#### **REGULATIONS FOR B. TECH. PROGRAMMES**

### 1 PREAMBLE

- 1.1 The provisions in these regulations govern the conditions for imparting courses of instructions, conduction of examinations and evaluation of performance of students leading to B. Tech. degrees.
- 1.2 These regulations are effective from the academic year 2013-2014 onwards.
- 1.3 The disciplines in which the degrees will be offered are as under:
  - (1) Chemical Engineering
  - (2) Civil Engineering
  - (3) Computer Engineering
  - (4) Electrical Engineering
  - (5) Electronics and Communication Engineering
  - (6) Mechanical Engineering
- 1.4 The provisions of these regulations shall also be applicable to any new discipline that will be introduced from time to time and added to the list in 1.3 above.
- 1.5 Notwithstanding all that has been stated in the Regulations, Senate has the right to review and change the Regulations from time to time.

# 2 ADMISSION

- 2.1 Admission to all the Programmes will be made in the beginning of each academic year at the first year level as per the guidelines prescribed by the Ministry of Human Resource Development (MHRD), Government of India (GOI) from time to time.
- 2.2 Under special circumstances, students may be admitted to a programme on transfer from other NITs as per the guidelines issued by the MHRD, GOI. Such admission may be made at any level considered appropriate, except at the first year level, following procedure to be defined by the Senate on recommendation of a Committee formed by the Senate.
- 2.3 All students, on admission, shall be required to pay prevalent tuition fee and other fees as prescribed from time to time for every semester till they are on the roll of the Institute.
- 2.4 The Institute reserves the right to cancel the admission of any student and ask the student to discontinue studies at any stage on the grounds of unsatisfactory academic performance, irregular attendance in the classes or indiscipline.
- 2.5 The admission work shall be handled by the Admission Committee consisting of the Chairman, two members of faculty from each department and the Deputy Registrar (Academics). The Chairman of the Admission Committee will be nominated by the Director and the other members of the Committee will be nominated by the Director on recommendation of the Chairman. The Deputy Registrar (Academics) will be the Secretary of the Admission Committee.

#### **3** ACADEMIC CALENDAR

- 3.1 The academic year is divided into two semesters each of approximately seventeen weeks duration, Odd Semester (July-December) and Even Semester (January-June).
- 3.2 Before the starting of any academic year, Senate will decide and declare complete academic calendar for the year, such as the date of registration for odd and even semesters, mid-semester and semester-end examinations, inter-semester breaks, etc. The academic calendar shall provide for a total of 85 (eighty five) working days in each semester.

#### 4 COURSE STRUCTURE

- 4.1 The normal duration of the course leading to B. Tech. degree will be eight semesters or four years.
- 4.2 Medium of instruction and examination will be English.
- 4.3 Teaching scheme of a subject in general may have Lecture (L), Tutorial (T) and Laboratory/Design/Drawing/Workshop (P) components. However, some of these components may not be present in some subjects.
- 4.4 Any revision of syllabi and changes in courses and curricula proposed by the Departmental Academic Advisory Committee (DAAC) and recommended by the Institute Academic Advisory Committee (IAAC) shall have to be placed before the Senate for its approval. However, any change in the common curricula for all programmes to be followed in the 1<sup>st</sup> and 2<sup>nd</sup> semesters shall be proposed by the IAAC for approval of the Senate.
- 4.5 Each course has a certain number of credits, which reflect its weightage. One Lecture/Tutorial (L/T) hour per week will be assigned one credit. One Laboratory/ Design/Drawing/Workshop (P) hour per week will be assigned half credit. For Seminar and Project, one hour per week per semester will be assigned half credit.
- 4.6 Earned credit requirements for the 4-year B. Tech. programmes shall be in the range of 180-186. Exact requirements for individual programmes shall be based on the teaching scheme of the Programmes.
- 4.6 The curriculum of individual programmes may include industrial training for 4-6 weeks. Industrial training and/or fieldwork is to be satisfactorily completed before a student is declared eligible for the degree. Normally industrial training may be arranged during the summer vacation following the sixth semester of studies.

#### 5 **REGISTRATION**

- 5.1 Every student in undergraduate programmes is required to be present and register at the commencement of each semester on the date fixed and notified in academic calendar.
- 5.2 Registration of students in each semester will be centrally organised by the academic section. The registration of 1<sup>st</sup> & 2<sup>nd</sup> semester students will be totally done by the academic section. The registration of students from 3<sup>rd</sup> semester onwards will be done in respective departments, for

which the subject details will be verified by the course teachers of the department and payment of dues, etc will be verified by the academic section. An appropriate semester registration form devised by Dean (Academics) will be used.

- 5.3 A student who does not register on the day announced for the purpose may be permitted, in consideration of any compelling reason, late registration within two weeks on payment of an additional late fee as prescribed by the Institute. Normally no late registration shall be permitted after two weeks from the first day of the scheduled date.
- 5.4 Only those students will be permitted to register in the next semester who have
  - (a) cleared all the institute, hostel and library dues and fines (if any) of the previous semesters.
  - (b) paid all required payments of institute and hostel for the current semester.
  - (c) satisfies the minimum academic requirements, and
  - (d) not been debarred from registering on any specific ground.
- 5.5 (a) Students obtaining 'FF' grade in a subject or a laboratory course must appear in the supplementary examination of the concerned subject or laboratory course whenever scheduled by the institute.
  - (b) Students obtaining 'XX' grade in a course must repeat the concerned course by reregistering in the next appropriate semester whenever the course is offered. 20% of tuition fees per course for a maximum of 3 courses is to be paid instead of paying the full tuition fees of the semester for the subjects in which the student has obtained the 'XX' grade. However, if he/she has 'XX' grade in more than 3 courses then he/she has to pay the full tuition fees and repeat those courses in the regular semester in which the courses are offered and he/she will not be allowed to go the next year without clearing the XX grades in the courses. The course can be a theory subject, practicals, workshop, seminar, project, etc.
  - (c) In case of failure in any noncredit course the student will have to re-register for it in the appropriate semester of the next academic session.
- 5.6 Students may add and drop subject(s) with the concurrence of the Academic Performance Review Committee (APRC) under intimation to the concerned course instructors and the academic section provided this is done within the date mentioned in the academic calendar.
- 5.7 The classes of all semesters will start from the day following the registration.
- 5.8 A student who has been debarred from appearing at an examination either (a) as per recommendation of the subject teacher for unsatisfactory attendance or (b) by the Institute as a measure of disciplinary action or (c) for adopting malpractice at an examination may register for the subject after the term of the debarment expires, provided that other provisions of the regulation do not prevent him/her.
- 5.9 An elective course will normally be offered only if there is a minimum registration of 10 students.

#### 6 ATTENDENCE REQUIREMENT

- 6.1 All students must attend every lecture, tutorial and practical classes. However, to account for late registration, sickness or other such contingencies, the attendance requirement will be a minimum of 75 % of the scheduled classes. The attendance requirement of minimum 75% shall be adhered to and the student obtaining attendance less than 75% and more than 60% in a subject shall be awarded one grade lower than the actual grade obtained by the student. This clause is also applicable to the students on medical grounds.
- 6.2 A student with less than 60% attendance in a course during a semester, in lectures, tutorials and practicals (as applicable) taken together will be awarded an 'XX' grade in that course irrespective of his/her performance in the tests. This clause is also applicable to the students on medical grounds. The course coordinator, while awarding the grades, will take into account the consolidated attendance record for the whole semester. Students who are deficient in attendance shall be awarded 'XX' grade.
- 6.3 In order to maintain the attendance record of a particular course, a roll call will be taken in every scheduled lecture, tutorial and practical class.
- 6.4 For the purposes of attendance, every scheduled practical class will count as one unit irrespective of the number of contact hours.
- 6.5 The course teacher/coordinator will consolidate the attendance record for the course (lecture, tutorial and practical together, as applicable). He/she will indicate with an asterisk the names of students with less than 75 % attendance and send the list to the D.R. (Academic) through the Head of Department. This information will be notified to the concerned students.

#### 7 ABSENCE DURING THE SEMESTER

- 7.1 A student must inform the Dean (Academics) immediately of any instance of continuous absence from classes.
- 7.2 A student who has been absent from a mid semester examination due to illness should approach the course teacher/coordinator immediately on return to class for a make-up test. This request should be supported with a medical certificate from the Institute Medical Officer. A certificate issued by a registered medical practitioner will also be acceptable in those cases where a student is normally residing off-campus; in such cases the registration number of medical practitioner should explicitly appear in the medical certificate and the Institute Medical Officer has to verify the same and give appropriate comments about the student's illness and his/her current physical and mental fitness. Prior to approaching the course coordinator, the student must file a copy of the medical certificate with the Academic section. The Academic Section may ask the student to give the copy of the medical certificate to the concerned course coordinator. The make-up test will be conducted in the last week of the semester and the question paper will cover the complete syllabus of the subject.
- 7.3 In case of absence on medical grounds, before or during the end semester examinations, the student can apply for 'II' grade. An application requesting 'II' grade should be made at the

earliest, but not later than the last day of the examination. This application should be made to the Head of Department of the student's Programme who, depending on the merit of the case, will grant approval and inform all the concerned course coordinators and D.R. (Academic). The student should subsequently complete all course requirements within fifteen days from the date of the last end semester examination except in theory courses. The 'll' grade will then be converted to a proper grade (AA to FF). The student who remains absent in the end semester examination or supplementary examinations (not on medical grounds) will be awarded 'NA' grade instead of 'll' grade.

- 7.4 In special situations arising due to the student's inability to be present at the Institute during the stipulated period, the period for conversion of 'II' grade can be extended to the first week of the next semester. Approval for the extension is granted by Dean (Academics) on the recommendations of the Head of the Department of the student's programme and the course coordinator. A request to this effect may be included in the application for 'II' grade. In such cases, the student should complete all course requirements (except the theory courses) within a week from the grant of period of extension and the result of the student is to be forwarded immediately to the examination section for the conversion of 'II' grade to a proper grade (AA to FF).
- 7.5 In case the period of absence on medical grounds is more than four weeks (20 working days) during the semester, a student may apply for withdrawal from the semester, i.e. withdrawal from all courses registered in that semester. Such an application must be made as early as possible and latest before the start of the end semester examinations. No application for semester withdrawal will be considered after the end semester examinations have commenced. Each application for semester withdrawal will be made and depending on the merit of the case, an appropriate recommendation will be made. Partial withdrawal from courses registered in a semester shall not be permitted.
- 7.6 If a student is continuously absent from the Institute for more than six weeks without notifying the Dean (Academics) his/her name will be removed from the Institute rolls. However, such students may appeal to the Director to reconsider their cases on merit.

#### 8 MAXIMUM DURATION FOR COMPLETION OF PROGRAMME

Normally a student will complete all the requirements for any UG programmes in eight semesters (four years). Academically weak students who are unable to pass in some courses and have to repeat them in subsequent semesters or register for lesser number of courses in a semester of their own or as per the advice of the Academic Performance Review Committee (APRC), shall be permitted to complete all the requirements of the degree in 12 consecutive semesters (six years). However, if a student is granted withdrawal for one or more semesters on medical ground, he/she shall be permitted to complete the programme in a maximum period of seven years.

#### 9 MONITORING OF ACADEMIC PERFORMANCE OF WEAK STUDENTS

At the end of each semester, academically poor students will be identified by the following criteria of academic performance:

- (a) Earned credits in a semester falling below 16 or
- (b) CGPA falling to 4 or less.



All students identified by the above criteria at the end of each semester will have their academic records monitored by the Academic Performance Review Committee (APRC). These students will have to meet the APRC which would try to assess the causes for unsatisfactory performance and advise him/her accordingly so that the performance improves. The APRC may also recommend an upper limit on the number of courses or total number of credits to be registered by the student in the subsequent semesters. This advice is binding and no relaxation will be made. In addition, the student's department and the course teachers will be requested to monitor the student's performance.

The APRC while reviewing the academic performance of weak students would also recommend termination of registration if a student fails to satisfy the minimum academic criteria laid down for continuation as a student at the end of each year (i.e. even semester). Details of the criteria for continuation of registration (i.e. continuation as a student) are given under Section 10.

#### 10 TERMINATION FROM THE PROGRAMME

- 10.1 If a student remains continuously absent for more than six weeks in a semester without sanction of leave, his/her name shall be struck off from the rolls of the Institute. However, such students may appeal to the Director to reconsider their cases on merit.
- 10.2 A student may be required to leave the Institute on disciplinary grounds on recommendation of the Disciplinary Committee.
- 10.3 A student shall have to leave the Institute if he/she fails to satisfy the minimum academic criteria prescribed for continuation as a student at the end of each academic year as stated below:
  - (a) A student must complete 25 earned credits (EC) at the end of 2<sup>nd</sup> semester failing which his/her registration shall be terminated.
  - (b) A student must complete a minimum of 55 earned credits at the end of the 4<sup>th</sup> semester of his adminission to the Institute, faling which, his/her registration shall be terminated.
  - (c) A student must complete a minimum of 90, 125 and 165 earned credits at the end of the 3<sup>rd</sup>, 4<sup>th</sup> and 5<sup>th</sup> year of his admission respectively; at the end of 6<sup>th</sup> year he/she must complete all the earned credit requirments for the programme.
  - (d) In case a student has withdrawan for one or more semesters, the earned credit requirements would be reduced by 12 credits for each semester of withdrawal in the 1st year, and by 16 credits for each semester of withdrawal in the consecutive years. The maximum duration for completion of the programme is as given under Section 8.
  - (e) No appeal shall be entertained for those students whose registration has been terminated for noncompletion of minimum academic requirements during the first two years.

(f) From 3rd year onwards, the student may be given an opportunity to appeal against the termination within a time period of seven days, which will be duly considered by the APRC.

#### 11 EVALUATION AND GRADING

11.1 The Credit System

The prominent features of the credit system are the process of continuous evaluation of a student's performance, the absence of pass or fail on an annual basis and the flexibility to allow the students to progress at a pace suited to individual ability and convenience, subject to the regulations of credit requirements.

Each course, except a few special courses, has a certain number of credits assigned to it depending upon its lecture, tutorial and laboratory contact hours in a week.

Each course is coordinated by a member of the faculty called the course coodinator. He/she has the full responsibility for coordinating the course, coordinating the work of other members of the faculty involved in that course, holding the tests and awarding the grades. In case of any difficulty, the student is expected to approach the course coordinator for advice and clarification.

A letter grade, corresponding to specified number of grade points, is awarded in each course for which a students is registered. On obtaining a pass grade, the student accumulates the course credits as earned credits. A student's performance is measured by the number of credits that he/she has earned and by the weighted grade point average. A minimum number of creidts should be acquired in order to qualify for a degree and continuation on semester basis.

11.2 Number of Credits in a Course

Lecture/Tutorial: One lecture/tutorial hour per week is assigned one credit. Practical: One laboratory hour per week is assigned half credit.

A few courses like Practical Training do not have credits and are referred to as non-credit (NC) courses.

- 11.3 Degree Requirements
  - (a) Earned Credit Requirement

Earned credit requirements for the various B. Tech. programmes are completion of 180-186 earned credits based on the teaching scheme of individual programmes.

(b) CGPA Requirement

A student must obtain a minimum Cumulative Grade Point Average (CGPA) of 4.5 to be eligible for award of the B. Tech. degree.

#### (c) Practical Training Requirement This course is a non-credit course and every student who undergoes practical training will be registering it in the semester following the training. The Department of the

student's programme will scrutinize the training and will award 'SS' grade if the training is satisfactory. In case the training is considered to be unsatisfactory, a 'ZZ' grade will be awarded and the student may have to undergo fresh practical training for a part or the full duration.

#### 11.4 Award of Grades

The grades to be awarded, corresponding grade points and the description of performance are listed below:

Grade	Grade Points	Description of Performance
AA	10	Outstanding
AB	9	Excellent
BB	8	Very Good
BC	7	Good
CC	6	Average
CD	5	Below Average
DD	4	Marginal
FF	0	Fail
II	-	Incomplete
NA	-	Not Appeared
WW	-	Withdrawal
XX	-	Unsatisfactory attendance in a course
SS	-	Satisfactory Completion
ZZ	-	Non-completion

An 'AA' grade stands for outstanding achievement. The 'DD' grade stands for marginal performance, i.e. it is the minimum passing grade in any course. The minimum % of marks for award of the 'DD' grade is 36%. However, the student must secure at least 30% marks in the end semester examination, otherwise he will be awarded the FF grade.

#### FF Grade

The 'FF' grade denotes failing in a course. A student has to repeat all compulsory (core) courses in which he/she obtains 'FF' grade, until a passing grade is obtained. For the other (elective) courses in which 'FF' grade has been obtained, the student may take the same course or any other course from the same category.

In the event of a student getting more than a certain number of 'FF' grades in a given semester, his/her earned credits during the semester may fall short of the required number and he/she may be asked to leave the Institute. 'FF' grade may result in increased period of stay for completing degree requirements. Further, 'FF' grade secured in any course stays permanently on the grade card.

#### II and NA Grades

An 'II' grade denotes incomplete performance in any course (theory, lab) due to absence at the end of semester on medical grounds. In case of absence on medical grounds, before or during the end semester examinations, the student can apply for 'II' grade. An application requesting 'II' grade should be made at the earliest, but not later than the last day of the examination. This application should be made to the Head of Department of the student's Programme who, depending on the merit of the case, will grant approval and inform all the concerned course coordinators and D.R. (Academic). The student should subsequently complete all course requirements within fifteen days from the date of the last end semester examination except in theory courses. The 'II' grade will then be converted to a proper grade (AA to FF).

The 'II' grade can be awarded for incomplete project work, at the end of a semester. Subsequently, it is converted into a regular grade upon completion of the project work and its evaluation. The 'II' grade may also be awarded for Project Part I. The student who remains absent in the end semester examination or supplementary examinations (not on medical grounds) will be awarded 'NA' grade instead of 'II' grade. II grade will be awarded only to those on medical grounds.

#### WW Grade

A 'WW' grade is awarded in a course where the student has opted to withdraw from the course. Withdrawal from a course is permitted until one week before the mid-semester examination.

#### XX Grade

The 'XX' grade is awarded for unsatisfactory attendance and student has to repeat the course during the next year whenever it is offered or later as advised by the APRC.

#### SS and ZZ Grades

The 'SS' grade denotes satisfactory performance and completion of a non-credit course. The 'ZZ' grade is awarded for non-completion of the course requirements, and the student will have to register for the course until he/she obtains 'SS' grade. The specific course in which SS/ZZ grades are awarded is Practical or Industrial Training.

#### 11.5 Earned Credits (EC)

The credits for the courses in which a student has 'DD' (minimum passing grade for a course) or a higher grade will be counted as credits earned by him/her. Any course in which a student has obtained FF or WW grade will not be counted towards his/her earned credits.

#### 11.6 Evaluation of Performance

The performance of a student is evaluated in terms of two indices, viz. the Semester Grade Point Average (SGPA) which is the Grade Point Average for a semester and Cumulative Grade Point Average (CGPA) which is the Grade Point Average for all the completed semesters, at any point of time.

The **SGPA** is calculated on the basis of grades obtained in all courses registered for the semester.

$$SGPA = \frac{\sum_{Sem} (\text{Course Credit x Grade Point})}{\sum_{Sem} (\text{Course Credit})}$$

The CGPA is calculated on the basis of all pass grades obtained in all completed semesters

$$CGPA = \frac{\sum_{\substack{All \ Sems.\\Completed}} (Course Credit \ x \ Grade Point) \text{ in passed courses}}{\sum_{\substack{All \ Sems.\\Completed}} (Course Credit) \text{ in passed courses}}$$

Both SGPA and CGPA will be rounded off to second place of decimal and recorded as such.

Conversion of CGPA into Equivalent % of marks:Average % age of marks = (CGPA-0.5)\*10Award of Class:First Class with Distinction: 70% and aboveFirst Class: Below 70% and upto 60%Second Class: Below 60% and upto 50%Pass Class: Below 50% and upto 40%

#### 12 ASSESSMENT OF PERFORMANCE

- 12.1 Each course is to be taught by a teacher who is ultimately responsible for maintaining the expected standard of the course and for assessment and evaluation of the student's performance. The course instructor should be associated preferably with one of the tutorial groups in case there is a provision of tutorial in the scheme of teaching of the course. Similarly, the course teacher should preferably be associated with one of the groups of students in the laboratory course.
- 12.2 For a course strength necessitating two or more classes, there will be one course teacher for each class. One of these course teachers is to be appointed by the Head of the Department as the course coordinator for coordinating the instruction and for assessment and evaluation of the students for the courses as a whole. He/she is required to ensure uniformity of assessment and is responsible for evaluating the performance of the course.
- 12.3 Assessment of Lecture Courses The evaluation pattern for the theory courses at UG & PG level shall be as under: Mid semester exam: 30 marks Attendance: 10 marks Assignment/Quiz(zes): 10 marks Tutorials (if applicable): 25 marks End semester exam: 50 marks

The mid and end semester examinations are of 1 hour and 3 hours respectively. The question paper for the end semester examination in a subject may be prepared for 100 marks and the performance assessment of the student may be carried out. However, subsequently, the marks

obtained by the student in the end semester examination shall be scaled down to half and the marks shall be awarded out of 50. However, preparing the question paper for 100 marks is not compulsory and the individual course coordinator may decide whether to prepare it for 100 marks or 50 marks. If the question paper is prepared for 50 marks then the marks obtained by the student in the end semester examination shall not be scaled down to half. To maintain the examination schedules uniform, the duration of the end semester examination can be 3 hours irrespective of whether the question paper is set for 100 marks or 50 marks.

Review of question papers shall be done by the committee appointed at the department level. Result analysis shall be done at the Departmental Academic Advisory Committee (DAAC) meeting and the same shall be reported to the Institute Academic Advisory Committee (IAAC).

- 12.4 Assessment of Laboratory Courses
  - (a) The laboratory courses are of various types: experiment-based conventional laboratory courses, design and calculation courses, drawing courses, survey courses and workshop practice courses.
  - (b) The practice of conventional laboratory journal writing should be discontinued. The students should be provided with a printed instruction sheet or soft copy of the same outlining the aim of the experiment together with the relevant principles, procedures and methods of observation, which should form a part of his/her journal record. The student is required to report his results and observations, show sample calculations, plot graphs if required and write conclusions. Reports may also be submitted in electronic form wherever permissible.
  - (c) The continuous assessment in a laboratory course shall be based on the following modes of assessment:
    - Turn to turn supervision and viva shall be given 40 percent weightage.
      - Laboratory journal/drawing sheets/workshop jobs/calculations/reports shall be given 20 percent weightage.
      - Semester-end examination shall be given 40 percent weightage.
- 12.5 The mid semester, end semester and supplementary examinations will be conducted by the Departments as per the schedule and guidelines provided by the Examination/Academic Section of the institute.
- 12.6 The weightage assigned to various components of assessment shall be announced by the concerned class teachers in the beginning of the semester.
- 12.7 The course teacher/coordinator is required to maintain a detailed record of the performance of the students in each assessment. When all the assessments in the course are complete, total marks obtained are converted into a grade. The evaluated answer books shall be shown to the students before finalizing the grades. The disposal of Answer Books should be done a year after the declaration of exam results.

#### 13 SEMINAR/PROJECT

#### SEMINAR

Head of each Department shall appoint one or two seminar coordinators depending on the class strength who in consultation with the other faculty members will prepare a list of seminar topics to be given to the students at the beginning of 7<sup>th</sup> or 8<sup>th</sup> semester. The topics should be so selected as to require the students to refer to journals or advanced text books for preparation of the seminar. The faculty member proposing a seminar topic will normally be the supervisor for the seminar. On completion of the studies, the student shall submit two copies of the report, to the coordinator (one for the supervisor and one for the department) by the prescribed date and make oral presentation of his/her seminar topic in 15 to 20 minutes on scheduled date. The presentation shall be followed by discussions in which faculty members and the students will participate and seek response from the student.

The seminar assessment will be initially made in terms of marks with 40 % weightage on the seminar report evaluated by the supervisor; the oral presentation and the response of the student in the discussion will be given 60 % weightage which will be individually awarded by a panel of three faculty members and the average taken. On compilation of the marks given on the report and the presentation, the coordinator(s) will convert the marks into grades and forward the same to the Academic Section.

#### PROJECT

Head of each Department shall appoint one or two project coordinators depending on the class strength who in consultation with the other faculty members will prepare a list of project topics to be given to the students at the beginning of 7<sup>th</sup> or 8<sup>th</sup> semester. The Project is a core course spread over two semesters and comprises of Part I and Part II and is carried out during the 7<sup>th</sup> and 8<sup>th</sup> semesters. The allocation of projects, faculty guides and tentative plan of work are to be done before the last day of class of the 6<sup>th</sup> semester. Part II is normally expected to be a continuation of Part I, except under those exceptional circumstances in which the supervisor is changed at the end of Part 1. A mid-semester assessment and end-semester assessment will be carried out for each Part. Part I and Part II will be graded separately. An 'II' grade will not be awarded for Part I. Incomplete work will be given 'II' grade on request.

Number of students assigned a project work should, in general, be restricted to four. A committee of three examiners shall be appointed to evaluate the projects in addition to the concerned guides. The students are to be assessed on their initiative, interest, effort and regularity shown during the project work and in the preparation of the project report. This assessment will be made by the guide and given 40 % weightage. The remaining 60 % weightage will be given on the average mark awarded by the three examiners based on the quality of the report, presentation of the project work and the performance in the oral examination. On compilation of the marks awarded by the same to the Project coordinator(s) who will convert the marks into grades and forward to the Academic Section.

#### 14 MODERATION OF RESULTS

The answer books of mid semester and end semester examinations after evaluation shall be shown to the students by the concerned teachers within a week after the conduct of exams. 'Student consultation period' of 2 or 3 days may be intimated to the students before finalizing the marks. The purpose of student consultation period is two fold: (i) to answer any query that

a student may raise about the marks awarded to him, and (ii) to correct any factual errors that may have occurred, e.g., in totaling, etc. The marks should in no case be changed on the basis of student's reaction. The final grades shall be forwarded to the Academic Section by the concerned Course Coordinators as per the last date specified in the academic Calender. The final grades awarded to students shall be moderated every semester as per the academic calendar by a committee constituted by the the institute.

#### 15 EXAMINATIONS

- 15.1 The mid and end semester examinations shall be conducted during the time schedule decided at the Institute Level.
- 15.2 Students who have satisfactory attendance record and paid institute and hostel dues of the Semester will be eligible for appearing in the examination. A student may be debarred from appearing in the examination as the result of disciplinary action.
- 15.3 Students who are unable to appear in the semester-end examination due to some compelling reason such as serious illness or other special circumstances will be given II grade (on medical grounds) and NA grade (on non medical grounds) and will be permitted to appear in a supplementary examination to be conducted as scheduled by the institute.
- 15.4 Students who have failed in one or more courses in the end semester examination of a semester, will be permitted to appear only in the supplementary examinations as scheduled by the institute and to be conducted preferably before the commencement of the next semester. The original grade will be modified to a new grade(AA to FF) based on the performance in the supplementary examination.
- 15.5 The student will be allowed to continue his/her study from odd semester to even semester even he/she fails in any number of courses. But the student will not be allowed to register in the next year (i.e. in the new courses of odd semester) if he/she fails in more than total three courses at previous odd plus even semesters, and student(s) has to re-register in the next year and repeat all the courses in which he/she failed. The course can be a theory subject, practicals, workshop, seminar, project, etc.

The student will not be allowed to register in the 5<sup>th</sup> semester unless he clears all the first year courses (including theory, practicals, workshop, seminar, project, etc.). Similarly, the student will not be allowed to register in the 7<sup>th</sup> semester unless he clears all the second year courses (including theory, practicals, workshop, seminar, project, etc.).

Registration in a semester shall be done sequentially and the student shall not be allowed to register for the next semester without registering for the previous semester.

- 15.6 The course coordinator shall make MIS entries and submit the results of his/her course. However, the grade sheet generated through the MIS must be submitted by the course coordinator to the Examination/Academic section within 2 days of online submission.
- 15.7 Any change of grade of a student in a subject, consequent upon detection of any genuine error on the part of the concerned teacher, must be approved by the DAAC and forwarded to the Academic / Examination Section by the concerned coordinator through the Head of the Department.
- 15.8 All the examinations be conducted by following the code and conduct of examination approved by the Senate.

#### 16 REQUIREMENTS FOR AWARD OF DEGREE

A student will be awarded B. Tech. degree in the relevant programme if he/she has fulfilled the following requirements:

- (a) Completed earned credit requirements for the programme as specified in the scheme of teaching and examination.
- (b) Obtained a CGPA of 4.5 or more on completion of earned credit requirements.
- (c) Satisfactorily completed all the non credit courses (Practical or Industrial Training) required for the programme.
- (d) Paid all the dues to the Institute and Hostel.
- (e) No disciplinary action is pending against him/her.

#### 17 CHANGE OF BRANCH

- 17.1 A student admitted to a particular branch of the B. Tech. programmes will normally continue studying in that branch till completion of degree.
- 17.2 However, the Institute may permit a student admitted as per guidelines of MHRD, GOI to change branch at the end of the first two semesters, provided vacancies exist in such branches.
- 17.3 Only those students will be eligible for consideration for a change of branch after the second semester, who have completed all the credits prescribed in the first two semesters of their studies in their first attempt, without appearing in any supplementary examination.
- 17.4 Application for a change of branch must be made in the form prescribed for this purpose. The Deputy Registrar (Academics) will call for application in the second semester of each academic year and the completed forms must be submitted within the period specified in the notification.
- 17.5 Students may enlist choices of branch, in order of preference, to which they wish to change over. It will not be permissible to alter the choices after the application has been submitted.
- 17.6 Change of branch shall be made strictly on the basis of inter se merit of the applicants. For this purpose the CGPA obtained at the end of the second semester shall be considered. In case of a tie, the total marks obtained by the students will be taken into consideration.
- 17.7 Change of branch shall be permitted subject to the constraint that the number of students transferred from any branch shall not be more than 20% of the sanctioned strength and the number of students in any branch shall not go above the sanctioned strength as a result of the change of branch. Also due to such change, the strength in any branch should not fall below 80% of the sanctioned strength.
- 17.8 All changes of branch will be final and binding on the applicants. No student will be permitted, under any circumstances, to refuse the change of branch offered.

#### 18 COURSE EVALUATION BY STUDENTS

Every course run in a semester is evaluated on the basis of feedback received from the students registered in that course. During the last week of a semester, the students shall give their feedback on the courses studied by them during the semester. The feedback system shall be computerized and coordinated by the MIS personnel. The compiled feedback reports shall be forwarded by the MIS personnel to the concerned Head of the Department who will scrutinize the same and may take appropriate steps to enhance the quality of teaching of the courses. If the feedback belongs to a subject handled by the Head of the Department, then the same shall be scrutinized by the Dean (Academics).

#### 19 CONDUCT AND DISCIPLINE

- 19.1 The following acts shall constitute gross violation of the code of conduct and are liable to invoke disciplinary action.
  - (a) Involvement in ragging in any form inside or outside the Institute premises.
  - (b) Furnishing false statement of any kind in the form of application for admission or for award of scholarship, etc.
  - (c) Displaying lack of courtesy and decorum and resorting to indecent behavior anywhere within or outside the campus.
  - (d) Willfully damaging, removing or stealing any property/belongings of the Institute, Hostel or fellow students.
  - (e) Possession, consumption or distribution of alcoholic drinks or any kind of hallucinogenic drugs.
  - (f) Adoption of unfair means in the examinations.
  - (g) Organizing or participating in any group activity in company with others inside or outside the campus without prior permission of concerned authorities.
  - (h) Mutilation or unauthorized possession of library books.
  - (i) Not intimating his/her absence to the Warden of the Hostel of residence.
  - (j) Disturbing the academic atmosphere by playing games/sports in the academic area during the working hours.
  - (k) Hacking the computer systems (such as entering other person's area without prior permission, manipulation and/or damage of computer hardware and software or any other cyber crime, etc.)

Commensurate with the gravity of the offence, the punishment may be reprimand, fine, expulsion from the hostel of residence, debarment from an examination, rustication for a specified period or even outright expulsion from the Institute.

19.2 For an offence committed (a) in a Hostel of residence, (b) in the Department or a classroom and (c) elsewhere, the Warden, the Head of the Department and the Dean (Academics), respectively, shall have the authority to reprimand or impose fine or take any other suitable action.

#### 19.3 Institute Disciplinary Committee

All major acts of indiscipline, which may have serious repercussion on the students in general and/or which may warrant a uniform and more formalized nature of investigation, shall be handled by the Institute Disciplinary Committee appointed by Senate. The Disciplinary Committee shall consist of the following members:

(a)	Dean (Academics)	-	Chairman
1 - 1			

- (b) Two members of faculty nominated by the Member Director for a term of two years
- (c) Deputy Registrar (Academics) Secretary

Recommendation of the committee, which will include the suggested punishment in cases where guilt is proven, will be forwarded to the Director for necessary action.

#### 19.4 Examination Disciplinary Committee

Cases of adoption of unfair means in an examination shall be dealt with by Examination Disciplinary Committee consisting of the following members:

(a)	Dean (Academics)	-	Chairman
(b)	Head of the Department to which the reported Student belongs	-	Member
(C)	One member of faculty nominated by the Director for a term of two years	-	Member
(d)	Deputy Registrar (Academics)	-	Secretary

The committee shall recommend appropriate measures in each case to the Director for awarding the punishment.

# 20 Departmental Academic Advisory Committee (DAAC) / Institute Academic Advisory Committee (IAAC)

Consequent upon dissolving of Board of Under Graduate Studies (BUGS), Departmental Board of Under Graduate Studies (DBUGS), Board of Post Graduate Studies & Research (BPGS&R) of the Institute, the Senate of the Institute had approved to constitute Departmental Academic Advisory Committee (DAAC) UG/PG & Ph.D programmes and Institute Academic Advisory Committee (IAAC) for UG/PG & Ph.D programmes as per Clause 8 (iv), (v) & (vi) of the First Statutes under NIT Act, 2007

(29 of 2007). The composition of the DAAC and IAAC (Engg. , Tech. and Sciences) is as detailed below:

The composition of Departmental Academic Advisory Committee (DAAC) shall be as under:

- (1) Head of Department(2) All Faculty of the concerned Department
- (3) Dean (Acad)
- (4) Dean (FW)
- (5) Dean (R&C)
- (6) Dean (SW)
- (7) Sr. most Asst. Professor of the Department
- : Chairman
- : Members
- : Invitee-Member
- : Invitee-Member
- : Invitee-Member
- : Invitee-Member
- : Member-Secretary

The Departmental Academic Advisory Committee (DAAC) shall perform the following functions and have the following powers:

- 1. The DAAC shall discuss the academic matters including introducing the new courses, review/revision of existing syllabus and shall recommend to the Institute Academic Advisory Committee (IAAC) for consideration and recommendation to the Senate for approval.
- 2. The DAAC shall meet as often as necessary, but ordinarily not less than four times a year.
- 3. One half of the members shall form a quorum for a meeting of DAAC.
- 4. A copy of recommendations / minutes of every meeting of the DAAC shall be placed before the IAAC.

The composition of Institute Academic Advisory Committee (IAAC):

(1) Director (2) Registrar	: Chairman : Member
(3) All Deans & Associate Deans	: Members
<ul><li>(4) All Heads of the Departments</li><li>(5) Dean (Academics)</li></ul>	: Members : Member-Secretary

The IAAC shall perform the following functions and have the following powers:

- 1. The IAAC shall discuss all academic and allied matters including conduct of examination, appointment of examiners.
- 2. The IAAC shall review the working of the Departments.
- 3. The IAAC will make suitable recommendations for introducing new course(s), review/revision of existing syllabus and shall recommend to the Senate for approval.
- 4. The IAAC will plan co-curricular activities of the students of the Institute.
- 5. The IAAC will promote research and development activities with periodical review of the activities of the departments of the Institute.
- 6. The IAAC will review and consider the recommendations/minutes of every meeting of the DAACs and accordingly, will make suitable recommendations to the Senate.
- 7. The IAAC shall meet as often as necessary, but ordinarily not less than four times a year.
- 8. One half of the members shall form a quorum for a meeting of IAAC.
- 9. A copy of recommendations/minutes of every meeting of the IAAC shall be placed before the Senate.

#### 21 ACADEMIC PERFORMANCE REVIEW COMMITTEE

The constitution and functions of the Academic Performance Review Committee (APRC) shall be as under:

#### Constitution

(a)	Dean (Academics)	-	Chairman
(b)	Heads of Departments	-	Members

(c) Deputy Registrar (Academics) -

#### **Functions**

(a) To review the academic performances of weak students and assess the causes of unsatisfactory performance.

Secretary

- (b) To advise weak students in order to improve their performance and to recommend an upper limit on the number of courses to be registered by such students in subsequent semesters.
- (c) To recommend termination of registration in case a student fails to satisfy the minimum academic criteria laid down for continuation as a student at the end of each year.
- (d) To perform any other function as may be entrusted to the committee by the Senate.

### **REGULATIONS FOR M. TECH. PROGRAMMES**

# 1 PREAMBLE

- 1.1 The provisions in these regulations govern the conditions for imparting courses of instructions, conduction of examinations and evaluation of performance of students leading to M. Tech. degrees.
- 1.2 These regulations are effective from the academic year 2013-2014 onwards.
- 1.3 Notwithstanding all that has been stated in the Regulations, Senate has the right to review and change the Regulations from time to time.

### 2. **PROGRAMMES OFFERED**

The following full-time M. Tech. programmes are being offered in the Institute by different Departments.

(1). Applied Mechanics Department:

- Soil Mechanics & Foundation Engg.
- Structural Engineering
- (2). Chemical Engineering:
  - Chemical Engineering
- (3). Civil Engineering Department:
  - Environmental Engineering
  - Transportation Engineering & Planning
  - Urban Planning
  - Water Resource Engineering
- (4). Computer Engineering Department:
  - Computer Engineering
- (5). Electrical Engineering Department:
  - Power Electronics and Drives
    - Power Systems
- (6). Electronics Engineering Department:
  - Communication Systems
  - VLSI & Embedded Systems
- (7). Mechanical Engineering Department:
  - CAD / CAM
  - Manufacturing Engineering
  - Mechanical Engineering
  - Thermal Systems Design
  - Turbo Machines

# 3 ADMISSION

#### 3.1 ADMISSION AND ELIGIBILITY CRITERIA FOR M. Tech. PROGRAMMES

#### I. NON - SPONSORED CANDIDATES (with GATE score):

#### a) GENERAL CATEGORY/OBC CATEGORY:

The admissions are handled by the Centralized Counseling for M.Tech./M.Plan. (CCMT) admissions. The eligibility requirements are as per the CCMT rules applicable from time to time.



The seat will be allotted based on merit of GATE Score and preference of specialization given by the candidates

#### b) RESERVED SC/ST CATEGORY

The admissions are handled by the Centralized Counseling for M.Tech./M.Plan. (CCMT) admissions. The eligibility requirements are as per the CCMT rules applicable from time to time. The seat will be allotted by CCMT based on merit of GATE Score and preference of specialization given by the candidates

- NOTES:
- In case of the result of qualifying degree is awaited, provisional admission is permitted to a student subject to meeting the eligibility requirements of CCMT latest by 15<sup>th</sup> September of the academic year of admission (as per CCMT rules). Non-submission of certificates with in due date will lead to automatic cancellation of admission from the institute.
- The candidates would be required to deposit the fee within prescribed time in accounts section of the institute after getting their selection through counseling process.

#### II NON - SPONSORED CANDIDATES:

In case, sufficient GATE qualified candidates for General, OBC & SC/ST Category are not available in a particular discipline (after the CCMT spot admissions), the admission to the vacant seats will be offered to the non-sponsored candidates. Except the requirement of GATE score, the eligibility requirements are as per the CCMT rules.

The merit list will be prepared by giving 50% weightage to aggregate marks of B.E./B.Tech./equivalent degree and 50% weightage to Institute's test/interview for all candidates who have applied and qualified for that particular discipline.

- In case of the result of qualifying degree is awaited, provisional admission is permitted to a student subject to meeting the eligibity requirements of CCMT latest by 15<sup>th</sup> September of the academic year of admission (as per CCMT rules). Non-submission of certificates with in due date will lead to automatic cancellation of admission from the institute.
- The candidates would be required to deposit the fee within prescribed time in accounts section of the institute after getting their selection through counseling process.

#### III SPONSORED CANDIDATES:

In the case of sponsored candidates also, except the requirement of GATE score, the eligibility requirements are as per the CCMT rules. The admission will be given based on common merit list prepared as per following criteria for each basic discipline offering PG courses:

- 50% weightage to Aggregate Marks of B.E./B.Tech. or Equivalent degree.
- 50% weightage to Institute test/interview.
- Admission will be given only to those eligible students who possess their final results at the time of interview/test.

The sponsored candidates must have minimum of one year of full-time work experience in the sponsoring organization after attaining the relevant first degree and must be on pay-roll of the present employer. In addition to the other required documents, they must produce the experience certificate from their employer and Form 16A or salary slips of last one year from the sponsoring organization.

#### 3.2 **Specialization**

- (a) Students will be admitted to the M.Tech. programmes in the departments and in interdisciplinary programmes for M.Tech. degree of the Institute with specialization in the areas approved by the AICTE.
- (b) The areas of specialization for a department will be approved by the normal procedure applicable to the establishment of a new programme.
- (c) Which of the allowed specializations / interdisciplinary programmes are to be offered by a Department to its students in any particular year will be determined by the DAAC.

#### 3.3 Minimum Student Requirement in a Programme

No programme will be run unless the number of students registered for the programme is five or more. If the number of students left in a programme at the end of the 2<sup>nd</sup> semester is less than four, the same programme may be looked into for temporary suspension by the IAAC.

- 3.4 All students, on admission, shall be required to pay prevalent tuition fee and other fees as prescribed from time to time for every semester till they are on the roll of the Institute.
- 3.5 The Institute reserves the right to cancel the admission of any student and ask the student to discontinue studies at any stage on the grounds of unsatisfactory academic performance, irregular attendance in the classes or indiscipline.

#### 4 ACADEMIC CALENDAR

- 4.1 The academic year is divided into two semesters each of approximately seventeen weeks duration, Odd Semester (July-December) and Even Semester (January-June).
- 4.2 Before the starting of any academic year, Senate will decide and declare complete academic calendar for the year, such as the date of registration for odd and even semesters, mid-semester and semester-end examinations, inter-semester breaks, etc. The academic calendar shall provide for a total of 85 (eighty five) working days in each semester.

#### 5 COURSE STRUCTURE

- 5.1 The normal duration of the course leading to M. Tech. Degree is four semesters.
- 5.2 Medium of instruction and examination will be English.
- 5.3 Teaching scheme of a subject in general may have Lecture and Laboratory/ Design components. However, some courses may not have any Laboratory component. In general, number of lectures per week in any course should not be more than 3.
- 5.4 Any revision of syllabi and changes in courses and curricula proposed by the DAAC shall have to be placed before the IAAC and the Senate for its approval.
- 5.5 Each course has a certain number of credits, which reflect its weightage. However, some courses may be without credit and are referred to as non-credit (NC) courses. One Lecture hour per week will be assigned one credit. One Laboratory/ Design hour per week will be

assigned half credit. For Seminar and Project, one hour per week per semester will be assigned half credit.

5.6 Earned credit requirements for 4-semester M.Tech. programmes shall be in the range of 59-68. Exact requirements for individual programmes shall be based on the teaching scheme of the programmes.

### 6 **REGISTRATION**

- 6.1 Every student in Post Graduate programmes is required to be present and register at the commencement of each semester on the date fixed and notified in academic calendar.
- 6.2 The registration of students will be done in respective departments, for which the subject details will be verified by the PG Incharges of the department and payment of dues, etc. will be verified by the academic section. An appropriate semester registration form devised by Dean (Academics) will be used.
- 6.3 A student who does not register on the day announced for the purpose may be permitted, in consideration of any compelling reason, late registration within next one week on payment of an additional late fee as prescribed by the Institute. Normally no late registration shall be permitted after one week from the scheduled date.
- 6.4 Only those students will be permitted to register in the next semester who have
  - (a) cleared all the institute, hostel and library dues and fines (if any) of the previous semesters.
  - (b) paid all required payments of institute and hostel for the current semester.
  - (c) satisfies the minimum academic requirements, and
  - (d) not been debarred from registering on any specific ground.
- 6.5 (a) Students obtaining 'FF' grade in any lecture course in a semester must appear in the supplementary examination whenever scheduled by the institute.
  - (b) In case of failure in any laboratory course, the student will have to re-register for it in the next appropriate semester.
  - (c) Similarly, in case of failure in any non-credit course the student will have to re-register for it in the appropriate semester of the next academic session.
- 6.6 The classes of all semesters will start from the day following the registration.
- 6.7 A student who has been debarred from appearing at an examination either (a) as per recommendation of the subject teacher for unsatisfactory attendance or (b) by the institute as a measure of disciplinary action or (c) for adopting malpractice at an examination may register for the subject after the term of the debarment expires, provided that other provisions of the regulation do not prevent him/her.

6.8 An elective course will normally be offered only if there is a minimum registration of 5 students.

# 7 ATTENDENCE REQUIREMENT

- 7.1 All students must attend every lecture and practical class. However, to account for late registration, sickness or other such contingencies, the attendance requirement will be a minimum of 75 % of the scheduled classes.
- 7.2 A student with less than 75 % attendance in a course during a semester, in lectures and practicals (as applicable) taken together will be awarded an 'XX' grade in that course irrespective of his/her performance in the tests. The course coordinator, while awarding the grades, will take into account the consolidated attendance record for the whole semester. Students who are deficient in attendance shall be awarded 'XX' grade.
- 7.3 In order to maintain the attendance record of a particular course, a roll call will be taken in every scheduled lecture and practical class.
- 7.4 For the purposes of attendance, every scheduled practical class will count as one unit irrespective of the number of contact hours.
- 7.5 The course teacher/coordinator will consolidate the attendance record for the course (lectures, tutorials and practical together, as applicable). He/she will indicate with an asterisk the names of students with less than 75 % attendance and send the list to the D.R. (Academic) through the Head of Department. This information will be notified to the concerned students.
- 7.6 The Director shall review the cases of students with less than 75 % attendance in a course and depending on the facts and circumstances of individual cases, may condone attendance to a minimum of 70 % in deserving cases. Under no circumstances, the cases with less than 70 % attendance will be reconsidered.

#### 7.7 Attendance Requirements for Assistantships

An M.Tech. student irrespective of the source of Assistantship, must attend at least 75 % of classes in each course in which he/she is registered. In case his/her attendance falls below 75% in any course during a month, he/she will not be paid Assistantship for that month. Further, if his/her attendance again falls short of 75 % in any course in any subsequent month in that semester his/her Assistantship will be terminated. The monthly stipend form of the student is to be signed by the course teachers, PG Incharge and the Head of the Department in the 1<sup>st</sup> year of the programme and by the supervisor, PG Incharge and Head of the Department in the 2<sup>nd</sup> year of the programme.

#### 8 ABSENCE DURING THE SEMESTER

- 8.1 A student must inform the Dean (Academics) immediately of any instance of continuous absence from classes.
- 8.2 A student who has been absent from a mid semester examination due to illness should approach the course teacher/coordinator immediately on return to class for a make-up test. This request should be supported with a medical certificate from the Institute Medical Officer.

A certificate issued by a registered medical practitioner will also be acceptable in those cases where a student is normally residing off-campus; in such cases the registration number of medical practitioner should explicitly appear in the medical certificate and the Institute Medical Officer has to verify the same and give appropriate comments about the student's illness and his/her current physical and mental fitness. Prior to approaching the course coordinator, the student must file a copy of the medical certificate with the Academic section. The Academic Section may ask the student to give the copy of the medical certificate to the concerned course coordinator. The make-up test will be conducted in the last week of the semester and the question paper will cover the complete syllabus of the subject.

- 8.3 In case of absence on medical grounds or other special circumstances, before or during the end semester examinations, the student can apply for 'II' grade. An application requesting 'II' grade should be made at the earliest, but not later than the last day of the examination. This application should be made to the Head of Department of the student's Programme who, depending on the merit of the case, will grant approval and inform all the concerned course coordinators and D.R. (Academic). The student should subsequently complete all course requirements within fifteen days from the date of the last end semester examination except in theory courses. The 'II' grade will then be converted to a proper grade (AA to FF). The student who remains absent in the end semester examination or supplementary examinations (not on medical grounds) will be awarded 'NA' grade instead of 'II' grade.
- 8.4 In special circumstances arising due to the student's inability to be present at the Institute during the stipulated period, the period for conversion of 'II' grade can be extended to the first week of the next semester. Approval for the extension is granted by Dean (Academics) on the recommendations of the Head of the Department of the student's programme and the course coordinator. A request to this effect may be included in the application for 'II' grade. In such cases, the student should complete all course requirements (except the theory courses) within a week from the grant of such extension and the result of the student is to be forwarded to the examination section for the conversion of 'II' grade to a proper grade (AA to FF).
- 8.5 In case the period of absence on medical grounds is more than four weeks (20 working days) during the semester, a student may apply for withdrawal from the semester, i.e. withdrawal from all courses registered in that semester. Such an application must be made as early as possible and latest before the start of the end semester examinations. No application for semester withdrawal will be considered after the end semester examinations have commenced. Each application for semester withdrawal will be considered after the case, an appropriate recommendation will be made. Partial withdrawal from courses registered in a semester shall not be permitted.
- 8.6 If a student is continuously absent from the Institute for more than four weeks without notifying the Dean (Academics) his/her name will be removed from the Institute rolls. However, such students may appeal to the Director to reconsider their cases on merit.

#### 9 MAXIMUM DURATION FOR COMPLETION OF PROGRAMME

Normally a student will complete all the requirements for any PG programmes four semesters. Academically weak students, who are unable to pass in some courses and have to repeat them in subsequent semesters or register for lesser number of courses in a semester, shall be permitted

to complete all the requirements of the degree in six consecutive semesters. However, if a student is granted withdrawal for one or more semesters on medical ground, he/she shall be permitted to complete the programme in a maximum period of seven semesters.

### 10 TERMINATION FROM THE PROGRAMME

- 10.1 If a student remains continuously absent for more than four weeks in a semester without sanction of leave, his/her name shall be struck off from the rolls of the Institute.
- 10.2 A student may be required to leave the Institute on disciplinary grounds on recommendation of the Disciplinary Committee.
- 10.3 A student shall have to leave the Institute if he/she fails to satisfy the minimum academic criteria prescribed for continuation as a student at the end of each academic year as stated below:
  - (a) A student must complete 20 earned credits (EC) at the end of 2<sup>nd</sup> semester failing which his/her registration shall be terminated.
  - (b) A student must complete a minimum of 40 earned credits at the end of the 4th semester of his admission to the Institute, failing which, his/her registration shall be terminated.
  - (c) A student must complete all the earned credit requirments for the programme at the end of 6<sup>th</sup> semester.
  - (d) In case a student has withdrawan for one or more semesters, the earned credit requirements would be reduced by 12 credits for each semester of withdrawal. The maximum duration for completion of the programme is as given under Section 9.
  - (e) No appeal shall be entertained for those students whose registration has been terminated for noncompletion of minimum academic requirements during the first two years.
  - (f) From 3<sup>rd</sup> year onwards, the student may be given an opportunity to appeal against the termination within a time period of seven days, which may be considered by the IAAC.

#### 11 EVALUATION AND GRADING

#### 11.1 The Credit System

The prominent features of the credit system are the process of continuous evaluation of a student's performance, the absence of pass or fail on an annual basis and the flexibility to allow the students to progress at a pace suited to individual ability and convenience, subject to the regulations of credit requirements.

Each course, except a few special courses, has a certain number of credits assigned to it depending upon its lecture and laboratory contact hours in a week.

Each course is coordinated by a member of the faculty called the course coodinator. He/she has the full responsibility for coordinating the course, coordinating the work of other members of the faculty involved in that course, holding the tests and awarding the grades. In case of

any difficulty, the student is expected to approach the course coordinator for advice and clarification.

A letter grade, corresponding to specified number of grade points, is awarded in each course for which a students is registered. On obtaining a pass grade, the student accumulates the course credits as earned credits. A student's performance is measured by the number of credits that he/she has earned and by the weighted grade point average. A minimum number of creidts should be acquired in order to qualify for a degree and continuation on semester basis.

#### 11.2 Number of Credits in a Course

Lecture/Tutorial: One lecture/tutorial hour per week is assigned one credit.

Practical: One laboratory hour per week is assigned half credit.

#### 11.3 Degree Requirements:

#### (a) Earned Credit Requirement

Earned credit requirements for the various M.Tech. programmes are completion of 59-68 earned credits for 4-semester programmes based on the teaching scheme of individual programmes.

#### (b) CGPA Requirement

A student must obtain a minimum Cumulative Grade Point Average (CGPA) of 5.0 to be eligible for award of the M. Tech. degree.

#### 11.4 Award of Grades

The grades to be awarded, corresponding grade points and the description of performance are listed below:

Grade	Grade Points	Description of Performance
AA	10	Outstanding
AB	9	Excellent
BB	8	Very Good
BC	7	Good
CC	6	Average
CD	5	Below Average
DD	4	Marginal
FF	0	Fail
П	-	Incomplete
NA	-	Not Appeared
WW	-	Withdrawal
XX	-	Unsatisfactory attendance in a course

#### AA Grade

An 'AA' grade stands for outstanding achievement. The minimum marks for award of an 'AA' grade is 80%. However, individual course coordinators may set a different reasonable requirement depending upon the class performance.

#### DD Grade

The 'DD' grade stands for marginal performance, i.e. it is the minimum passing grade in any course. The minimum % of marks for award of the 'DD' grade is 36%. However, the student must secure at least 30% marks in the end semester examination, otherwise he will be awarded the FF grade.

#### FF Grade

The 'FF' grade denotes failing in a course. A student has to repeat all compulsory (core) courses in which he/she obtains 'FF' grade, until a passing grade is obtained. For the other (elective) courses in which 'FF' grade has been obtained, the student may take the same course or any other course from the same category.

In the event of a student getting more than a certain number of 'FF' grades in a given semester, his/her earned credits during the semester may fall short of the required number and he/she may be asked to leave the Institute. 'FF' grade may result in increased period of stay for completing degree requirements. Further, 'FF' grade secured in any course stays permanently on the grade card.

#### II and NA Grades

An 'II' grade denotes incomplete performance in any course (theory, lab, project) due to absence at the end of semester on medical grounds. The 'II' grade can be awarded for incomplete project work, at the end of a semester. Subsequently, it is converted into a regular grade upon completion of the project work and its evaluation. The 'II' grade may also be awarded for Dissertation Preliminaries of the 3<sup>rd</sup> semester.

The student who remains absent in the end semester examination or supplementary examinations (not on medical grounds) will be awarded 'NA' grade instead of 'II' grade will be awarded only to those on medical grounds.

#### Guidelines for the Award of 'II' Grade in Dissertation

An M. Tech. student is required to submit a dissertation as a part of curriculum. A regular student who is unable to complete his/her Dissertation at the end of fourth semester may be awarded an 'II' grade on recommendation by a committee consisting of (i) Head of the Department (ii) Nominee of the Director (iii) Supervisor(s) of the project.

A student who has been awarded an 'II' grade is required to formally register for the next semester and pay the fees. Also he will be normally required to vacate the hostel room.

'II' grade in the Dissertation will be awarded in exceptional cases under the circumstances beyond student's/supervisor's control. However, the following are the grounds recognised for the award of 'II' grade:

- (a) Medical grounds to the satisfaction of the Institute authorities.
- (b) Technical reasons/grounds such as supervisor/equipment not being available.

### XX Grade

The 'XX' grade is awarded for unsatisfactory attendance and student has to repeat the course during the next year whenever it is offered.

# 11.5 Earned Credits (EC)

The credits for the courses in which a student has 'DD' (minimum passing grade for a course) or a higher grade will be counted as credits earned by him/her. Any course in which a student has obtained FF or WW grade will not be counted towards his/her earned credits.

# 11.6 Evaluation of Performance

The performance of a student is evaluated in terms of two indices, viz. the Semester Grade Point Average (SGPA) which is the Grade Point Average for a semester and Cumulative Grade Point Average (CGPA) which is the Grade Point Average for all the completed semesters, at any point of time.

The **SGPA** is calculated on the basis of grades obtained in all courses registered for the semester.

$$SGPA = \frac{\sum_{Sem} (\text{Course Credit x Grade Point})}{\sum_{Sem} (\text{Course Credit})}$$

The CGPA is calculated on the basis of all pass grades obtained in all completed semesters

 $CGPA = \frac{\sum_{\substack{All \ Sems.\\ Completed}} (Course Credit \ x \ Grade Point) \text{ in passed courses}}{\sum_{\substack{All \ Sems.\\ Completed}} (Course Credit) \text{ in passed courses}}$ 

Both SGPA and CGPA will be rounded off to second place of decimal and recorded as such.

#### Conversion of CGPA into Equivalent % of marks:

Average %age of marks = (CGPA-0.5)\*10

#### Award of Class:

: 70% and above
: Below 70% and upto 60%
: Below 60% and upto 50%
: Below 50% and upto 45%

#### 12 ASSESSMENT OF PERFORMANCE

12.1 Each course is to be taught by a teacher who is ultimately responsible for maintaining the expected standard of the course and for assessment and evaluation of the student's performance.

#### 12.2 Assessment of Lecture Courses

The evaluation pattern for the theory courses at UG & PG level shall be as under:

Mid semester exam:	30 marks
Attendance:	10 marks
Assignment/Quiz(zes):	10 marks
Tutorials (if applicable):	25 marks
End semester exam:	50 marks

The mid and end semester examinations are of 1 hour and 3 hours respectively. The question paper for the end semester examination in a subject may be prepared for 100 marks and the performance assessment of the student may be carried out. However, subsequently, the marks obtained by the student in the end semester examination shall be scaled down to half and the marks shall be awarded out of 50. However, preparing the question paper for 100 marks is not compulsory and the individual course coordinator may decide whether to prepare it for 100 marks or 50 marks. If the question paper is prepared for 50 marks then the marks obtained by the student in the end semester examination shall not be scaled down to half. To main the examination schedules uniform, the duration of the end semester examination can be 3 hours irrespective of whether the question paper is set for 100 marks or 50 marks.

Review of question papers shall be done by the committee appointed at the department level. Result analysis shall be done at the Departmental Academic Advisory Committee (DAAC) meeting and the same shall be reported to the Institute Academic Advisory Committee (IAAC).

#### 12.3 Assessment of Laboratory Courses

(a) The laboratory courses are of various types: experiment-based conventional laboratory courses, design and calculation courses, home assignments etc.

(b) The continuous assessment in a laboratory course shall be based on the following modes of assessment:

- Turn to turn supervision and viva shall be given 60 percent weightage.
- Laboratory journal / design / calculations / reports shall be given 40 percent weightage.
  There will be no semester-end examination.
- 12.4 The mid semester, end semester and supplementary examinations will be conducted by the Departments as per the schedule and guidelines provided by the Examination/Academic Section of the institute.
- 12.5 The course teacher/coordinator is required to maintain a detailed record of the performance of the students in each assessment. When all the assessments in the course are complete, total marks obtained are converted into a grade. The evaluated answer books shall be shown to the students before finalizing the grades. The disposal of Answer Books should be done a year after the declaration of exam results.

#### 13 SEMINAR / DISSERTATION

#### SEMINAR

Head of each Department shall appoint a PG incharge for each PG Programme who in consultation will the other faculty members will prepare a list of seminar topics to be given to the Students at the beginning of 3<sup>rd</sup> semester. The topics should be so selected as to require the students to refer to journals or advanced textbooks for preparation of the seminar. The faculty member proposing a seminar topic will normally be the supervisor for the seminar. On completion of the studies, the student shall submit two copies of the report, to the coordinator (one for the supervisor and one for the department) by the prescribed date and make oral presentation of his/her seminar topic in 15 to 20 minutes on scheduled date. The presentation shall be followed by discussions in which faculty members and the students will participate and seek response from the student.

Internal assessment of 40% weightage by guide(s)

Final assessment of 60% weightage by a panel of examiners consisting of

- (i) Internal examiner guide.
- (ii) One examiner from the department.
- (iii) Chairman from the department.

On completion of assessment compilation of the marks given on the report and the presentation, the chairman will send the same to the PG Incharge who will convert the marks into grades and forward to the Academic Section.

#### DISSERTATION

The Dissertation is to be carried out by the students independently during the 3<sup>rd</sup> and 4<sup>th</sup> semesters respectively. The work during the 4<sup>th</sup> semester is normally expected to be a continuation of the work of 3<sup>rd</sup> semester, except under those exceptional circumstances in which the supervisor is changed at the end of 3<sup>rd</sup> semester. The grading will be done separately for the work done during the 3<sup>rd</sup> and 4<sup>th</sup> semesters. An 'II' grade may be awarded to dissertation work at the end of 3<sup>rd</sup> semester. The rules applicable for award of 'II' grade are given under Section 11.

The student is required to submit a dissertation as a part of dissertation at the end of 4<sup>th</sup> semester. For semester-end assessment of Dissertation Preliminaries at the end of the 3<sup>rd</sup> semester, for each PG programme, a panel of two examiners and a Chairman from the department shall be appointed. For the semester-end assessment of Dissertation at the end of 4<sup>th</sup> semester, one external examiner shall be appointed for each project along with the guide as the internal examiner and the Chairman from the other department. The students are to be assessed on their initiative, interest, effort and regularity shown during the dissertation work and in the preparation of the report. This assessment will be made by the guide and given 40 percent weightage. The remaining 60 percent weightage will be given on the average mark awarded by the two examiners and the Chairman based on the quality of the report, presentation of the dissertation work and the performance in the oral examination. On completion of assessment compilation of the marks awarded by the guide and the board of examiners, the Chairman will convert the marks into grades and forward the same to the Academic Section.

Dissertation Preliminaries assessment

Internal assessment of 40% weightage by guide(s)

Final assessment of 60% weightage by the panel of examiners

Immediately after satisfactory completion and submission of final dissertation (printed on both sides of the pages), guide(s) will submit the proposed list of external referees and to the HOD/Chairman DAAC. The list should be consisting of five members from other institutes of repute.

The HOD/Chairman DAAC upon satisfaction shall forward the same to the Dean (Academics).

The Dean (Academics) upon his satisfaction shall forward it to the Director as the Senate Chairman for choosing one external examiner and an internal examiner. The final dissertation assessment shall be carried out only after the last day of teaching of the semester.

Final Dissertation Assessment:

Internal assessment of 40% weightage by guide(s)

Final assessment of 60% weightage by a panel of examiners consisting of

- (i) Internal examiner one of the guide(s).
- (ii) External examiner from outside the institute.
- (iii) Chairman from the other department.

On completion of assessment compilation of the marks awarded by the guide and the board of examiners, the Chairman will convert the marks into grades and forward the same to the Academic Section.

The student whose final dissertation assessment is done and the result is declared before 31<sup>st</sup> July of a year will be awarded the degree certificate during the convocation of that year. Only provisional degree certificate will be awarded if the result is declared after 31<sup>st</sup> July.

Permission will be granted to all the students due to employment in the last semester of the M.Tech. programme. The student shall apply for permission immediately to the Dean (Academic) in the same semester through his department. The duration of the dissertation would be of three semesters (i.e. one semester more than the regular student) in such cases. The student who has completed his/her 3<sup>rd</sup> semester regular as per the requirement, then two more semesters are required to fulfil the conditions of the M.Tech. programme. The student has to register in the even and odd semesters of the academic year and is required to pay full fees of the respective semesters. The dissertation thesis can be submitted after completion of total three semesters of dissertation as per the satisfaction of the concerned supervisor. The student will not be entitled for any stipend during the dissertation work.

#### 14 MODERATION OF RESULTS

The answer books of mid semester and end semester examinations after evaluation shall be shown to the students by the concerned teachers within a week after the conduct of tests. 'Student consultation period' of 2 or 3 days may be intimated to the students before finalizing the marks. The purpose of student consultation period is two fold: (i) to answer any query that a student may raise about the marks awarded to him, and (ii) to correct any factual errors that may have occurred, e.g., in totaling, etc. The marks should in no case be changed on the basis of student's reaction. The final grades shall be forwarded to the Academic Section by the concerned Course Coordinators as per the last date specified in the academic Calender.

The final grades awarded to students shall be moderated every semester as per the academic calendar by a committee constituted by the institute.

#### 15 EXAMINATIONS

- 15.1 The mid and end semester examinations shall be conducted in the time schedule decided at the Institute Level.
- 15.2 Students who have satisfactory attendance record, and paid institute and hostel dues of the semester will be eligible for appearing in the examination. A student may be debarred from appearing in the examination as a result of disciplinary action.
- 15.3 Students who are unable to appear in the semester-end examination due to some compelling reason such as serious illness or other special circumstances will be given II grade (on medical grounds) and NA grade (on non medical grounds) and will be permitted to appear in a supplementary examination to be conducted as scheduled by the institute.
- 15.4 Students who have failed in one or more courses in the semester-end examination of a semester will be permitted to appear in the supplementary examination scheduled by the institute. The original grade will be modified to a new grade (AA to FF) based on the performance in the supplementary examination.
- 15.5 The course coordinator has to make MIS entries and submit the results of his/her course. However, the grade sheet generated by the MIS must be submitted by the course coordinator within 2 days of online submission to the Examination/Academic section.
- 15.6 Any change of grade of a student in a subject, consequent upon detection of any genuine error on the part of the concerned teacher, must be approved by the DAAC and forwarded to the Academic/Examination Section by the concerned coordinator through the Head of the Department.

#### 16 REQUIREMENTS FOR AWARD OF DEGREE

A student will be awarded M. Tech. degree in the relevant programme if he/she has fulfilled the following requirements:

- (a) Completed earned credit requirements for the programme as specified in the scheme of teaching and examination.
- (b) Obtained a CGPA of 5.0 or more on completion of earned credit requirements.
- (c) Satisfactorily completed all the non-credit courses required for the programme.
- (d) Paid all the dues to the Institute and Hostel.
- (e) No disciplinary action is pending against him/her.

#### 17 COURSE EVALUATION BY STUDENTS

Every course run in a semester is evaluated on the basis of feedback received from the students registered in that course. During the last week of a semester, the students shall give their feedback on the courses studied by them during the semester. The feedback system shall

be computerized and coordinated by the MIS personnel. The compiled feedback reports shall be forwarded by the MIS personnel to the concerned Head of the Department who will scrutinize the same and take appropriate steps to enhance the quality of teaching of the courses. If the feedback belongs to a subject handled by the Head of the Department, then the same will be scrutinized by the Dean (Academic).

#### 18 CONDUCT AND DISCIPLINE

- 18.1 The following acts shall constitute gross violation of the code of conduct and are liable to invoke disciplinary action.
  - (a) Involvement in ragging in any form inside or outside the Institute premises.
  - (b) Furnishing false statement of any kind in the form of application for admission or for award of scholarship, etc.
  - (c) Displaying lack of courtesy and decorum and resorting to indecent behavior anywhere within or outside the campus.
  - (d) Willfully damaging, removing or stealing any property/belongings of the Institute, Hostel or fellow students.
  - (e) Possession, consumption or distribution of alcoholic drinks or any kind of hallucinogenic drugs.
  - (f) Adoption of unfair means in the examinations.
  - (g) Organizing or participating in any group activity in company with others inside or outside the campus without prior permission of concerned authorities.
  - (h) Mutilation or unauthorized possession of library books.
  - (I) Not intimating his/her absence to the Warden of the Hostel of residence.
  - (j) Disturbing the academic atmosphere by playing games/sports in the academic area during the working hours.
  - (k) Hacking the computer systems (such as entering other person's area without prior permission, manipulation and/or damage of computer hardware and software or any other cyber crime, etc.)

Commensurate with the gravity of the offence, the punishment may be reprimand, fine, expulsion from the hostel of residence, debarment from an examination, rustication for a specified period or even outright expulsion from the Institute.

18.2 For an offence committed (a) in a Hostel of residence, (b) in the Department or a classroom and (c) elsewhere, the Warden, the Head of the Department and the Dean (Academics), respectively, shall have the authority to reprimand or impose fine or take any other suitable action.

#### Committee (DAAC) / Institute Academic Advisory 19 Departmental Academic Advisory Committee (IAAC)

Consequent upon dissolving of Board of Under Graduate Studies (BUGS), Departmental Board of Under Graduate Studies (DBUGS), Board of Post Graduate Studies & Research (BPGS&R) of the Institute, the Senate of the Institute had approved to constitute Departmental Academic Advisory Committee (DAAC) UG/PG & Ph.D programmes and Institute Academic Advisory Committee (IAAC) for UG/PG & Ph.D programmes as per Clause 8 (iv), (v) & (vi) of the First Statutes under NIT Act, 2007 (29 of 2007). The composition of the DAAC and IAAC (Engg., Tech. and Sciences) is as detailed below:

The composition of Departmental Academic Advisory Committee (DAAC) shall be as under:

- (1) Head of Department : Chairman (2) All Faculty of the concerned Department : Members (3) Dean (Acad) (4) Dean (FW) (5) Dean (R&C)
- (6) Dean (SW)
- (7) Sr. most Asst. Professor of the Department
- : Invitee-Member
- : Invitee-Member
- : Invitee-Member
- : Invitee-Member
- : Member-Secretary

The Departmental Academic Advisory Committee (DAAC) shall perform the following functions and have the following powers:

- The DAAC shall discuss the academic matters including introducing the new courses, 1. review/revision of existing syllabus and shall recommend to the Institute Academic Advisory Committee (IAAC) for consideration and recommendation to the Senate for approval.
- 2. The DAAC shall meet as often as necessary, but ordinarily not less than four times a year.
- 3. One half of the members shall form a quorum for a meeting of DAAC.
- A copy of recommendations / minutes of every meeting of the DAAC shall be placed 4. before the IAAC.

The composition of Institute Academic Advisory Committee (IAAC):

(1) Director	: Chairman
(2) Registrar	: Member
(3) All Deans & Associate Deans	: Members
(4) All Heads of the Departments	: Members
(5) Dean (Academics)	: Member-Secretary

The IAAC shall perform the following functions and have the following powers:

- 1. The IAAC shall discuss all academic and allied matters including conduct of examination, appointment of examiners.
- 2. The IAAC shall review the working of the Departments.
- 3. The IAAC will make suitable recommendations for introducing new course(s), review/revision of existing syllabus and shall recommend to the Senate for approval.

- 4. The IAAC will plan co-curricular activities of the students of the Institute.
- 5. The IAAC will promote research and development activities with periodical review of the activities of the departments of the Institute.
- 6. The IAAC will review and consider the recommendations/minutes of every meeting of the DAACs and accordingly, will make suitable recommendations to the Senate.
- 7. The IAAC shall meet as often as necessary, but ordinarily not less than four times a year.
- 8. One half of the members shall form a quorum for a meeting of IAAC.
- 9. A copy of recommendations/minutes of every meeting of the IAAC shall be placed before the Senate.

#### **REGULATIONS FOR DOCTORAL PROGRAMMES**

#### 1 PREAMBLE

- 1.1 The Provisions in these regulations govern the conditions for imparting courses of instructions, conduction of examinations and evaluation of performance of students leading to Ph. D. degrees.
- 1.2 These regulations are effective for all the batches of students (including admitted previously) from the academic year 2013-14 onwards.

# 1.3 Doctoral Programme leading to Ph.D. is offered in the following Departments of the Institute:

- a) Department of Civil Engineering
- b) Department of Applied Mechanics
- c) Department of Mechanical Engineering
- d) Department of Electrical Engineering
- e) Department of Electronics Engineering
- f) Department of Computer Engineering
- g) Department of Chemical Engineering
- h) Department of Applied Mathematics & Humanities (Mathematics, Management and English)
- i) Department of Applied Physics
- j) Department of Applied Chemistry
- 1.4 The provision of these Regulations shall be applicable to any new disciplines that are introduced from time to time and added to the list in section I.3.
- 1.5 Notwithstanding any of the Clause(s) provided in the Regulations, the Senate shall exercise its powers to change/amend/interpret/implement decisions and actions concerned with academic matters.
- 1.6 The Board of Governors of the Institute may, on the recommendation of the Senate, change any or all parts of these Regulations at any time.

#### 2 ADMISSION

2.1 Student Status :

The status of the candidates admitted to the Ph.D. Programme shall be classified under any one of the following categories:

- a) Full-time Institute Research Scholars.
- b) Full-time research Scholars paid by Government/Semi-Government organizations/QIP/ EFIP.
- c) Full-time sponsored candidates.
- d) Part-time Institute Faculty and Staff.
- e) Part-time Project Staff of the Institute.
- f) Part-time External candidates.
- g) Full-time Self-financing candidates.
- h) Full-time Study leave candidates.
There shall be provision for 2 categories of registration to the candidates willing to register for Ph.D.

- I : Full time : Students who are willing to pursue research on full time basis
- II: Part-time:
- (a) Institute faculty, Staff and Project staff.
- (a) Faculty staff and Project staff working in any Technical Institute duly approved by competent authority namely AICTE/UGC.
- (b) Candidate working in any Public/Private sector organization or Research Laboratory / Organisations who is willing to pursue Research on part-time basis.

#### Note:

- i. Full-time Institute Research Scholars are recipients of the Institute scholarships and are governed by the Scholarship rules.
- ii. Full-time Research Scholars paid by Government/Semi-Government organizations such as CSIR, UGC, QIP, DAE, AICTE, etc. will receive their stipend and contingency grants from their respective supporting organizations.
- iii. Full-time sponsored candidates are recipients of complete financial support including stipend, contingency grants and project expenses from the sponsoring organizations.
- iv. Part-time Institute Faculty/Staff, Project Staff are expected to work for their Ph.D. Programme while fulfilling their normal duties.
- v. Part-lime External candidates are allowed to carry out their Research work at the Institute or at their parent organization after fulfilling certain pre-requisites at the Institute. They are not entitled to Institute scholarship. The external candidate shall produce a relevant sponsorship or no objection certificate from his employer and submit it along with the application for admission.
- vi. Full-time Self-financing candidates and Full-time candidates on study leave are expected to work full-time and are subject to the rules of the Institute.
- 2.2 Eligibility for Admission:

The eligibility for admission to Ph.D. in Engineering Faculty. Science Faculty, Humanities and Social Science Faculty and Interdisciplinary areas is:

A candidate shall possess Master's Degree in relevant area of Research and should have passed with at least second-class with minimum 50% marks (CGPA 5.0) or equivalent in respective Engineering faculty (45% marks or CGPA 4.5 in the case of reserved candidates) and 55% in the case of other faculties (50% in the case of reserved candidates).

2.3 If a student of full-time M.Tech. programme at the Institute wants to change over to a Ph.D. programme of the Institute, he may be permitted to do so from the beginning of the second year provided:

(a). He has obtained a CGPA of 9.0 or above after having registered for the full credits of course work in each of the first and second semester of M. Tech. Programme.

The student has to make an application to the Dean (Academics) through the proposed supervisor and the Chairman, DAAC. The Dean (Academics) will present the same to the IAAC for approval.

(b). Once a student changes to Ph.D. Programme, thereafter he is governed by the Regulations of the Ph.D. Programme of the Institute.

Candidate who has qualified for award of Bachelor's degree in Engineering / Technology with exceptionally good academic record in prescribed discipline will also be considered for direct admission to Ph.D. Programme subject to the following conditions:

The candidate should have 9.0 CGPA on 10 point scale in his/her B.E./B.Tech. Programme. If the degree is based on percentage aggregates marks, it will be converted in to CGPA as per the rule of this institute.

- (a) The candidate should have valid Gate score and he/she should be top 10% scorer of his/her batch in relevant branch.
- (b) The final selection will be through presentation/interview in the department.
- (c) The candidate should earn 30 credits within first TWO semesters of his/her programme through the theory/practical course work after joining the programme. The departmental Research Progress Committee (DRPC) will constitute the Research Progress Committee (RPC) at the beginning of programme of each student. The RPC Committee of student, in turn, will decide the relevant courses required to be studied by him/her for his/her programme. The requirements of the practical courses are required to be spelled out by RPC. However, if RPC feels, few self-studies theory courses can be designed/recommended by the committee for the respective students. However, these self-study theory courses and their contents should be approved by the SEC of Senate/ Senate of the Institute.
- (d) The candidate should score 7.50 CGPA through course work as enumerated at (c) above.
- (e) The candidate has to complete his Ph.D programme within 4 (min)-7 (max) years.
- (f) The category of student will remain the same, i.e. Full time Institute Research Scholar (FIR) up to four years. Beyond four years, he/she may change the category, if required.
- 2.5 The Senate shall approve the schedule of academic activities for the Research Programme including the date of registration.

### 3 COURSE STRUCTURE :

2.4

3.1 The complete Research Programme will be of minimum 3 years duration for all full-time and part-time candidates (except the category defined under the clause 2.4 as above). The maximum period allowed for full-time and for part-time candidates is 7 years. However, the fellowship/Assistantship will be for 4 years in the case of full time institute research scholars (FIR). The Rules and regulations for change of different categories made by the senate will be executed by the DAAC of the respective departments.

- 3.2 Every stream of specialization in the programme will have a curriculum and syllabi for the courses approved by the Senate. The curriculum should be so drawn up that the minimum number of credits on successful completion of the course work including seminar in any stream should be 12 within first two semesters. For directly admitted student after B.E./B.Tech. or equivalent degree, the candidate should earn 30 credits within first TWO semesters of his/her programme through the theory/practical course work after joining the programme.
- 3.3 Credits will be assigned to the courses based on the following pattern:
  - a) One credit for each lecture/tutorial period.
  - b) One credit for each self study period.
  - c) One credit for two hours of practical.
- 3.4 The medium of instruction, examination, seminar and project reports will be English.
- 3.5 Seminars shall satisfy the following conditions:
  - a) Each seminar shall carry four credits.
  - b) Seminar shall be treated as a Course for purpose of registration and evaluation.
  - c) Seminar coordinators appointed by the Department shall organize the seminars and forward the grades awarded by the panels of examiners to the Academic Section by the end of the semester.

### 4 **REGISTRATION** :

- 4.1 Every student after consulting his Supervisor is required to register for the approved courses with the Course Coordinator of respective Department at the commencement of each semester on the day fixed for such registration and notified in the Academic Calendar.
- 4.2 Students who do not register on the day announced for the purpose may be permitted late registration up to the notified day in Academic Calendar on payment of a late fee. However, late registration is permitted up to maximum one week.
- 4.3 Only those students will be permitted to register in the next semester who have:
  - (a) Cleared all Institute, Hostel and Library dues and fines (if any) of the previous semesters.
  - (b) Paid all required advance payments of Institute and Hostel dues for the current semester and
  - (c) Not been debarred from registering on any specific ground.
- 4.4 The procedure for registration for courses shall be as follows:
  - a) The candidate shall obtain Course Registration Forms (CRF) and 'First Registration for Ph. D. Programme' form, from the Academic Section after payment of the prescribed fees.
  - b) The Department shall finalize the entire course programme of the candidate in consultation with the Supervisor(s). The course programme will include the course(s) to be registered and credit seminar(s) to be delivered by the student.

- c) The Candidate shall fill in the CRF and 'First Registration for Ph. D. Programme' form, in consultation with the Supervisor(s) and submit them to the academic section and respective Department.
- d) The Dean (Academics) shall inform the IAAC of any discrepancy in the Registration. However, the candidates should ensure on their own that they comply with the credit requirements.
- e) The IAAC shall approve the course programmes of all candidates after due scrutiny.
- 4.5 A candidate can add to his academic load one or more courses not registered for earlier or substitute one or more courses by others within the first two weeks from the commencement of classes provided the course credit requirements remain unchanged.
- 4.6 Every student, after fulfilling of minimum credit requirements, has to do confirmation of registration for Ph.D. programme by filling the appropriate form.

### 5 COURSE CREDIT REQUIREMENTS :

All students are required to earn 12 credits during the first two semesters. For directly admitted student after B.E./B.Tech. or equivalent degree, the candidate should earn 30 credits within first TWO semesters of his/her programme through the theory/practical course work after joining the programme.

### 6 GRADING SYSTEM :

6.1 Based on the performance of a student, each student is awarded final letter grade in each subject at the end of the semester. The letter grades and the corresponding grade points are as follows:

Grade	Grade Points	Description of Performance
AA	10	Outstanding
AB	9	Excellent
BB	8	Very Good
BC	7	Good
CC	6	Average
CD	5	Below Average
DD	4	Marginal
FF	0	Fail
П	-	Incomplete
NA	-	Not Appeared
WW	-	Withdrawal
XX	-	Unsatisfactory attendance in a course

#### (a) **Description of Grades** :

#### AA Grade

An 'AA' grade stands for outstanding achievement. The minimum marks for award of an 'AA' grade is 80%. however, individual course coordinators may set a different requirement depending upon the class performance.

#### DD Grade

The 'DD' grade stands for marginal performance, i.e. it is the minimum passing grade in any course. The minimum % of marks for award of the 'DD' grade is 36%. However, the student must secure at least 30% marks in the end semester examination, otherwise he will be awarded the FF grade.

#### II and NA Grades

An 'II' grade denotes incomplete performance in any course (theory, lab) due to absence at the end of semester on medical grounds. In case of absence on medical grounds, before or during the end semester examinations, the student can apply for 'II' grade. An application requesting 'II' grade should be made at the earliest, but not later than the last day of the examination. This application should be made to the Head of Department of the student's Programme who, depending on the merit of the case, will grant approval and inform all the concerned course coordinators and D.R. (Academic). The student should subsequently complete all course requirements within fifteen days from the date of the last end semester examination except in theory courses. The 'II' grade will then be converted to a proper grade (AA to FF). The student who remains absent in the end semester examination or supplementary examinations (not on medical grounds) will be awarded 'NA' grade instead of 'II' grade. II grade will be awarded only to those on medical grounds.

#### FF Grade

The 'FF' grade denotes poor performance, i.e. failing in a course. A student has to repeat all compulsory (core) courses in which he/she obtains 'FF' grade, until a passing grade is obtained. For the other (elective) courses in which 'FF' grade has been obtained, the student may take the same course or any other course from the same category.

#### WW Grade

A 'WW' grade is awarded in a course where the student has opted to withdraw from the course. Withdrawal from a course is permitted until one week before the mid-semester examination.

#### XX Grade

The 'XX' grade is awarded for unsatisfactory attendance and student has to repeat the course during the next year whenever it is offered.

(b) A student is considered to have completed a subject successfully and earned the credits if the secures a letter grade other than 'XX' or 'FF' in that subject. A letter grade 'FF' in any subject implies a failure in that subject.

### 6.3 **Communication of Grades:**

- a) The course coordinator has to make MIS entries and submit the results of his/her course. However, the grade sheet generated by the MIS must be submitted by the course coordinator within 2 days of online submission to the Examination/Academic section.
- b) End semester examination answer scripts and the sheet containing details of marks converted to grades, shall be preserved by the Course Instructor(s) concerned for a period of one year.

c) For the benefit of and as a process of learning by the students, the answer books after corrections of mid semester and end semester examinations should be shown to the students within 2 weeks from the date of examinations.

- 6.5 Any change of grade of a student in a subject, consequent upon detection of any genuine error or omission on part of the concerned Course Instructor, must be sent by the concerned Course Instructor through the concerned H.O.D. to the DAAC within 3 weeks of publication of end-semester results. If approved, the Chairman- DAAC should forward the same to the Academic Section for incorporating the necessary changes in the grade.
- 6.6 Appearing at the end-semester examination is compulsory for a student. If a student fails to appear at the end-semester examination he will he assigned 'FF' grade in the subject.
- 6.7 The Grade Report shall contain the Letter Grade for each course and CGPA information.

### 6.8 Credit Seminar :

The student will submit two copies of credit seminar report to his supervisor(s) at any time in the semester in which he has registered for the same. The student shall make oral presentation on his/her seminar topic as per time schedule decided by his supervisor(s). The seminar will be assessed during this presentation by a committee comprising of

- (i) Concerned supervisor(s).
- (ii) One faculty member as examiner conversant with the credit seminar topic to be
- nominated by the supervisor(s) in consultation with the HOD/Chairman of DAAC.
- (iii) A Chairman nominated by the HOD/Chairman of DAAC from other department.

The credit seminar assessment will be initially made in terms of marks with 40 % weightage on the credit seminar report evaluated by the supervisor. The oral presentation and the response of the student in the discussion will be given 60 % weightage which will be awarded by the committee of examiners and the chairman. On completion of assessment compilation of the marks given on the report and the presentation, the chairman will convert the marks into grades ad forward the same to the Academic Section.

If a student does not submit the Seminar report and/or present the Seminar on the scheduled date, he will be awarded 'FF' grade unless the department extends the date in exceptional circumstances.

All the students who have got 'FF' grade in Seminar, be allowed to present Seminar afresh during the period of re-examination. In such a case the student should not be awarded a grade better than CC grade in the Seminar.

The performance of a student is evaluated in terms of two indices, viz. the Semester Grade Point Average (SGPA) which is the Grade Point Average for a semester and Cumulative Grade Point Average (CGPA) which is the Grade Point Average for all the completed semesters, at any point of time

The **SGPA** is calculated on the basis of grades obtained in all courses registered for the semester.

 $SGPA = \frac{\sum_{sem} (Earned \ Credit \ xGrade \ point)}{\sum_{sem} (Course \ Credit \ in \ Semester)}$ 

The CGPA is calculated on the basis of all pass grades obtained in all completed semesters.

$$CGPA = \frac{\sum_{\substack{All Sems. \\ Completed}} (Course Credit x Grade Point) in passed courses}{\sum_{\substack{All Sems. \\ Completed}} (Course Credit) in passed courses}$$

Both SGPA and CGPA will be rounded off to second place of decimal and recorded as such.

#### 7 ATTENDANCE :

Attendance in all classes (Lectures, Tutorials etc.) must be at least 75 % of the total classes. A student will be debarred from appearing in an examination if his attendance falls below 75 %.

#### Leave or Absence:

If the period of leave is for a short duration (less than one week), prior application for leave shall have to be submitted to the Head of the Department concerned stating fully the reasons for the leave requested for along with supporting document(s). Such leave will be granted by the Head of the Department and the absence will not be counted for computation of attendance.

a) Absence for a period not exceeding one week in a semester due to sickness or any other unavoidable reasons for which prior application could not be made may be condoned by the Head of the Department provided he is satisfied with the explanation. This leave is subject to certification by Competent Medical Authorities and attested by Institute Medical Officer. However, the total absence in a semester including all types of leave

should not exceed 25% and compliance of attendance requirement under Clause 7 is met.

- b) If the period of absence is likely to exceed two weeks, a prior application for grant of leave will have to be submitted through the Head of the Department to the Dean (Academics) with supporting documents. In each case, the decision to grant leave shall be taken by the Dean (Academics) on the recommendation of the Head of the Department. However, stipend payment for the FIR/QIP students shall be governed as per the rules of the Institute.
- c) The Dean (Academics) may, on receipt of an application also decide whether the student be asked to withdraw from the course for that particular semester because of long absence.
- d) It will be the responsibility of the student to intimate the Dean (Student Welfare), the Warden of the hostel in which he is residing and the concerned Course Instructor about his absence before availing the leave.

### 8 ASSESSMENT OF COURSE WORK PERFORMANCE :

8.1 The evaluation pattern for the theory courses at UG & PG level shall be as under:

Mid semester exam:	30 marks
Attendance:	10 marks
Assignment/Quiz(zes):	10 marks
Tutorials (if applicable):	25 marks
End semester exam:	50 marks

The mid and end semester examinations are of 1 hour and 3 hours respectively. The question paper for the end semester examination in a subject may be prepared for 100 marks and the performance assessment of the student may be carried out. However, subsequently, the marks obtained by the student in the end semester examination shall be scaled down to half and the marks shall be awarded out of 50. However, preparing the question paper for 100 marks is not compulsory and the individual course coordinator may decide whether to prepare it for 100 marks or 50 marks. If the question paper is prepared for 50 marks then the marks obtained by the student in the end semester examination shall not be scaled down to half. To main the examination schedules uniform, the duration of the end semester examination can be 3 hours irrespective of whether the question paper is set for 100 marks or 50 marks.

Review of question papers shall be done by the committee appointed at the department level. Result analysis shall be done at the Departmental Academic Advisory Committee (DAAC) meeting and the same shall be reported to the Institute Academic Advisory Committee (IAAC).

8.2 The minimum CGPA for Course Work and Seminar is 6.0 to be eligible to continue the Research Programme and thereafter the confirmation of Registration shall be done.

#### 9 WITHHOLDING OF GRADES :

Grades shall be withheld when the student has not paid his dues or when there is a disciplinary action pending against him.

#### 10 SUPERVISOR:

- 10.1 In each Department, applicants will be given at the time of selection the details of various research topics proposed by various faculty members for Ph.D. programmes so that they will have an opportunity to discuss those topics with the respective faculty members and thereafter, indicate their choice in order of preference. The applicants shall then be interviewed by a committee constituted by the DAAC.
- 10.2 a) All selected candidates shall be assigned to minimum one or two supervisor(s) from the Institute at the time of selection.
  - b) Each external candidate may have only one additional Supervisor in the sponsoring/parent organization where he is employed.
  - c) The Research programme and the title of the research topic of a selected candidate shall be finalized by his Supervisor(s) after mutual discussion.
- 10.3 a) Change of Supervisor(s) under exceptional circumstances shall be permitted on recommendation of the DAAC after obtaining the consent of (i) the candidate (ii) the present Supervisor(s) and (iii) the proposed Supervisor(s).
  - b) If the Research programme and/or area of the work require modification due to this change, the candidates' entire course programme requirement shall be examined by the DAAC. If there is a change in the Research programme and/or title of the work, the registration date shall be revised, if found necessary.
- 10.4 a) Whenever a Supervisor leaves the Institute permanently or temporarily for a period exceeding one year, the DAAC shall appoint new Supervisor(s) for the students before his departure. This is not applicable for candidate having more than one supervisor from the institute.
  - b) Whenever a Supervisor leaves the Institute temporarily for a period less than one year the DAAC shall make alternative arrangement, if necessary, for the guidance of his students.
  - c) The DAAC may consider continuation of the original Supervisor on his return to the Institute, as Co-supervisor of his students depending on the period for which he has supervised their Ph.D. programmes.
  - d) Any such arrangements made shall be forwarded to the IAAC for prior approval.
- 10.5 There is no restriction on the number of Research Scholars registered with a supervisor at any given time.
- 10.6 Eligibility for Supervisor/Co-Supervosor:
  - (a) Any regular faculty member of the institute will be the approved Ph. D. supervisor as soon as he/she obtains his/her Ph. D. qualification or joins the institute with Ph. D. degree.
  - (b) However, in case if a recognized Supervisor(s) is not available in a particular discipline at the Institute, an eminent person in the field may act as Supervisor.

- (c) Regular faculty members (having Ph.D.) of all IITs, IIMs, IISc, NITs and all CFIs (Centrally Funded Institutes) are considered as recognized Supervisors by the Institute. However, they must be recognized as supervisors in their respective institutes as well. The Director of NITs/IITs, Head of the Dept./Section of National Laboratories like ISRO/CSIR/PRL, etc. will be considered as a supervisor subject to his/her consent (however, the condition of recognition as a supervisor in his/her own institution/organization is not compulsory).
- (d) The application for recognition as a co-supervisor is allowed only during the first three semesters of registration of the candidate.
- (e) In all cases for Ph.D. registration, one of the supervisors shall be compulsorily from the Institute except for the case as per clause 10.6.b.
- (f) In case of Interdisciplinary areas, at least one supervisor(s) must belong to the discipline in which the student is registered for Research.
- (g) Any faculty member having Ph. D. degree and retired voluntarily or upon reaching superannuation from the institute will be treated as approved External Ph. D. supervisor. He can only be the Co-supervisor. However, he can continue to be the main supervisor for any candidate already registered with him prior to his retirement.
- (h) If a qualified faculty member from a reputed institute (other than the IITs, IIMs, IISc, NITs and CFIs) or a qualified person from a reputed industry applies for recognition as a co-Supervisor through proper channel of his/her institute/industry, then the case may be discussed in the respective DAAC meeting and the recommendation may be sent to IAAC for further consideration. However, they must be recognized as supervisors in their respective institutes/universities as well (except those from reputed industries). The recognition is only Ph.D. candidate-specific.

### 11 PLACE OF WORK, PROGRESS AND DURATION :

On the recommendations of the Supervisor(s) and DAAC the Institute may allow the Research work for the Ph.D. degree to be partially or wholly carried out at another organization duly approved for the purpose by the Institute for part-time Ph.D. students. The FIR category students may carry out part of their research work at organization(s) with whom the institute has entered into MoU. Their attendance will be calculated as official visit. The total duration of work at outside should not exceed more than 30% of total duration.

- 11.1 a) The external organization where a candidate wishes to carry out the Research work partially or wholly shall have to be recognized by the Institute before such work is undertaken.
  - b) Change of status from part-time to full-time or vice-versa will be subject to the approval of DAAC, IAAC and the Senate.
  - c) An external organization may be granted recognition by the IAAC as an approved place of work after inspection by a Committee constituted by the Chairman, Senate.

- i. A particular candidate shall normally give the place of his research work for recognition only for the purpose of his individual research project.
- ii. The details of Research facilities available at the organization shall be furnished by the candidate along with the application for admission to Ph.D. Programme.
- iii. The DAAC shall examine the details given and may decide either to ask for further information, if necessary, or even collect first hand information, if necessary, by deputing faculty member(s) to visit the organization. Only when the DAAC is fully convinced about the adequacy of the Research facilities, it shall recommend the case to the IAAC or else certain facilities of the Institute shall be permitted to be used by the candidate at a fee prescribed by the Institute.
- iv. The IAAC shall give the final approval after due consideration of the recommendations of the DAAC.
- 11.2 a) Each candidate, after completion of credit requirements will deliver a research progress seminar (RPS) in each semester before his research progress committee (RPC). The late presentation of RPS beyond the duration of any term, but not later than the first day of the next term as per the academic calendar of the institute, is allowed.
  - b) The RPC shall evaluate the progress of research work of the student and upon their satisfaction shall recommend continuation of his work. The RPC shall submit their evaluation report in the prescribed format, to the Dean (Academics) through the Chairman DAAC.
  - c) If the RPC is not satisfied with the progress of research work may recommend termination of registration to the Senate through the IAAC. The RPC shall comprise of the following members.
    - i. Concerned supervisor(s).
    - ii. One or two faculty member nominated jointly by his supervisors from the concerned department or other department who is / are familiar with the concerned area of research work.
    - iii. One faculty members nominated by the Chairman DAAC from those familiar with the concerned area of research work.
    - iv. One faculty member from the other department as the chairman of RPC to be nominated by the Chairman DAAC.
  - d) The formation of RPC for each student shall be completed by the chairman DAAC immediately after completion of minimum credit requirements and intimated to the Dean (Academics).
  - e) The members of RPC will be changed under extraordinary circumstances in consultation with the Dean (Academics).
  - f) In the case of Institute scholarship holders, the continuance of scholarship beyond 3 years and up to maximum of 4 years will be subjected to satisfactory progress made by them as assessed by the panel appointed by the respective DAAC as well as MHRD directives.

- 11.3 a) Every external candidate shall carry out a part of his/her study of his/her Research work residing at the Institute for a period, which shall be in no case less than one semester.
  - b) Candidates sponsored by local organizations may, on the basis of an application recommended by DAAC, be exempted from stay on the Institute campus while fulfilling the requirements under (a) above. However, the work under this rule shall be carried out during normal working hours of the Institute.
  - c) The organization has to certify that the candidate has been fully relieved of normal duties/granted leave during the period of the residential requirement.
  - d) External candidates will be provided with hostel accommodation only during the semester(s) in which the residential requirement is to be fulfilled. However, his stay may be extended for a period of more than six months if recommended by his Supervisor in some specific cases.
  - e) Registered candidate can go for change of category only after completion of 1<sup>st</sup> RPS.
    - The registered candidate should remain in the existing category for a minimum
    - period of two semesters (excluding the withdrawal period, if applicable).Maximum number of category conversions allowed is limited to 2.
    - For category conversion to PEC, No Objection Certificate (NOC) from the employer/necessary documents must be produced within a month.
- 11.4 All full-time and part-time candidates have to carry out Research in the Institute for at least a period of three years from the date of registration before submission of thesis. The above duration is inclusive of the Course Work and Seminar.
- 11.5 a) The period of validity of Ph.D. registration is seven years in case of full time and part time scholars. The candidates may submit their thesis before the end of this period subject to the provisions of 11.4. (Any candidate who concurrently registers for any postgraduate degree at another organization shall be automatically de-registered at the Institute).
  - b) Research Scholars/Staff who have submitted synopsis of the thesis may be permitted by IAAC on recommendations of The DAAC to leave the Institute and submit the thesis from outside within a period of six months provided they fulfill the provisions of all other rules.

## 12 THESIS EVALUATION:

- 12.1 Prior to the submission of the synopsis of the thesis, a comprehensive internal assessment of the Research work should be made by panel consisting of the RPC members and one or two faculty members, who are familiar with the concerned area of research work from the Institute, appointed by the Dean (Academics) in consultation with the supervisor(s).
  - a) This assessment will be through a pre-synopsis seminar. The candidate can submit the synopsis only if the panel is satisfied about the quality of the work for submission as a Ph.D. thesis.



- Details of the pre-synopsis seminar shall be adequately notified so as to enable b) interested staff members and students to attend the same.
- The Chairman of the 'panel' shall forward the panel's report to the Dean C) (Academics)'s Office.
- 12.2 a) The synopsis is to be submitted within three months from the date of successful completion of pre-synopsis seminar. The candidate shall submit 2 hard copies and a soft copy (in CD) of the synopsis of his work at least one month before submitting the thesis to the Dean (Academics). The soft copy can be used for quick communications with the examiners. If the synopsis is not submitted within three months from the date of successful completion of the pre-synopsis seminar, then the candidate has to apply for extension (of a maximum period of three months) to the Dean (Academic) through the supervisor and the Chairman, DAAC.

If a candidate does not submit his thesis within six months from the date of submission of synopsis, he has to apply for an extension (of a maximum period of six months) to the Dean (Academics) through the supervisor and the Chairman, DAAC. The Dean (Academics) will present the same to the IAAC for approval. In such case, the student has to continue his registration during the extended period. If the candidate fails to submit the thesis within the extended period, then his registration will be deemed to be cancelled.

- b) The copies of the synopsis will be forwarded by the Dean (Academics) to the Academic Section with the following certificates:
  - L Certificate from the Chairman, DAAC that the prescribed course credits is completed.
  - II Copy of report from the Chairman of the panel of examiners for pre-synopsis seminar.
  - Certificate that the pre-synopsis seminar has been completed satisfactorily. IV
    - Certificate from the Research Supervisor(s) stating:
      - i. That there is a prima facie case for consideration of the thesis.
      - ii. That the thesis does not contain any work which has been previously submitted for the award or any degree, and
      - iii. The extent of collaboration, if any,
  - V "No dues Certificate" from all Sections, Hostel and Library that there are no arrears/dues up to the date of submission of the synopsis.
- 12.3 a) The thesis shall be written in English in the approved format (printed on both sides of the pages) and as per the broad guidelines.
  - The candidate shall submit two copies of the thesis and a soft copy (in CD) to the b) Academic Section within the prescribed time limit, namely, not earlier than one month and not later than the limit specified in clause 11.5 (b). Depending upon the preference of the examiner, either hard copy or soft copy can be sent to him/her.
  - Along with the thesis, the candidate shall submit the requisite forms containing the C) authorization from the Research Supervisor(s) for submission of the thesis and a certificate from Accounts Section that there are no dues against the candidate.
- 12.4.1 a) Immediately after satisfactory completion of pre-synopsis seminar, supervisor(s) will submit the proposed list of external referees to the HOD/Chairman DAAC. The list should be consisting of complete addresses (including e-mail addresses) of five members each from well reputed institutes and universities of India and abroad.

The HOD/Chairman DAAC upon his satisfaction shall forward the same to the Dean (Academics).

The Dean (Academics) upon his satisfaction shall forward it to the Director as the Senate Chairman for choosing two external referees consisting of one each from India and abroad.

- b) The referees shall independently report to the Dean (Academics) through the Registrar of the Institute, preferably within six weeks from the date of their receipt of the thesis (either hard copy or soft copy). The Registrar should convey to the referees that their reports should include-
  - (i) a critical survey and evaluation of the quality and quantity of the work as embodied in the thesis.
  - (ii) Questions, if any, to be asked or points to be clarified at the viva-voce examination, and
  - (iii) A definite recommendation as to whether the thesis is acceptable for the award of the degree of Doctor of Philosophy.
- c) If a referee in his report is not in a position to make a definite recommendation for the award of the degree, he should be requested to assist the Senate in deciding whether the candidate be required to make:
  - (i) Substantial revisions involving rewriting of one or more chapters without, however, doing any further Research work.
  - (ii) Completely rewrite the thesis if the thesis, though not acceptable, in the present form, reveals sufficient quality and quantity of work to warrant the candidate being given an opportunity for further Research work and/or reinterpretation of results.
- 12.4.2 a) The copies of the referees' reports when received shall be confidentially made available to the Research Supervisor(s). The Research Supervisor(s) shall send comments to Dean (Academics) on these reports.
  - b) Dean (Academics) will submit the referee's reports and supervisor's comments to evaluation committee comprising of Dean (Academics) as Chairman, one recognized supervisor (other than the supervisor(s) of the concerned students) from the parent department and one recognized supervisor from other department. Such committee should be constituted by Dean (Academics) in consultation with the Chairman of the Senate in each case. This committee will recommend to the IAAC whether the thesis be accepted for the viva-voce examination or be rejected or be referred again to a new referree.
  - c) A thesis may be considered acceptable for holding the viva-voce examination if both the referees give positive recommendations. If one of them accepts and the other rejects the thesis, as it is, shall be referred to a third referee chosen from the panel of examiners by the Senate Chairman.
  - d) Whenever a thesis is referred to a third referee the comments of the Research Supervisor point by point for the queries by the first two referees should also be reported to the evaluation committee as specified in clause 12.5 (b).
  - e) The Senate shall, however, be the final authority in deciding whether the thesis be accepted for the award of the degree.

- 12.5 a) If the referees(s) recommend acceptance of the thesis subject to minor modifications only, the thesis can be resubmitted only once after incorporating the modifications, within a period of six months. The thesis so resubmitted shall be examined by the same referee(s).
  - b) A thesis rejected by two referees may be re-submitted after revision, not earlier than one year and not later than two years form the date of such intimation to the candidate by the IAAC. The thesis so resubmitted may be examined by the same referees or by new referees, as recommended by evaluation committee.
  - c) Rejection of the thesis so resubmitted will disqualify the candidate from further consideration for the award of the Ph. D. degree, in the topic of research chosen by him.
- 12.6 a) A candidate, whose thesis has been accepted for the award of the Ph.D. degree, shall be required to defend his work at an open viva-voce examination conducted by a Board of Examiners at the Institute,
  - b) The Board of Examiners shall be appointed by the Senate Chairman and it shall consist of-
    - (i) A professor of the Institute, outside the department as chairman,
      - (ii) The Research Supervisor(s).
      - (iii) A faculty member of the Institute conversant with the subject to act as an internal examiner; and
    - (iv) One of the referees, failing which an examiner from the approved panel.
  - c) The Board of Examiners shall submit its report in the prescribed form to the Senate Chairman within 3 days after completion of viva-voce exam.
- 12.7 a) After satisfactory completion of the viva-voce examination, the degree may be conferred upon the candidate after approval by the Senate.
  - b) If a thesis has been accepted but the candidate fails at the viva-voce examination, he may be permitted by the Senate Chairman to re-appear for viva-voce examination again at a later date. The Recommendations of the Board of Examiners conducting the viva-voce examination shall be considered in taking a decision in this respect.
  - c) After successful completion of the viva-voce examination, the candidate shall submit to the Academic Section two copies of his approved thesis duly bound together with the application for submission of the same in the prescribed format.

### 13 SCHOLARSHIP:

- 13.1 The Regular Research Scholars will be paid scholarship at a rate in accordance with the directives from the appropriate authorities.
- 13.2 Institute Research Scholars are eligible to receive scholarship for a maximum period of four years subjected to satisfaction of clause 11.2(F).
- 13.3 If in the opinion of the research progress committee the continuation of registration and scholarship cannot be recommended, the Committee may stipulate a period of time, not less than three months, for the candidate to re-appear before the research progress committee for the consideration of continuation of research work and scholarship.

14	WITHDRAWAL FROM THE INSTITUTE:
	<ul> <li>a) If a student withdraws from his/her Ph.D. Programme within the first two years after admission, his/her student status ceases and he/she would not be readmitted with any weightage for the credits acquired during the period of stay.</li> <li>b) In case a student wishes to temporarily withdraw from his/her Ph.D. Programme, he/she may do so only after a period of two years following his/her date of registration with prior permission of the Senate.</li> <li>c) If a student leaves the programme any time without prior permission of the Institute, he/she will loose his/her student status.</li> </ul>
15	CONDUCT AND DISCIPLINE:
15.1	Students shall conduct themselves within and outside the premises of the Institute in a manner befitting the students of an Institution of National Importance.
15.2	As per the order of the Hon'ble Supreme Court of India, ragging in any form is banned; acts of ragging will be considered as gross indiscipline and will be severely dealt with.
15.3	The following acts of omission shall constitute gross violation of the code of conduct and are liable to invoke disciplinary measures: a) Ragging
	<ul> <li>b) Lack of courtesy and decorum; indecent behavior anywhere within or outside the campus.</li> <li>c) Willful damage or stealthy removal of any property/belongings of the Institute/Hostel or of</li> </ul>
	fellow students/citizens. d) Possession, consumption or distribution of alcoholic drinks or any kind of
	<ul> <li>hallucinogenic drugs at the campus.</li> <li>e) Mutilation or unauthorized possession of library books.</li> <li>f) Noisy and unseemly behavior, disturbing studies of fellow students.</li> <li>g) Hacking in computer systems (such as entering other person's area without prior permission, manipulation and/or damage of computer hardware and software or any other cyber crime, etc.)</li> <li>h) Any other act of gross indiscipline.</li> <li>Commensurate with the gravity of the offence, the punishment may be:</li> <li>Reprimand, fine, expulsion from the hostel, debarment from an examination, rustication for a specified period or even outright expulsion from the Institute.</li> </ul>
15.4	For an offence committed in (a) a hostel (b) a department or in a classroom and (c) elsewhere, the Chief Warden, the Head of the Department and the Dean (Student Welfare), respectively, shall have the authority to reprimand or impose fine. All cases involving punishment other than reprimand shall be reported to the Chairman, Students Disciplinary Committee constituted by the Director.
15.5	Cases of adoption of unfair means in an examination/malpractice shall be reported to the Dean (Academics) for taking appropriate action.
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#### 16 **RESIDENCE**:

All Research Scholars who reside in the hostels must abide by the rules and Regulations of the hostel as may be framed from time to time by the Council of Wardens and approved by the Senate.

### 17 DOCTORAL REQUIREMENTS & CONVOCATION :

- 17.1 A student shall be declared eligible for award of Ph.D. Degree if he/She has:
  - a) Completed all the Course Work and Seminar requirement for the degree with CD or higher grade in each of the theoretical subjects and seminar.
  - b) Obtained the minimum CGPA requirement of 6.0 at the end of Course Work and Seminar.
  - c) Research work has been carried out within the Institute under the guidance of Supervisor(s) for at least three years in the case of all candidates after their date of registration. The above period includes Course work and Seminar also. The place of work for the part time candidates may be as per any special approval given by the competent authority.
  - d) The thesis submitted by the candidate has been recommended for the award of the Ph.D. degree by two external referees and by the Board of Examiners (BOE) constituted for the viva-voce examination.
  - e) Defended the Research work at an open viva-voce examination conducted by the BOE.
- 17.2 The award of Ph.D. degree must be recommended by the Senate.

### 17.3 **Convocation:**

The Annual Convocation shall be conducted usually in the month of October. Degrees will be awarded in person for the students who have graduated during the current academic year. Degrees will be awarded in absentia to such students who are unable to attend the Convocation. Students are required to apply separately for the Convocation along with the prescribed fee.

### 18 Departmental Academic Advisory Committee (DAAC) / Institute Academic Advisory Committee (IAAC)

Consequent upon dissolving of Board of Under Graduate Studies (BUGS), Departmental Board of Under Graduate Studies (DBUGS), Board of Post Graduate Studies & Research (BPGS&R) of the Institute, the Senate of the Institute had approved to constitute Departmental Academic Advisory Committee (DAAC) UG/PG & Ph.D programmes and Institute Academic Advisory Committee (IAAC) for UG/PG & Ph.D programmes as per Clause 8 (iv), (v) & (vi) of the First Statutes under NIT Act, 2007 (29 of 2007). The composition of the DAAC and IAAC (Engg. & Tech. and Sciences) is as detailed below:

The composition of Departmental Academic Advisory Committee (DAAC) (Engg.& Tech. and Sciences) shall be as under:

(1) Head of Department	: Chairman
(2) All Faculty of the concerned Department	: Members
(3) Dean (Acad)	: Invitee-Member
(4) Dean (FW)	: Invitee-Member
(5) Dean (R&C)	: Invitee-Member
(6) Dean (SW)	: Invitee-Member
(7) Sr. most Asst. Professor of the Department	: Member Secretary

The Departmental Academic Advisory Committee (DAAC) (Engg. & Tech. and Sciences) shall perform the following functions and have the following powers:

- 1. The DAAC shall discuss the academic matters including introducing the new courses, review/revision of existing syllabus and shall recommend to the Institute Academic Advisory Committee (IAAC) for consideration and recommendation to the Senate for approval.
- 2. The DAAC shall meet as often as necessary, but ordinarily not less than four times a year.
- 3. One half of the members shall form a quorum for a meeting of DAAC.
- 4. A copy of recommendations / minutes of every meeting of the DAAC shall be placed before the IAAC.

The composition of Institute Academic Advisory Committee (IAAC) shall be as under:

(1) Director	: Chairman
(2) Registrar	: Member
(3) All Deans & Associate Deans	: Member
(4) All Heads of the Departments	: Members
(5) Dean (Academics)	: Member-Secretary

The IAAC (Engg. & Tech.) and IAAC (Sciences) shall perform the following functions and have the following powers:

- 1. The IAAC shall discuss all academic and allied matters including conduct of examination, appointment of examiners.
- 2. The IAAC shall review the working of the Departments.
- 3. The IAAC will make suitable recommendations for introducing new course(s), review/revision of existing syllabus and shall recommend to the Senate for approval.
- 4. The IAAC will plan co-curricular activities of the students of the Institute.
- 5. The IAAC will promote research and development activities with periodical review of the activities of the departments of the Institute.
- 6. The IAAC will review and consider the recommendations/minutes of every meeting of the DAACs and accordingly, will make suitable recommendations to the Senate.
- 7. The IAAC shall meet as often as necessary, but ordinarily not less than four times a year.
- 8. One half of the members shall form a quorum for a meeting of IAAC.
- 9. A copy of recommendations/minutes of every meeting of the IAAC shall be placed before the Senate.