Regulations, 2010.

- The regulations 2010 shall apply to technical institutions & Universities including Deemed Universities imparting Technical Education and such other course/ programmes and areas as notified by Council from time to time.
- There shall be only three designations in respect of teachers in Universities and colleges, namely, Assistant Professors, Associate Professors and Professors.
- No one shall be eligible to be appointed, promoted or designated as Professor, unless he or she possesses a Ph.D and satisfies other academic conditions, as laid down by the AICTE from time to time. This shall, however, not affect those who are already designated as 'Professor'.
- Faculty designated as Professors as on 05.03.2010 shall continue as Professors.
- The ratio of Professors to Associate Professors to Assistant Professors in a UG college shall be in the ratio, ordinarily of 1:2:6. The ratio of Professors to Associate Professors and or Assistant Professors in a PG college shall be in the ratio, ordinarily of 1:2.

## A. FACULTY NORMS - PRESCRIBED BY AICTE

### BE./B.Tech.

Faculty required 1:15 (Teacher: student ratio)

Cadre ratio 1:2:6 (Professor: Associate Professor : Assistant Professor)

Programme	Cadre	Qualification	Experience
Engineering & Technology	Assistant Professor	BE/B.Tech & ME/ M.Tech in relevant branch with 1st class or equivalent either in BE/B.Tech or ME/M.Tech.	
	Associate Professor	Qualifications as above that is for the post of Assistant Professor, as applicable and PhD or equivalent, in appropriate discipline. Post PhD publications and guiding PhD students is highly desirable.	Minimum of 5 years experience in teaching / research /industry of which 2 years post PhD experience is desirable. In case of Architecture, Professional Practice of 5 years as certified by the Council of Architecture shall also be considered valid.
	Professor	Qualifications as above that is for the post of Associate Professor, applicable. Post PhD publications and guiding PhD students is highly desirable.	Minimum of 10 years teaching/ research /industrial experience of which at least 5 years should be at the level of Associate professor. or Minimum of 13 years experience in teaching and / or Research and /or Industry. In case of research experience, good academic record and books/ research paper publications /IPR/ patents record shall be required as deemed fit by the expert members of the selection committee. If the experience in industry is considered, the same shall be at managerial level equivalent to Associate Professor with active participation record in devising/ designing, planning, executing, analyzing, quality control, innovating, training, technical books/ research paper publications / IPR/ patents, etc., as deemed fit by the expert members of the Selection committee.

### ME./M.Tech

Faculty required 1:12 (Teacher : student ratio)

Cadre ratio 1:2 (Professor: Associate / Assistant Professor)

Qualifications as prescribed above

**Note:** Sanctioned students intake shall be considered for all (4) years in respect of UG and (2) years in respect of PG programmes for calculating Teacher: Student ratio.

## B. Architecture

Faculty required 1:10 (Teacher: student ratio)

Cadre ratio 1:2:6 (Professor: Associate Professor: Assistant Professor)

Programme	Cadre	Qualification	Experience
B. Architecture	Assistant Professor	Bachelors and Masters Degree in Architecture with First Class or equivalent either in Bachelors or Masters Degree	
	Associate Professor	Qualifications as above that is for the post of Assistant Professor, as applicable and PhD or equivalent, in appropriate discipline. Post PhD publications and guiding PhD students is highly desirable.	Minimum of 5 years experience in teaching / research /industry of which 2 years post PhD experience is desirable. In case of Architecture, Professional Practice of 5 years as certified by the Council of Architecture shall also be considered valid.
	Professor	Qualifications as above that is for the post of Associate Professor, applicable. Post PhD publications and guiding PhD students is highly desirable.	Minimum of 10 years teaching/ research /industrial experience of which at least 5 years should be at the level of Associate professor. or Minimum of 13 years experience in teaching and / or Research and /or Industry. In case of research experience, good academic record and books/ research paper publications /IPR/ patents record shall be required as deemed fit by the expert members of the selection committee. If the experience in industry is considered, the same shall be at managerial level equivalent to Associate Professor with active participation record in devising/ designing, planning, executing, analyzing, quality control, innovating, training, technical books/ research paper publications /IPR/patents, etc., as deemed fit by the expert members of the Selection committee. In case of Architecture, Professional Practice of 10 years as certified by the Council of Architecture shall also be considered valid.

## M. Architecture

Faculty required 1:10 (Teacher: student ratio)

Cadre ratio 1:2 (Professor: Associate / Assistant Professor)

Qualifications as prescribed above

**Note:** Sanctioned students intake shall be considered for all (5) years in respect of UG and (2) years in respect of PG programmes for calculating Teacher: Student ratio.

## Town Planning

Faculty required 1:10 (Teacher: student ratio)

Cadre ratio 1:2:6 (Professor: Associate Professor: Assistant Professor)

Programme	Cadre	Qualification	Experience
Town Planning	Assistant Professor	Bachelors and Masters Degree in Town Planning with First Class or equivalent either in Bachelors or Masters Degree	
	Associate Professor	Qualifications as above that is for the post of Assistant Professor, as applicable and PhD or equivalent, in appropriate discipline. Post PhD publications and guiding PhD students is highly desirable.	Minimum of 5 years experience in teaching / research /industry of which 2 years post PhD experience is desirable. In case of Architecture, Professional Practice of 5 years as certified by the Council of Architecture shall also be considered valid.
	Professor	Qualifications as above that is for the post of Associate Professor, applicable. Post PhD publications and guiding PhD students is highly desirable.	Minimum of 10 years teaching/ research /industrial experience of which at least 5 years should be at the level of Associate professor. or Minimum of 13 years experience in teaching and / or Research and /or Industry. In case of research experience, good academic record and books/ research paper publications /IPR/ patents record shall be required as deemed fit by the expert members of the selection committee. If the experience in industry is considered, the same shall be at managerial level equivalent to Associate Professor with active participation record in devising/ designing, planning, executing, analyzing, quality control, innovating, training, technical books/ research paper publications /IPR/patents, etc., as deemed fit by the expert members of the Selection committee. In case of Architecture, Professional Practice of 10 years as certified by the Council of Architecture shall also be considered valid.

## M. Planning

Faculty required 1:10 (Teacher: student ratio)

Cadre ratio 1:2 (Professor: Associate / Assistant Professor)

Qualifications as prescribed above

**Note:** Sanctioned students intake shall be considered for all (4) years in respect of UG and (2) years in respect of PG programmes for calculating Teacher: Student ratio.

## B. Pharmacy

Faculty required 1:15 (Teacher: student ratio)

Cadre ratio 1:2:6 (Professor: Associate Professor: Assistant Professor)

Programme	Cadre	Qualification	Experience
Pharmacy	Assistant Professor	Bachelors and Masters Degree in Pharmacy with First Class or equivalent either in Bachelors or Masters Degree	
	Associate Professor	Qualifications as above that is for the post of Assistant Professor, as applicable and PhD or equivalent, in appropriate discipline. Post PhD publications and guiding PhD students is highly desirable.	Minimum of 5 years experience in teaching / research /industry of which 2 years post PhD experience is desirable. In case of Architecture, Professional Practice of 5 years as certified by the Council of Architecture shall also be considered valid.
	Professor	Qualifications as above that is for the post of Associate Professor, applicable. Post PhD publications and guiding PhD students is highly desirable.	Minimum of 10 years teaching/ research /industrial experience of which at least 5 years should be at the level of Associate professor. or Minimum of 13 years experience in teaching and / or Research and /or Industry. In case of research experience, good academic record and books/ research paper publications /IPR/ patents record shall be required as deemed fit by the expert members of the selection committee. If the experience in industry is considered, the same shall be at managerial level equivalent to Associate Professor with active participation record in devising/ designing, planning, executing, analyzing, quality control, innovating, training, technical books/ research paper publications /IPR/patents, etc., as deemed fit by the expert members of the Selection committee.

## M. Pharmacy, Pharma.D (6 Years duration) and Pharma.D-PB (3 Years Duration)

Faculty required 1:12 (Teacher : student ratio)

Cadre ratio 1:2 (Professor: Associate / Assistant Professor)

Qualifications as prescribed above

**Note:** Sanctioned students intake shall be considered for all (4) years in respect of UG, (2) years for PG, (6) years for Pharma.D and (3) years for Pharma.D-PB programmes for calculating Teacher: Student ratio.

## MCA

Faculty required 1:15 (Teacher: student ratio)

Cadre ratio 1:2:6 (Professor: Associate Professor : Assistant Professor)

<b>Programme</b>	<b>Cadre</b>	<b>Qualification</b>	<b>Experience</b>
MCA	Assistant Professor	BE / BTech and ME / M. Tech in relevant branch with First Class or equivalent either in BE/BTech or ME/ MTech OR BE/ BTech and MCA with First class or equivalent in either BE / BTech or MCA OR MCA with first class or equivalent with two years relevant experience	
	Associate Professor	Qualifications as above that is for the post of Assistant Professor, as applicable and PhD or equivalent, in appropriate discipline. Post PhD publications and guiding PhD students is highly desirable.	Minimum of 5 years experience in teaching / research /industry of which 2 years post PhD experience is desirable. In case of Architecture, Professional Practice of 5 years as certified by the Council of Architecture shall also be considered valid.
	Professor	Qualifications as above that is for the post of Associate Professor, applicable. Post PhD publications and guiding PhD students is highly desirable.	Minimum of 10 years teaching/ research /industrial experience of which at least 5 years should be at the level of Associate professor. or Minimum of 13 years experience in teaching and / or Research and /or Industry. In case of research experience, good academic record and books/ research paper publications /IPR/ patents record shall be required as deemed fit by the expert members of the selection committee. If the experience in industry is considered, the same shall be at managerial level equivalent to Associate Professor with active participation record in devising/ designing, planning, executing, analyzing, quality control, innovating, training, technical books/ research paper publications /IPR/patents, etc., as deemed fit by the expert members of the Selection committee. In case of Architecture, Professional Practice of 10 years as certified by the Council of Architecture shall also be considered valid.

**Note:** Sanctioned students intake shall be considered for all (2) years for calculating Teacher: Student ratio.



**MBA**

Faculty required 1:15 (Teacher: student ratio)

Cadre ratio 1:2:6 (Professor: Associate Professor: Assistant Professor)

<b>Programme</b>	<b>Cadre</b>	<b>Qualification</b>	<b>Experience</b>
Management (MBA)	Assistant Professor	First Class or equivalent in Masters Degree in Business Administration or equivalent and 2 years relevant Experience is desirable	
	Associate Professor	Qualifications as above that is for the post of Assistant Professor, as applicable and PhD or equivalent, in appropriate discipline. Post PhD publications and guiding PhD students is highly desirable.	Minimum of 5 years experience in teaching / research /industry of which 2 years post PhD experience is desirable. In case of Architecture, Professional Practice of 5 years as certified by the Council of Architecture shall also be considered valid.
	Professor	Qualifications as above that is for the post of Associate Professor, applicable. Post PhD publications and guiding PhD students is highly desirable.	Minimum of 10 years teaching/ research /industrial experience of which at least 5 years should be at the level of Associate professor. or Minimum of 13 years experience in teaching and / or Research and /or Industry. In case of research experience, good academic record and books/ research paper publications /IPR/ patents record shall be required as deemed fit by the expert members of the selection committee. If the experience in industry is considered, the same shall be at managerial level equivalent to Associate Professor with active participation record in devising/ designing, planning, executing, analyzing, quality control, innovating, training, technical books/ research paper publications /IPR/patents, etc., as deemed fit by the expert members of the Selection committee. In case of Architecture, Professional Practice of 10 years as certified by the Council of Architecture shall also be considered valid.

**Note:** Sanctioned students intake shall be considered for all (3) years for calculating Teacher: Student ratio.

## Principal / Director

Programme	Cadre	Qualification	Experience
	Principal / Director	<p>Qualifications as above that is for the post of Professor, as applicable</p> <p>Post PhD publications and guiding PhD students is highly desirable.</p>	<p>Minimum of 10 years experience in teaching / Research / Industry out of which at least 3 years shall be at the level of Professor.</p> <p>or</p> <p>Minimum of 13 years experience in teaching and/ or Research and/or Industry In case of research experience, good academic record and books / research paper publications / IPR / patents record shall be required as deemed fit by the expert members of the Selection committee.</p> <p>If the experience in industry is considered, the same shall be at managerial level equivalent to Professor level with active participation record in devising / designing, developing, planning, executing, analyzing, quality control, innovating, training, technical books / research paper publications / IPR / patents, etc. as deemed fit by the expert members of the Selection committee.</p> <p>Flair for Management and Leadership is essential.</p> <p>In case of Architecture, Professional Practice of 10 years as certified by the Council of Architecture shall also be considered valid.</p>

## **B. NON-TEACHING STAFF**

The ratio of non-teaching (inclusive of administrative, ministerial, technical and other unskilled and semiskilled staff) to teaching staff should not exceed 3:1.

GUIDELINES FOR APPOINTMENT OF ADJUNCT FACULTY/ RESOURCE  
PERSONS FROM INDUSTRY IN  
AICTE APPROVED TECHNICAL INSTITUTIONS

1. **INTRODUCTION:** The AICTE Approval Process Handbook 2018-19 in Appendix 7 “Norms for Faculty requirements and Cadre Ratio for Technical Institution” has specified that a minimum of 90% should be Regular/ Full Time Faculty and the remaining shall be Adjunct Faculty/ Resource persons from Industry.
2. **OBJECTIVE:** The key objective of these guidelines is to develop a useful and viable collaboration between the educational Institutions and Industry. The guidelines seek to enhance quality of education and skills by involvement of academicians, scholars, practitioners, policymakers in teaching, training, research, and related services on a regular basis and to attract distinguished individuals who have excelled in their field of specialization.
3. **DEFINITION:** Adjunct Faculty is hired by an Institution to teach but is not full member of the Faculty. Adjunct Faculty is a Part Time or contingent instructor. There are academicians, professionals whose primary employment activity is outside the Institution and who are not interested in seeking fulltime appointment with the Institution, but can contribute to teaching in the Technical Institutions/ academic Programmes. The Adjunct Faculty should be an eminent Professional/ Scientist/ Engineer having recognition at national/ international level and having outstanding published work.
4. **QUALIFICATIONS AND EXPERIENCE:** An Adjunct Faculty/ Resource person should be a Faculty retired from Technical Institution or a person of eminence, with or without a Post Graduate or Ph.D. qualifications having 10 to 15 years of experience from Industry/ Organization. There shall be no upper age limit for Adjunct Faculty/ Resource Person as long as he/she add value to the education and academic activities of the Institution. He/ She shall satisfy the following norms:
  - Teaching and research Organizations of State/ Central government Institutions/ Universities
  - Central and State Public Sector Undertakings (PSUs)
  - Reputed Industries
  - Civil servants (IAS/ IPS/ Officials from Central and Provincial Services) and Professionals and Officials from professional Councils
  - NRIs and PIOs working with reputed overseas academic, research and industrial Organizations or having a demonstrated interest in Indian issues.
5. **LIMITATION:** Following are the restrictions for engaging the Adjunct Faculty. In an Academic Year, an Adjunct Faculty can work in 4 Institutions (maximum). The weightage of the Adjunct Faculty in each Institution shall be in proportion to the number of Institutions he/ she is working in. For example, if an Adjunct Faculty is

working in 4 Institutions simultaneously, his/ her weightage in each Institution shall be 25% and if in three Institutions simultaneously, then 33% and so on. At the time of engagement as Adjunct Faculty in any of the Institution, the resource person has to submit a declaration on the number of Institutions he/ she has been appointed as Adjunct Faculty in the current Academic Year. Any resource person receiving grant under “Adjunct Faculty Scheme” from AICTE cannot work as Adjunct Faculty in other Institutions.

6. **STRENGTH OF ADJUNCT FACULTY:** The strength shall not exceed 20% of the sanctioned strength of Faculty at any time. Adjunct as well as resource person from Industry shall not be taken into account while calculating Cadre ratio (the cadre ratio should be calculated for the 80% Faculty only)
7. **FUNCTIONS:** Functions of Adjunct Faculty/ Resource person from Industry are:  
Teaching Technical Course(s): Adjunct Faculty shall be expected to teach Course(s) directly related to his/ her specific expertise and professional experience or the areas of his/ her specialization. He/ She shall also contribute to the Institution’s activities like counseling of students, developing new Course(s) and pedagogical improvements.  
Participation in service-related activities: Adjunct Faculty is also expected to actively participate in service-related activities, such as sitting on Departmental Committees, serving as advisors to Faculty and/ or undergraduate and post graduate students, helping students network and active collaboration with the Industry/ Employer providing internship and job opportunities.
8. **TA/ DA AND HONORARIUM:** The Adjunct Faculty shall work at the host Institution for a minimum of 02 days per visit. TA/ DA, Honorarium and other facilities provided to Adjunct Faculty, as per UGC guidelines, shall be:  
Travel cost, as per entitlement, from place of stay to Institution and back, maximum 6 times per Academic Year. No accommodation would be permissible, however, free lodging and boarding in the guesthouse.  
An honorarium of Rs. 1000/- only (Rupees One Thousand Only) per lecture up to a maximum of Rs. 4000/- (Rupees Four Thousand only) per day of service, subject to a maximum ceiling of Rs. 80000/- (Rupees Eighty Thousand only) per month. Other facilities such as Office Room, Secretarial Services, depending on their involvement in academic activities, can be considered.
9. **APPOINTMENT:** Their appointment shall be done by a Competent Authority, based on the recommendations of a Committee. The period of their empanelment shall vary between six months to three years.
10. **MONITORING:** The performance of every Adjunct Faculty shall be monitored at the end of assignment based on the “Performance Report” submitted to the host Institution for continuation/ renewal of tenure.