



# Bapatla Engineering College:: Bapatla (Autonomous)

## Academic Rules & Regulations for B. Tech Program

(Approved by Academic Council & Governing Body of the College held on --/--/2018)

*(Amended in August 2018; Effective for students admitted into First year B.Tech from the academic year 2018-2019 onwards – R18 Regulations).*

**1.0 EXTENT:** All the rules and regulations, specified herein after, shall be read as a whole for the purpose of interpretation and when a doubt arises, the interpretation of the Chairman, Academic Council, Bapatla Engineering College (Autonomous) is final. As per the requirements of the Statutory Bodies, The Principal, Bapatla Engineering College (Autonomous), shall be the Chairman of the College Academic Council.

**1.1 DURATION OF THE PROGRAMME AND MEDIUM OF INSTRUCTION:** The duration of the B.Tech. Programme is for four academic years consisting of two semesters in each academic year. The medium of instruction and examinations is English.

### 2.0 ADMISSIONS:

**2.1 Admission into the First year of any Four Year B.Tech Programmes of study in Engineering:** Admissions into the first year of B.Tech Programme of Bapatla Engineering College (Autonomous) (*Subsequently referred to as B.E.C*) will be as per the norms stipulated the Govt. of Andhra Pradesh from time to time.

**2.2 Admission into the Second year of any Four year B.Tech Programmes of study in Engineering as Lateral Entry Student:** Admissions into the second year of B.Tech Programme of B.E.C will be as per the norms stipulated the Govt. of Andhra Pradesh from time to time.

**2.3 Admissions with advance standing:** These may arise in the following cases:

- 1) When a student seeks transfer from other colleges to B.E.C and intends to pursue B.Tech at B.E.C in an eligible branch of study.
- 2) When students of B.E.C get transferred from one regulation to another regulation or from previous curriculum to revised curriculum.
- 3) When a student, after long discontinuity, rejoins the college to complete his/her Programme of study for the award of the degree.

These admissions may be permitted by the Academic Council of B.E.C as per the norms stipulated by the statutory bodies and the Govt. of Andhra Pradesh from time to time. In all such cases for admission, when needed, permissions from the statutory bodies are to be obtained and the Programme of study at B.E.C will be governed by the transitory regulations stipulated in **4.3.3 and 4.3.4**.



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## 3.0 Details of the Program:

S.No	Activity	Description
1.	Number of Semesters in an Academic Year	Two
2.	Course Work	15 Weeks. 90 instructional days.
3.	Evaluation	As per the Assessment and Examination Policy.

## 4.0 Programmes of study in B.Tech:

4.1 The Four year B.Tech Programme is offered in the following branches of study:

S.No.	Title of the UG Programme	Abbreviation
1.	Civil Engineering	CE
2.	Computer Science & Engineering	CS
3.	Electrical & Electronics Engineering	EE
4.	Electronics & Communication Engineering	EC
5.	Electronics & Instrumentation Engineering	EI
6.	Information Technology	IT
7.	Mechanical Engineering	ME

## 4.2 Structure of the Programme:

As per the Program Review Policy/New program Development Policy.

4.3 **Transitory Regulations:** For students admitted under advance standing (mentioned in 2.3) these transitory regulations will provide the *modus operandi*.

At the time of such admission, based on the Programme pursued (case by case)

- 1) Equivalent courses completed by the student are established by the BOS concerned.
- 2) Marks/Credits are transferred for all such equivalent courses and treated as successfully cleared in the Programme of study prescribed by B.E.C.
- 3) A Programme chart of residual courses not cleared will be derived and a Programme of study with duration specified will be prescribed for pursuit at B.E.C.
- 4) Marks obtained in the previous system, if the case be, are converted to grades and CGPA is calculated accordingly.



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All other modalities and regulations governing shall be the same as those applicable to the stream of students with whom such a candidate is included into.

### 4.4 Curriculum for each Programme of study:

- 1) The Four year curriculum of any B.Tech Programme of study in any branch of engineering is formulated based on the guidelines mentioned in 4.2 and will be recommended by the Board of Studies concerned and is approved by the Academic council of the college.
- 2) In the case of students admitted through lateral entry, the respective regular curriculum from the second year onwards is to be pursued by such students. Foundation courses may be added if necessary.
- 3) In the case of students admitted under advanced standing, the equivalency will be prepared by the Department Committee and to be approved by the Board of Studies concerned and the Academic Council.
- 4) After approval from the Academic Council, Department informs the courses to be taken to all the students along with the academic regulations.

Table below shows a typical curriculum frame work for B.Tech Degree program.

S.No.	Subject Area	Average no. of credits
1.	Humanities & Social Sciences courses	12 - 14
2.	Basic Science Courses	21 – 28
3.	Engineering Science	18 - 21
4.	Professional Core courses	65 – 78
5.	Professional Elective Courses	15 - 21
6.	Open Electives	6 – 12
7.	Major Project / Seminar, etc.	12
8.	MOOCs	2
9.	Summer Internship	2
10.	Mandatory courses (2 courses)*	0
	<b>TOTAL</b>	<b>165 - 170</b>

The students admitted through the **Lateral Entry scheme** have to complete **120 – 137** credits.

\*For mandatory courses as suggested by UGC / AICTE no credits are allocated but obtaining pass grade in these subjects is compulsory to obtain the degree.



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**4.5** The Maximum duration permitted to pursue the programme and cancellation of admission:

**4.5.1** The maximum duration permitted for any student to successfully complete any four year B.Tech. Programme of study shall be:

- 1) Eight academic years in sequence from the year of admission for a normal student admitted into the first year of any Programme,
- 2) Six academic years in sequence from the year of admission for a Lateral entry student admitted into the second year of any Programme, and
- 3) For students admitted with advanced standing, the maximum time for completion of Programme study shall be twice the period in terms of academic years in sequence, stipulated in the Programme curriculum defined at the time of admission.

**4.5.2** In case, any student fails to meet the applicable conditions for the eligibility of degree in the maximum stipulated period as mentioned in **4.5.1**, his/her admission stands cancelled.

## **5.0 EXAMINATION SYSTEM & EVALUATION:**

As per the Assessment and Examination Policy

**5.1** The performance of the students in each semester shall be assessed course wise. All assessments will be done on absolute mark basis. However, for the purpose of reporting the performance of a candidate, letter grades and grade points will be awarded as per section **9.1**. For distribution of marks against CIE and SEE, please refer to **BEC Assessment and Examination Policy**

## **6.0 ATTENDANCE REGULATIONS:**

All students shall maintain a minimum attendance of 85% in each course registered. In case of shortfall in this, the Principal of the College shall consider and may condone deficiency up to a limit of 10% in special cases for reasons such as medical emergencies, participation in sport, cultural activities, seminars, workshops and paper presentation etc. at the level of University, State, and National after due recommendation by the concerned Head of the Department. Any student failing to meet the above standard of attendance in any course(s) registered, shall not be allowed to appear for SEE of such course(s).

**6.1** Attendance at CIE and SEE: Attendance at all examinations, both CIE and SEE of each course registered shall be compulsory for the students and there shall not be any provision for re-examinations/consideration.

**6.2** Any student against whom any disciplinary action by the College is imposed shall not be permitted to attend any SEE in that Semester.

**6.3** The basis for the calculation of the attendance shall be the period prescribed by the College by its calendar of events. For the first semester students, the same is reckoned from the date of admission to the course.



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- 6.4** The students shall be informed about their attendance position periodically by the College so that the students can strive to make up the shortage. However, non-receipt of such information from the college will not be considered as valid reason for exemption from the attendance requirements.
- 6.5** If a student does not fulfil the attendance requirements in any subject, he/she is not permitted to attend the Semester End Examination in that subject and is deemed to have been awarded "F" grade in that subject.

## **7.0 Reregistration of courses for lack of attendance or lack of marks:**

Students who failed after final regular examination, must appear for the supplementary examination to be conducted at least two weeks before the commencement of the next academic year for the courses failed in both semesters.

Students who failed to secure minimum attendance and minimum percentage of marks specified in any course, he / she will not be allowed to write final examination of that course.

### **7.1 Students who did not satisfy attendance / marks criteria in all subjects of the semester:**

Student must register for all courses as a regular student in the subsequent semester when these courses are offered. For example, if the student did not qualify in the 1<sup>st</sup> semester, he / she should register all the 1<sup>st</sup> semester courses in the 3<sup>rd</sup> semester, i.e., repeat the semester.

However, he/she will continue to study second semester courses except those that have incomplete prerequisites. During the 2<sup>nd</sup> semester student can register one or two courses of first semester as repeater courses (as specified in the assessment and Examination policy), preferring those courses which are prerequisites for other courses.

### **7.2 Students who did not satisfy attendance / marks criteria in more than two subjects of the semester:**

Such students should register for the detained subjects in a regular subsequent semester. He / she may register for one or two courses more of the higher semester if time-table permits. For example, a student who did not qualify for examinations in three subjects in the first semester, must register all the three courses of first semester in the third regular semester and may take two or three courses of the third semester.

However during the 2<sup>nd</sup> semester student can register one or two courses of first semester as repeater courses (as specified in the assessment and Examination policy), preferring those courses which are prerequisites for other courses.



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**7.3** Students who did not satisfy attendance / marks criteria in one or two subjects of the semester

Students may register for the detained subjects as repeater courses (as specified in the assessment and Examination policy) in the third semester and simultaneously register for all courses of third semester.

**8.0 Registration:** Every eligible student has to register himself / herself at the beginning of every semester indicating all the Courses taken up for pursuit by him / her during that Semester and mentor's signature is mandatory.

**8.1** When a student is debarred for one or more semesters, his / her registration in the present semester is cancelled and the student is debarred from registering in future during the debarred period.

**8.2** In any case, while re-registering in any semester, he or she will have to pay the requisite fee once again.

*For extended years of study, students must pay the tuition fees as per the college regulations.*

## 9.0 GRADING SYSTEM

Based on the student performance during a given semester, a final letter grade will be awarded at the end of the semester for each course.

**Letter Grades:** A letter grade is basically a qualitative measure (an alphabet/letter) giving the performance of a student, such as,

Outstanding	(A+),
Excellent	(A),
Very Good	(B+),
Good	(B),
Average	(C+),
Below average	(C),
Poor	(D),
Pass	(P) and
Unsatisfactory/Fail	(F)

based on the marks obtained by the student in both CIE and SEE.

## 9.1 Grade Points

Depending on the letter grades assigned, a student earns certain grade points. The Colleges follow the 10-point grading system, as given below for absolute grading system.

The letter grades and the corresponding grade points are as given in the Table.



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Table: Grades & Grade Points

Grade	Grade Points	% of Marks
A+	10	95% – 100%
A	9.5	90% – 94%
B+	9	85% – 89%
B	8.5	80% – 84%
C+	8	75% – 79%
C	7.5	70% – 74%
D	7	60% – 69%
P	6	50% – 59%
F(Fail)	0	< 50%

**9.1.1** The grade points given in above tables help in the evaluation of credit points earned by the student in a Course as the credit points are equal to the number of credits assigned to the Course multiplied by the grade points awarded to the student in that Course. This shall be used in arriving at the Semester Grade Point Average (SGPA) of the student for that semester, as it is the sum of all the credit points earned by the student for all the Courses registered in that semester.

**9.1.2** Earning of Credit: A student shall be considered to have completed a Course successfully and earned the credits if he/she secures an acceptable letter grade in the range A+ to P. Letter grade 'F' in any Course implies failure of the student in that Course and no credits earned.

**9.2** A student who earns a minimum of 6 grade points (P grade) in a course is declared to have successfully completed the course, and is deemed to have earned the credits assigned to that course. **However it should be noted that a pass in any course/term paper/Project shall be governed by the rules mentioned Assessment and Examination Policy.**

## 10.0 GRADE POINT AVERAGE

**10.1** The Grade Point Average (GPA) will be calculated according to the formula:

$$GPA = \frac{\sum C_i G_i}{\sum C_i}$$

Where  $C_i$  = number of credits for the course  $i$ ,

$G_i$  = grade points obtained by the student in the course.

**10.2** Semester Grade Point Average (SGPA) is awarded to candidates considering all the courses of the semester. Zero grade points are also included in this computation.





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**10.3** To arrive at Cumulative Grade Point Average (CGPA), the formula is used considering the student's performance in all the courses taken in all the semesters completed up to that particular point of time.

**10.4** Example

Semester	Course Code	Credits	Grade	Grade Point	Credit Points	SGPA	CGPA
I	14MA101	4	C	7.5	30	<b>7.846</b> <b>(204/26)</b>	<b>7.846</b> <b>(201/26)</b>
I	14PH102	3	B	8.5	25.5		
I	14CH103	3	A	9.5	28.5		
I	14EL104	3	P	6	18		
I	14ES105	3	C+	8	24		
I	14EG106	4	B+	8	32		
I	14CHL101	2	P	6	12		
I	14ELL102	2	D	7	14		
I	14WSL103	2	A+	10	20		
<b>Total</b>		<b>26</b>			<b>202</b>		
II	14MA201	4	P	6	24	<b>8.077</b> <b>(210/26)</b>	<b>7.96</b> <b>(414/52)</b>
II	14PH202	3	B	8.5	25.5		
II	14CH203	3	A+	10	30		
II	14EE204	3	C	7.5	22.5		
II	14EM205	4	C+	8	32		
II	14CP206	3	B+	9	27		
II	14PHL201	2	D	7	14		
II	14HWL202	2	C	7.5	15		
II	14CPL203	2	A+	10	20		
<b>Total</b>		<b>26</b>			<b>207</b>		

**11.0 ELIGIBILITY FOR AWARD OF B.TECH. DEGREE:** A student shall be eligible for award of the B.Tech degree if he/she fulfils all the following conditions:

- 1) Registered and successfully completed all the components prescribed in the Programme of study to which he/she is admitted,
- 2) Obtained CGPA greater than or equal to 6.0 (Minimum requirements for Pass),
- 3) Has no dues to the Institute, hostels, Libraries, NCC/NSS etc., and
- 4) No disciplinary action is pending against him/her.

**12.0 AWARD OF CLASS:** A candidate who becomes eligible for the award of B.Tech. Degree shall be placed in one of the following Classes based on CGPA.

**Table: CGPA required for award of Degree**





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<b>Distinction</b>	<b>≥ 8.0*</b>
<b>First Class</b>	<b>≥ 7.0</b>
<b>Second Class</b>	<b>≥ 6.0#</b>

\* In addition to the required CGPA of 8.0, the student must have necessarily passed all the courses of every semester **in the minimum stipulated period for the Programme.**

# If the student did not obtain a CGPA of 6.0 after completing all courses of study, he/she should repeat some courses and obtain higher grade till his/her CGPA is 6.0. Unless he/she obtains a CGPA of 6.0, degree is not awarded.

**12.1 Grade Sheet:** A grade sheet (Memorandum) will be issued to each student indicating his performance in all courses taken in that semester and also indicating the Grades and SGPA.

**12.2 Transcripts:** After successful completion of the total Programme of study, a Transcript containing performance of all academic years will be issued as a final record. Duplicate transcripts will also be issued if required after the payment of requisite fee. Partial transcript will also be issued up to any point of study to any student on request and by paying the stipulated fee in force.

**12.3** The Academic council of the College approves and recommends the same to Acharya Nagarjuna University for the award of a degree to any student.

### **13.0 IMPROVEMENT OF CLASS:**

**13.1** A candidate, after becoming eligible for the award of the Degree, may reappear for the Final Examination in any of the theory courses as and when conducted, for the purpose of improving the aggregate and the class. But this reappearance shall be within a period of two academic years after becoming eligible for the award of the Degree.

However, this facility shall not be availed of by a candidate who has taken the Original Degree Certificate. Candidates shall not be permitted to reappear either for CIE in any course or for Semester End Examination (SEE) in laboratory courses (including Project Viva-voce) for the purpose of improvement.

**14.0 SUPPLEMENTARY EXAMINATIONS:** In addition to the Regular Final Examinations held at the end of each semester, Supplementary Final Examinations will be conducted during the academic year. Candidates taking the Regular / Supplementary examinations as Supplementary candidates may have to take more than one Final Examination per day.

**15.0 INSTANT SUPPLEMENTARY EXAMINATIONS:** Candidates who fail in one theory course of VIII semester can appear for Instant Supplementary Examination conducted after declaration of the revaluation results of the said exam.



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## 16.0 MALPRACTICES:

The Principal shall refer the cases of malpractices in Continuous Internal Evaluation (CIE) and Semester End Examination (SEE) to an Enquiry Committee constituted by him / her. The Committee will submit a report on the malpractice allegedly committed by the student to the Principal. The Principal along with the members of the Committee is authorized to award a punishment as per the norms, if the student is found guilty.

**DETAILED REGULATIONS GOVERNING THE MALPRACTICES BY THE STUDENTS DURING INTERNAL TESTS / EXAMINATIONS (CIE & SEE) is enclosed as Annexure.**

## 17.0 AMENDMENTS TO REGULATIONS:

The Academic Council of Bapatla Engineering College (Autonomous) reserves the right to revise, amend, change or nullify the Regulations, Schemes of Examinations, and/ or Syllabi or any other matter pertained that meets to the needs of the students, society and industry without any notice and the decision is final.

## ASSESSMENT AND EXAMINATION

### A. EVALUATION

The performance of the students in each semester shall be assessed course wise. All assessments will be done on absolute mark basis. However, for the purpose of reporting the performance of a candidate, letter grades and grade points will be awarded. The performance of a student in each course is assessed with Alternate Assessment Tests, term examinations on a continuous basis during the semester called Continuous Internal Evaluation (CIE) and a Semester End Examination (SEE) conducted at the end of the semester. For each theory, design and/or drawing course, there shall be a comprehensive Semester End Examination (SEE) of three hours duration at the end of each Semester, except where stated otherwise in the detailed Scheme of Instruction.

The distribution of marks between Continuous Internal Evaluation (CIE) and Semester End Examination (SEE) to be conducted at the end of the semester will be as follows:

Nature of the Course	CIE	SEE
Theory subjects	50	50
Drawing	50	50
Practical	50	50
Business communication & presentation Skills Lab	50	50



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Term Paper	50	50
Project work	75	75

## 1. Continuous Internal Evaluation (CIE) in Theory and Drawing subjects:

In each Semester there shall be two Term examinations and two tests from any of the **Alternate Assessment Tools (AAT)** like Home Assignment, Class Test, Problem Solving, Group Discussion, Quiz, Seminar and Field Study in every theory course. The Alternate Assessment Tool with detailed modality of evaluation for each course shall be finalized by the teacher concerned before beginning of the course with the permission of HOD concerned and the PRINCIPAL.

The Term Examination is conducted in the regular mode according to a schedule which will be common for a particular year of study. The maximum weightage for Term Examinations, AAT and the calculation of marks for CIE in a theory course is given in the following table.

Particulars	Term Exams (Max. 20 marks)	AAT (Max. 30 marks)
Better Performed exam	75% of marks obtained	Continuous assessment by teacher as per the predetermined course delivery & assessment plan. (Min. two assessments)
Other exam	25% of marks obtained	

For drawing courses, there shall be only two Term examinations in a semester with no Alternate Assessment Tool. In case of such courses a maximum of 30 marks shall be given for day-to-day class work and a maximum of 20 marks shall be awarded to the Term examinations taking into account the performance of both the Term examinations giving weightage as prescribed above.

A minimum of 25 (50%) marks are to be secured exclusively in the Semester End Examination (SEE) of theory, design and/or drawing course is to be secured in order to be declared as passed in that course and eligible to write the SEE of that course.

## 2. Semester End Examination (SEE) in Theory, Design and/or Drawing course:

- For each theory, design and/or drawing course, there shall be a comprehensive Semester End Examination (SEE) of three hours duration at the end of each Semester for 50 marks, except where stated otherwise in the detailed Scheme of Instruction. Question paper setting shall be entrusted to external examiners/internal examiners from the panels approved by the respective Boards of Studies.



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- b) A minimum of 20 (40%) marks are to be secured exclusively in the Semester End Examination (SEE) of theory, design and/or drawing course and a minimum total of 45 marks in SEE and CIE put together in a theory, design and/or drawing course is to be secured in order to be declared as passed in that course and for the award of the grade in the course.

### **3. Continuous Internal Evaluation (CIE) in laboratory courses:**

The evaluation for Laboratory course is based on SEE and CIE. The CIE for 50 marks comprises of 30 marks for day to day laboratory work, 5 marks for record submission and 15 marks for a laboratory examination at the end of the semester.

In any semester, a minimum of 90 percent of prescribed number of experiments / exercises specified in the syllabi for laboratory course shall be taken up by the students. They shall complete these experiments / exercises in all respects and get the record certified by the internal lab teacher concerned and the Head of the Department concerned to be eligible to appear for the Final Examination in that laboratory course. minimum of 25(50%) marks shall be obtained in SEE and a minimum total of 40 marks in SEE and CIE put together in a laboratory course are to be secured in order to be declared as passed in the laboratory course and for the award of the grade in that laboratory course.

### **4. Semester End Examination (SEE) in laboratory courses:**

- a) For each laboratory course, the Semester End Examination (SEE) shall be conducted by one internal and one external examiner appointed by the Principal and the duration of the exam shall be for three hours. The SEE is for 50 marks which include 10 marks for write up, 20 marks for lab experiment/exercise, 5 marks for record, and 15 marks for Viva-voce.
- b) A minimum of 25(50%) marks shall be obtained in SEE and a minimum total of 40 marks in SEE and CIE put together in a laboratory course are to be secured in order to be declared as passed in the laboratory course and for the award of the grade in that laboratory course.

### **5. Evaluation of Term Paper:**

- a) A term paper is to be submitted by each student in the 7<sup>th</sup> semester which would be a precursor to the project work to be done in the 8<sup>th</sup> semester, and Business Communication & Presentation Skills Labs to be taken up in the 7<sup>th</sup> semester. The evaluation is based on CIE for 30 marks, which includes a minimum of two seminars/presentations for 15 marks and the report submitted at the end of the semester which is evaluated for 20 marks.



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- b) The Semester End Examination (SEE) shall be conducted for 50 marks by one internal and one external examiner appointed by the Principal. The SEE contains Viva-voce and the demonstration of the model developed or work performed as a part of the term paper.
- c) A minimum of 25 (50%) marks shall be obtained in SEE and a minimum total of 20 marks in SEE and CIE put together in the term paper are to be secured in order to be declared as passed in the term paper and for the award of the grade in the term paper.

### **6. Evaluation of Project**

- a) In case of the Project work, the evaluation shall be based on CIE and SEE. The CIE for 50 marks consists of a minimum of two Seminars/ presentations for 25 marks and the Project Report submitted at the end of the semester which is evaluated for 25 marks.
- b) SEE shall be in the form of a Viva- voce and the demonstration of the thesis work for 100 marks. Viva-voce Examination in Project Work shall be conducted by one internal examiner and one external examiner to be appointed by the Principal. A minimum of 50 marks shall be obtained in SEE exclusively and a minimum total of 60 marks in SEE and CIE put together are to be secured in order to be declared as passed in the Project and for the award of the grade.

A student who could not secure a minimum of 50% aggregate marks in CIE of a semester is not eligible to appear for the Semester End Examinations conducted at the end of the semester and shall have to repeat that semester.

NOTE : A student who is absent for any Test / Exam / Seminar / Presentation as a part of Continuous Internal Evaluation (CIE), for any reason whatsoever, shall be deemed to have scored zero marks in the respective component and no provision for make-up shall be provided.

### **7. Course Repetition (Repeater course)**

The students secured less than 40% in the Continuous Internal Evaluation (CIE) and Semester End Examinations (SEE) may register for the course repetition. The students have to apply to the Principal through the respective HOD by paying prescribed fees. A student can take up a maximum of two courses in a semester immediately after the semester end examinations of that particular semester in accordance with the guidelines recommended by the Academic Council.

The HODs concerned have to allot a teacher related to that course to conduct class work. The minimum number of periods to be conducted should not be less than 50% of the total prescribed periods for that course. The classes will be conducted in the vacation period or in the weekends or in the afternoons as decided by the HOD concerned. Teacher has to evaluate the student for



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his performance in CIE as per the autonomous norms and students should appear for a semester end examination. The pass criteria in both CIE & SEE should be as per autonomous norms. The documents for monitoring the candidates registered for course repetition are as under.

- 1) **A separate file for course repetition is to be maintained in the department.** Guidelines for Course Repetition (BEC/E/10/1359 dated September 29, 2015) are to be filed.
- 2) Consolidated list of candidates applied for Course Repetition which will be sent by Controller of Examination is to be filed for every semester.
- 3) Consolidated list of courses and candidates registered for Course Repetition of the department is to be prepared by the department and is to be filed for every semester. **(CR-FORMAT-I)**
- 4) In every semester for each course the following are to be filed in the department and the teacher handling the Course Repetition as the case may be.
  - a) Time table and list of students who registered for the course. **(CR-FORMAT-II)**
  - b) Attendance sheet which is to be maintained by the concerned faculty and submitted to the COE at the end of every month and a copy of the same should be filed. **(CR-FORMAT-III)**
  - c) Internal assessment has to be conducted as per the regulations with regard to the assignment sheets, assignment tests and midterm examinations without any deviations.
  - d) Consolidated continuous internal assessment award list has to be sent to the COE at the end of the semester and a copy of the same should be filed. **(CR-FORMAT-IV)**

### B. QUESTION PAPER SETTING

#### Question Papers

For an effective testing of the students in a course, a good question paper needs to be used as the principle tool. This makes it necessary for the question papers used at CIE and SEE to:

- Cover all sections of the course syllabus uniformly;
- Be unambiguous and free from any defects/errors;
- Emphasize knowledge testing, problem solving & quantitative methods;
- Contain adequate data / other information on the problems assigned; and,
- Have clear and complete instructions to the candidates

These requirements make it necessary for a Question Paper to cover the entire syllabus, with a provision for the students to answer questions from the full syllabus. As students need to be given some choice in the questions included in the Paper, it is preferred for the Question





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Papers at SEE, in particular, to have built in choice under each unit of the syllabus. This factor shall be taken note of by the Board of Examiners, while planning for the Question Papers.

Besides, it is also necessary for the course syllabi to be well drafted, be defect-free and be properly unitized (or modularized) to enable the setting of good question papers covering the whole syllabus. These aspects have to be taken into account, in particular, by the Board of Studies (BOS)

**Typical Question Paper:** The questions to be included in the Question Papers at CIE and SEE can be of two types as follows and the subject teachers as well as the external examiners shall have to be well trained to set them:

- i. Multiple Choice Questions, having each question to be answered by tick marking the correct answer from the choices (commonly four) given against it; Such a question paper to be useful in the testing of knowledge, skills, comprehension, application, analysis, synthesis, evaluation and understanding of the students; However, Question Papers for CIE and SEE to include no more than 15-20% of the questions of this type.
- ii. Comprehensive Questions, having all questions of the regular type to be answered in detail; Such a Question Paper to be useful in the testing of overall achievement and maturity of the students in a subject, through long questions relating to theoretical / practical knowledge, derivations, problem solving, application and quantitative evaluation.

## Examinations

For ensuring a high standard in CIE and SEE, meeting the expectations of the Statute and being able to declare the results of student's performance at both CIE and SEE in a time bound manner before the conclusion of a semester as per the Academic Calendar, it is necessary to follow the practical suggestions for conducting examinations given below:

**CIE:** The CIE shall be conducted exclusively by the faculty handling the Course. The Course teacher/instructor to spell out the components of CIE to the students in advance, maintain transparency in its operation, declare the evaluation results in time and then return the answer scripts and assignment sheets to them; Also the faculty solve the questions from these test papers during the class/tutorials for the benefit of students

Continuous Internal Evaluation [CIE] for theory courses shall have 50% weightage. The CIE is based on Three Tests & Two Quizzes conducted as per the schedule given in Academic Calendar. Out of three tests, the best two test performance shall be considered. The tests shall be conducted for 40 marks each and be reduced to 20 marks. The average marks of the best two test performances shall be considered for awarding the CIE along with the quiz marks. Two quizzes of 10 marks each shall be conducted & the marks be reduced to 05 in each quiz. The Total marks of CIE shall be 100 (two tests of 40 marks each & two quizzes of 10 marks each). The weightage of CIE is as shown below

## A. CONTINUOUS INTERNAL EVALUATION

(Schedules for all the examinations are as per Academic Calendar)





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- a) The Assignment sheet for AAT should comprise of 10 one-mark questions and 6 six-mark questions from the Unit-1 for AAT-1 and from the Unit-3 for AAT-2. The assignment sheet shall be distributed to the students one week in advance in printed form. A question distributed on the day of AAT to a student should be composed of
- i) Any four of one-mark questions (4 x 1 = 4M)
  - ii) Any one of six-mark questions (6 x 1 = 6M)

**It is preferred to have at least 6 such different questions for distribution. The schedule for the tests shall in advance be communicated to the students and the test is conducted preferably in the first period.**

- b) The question paper for the term examination shall be set for 30 Marks. The question paper shall comprise of three questions. The first question shall be answered compulsorily and does not have any choice. It consists of six one mark questions (from Unit-1 and Unit-2 for the I Term examination and from Unit-3 and Unit-4 for the II Term examination) for a total of six marks. The second and third questions shall be in the pattern of internal choice. The second question shall be from Unit-1 (Unit-3 for II Term examination) and the third question shall be from Unit-2 (Unit-4 for II Term examination). Each question carries 12 marks and preferably should have sub questions of 6 marks each or a combination of eight and four marks for example.

All the HOD's are requested to see that common term examination question paper is set for a subject with the help of a course coordinator.

### **B. SEMESTER END EXAMINATION**

The question paper is to be set in **English** language only. The maximum marks of the question paper are 60 and the duration of the examination is 3 hours. The question paper should be fairly distributed over the whole course of study and not concentrated on any one or a few portions only.

Question number 1 is compulsory. It contains twelve short answer questions (3 from each unit), each question carrying one mark.

Questions 2 & 3: From Unit-1 of the syllabus

Questions 4 & 5: From Unit-2 of the syllabus

Questions 6 & 7: From Unit-3 of the syllabus

Questions 8 & 9: From Unit-4 of the syllabus

Each question from 2 to 9 has a weightage of 12 marks. Questions Nos. 2 to 9 should have two sub questions each with '6 Marks + 6 Marks' or '4 Marks + 8 Marks' combination. One of the sub questions should be a derivation / problem / numerical / case study / program / algorithms which assess the application skills of the student. The other sub question should



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test the understanding of a particular concept in the form of how / why / compare / illustrate / classify / construct / develop / distinguish / justify / create / discuss / solve. Both the sub questions may test the application skills, but both the sub questions should not be of type which test the understanding of the concept only.

Every part of each question should be clear and definite in language as also in regard to the nature of the answer required from the candidates and the paper should be properly punctuated. Serial number of questions should be given on the left hand margin and the marks allotted to each question should be mentioned on the right hand side of the paper. Where a question is divided into parts, the marks assigned to each part should also be shown on the right hand side of the paper.

The name of the examination, the subject and paper, the maximum marks and the time allowed as given in the heading should be carefully checked from the syllabus before printing the question paper.

## **SCRUTINY OF QUESTION PAPER**

The question papers obtained by COE for conducting semester end examination are to be scrutinized by the authorized faculty member to verify its correctness in totality before it is given for conducting the examination.

1. HOD has to nominate a faculty member in written for the scrutiny of a question paper at least one week in advance with intimation to the faculty member and COE.
2. The nominated faculty should have minimum three years teaching experience and at least one time he / she should have taught the concerned subject.
3. The nominated faculty should report to COE office one hour before the scheduled time of commencement of the examination and should leave the COE office 10 minutes after commencement of the examination.
4. The nominated faculty should aware of the guidelines for paper setting.
5. The nominated faculty should not use mobile phone during the scrutiny stay.
6. The nominated faculty to check the following
  - a. Titles of the question paper
  - b. Pattern of the question paper / unit wise distribution of questions
  - c. Distribution of marks.
  - d. Typographical mistakes in the question paper
  - e. Missing data, tables, figures etc. in the questions
  - f. Any topics which are out of syllabus
  - g. Need of data books, graphs, monograms etc should be identified and to be informed to the exam section.
7. The nominated faculty to correct the question paper for the above on the manuscript provided to him. If any topics are out of syllabus, such questions are to be changed



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with an intimation to COE and HOD. The corrected question should be written on the manuscript itself by striking of the original question. Finally the corrected manuscript duly signed by the faculty should be return back to COE office. The revised print out after incorporating the changes will be again shown to the faculty. The faculty has to sign on the copy of final question paper.

8. The manuscript and final question paper with the signature of scrutinizer will be filed for record purpose or future clarifications if needed.

### **C. SPOT EVALUATION**

#### **1. SCRUTINIZERS:**

- a) They should report to the COE Office/Spot Coordinator at 8.00 a.m. and be available in the COE Office during the Spot Evaluation.
- b) They have to sign in the script register against the details of the bundle issued to them.
- c) They should ensure that the first bundle of the scripts corrected by the examiners is scrutinized immediately and brief the examiners about any deviations/corrections identified and get the same corrected.
- d) They should ensure the following and put a check (✓) mark appropriately:
  - I. Whether all the answers are evaluated or not.
  - II. Whether the marks are awarded or not in the left margin for all the evaluated answers.
  - III. Whether marking of the answers (✓/×) possibly with comments is made or not.
  - IV. Whether the marks awarded inside are properly posted in the consolidated marks table on the cover page or not.
  - V. Whether the marks posted for the least scored choice answer is circled out and exempted from the total marks or not.
  - VI. Whether the total mark is correct and posted in the box meant for it or not.
  - VII. Whether the total marks is accompanied by the signature of the examiner or not.
  - VIII. Whether the consolidated award list with all the details for the corrected bundle is submitted and is free of errors or not.
- e) The scrutinizer should sign on each of the booklets and then submit the bundle back to the Spot Coordinator.

#### **2. INTERNAL EXAMINERS / EXTERNAL EXAMINERS:**



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- a) The Internal examiner should submit the soft and hard copies of the detailed scheme of evaluation as per the guidelines of the Controller of Examinations.
- b) The Scheme of evaluation should be discussed with external examiner and obtain his/her signature on the scheme and then start the evaluation of the scripts.
- c) The Internal examiner should evaluate the scripts in union with the external examiner and monitor the proceedings.
- d) They should ensure the following while evaluating:
  - I. All the answers (including choice) should be evaluated and the marks are to be awarded in the left margin for all the evaluated answers.
  - II. Where ever appropriate, they should mark the answers (✓/×) with any comments needed.
  - III. The marks awarded inside should be properly transferred to the consolidated marks table on the cover page.
  - IV. The marks posted for the least scored choice answer is to be circled out and exempted from the total marks.
  - V. The correct total is to be posted in the box meant for posting the total marks along with the signature.
  - VI. The consolidated award list with all the details for the corrected bundle is to be submitted along with the bundle of scripts.
- e) After the evaluation of the first 5 scripts by the external and internal examiners, they have to mutually cross-check and confirm that the correction by both of them is in accordance with the scheme of evaluation before proceeding further.
- f) Any sympathetic appeals/emotional requests for award of marks to pass in the examination by the student in the answer scripts should be brought to the notice of the Spot Coordinator.
- g) They should ensure that the allocated time of 3 hours is effectively utilized for meticulous correction/evaluation of the bundle of 25 scripts.
- h) A maximum of 50 scripts per day will be allocated for evaluation.

### **D. SCHEME OF EVALUATION**

- a) The scheme of evaluation is a guideline for examiners for evaluating the answer scripts.
- b) The HOD's shall assign preparation of scheme of evaluation for a particular subject immediately after receiving the question paper from the controller of examinations to the subject expert/subject coordinator.



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- c) The scheme shall contain important and essential points (definition / methodology / procedure / formula / figures / drawing) for each question stepwise and allot marks for each step. The number of steps for each question (conventional) should be decided judiciously.
- d) Descriptions, methods and definitions in the scheme shall be clear and alternative valid answers may be accepted.
- e) The scheme should be hand written/typed matter on a A4 paper but shall not be a scanned copy/ Xerox copy (Some complicated figures/sketches may be scanned or Xeroxed).
- f) The final scheme should be checked by the HOD of the department along with other faculty who taught the subject and then the scheme duly signed by HOD and subject expert shall be sent to the Controller of Examinations.
- g) At the time of spot valuation, external examiners and internal subject expert (who prepared the scheme) sit together and verify the scheme. If there is any discrepancy in the scheme, the scheme shall be modified with the consent of both subject expert and external examiners with the knowledge of the Controller of Examination.
- h) If satisfied with the scheme of evaluation, subject expert and external examiners shall sign the same before starting the evaluation process.