

BIKANER TECHNICAL UNIVERSITY, BIKANER

बीकानेर तकनीकी विश्वविद्यालय, बीकानेर



**M. TECH. ORDINANCES AND
REGULATIONS**

ORDINANCES AND REGULATIONS

M. TECH. ORDINANCES

DEFINITIONS: Unless the context requires otherwise,

(i)	" Applicant " means an individual who applies for admission to any Post Graduate (PG) Programme of Engineering and Technology of the Bikaner Technical University Bikaner.
(ii)	" Board " means the Board of Management of the Bikaner Technical University Bikaner;
(iii)	" Council " means the Academic Council of the Bikaner Technical University Bikaner.
(iv)	" Course " means a curricular component identified by a designated code number and a title;
(v)	" Dean (FOEA) " means the Dean, Faculty of Engineering and Architecture, Bikaner Technical University Bikaner.
(vi)	" Degree " means the Master's degree viz. M. Tech. of the University.
(vii)	" Institution " means affiliated institutions/constituent colleges of the University/ University Centers/University Department offering Master's degrees in Engineering & Technology.
(viii)	" Faculty Mentor " means a teacher nominated by the Department to advise the students
(ix)	" Full-time Student " means a student registered for full time Post Graduate Programme.
(x)	" GATE " means Graduate Aptitude Test in Engineering conducted by the IITs or any other equivalent examination conducted by such competent bodies.
(xi)	" University " means the Bikaner Technical University Bikaner.
(xii)	" Minimum Registration Period " means the minimum period for which a candidate must be registered for the post graduate degree/Programme.
(xiii)	" M.Tech. Programme " means Post Graduate Programme in Engineering & Technology abbreviated as M. Tech.(subject of specialization).
(xiv)	" Scheme of Teaching and Examination " means the scheme of teaching and examination for the M. Tech. Programme approved by the University.
(xv)	" CGPA " means Cumulative Grade Point Average.
(xvi)	" SGPA " means Semester Grade Point average.
(xvii)	" Credit " means quantified assessment of the course.
(xviii)	" Supervisor " means a member of the academic staff of the University and/or from outside the University/affiliated college(s) approved by the University to supervise the student for the designated academic activity.
(xix)	" Faculty " means Faculty of Engineering and Architecture of the University constituted as per provisions of its act.
(xx)	" Act " means the Bikaner Technical University Act 2017.
(xxi)	" Ordinances " means ordinances for M. Tech. Programme
(xxii)	" Regulations " means regulations for M. Tech. Programme

Note: 'He' & 'His' imply 'he' / 'she' and 'his' / 'her', respectively as the case may be.

ORDINANCES & REGULATIONS OF M. TECH PROGRAMME

ORDINANCES

O.1	Title and Commencement (a) These ordinances shall be called the ordinances for the M. Tech. Programme of the University. (b) These ordinances shall come into force from the date, the competent authority approves and notifies on its behalf.
O.2	The University shall offer such M. Tech. Programme related to Engineering and Technology and which includes the approved list of Programme of MHRD/AICTE/UGC or any other national accreditation body formed by/ with statutory provisions, and of such minimum duration as the Academic Council may approve. Such Programme can be on the recommendation of the concerned faculty either on its own or on the initiative of a Board of Studies; provided further that an interdisciplinary Programme may be proposed by a Department/Centre of the University/ its constituent/ affiliated colleges or by a committee appointed by the Vice Chancellor. The recommendation of committee shall approve by the joint BoS & faculty and subsequently approved by the Academic Council & Board.
O.3	The Academic Council shall ensure that every Academic Programme, leading to the award of a Degree as appropriate to the Programme, conforms to the Ordinances of the University.
O.4	The minimum entry qualification (s) for admission to the M. Tech. Programme shall be such as may be laid down in the Regulations.
O.5	A M. Tech. student shall be required to secure a minimum academic requirement in subjects and laboratory courses as specified in the regulations. The Dissertation, Seminar and other similarly designated academic activities shall have to be undertaken under the guidance of Supervisor(s): Provided that a M. Tech. student may be permitted by the supervisor to carry out in full or a part of his Dissertation outside the University/ Institution. In such cases, an additional supervisor, from outside Organization / Institute, if considered necessary, shall be appointed as specified in regulations.
O.6	A M. Tech. student shall be required to complete all the requirements for the award of the M. Tech. degree within such period as may be specified in the Regulations;
O.7	The date of initial registration for the M. Tech. Programme shall normally be the date on which the student formally registers for the first time, which shall be the date of joining for all purposes;
O.8	A student shall normally be required to attend all lecture, tutorial and practical classes. However, in case of late registration, sickness or other such exigencies, leave may be allowed as mentioned in the regulations.
O.9	A M. Tech. student may be granted scholarship/ assistantship/ stipend, etc. and be awarded medals as specified in the regulations or in accordance with the directions of the Central Government/State Government and the Academic Council/Board.
O.10	The procedure for admission and the continuation of the Registration in M. Tech. Programme shall be specified in the Regulations.
O.11	The award of the M. Tech Degree to an eligible candidate shall be made in accordance with the procedure laid down in the Regulations subject to the fulfillment of the minimum academic requirement as specified in the Regulations.
O.12	The procedure of the withdrawal from a M. Tech. Programme and possible rejoining shall be as specified in the Regulations.
O.13	The procedure for the examination, award of degree and all the related matters of a

	M. Tech. Programme shall be as specified in the Regulations.
O.14	A student admitted to a M. Tech. Programme shall abide by the orders issued by the University from time to time.
O.15	Regulations made in this regard may be added, deleted, modified as required time to time with concerned by the approval of Academic Council and subsequent vetting of the board.
O.16	Notwithstanding anything contained in the above Ordinances, no regulation shall be made in contravention of the decision of the Board/Council and/or the policy guidelines of the AICTE/MHRD in regard to the M. Tech. Programme.

ORDINANCES & REGULATIONS OF M. TECH PROGRAMME

REGULATIONS

R .1 Title and Commencement

- a. These regulations shall be called the regulations for the M. Tech. Programme of the university.
- b. These regulations shall come into force from the date, the competent authority approves and notifies on its behalf.

R .2 Classification of M. Tech. Programme

There shall be only Full Time M. Tech Programme.

R .3 Eligibility of Admission

- a. Admission to the Master of Technology Programme shall be open to all the candidates who have passed qualifying Examinations (as specified in Table-1) of BTU or any other University / Institution or any other examinations recognized as equivalent thereto by competent authority with not less than 60% (55% in case of SC/ST/Divyanga/ visually impaired) of the marks of the degree examinations or CGPA 6.0 on 10 point scale or equivalent CGPA.
- b. A candidate not holding a UG degree in engineering discipline, must have a valid GATE score in relevant engineering discipline (Table 1) for admission to PG Programme. However, he/she shall be eligible for the Programme open for admission to candidate possessing UG degree in the discipline of the applicant in GATE.
- c. The university at its discretion may conduct an Entrance Examination/Interview for admission to all the PG Programme for those not to possessing valid scores of GATE.
- d. The merit list of the candidates shall be prepared in the following order of priority:
 - i. Valid GATE Score* with marks not less than the cutoff marks for the category to which the candidate belongs.
 - ii. Ranking in the entrance test if conducted by the university.
 - iii. Marks in the qualifying examination.

*Valid GATE score means that (i) the score card is not time barred at the time of

admission and (ii) the score is equal to or above the cut off marks for the category of the candidate in the validity period of GATE.

R .4 Duration of Programme

The curriculum shall be applicable for students who shall be admitted in Session 2019-20 and onwards. Duration of course is 2 years however; maximum duration shall not exceed 4 years. The maximum duration of the Programme includes the period of withdrawal, absence and different kinds of leave permissible to a student. However, it will exclude the period of rustication. The duration may be altered in accordance with the decision of the Board on the recommendation of the Academic Council.

R .5 Course of Study

- a. The details of currently run M.Tech. Programmes are given in **Table-1**. The broad course structures of various M.Tech. Programmes are given **Table-2**. These may be amended/ modified in accordance with the decision of the Board on the recommendation of the Academic Council from time to time.

Table 1: Details of currently run PG Programmes in Engineering and Technology			
SN	Academic Department/Centre	Academic Programme	Minimum Educational Qualifications
1	Civil Engineering	M.Tech. Geo-Technical Engineering	B.E./ B.Tech in Civil Engineering / Construction Building Technology.
2	Computer Science Engineering	M.Tech. Computer Engineering	B.E./ B.Tech in Computer Science & Engineering / Information Technology.
		M.Tech. Software Engineering	B.E./ B.Tech in Computer Science & Engineering / Information Technology
3	Electrical Engineering	M.Tech. Power Systems	Electrical/Electrical and Electronics Engineering/Electronic Instrumentation & Control
4	Electronics Engineering	M.Tech. VLSI Design	B.E./ B.Tech in Electronics and Communication /Applied Electronics /Computer Science& Engineering/ Electronic Instrumentation & Control
		M.Tech. Digital communications	B.E./ B.Tech in Electronics/Applied Electronics/ Instrumentation/ Electronics & Communication/ Biomedical Engineering / Electronic Instrumentation & Control /

			Electrical and Electronics Engineering
5	Mechanical Engineering	M.Tech. Machine Design	B.E./ B.Tech in Mechanical /Production & Industrial/ Automobile/Aero Space/ Aeronautical Engineering
		M.Tech. Production Engineering	B.E./ B.Tech in Production & Industrial /Mechanical/ Production/Metallurgy
		M.Tech. Thermal Engineering	B.E./ B.Tech in Mechanical/Automobile/Aero Space/Energy/Chemical / Aeronautical Engineering
		M. Tech. Renewable Energy Technology	B.E. or B. Tech in Civil/Electrical/Electronics & Communication/ Electronic Instrumentation & Control/Mechanical/Production & Industrial Engineering

- b. The University shall offer new M. Tech. Programmes related to Engineering and Technology and which includes the approved list of Programmes of MHRD/AICTE/UGC or any other national accreditation body formed by/ with statutory provisions, and of such minimum duration as the Academic Council may approve. Such Programmes can be on the recommendation of the concerned faculty either on its own or on the initiative of a Board of Studies and further approved by Academic council & Board.

Table 2: Scheme of M. Tech.

1 st Year –I Semester				THEORY							
S N	Catego ry	Course		Contact hrs/week			Marks				C r
		Code	Title	L	T	P	Exam (Hrs)	IA	ETE	Total	
1	PCC			3	-	-	3	20	80	100	3
2				3	-	-	3	20	80	100	3
3				3	-	-	3	20	80	100	3
4	PEC-I			3	-	-	3	20	80	100	3
5	PEC-II			3	-	-	3	20	80	100	3
6	OES			2	-	-	3	20	80	100	2
		Sub Total		17						600	17
PRACTICAL & SESSIONAL											
7	PCC			-	-	2	-	60	40	100	2
8	FW		Field Work	-	-	2	-	60	40	100	2
9	AC		Audit Course	-	-	2	-	30	20	-	-
		Sub- Total				6				200	4
		TOTAL OF I SEMESTER		17		6				800	21

OES: Other Emerging Subjects: (i) Human Values and Professional Ethics

AC: Audit Course: “Practical Classes on Human Values”.

1 st Year –II Semester				THEORY							
S N	Cate gory	Course		Contact hrs/week			Marks				C r
		Code	Title	L	T	P	Exam Hrs	IA	ETE	Tot al	
1	PCC			3	-	-	3	20	80	100	3
2				3	-	-	3	20	80	100	3
3				3	-	-	3	20	80	100	3
4	PEC- III			3	-	-	3	20	80	100	3
5	PEC- IV			3	-	-	3	20	80	100	3
6	OES			2	-	-	3	20	80	100	2
		Sub Total		17						600	17
PRACTICAL & SESSIONAL											
7	PCC			-	-	2	-	60	40	100	2
8	FW		Field Work	-	-	2	-	60	40	100	2
		Sub- Total				4				200	4
		TOTAL OF II SEMESTER		17		4				800	21

OES: Other Emerging Subjects: (i) Research Methodology

2ndYear – III Semester

PRACTICAL & SESSIONAL											
SN	Category	Course		Contact hrs/week			Marks				Cr
		Code	Title	L	T	P	Exam Hrs	IA	ETE	Total	
1	PSD		Industrial/Field Project	-	-	28	-	360	240	600	14
2	PSD		Seminar	-	-	4	-	60	40	100	2
		TOTAL OF III SEMESTER				32				700	16

2ndYear – IV Semester

PRACTICAL & SESSIONAL											
SN	Category	Course		Contact hrs/week			Marks				Cr
		Code	Title	L	T	P	Exam Hrs	IA	ETE	Total	
1	PSD		Dissertation	-	-	32	-	420	280	700	16
		TOTAL OF IV SEMESTER				32				700	16

R.6 Credit System

Cumulative Grade Points Average (CGPA) system has been introduced for the PG Programme in engineering, where the breakups of the Credits are shown in the Table 3 below:

Table: 3 Breakup of the credits

S. No.	Category	Break up of Credits
1	Programme Core Courses (PCC)	22
2	Programme Elective Courses relevant to chosen specialization/branch (PEC)	12
#3	Other Emerging Subjects (OES)	4
*4	Field work (FW)	4
	Industrial/Field project, seminar and dissertation in industry or elsewhere (PSD)	32
	Total	74

#3 Other Emerging Subjects (OES) shall be (i) Human Values and Professional Ethics

(ii) Research Methodology.

***4 Field Work (FW)** shall be related to his/her specialization of M.Tech. Students are required to join the work in field/industry during the semester and shall submit a report of the same at the end. An internal faculty mentor shall be appointed for each student. Minimum two random visits at the site of field work shall be made by internal faculty mentor to evaluate the performance of the student.

R.7 The Calendar of events in respect of the Programme shall be as fixed by the University from time to time.

R.8 Examination Pattern

There will be an Internal Assessment as well as End Term Exams for all theory and Practical & sessional Papers. Distributions of Marks are shown as per following:

a. Theory Exam

S. No	Credit of Theory Paper	Exam Hours	Internal Assessment (20%)	End Term Exam (80%)	Total Maximum Marks
1.	3	3 Hours	20	80	100

Question Paper Pattern of End Term Theory Exam:

S. No.	Exam Duration	Max. Marks
1.	3 Hours	80

There shall be 8 Questions (16 Marks each) of the Analytical/Problem Solving /Design / Descriptive types covering whole syllabus and candidate shall have to attempt any 5 questions out of 8 questions or as per the directions given by examiner.

b. Practical & Sessional Papers

Practical & Sessional	Internal Assessment	End Term Exam
	60%	40%

c. Field Work

Faculty mentor shall award the internal assessment marks. The evaluation of end term exam of field work will be done by mentor and External Examiner on the basis of PPT presentation. External Examiner will be appointed by the university.

d. Industrial/Field Project (600 Marks)**(i) Internal Assessment (360 Marks)**

- 120 Marks by internal mentor
- 240 Marks by external mentor where project work is done.

(ii) End Term Exam (240 Marks)

The end term exam shall be conducted through by PPT given by student and viva voce at the end of Industrial/Field Project work which shall be assessed by a panel of two examiners in which one is internal mentor and the other is External Examiner appointed by the University.

e. Seminar

Each student shall prepare seminar in third semester on the topic chosen from the relevant field under the supervision of faculty mentor. The seminar shall be delivered in open house. Head of the Department shall appoint a panel of examiner not less than two examiners for its evaluation.

- f. All candidates registered shall present one seminar in third Semester.
- g. The Head of the Department shall arrange for conducting of such seminars through concerned faculty member of the Department. He shall appoint a panel of not less than two examiners for evaluation of each seminar. All the members of panel shall evaluate the seminar independently and average of all the members shall be the marks obtained. The Seminar shall be delivered in an open house at the college with anybody from the institutions or from outside may

listen to the seminar and ask questions once the examiners declare it "open for discussion". An internal assessment mark that is 60% will be awarded by supervisor whereas an End term mark that is 40% will be awarded by panel of examiner after presentation.

f. Dissertation (700 Marks)

Internal assessment shall be made by the Supervisor(s) and marks shall be awarded out of 420. The External Examiner shall award the marks out of 175 Marks. Remaining 105 Marks shall be awarded by a panel comprising of supervisor(s) and External Examiners through the final presentation and viva voce. External Examiner shall be appointed by the university.

Award of Marks of Dissertation:

- a. Internal assessment marks (420) shall be awarded by the supervisor.
- b. Out of total 280 marks of external term examination 170 marks shall be awarded by External Examiner and remaining 105 Marks shall be awarded by a panel comprising of supervisor (s) and External Examiner on the basis of presentation of research work and viva-voce.
- c. The Internal and End Term marks shall be forwarded to the Controller of Examination by the Head of the concerned Institution within 3 day of examination under intimation to the Dean FoEA.

R .9 Examination Rules:

- a. There shall be a theory examination (Main Examination) at the end of I & II semester in all the branch/Specialization (Mention in R.5) of M. Tech Programme and there shall be an industrial/ field project and seminar in the third semester for which evaluation will be done at the end of semester. Each student will be required to carry out research work for dissertation in the fourth semester which will be evaluated at the end of semester. The details of evaluation of III & IV semester have been described at Rule No 16.
- b. Practical and sessional examination of I & II semester will be held at the end of each semester.
- c. The Candidate will be issued mark sheet at the end of I, II, III semester and consolidated mark sheet and provisional certificate will be issued after completion of IV semester examination to indicate performance of candidate as per the scheme of teaching and examination after the declaration of result.

R .10 Internal Assessment

- a. Certain percentage of maximum marks shall be allotted for internal

assessment as mentioned in **Table-2**. Weightage of the internal marks shall be equal in all the subjects and disciplines of Programme.

- b. Internal Assessment Marks shall be based on assignments, tests, oral examinations and core seminar conducted in respective subjects. However minimum of two mid-term tests are compulsory in theory subject. The Internal Assessment (IA) in practical & Sessional shall be based on the evaluation of experiments/ exercises carried out in the laboratory and end term examination shall be conducted by an external and Internal Examiner appointed by HOD. The end term practical examination will be evaluated by performing the experiment and viva-voce.
- c. Improvement shall be allowed in the subjects in which the student fails in theory exam.
- d. The candidates shall write the mid- term test in the Answer Books which shall be maintained by the Principal/Head of the Department till the end of one month after the announcement of result. University may collect the return Answer Books of Internal assessment exam as and when required.
- e. Marks of all the assignments, quiz, tests, Seminar etc. shall be displayed to the students. The evaluated assignments and quiz sheets shall be shown to the students and then collected back.

The marks of internal assessments shall be sent by the Principal to the university. No corrections of the Internal Assessment marks shall be entertained after the declaration of result.

R .11 External Assessment: Practical & Sessional Courses

- a. There shall be a final practical examination in each laboratory.
- b. The practical examination shall be conducted by a panel of examiners out of which one Internal Examiner shall be appointed by the Head of the Department and one External Examiner shall be appointed by university. The Head of the department shall be ex-officio head examiner for practical examinations.

R .12 External Assessment: Theory subject

The panel of examiners for paper setting and evaluation of answer books of theory subjects shall be prepared by respective BOS.

R .13 Result Computation (Award of Grade and Grade Point Average)

- a. On the basis of percentage of obtained marks the process of result computation will be as follows, and following will be awarded:

For every subject: Grade and Score Point

For every Semester: Semester Grade Point Average (SGPA) up to precision of two digits after decimal.

For Every Semester: Cumulative Grade Point Average (CGPA) up to current semester, up to precision of two digits after decimal.

Step 1: For each subject the percentage of obtained marks will be converted into Grade as per Table I.

Percentage of Obtained Marks in Theory Subjects	Percentage of Obtained Marks in Practical Subjects	Grade
Per \geq 85	Per \geq 85	O
$70 \leq$ per $<$ 85	$70 \leq$ per $<$ 85	A+
$60 \leq$ per $<$ 70	$60 \leq$ per $<$ 70	A
$55 \leq$ per $<$ 60	$55 \leq$ per $<$ 60	B+
$50 \leq$ per $<$ 55	$50 \leq$ per $<$ 55	B
$45 \leq$ per $<$ 50	NA	C
$40 \leq$ per $<$ 45	NA	P
Per $<$ 40	Per $<$ 50	F
Absent	Absent	AB

Step 2: For each subject convert the Grade to Score Point as per Table II.

Grade	Score Point
O	10
A+	9
A	8
B+	7
B	6
C	5
P	4
F	0
AB	0

Step 3: Semester Grade Point Average (SGPA) of kth semester is

$$SGPA = \frac{\sum_{i=1}^n P_i * C_i}{\sum_{i=1}^n C_i}$$

Where P_i is score Points in ith subject, C_i is Credits of ith subject, and n is total number of subjects in current kth semester.

Step 4: Cumulative Grade Point Average (CGPA) of kth semester is

$$CGPA = \frac{\sum_{j=1}^m S_j * C_j}{\sum_{j=1}^m C_j}$$

Where S_j is SGPA of jth Semester, C_j is total Credits in jth semester, and m is total number of semesters upto current kth semester.

- b. Awarded SGPA and CGPA shall be recalculated if a candidate passes a subject or all subjects of any semester in 2nd or later attempt.
- c. SGPA & CGPA shall be calculated after passing all the subjects of particular semester.
- d. Criteria to Pass the Course shall be as per following:
 - i. A candidate has to pass individually in all subject/Project work/Dissertation of each semester from I to IV semesters, as mentioned in the corresponding teaching and examination scheme.
 - ii. A candidate must obtain at least 33% (26 out of 80 marks) and total 40% marks in aggregate of the subject and P grade for each theory subjects.
 - iii. Similarly candidate must obtain at least 50% marks and P grade in each component of practical and sessional subjects and in aggregate.
 - iv. If a student remains absent or obtain Zero marks in any of external component (Theory and Practical), He/ She will be awarded “F” grade.
 - v. For a back examinee the grade and grade point of a particular subject/paper shall be calculated on the basis of his/her appearance in present (appearing) examination.
 - vi. Minimum marks required for declaring a candidate pass are described in table below:

Category of Subject	Minimum Passing marks		
	Internal assessment	Term End Examination	Total
Theory	Nil	33%	40%

Practical & Sessional	50%	50%	50%
Seminar	50%	50%	50%
Dissertation	50%	50%	50%

R .14 Back Paper Examination

- A. Students who fail in any theory paper of semester examination shall be eligible to appear in the back papers at the next ensuing examination(s) of the same semester. He shall have to clear all the papers, including back papers, of all the semesters in a time period equivalent to double the course duration (from the year of enrollment) without ceiling of number of attempts or as per check point scheme if notified by the university.
- B. A candidate whose result of revaluation has not been declared and he appears at the next ensuing examination shall have an option in respect of considering either the result of revaluation or of the marks obtained at the back papers examination. The application of option shall make in the prescribed form of the examination manual of the university.

R .15 Improvement

- I. Candidate who fails in End Term Theory Examination, he/she shall reappear in the Back Examination and marks secured in internal assessment shall be carried forward or also be allowed to improve his/her Internal Assessment marks, if he/she desire so.

Note: Once a candidate clears the practical & sessional he/she shall not be permitted for practical & sessional improvement.

R .16 Industrial/Field Project

Students shall have to undertake an Industrial/Field Project related to his/her specialization of M. Tech in third semester and shall submit a detailed report at the end of the semester. An internal Mentor/Supervisor shall be appointed for each student. Minimum two random visits at the site of field work shall be made by

internal mentor/Supervisor in order to evaluate the performance of the student.

a. Duration

- i. The duration of Industrial Project/ Field Project shall be of entire third semester.
- ii. The external mentor/officer in charge of Industry shall ensure that the attendance record of the student is maintained daily and the same is handed over to the department at the end of each month during the approved Industrial Project/ Field Project duration.

b. Nature of Industrial Project/Field Project

- i. Industrial Project/ Field Project shall be such as to enhance knowledge/skills and employability of the students and emphasis shall be on core companies and practical/field work on any project.
- ii. Students may also allow undertaking Industrial Project/ Field Projects in research institutes if they indicate profound interest in academics/research.
- iii. For non-core companies, the department would frame a policy by constituting a department level committee chaired by the HOD. For each student desire to go to such an organization, the department level committee would review the case on merit basis with the justification.
- iv. The opportunity for the whole semester Industrial Project/ Field Project is subjected to the student getting a suitable and justifiable project work. The permission shall be granted only on merit of the problem statement and the proposed organization.
- v. The student is required to identify the field/ industrial project for which it is expected to collect data, if required. The student is required to submit planning/ flow chart to carry out the industrial/ field work and a detailed DPR with all input, calculations, design and drawing etc.

c. Approval of Industrial Project/Field Project

- i. The student who are required to undertake semester long Industrial Project/ Field Project outside the college should present the approval letter from his/her proposed mentor as per the format given in **Appendix A** before the end of second semester to the PG coordinator of the department, who shall forward it to HOD with his specific comments.
- ii. In case of proposal for Industrial Project/ Field Project in a non-core company, the coordinator would refer it to the departmental committee with his comments. The committee will give its recommendation on the proposal.

- iii. Head of Department would be the final authority to sanction the request for outstation Industrial Project/ Field Project of any student.

d. Monitoring

- i. Students whose outstation Industrial Project/ Field Project request is approved have to ensure that their joining reports are received by the department within 15 days of proposed date of joining in the format as given in **Appendix B**, failing which the Industrial Project/ Field Project may be deemed to be cancelled.
- ii. The students need to mail the monthly progress report signed by the external mentor to the PG coordinator.
- iii. The project internal mentor shall remain in contact with the external mentors via email/ phone to keep complete watch on the progress of the students.

e. Preparation of Report

- i. Each student shall prepare a comprehensive report of the work as per guideline of the University.
- ii. The final report needs to be submitted to the department at the end of the semester before the final external exam.

f. Feedback

- i. The project external mentor shall fill an online feedback form at the end of the duration of Industrial Project/ Field Project as provided by PG coordinator.
- ii. The student shall also fill a feedback form regarding his/ her experience during the Industrial Project/ Field Project, as provided by PG coordinator.

g. Certification

After successful completion of Industrial Project/ Field Project, a certificate shall be provided by the host institute to the student with specific comment about his/ her performance.

R .17 Grace Marks

Grace marks will be awarded as prescribed under General Regulation of University Examination of Bikaner Technical University.

R .18 Revaluation

Revaluation of answer books shall be admissible as prescribed under General Regulation of University Examination of Bikaner Technical University.

R .19 Inspection of Answer Books

Inspection of evaluated answer book shall be allowed to the students as per university rules.

R .20 Medium of Instructions and Examination

Medium of the instruction and examination shall be English; however the students shall be allowed to write the examination in Hindi of “Human values” subject.

R .21 Dissertation Work

- a. Each student will be required to carry out research work for his dissertation.
- b. The topic and title of the dissertation shall be decided by the candidate in consultation with the supervisor and co-supervisor, if any, during the Fourth semester itself or earlier. The subject and topic of the dissertation shall be from the major field of post graduate studies of the candidate.
- c. Only those teachers possessing a minimum qualification of Post Graduate level in engineering or doctoral degree in engineering disciplines can act as supervisor or co-supervisor.
- d. The dissertation work shall be carried out by the candidate independently during the fourth semester under the guidance of supervisor(s). If the dissertation assignment is of interdisciplinary nature, a co-supervisor may be taken from the same or any other relevant department.
- e. If a dissertation work is proposed to be carried out in any industry/ factory / organization, outside the campus, the same shall be permitted provided (i) the supervisor is from the institute and (ii) there is at least one person in managerial cadre to act as co-supervisor. Permission to that effect and the name of Co-Supervisor at any of these organizations shall be intimated to the University at the beginning of Fourth semester by the Principal of the College.
- f. Every Candidate shall submit a report of the dissertation work duly approved by the supervisor and the co-supervisor, if any, at the end of the fourth semester.
- g. Candidate shall have to present a pre-submission seminar before three members committee (including Supervisor) appointed by the Head of the Department. Head of the concerned Department shall forward the recommendation of the committee and sign a certificate to this to the effect that "the work is approved for submission for award of Master's Degree". Guidelines on dissertation as

prescribed by the University shall be followed while preparing the report. The dissertation shall be signed by the supervisor & co-supervisor (if any), and countersigned by Head of the Department.

- h. Dissertation can be submitted only after completing all other requirements other than the dissertation.

R .22 Evaluation of Dissertation

- a. The candidate shall submit three copies of the dissertation work to the Head of the Institution. The Principal / Director shall arrange to send two hard copies along with CD of the report to the Controller of Examination for Evaluation. A panel of examiners in the prescribed format shall also be submitted along with the report within fifteen days of receipt of the dissertation.
- b. The Dean FOEA shall appoint the examiner on the approval of Vice Chancellor for evaluation and office of the controller of examination shall dispatch the dissertation to the examiner for evaluation.
- c. The examiner shall communicate the report on the Dissertation within 15 days from receipt of the dissertation and not later than one month in any case.
- d. The examiner may suggest (i) modifications in the report (ii) recommend additional work or (iii) may reject the report. In case of (i) & (ii), the examiner needs to clearly record his recommendations in the report with justification. The candidate needs to resubmit the report after incorporating the suggestions which shall again be sent to the same examiner. Only one revision shall be permitted. In case of rejection, the examiner shall clearly list the reasons for rejecting the dissertation.
- e. In the event of rejection of dissertation, the candidate may request within 15 days to the Dean FoEA through supervisor to send the dissertation for a second opinion. The student will be required to pay the prescribed fee. The Dean shall send the report for a second opinion. However, in case the report is rejected due to plagiarism, the Dean may not allow the second opinion. The second examiner shall be appointed by the Dean on the approval of Vice Chancellor. In case of a different opinion from the second examiner, the Dean shall refer the matter to the Concerned Board of studies. Decision of the BoS in such case will be final on the approval of Vice Chancellor.
- f. In the event of rejection of report as per (para e) above, the candidate will be

required to register in the institute for a minimum of one semester and carry out the work afresh. Only one rejection is permitted. In case of rejection in the second attempt, the enrollment will cease to exist automatically.

- g. The examination shall be held at the institute or in the manner decided by the University, and the student shall present his dissertation work in an open house discussion.
- h. A candidate not able to submit his dissertation by the last date announced by the university shall have to register for the next semester till submission of dissertation.

R .23 Attendance Requirements for a Course

- a. Each course of a semester shall be treated as a separate unit for calculation of the attendance.
- b. A student must have a minimum attendance of seventy five percent (75%) of the total number of classes held in that course in order to appear at the End-Term Examination for that course.
- c. A student should meet the above attendance requirement irrespective of the number of days, he/she is on medical and/or other leave for any reason whatsoever.
- d. If a candidate is detained in all the courses of a semester, he shall be required to repeat that semester along with the other students of the subsequent batch.
- e. If a candidate, for any reason, discontinues the Programme in the middle, he may be permitted to register to continue the Programme along with subsequent batch, subject to the condition that he shall complete the class work, laboratory work and seminar including the submission of dissertation within maximum stipulated period. Such candidate shall not be eligible to be considered for award of rank. (Semester wise clarification, If a candidates drops in II semester may not be promoted to III semester similarly candidate drops in III semester may not be promoted to IV semester)
- f. Principals of the concerned Colleges shall notify regularly, the list of such candidates who fall short of attendance.
- g. The list of the candidates falling short of attendance shall be sent to the University at least one week prior to the commencement of the examination.
- h. Norms for the attendance shall be applicable as per exam regulations.

R .24 Leaves

- a. A post graduate student shall be entitled to the following kinds of leave during every academic year, counted from the date of commencement of the session concerned as prescribed in the academic calendar of the institute.
- b. Any absence over and above the prescribed type of admissible leave shall entail deduction from the scholarship, beside other action as may be decided by the Institute.

S .No.	Leave	Maximum Number of days	Sanctioning authority
1.	Casual Leave	8 days per semester subjected to the condition that such leave will not be allowed for more than 6 days at a time. Casual leave cannot be combined with medical leave.	Head of the Department (HOD)
2.	Medical Leave	8 days per semester	HOD with Medical Certificate from the Institute Medical Officer.

R .25 Rustication/Suspension, Withdrawal from a Semester/Year

- a. A student rusticated from the University /Institute or suspended or debarred from attending the classes due to any reason whatsoever or having withdrawn from a semester/year on medical grounds, shall have to meet the attendance requirement of 75% in the courses in a semester and shall have to complete PG Programme within the specified time limit.
- b. The names of the students who have remained absent, with or without leave, for more than 25% of the actual classes held in a course will be intimated by the Course Coordinator, on the last teaching day, to the HOD, who will consolidate the list for all such students for all the courses of a Programme for its display on the notice board. The list of such students shall also be forwarded to the Controller of Examination. These students shall not be allowed to appear in the University Examination of that course

R .26 Registration

- i. Every Student of the M. Tech. Courses are required to be present and register at the commencement of each semester on the day fixed for and notified in the Academic calendar.
- ii. The registration will be organized departmentally under the supervision of the Head of the Department/ Coordinator of a respective specialization / Programme.
- iii. 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 the first week on payment of additional late fee as prescribed by the Institute from time to time. Normally no late registration shall be permitted after the first week from the scheduled date.
- iv. Only those students will be permitted to register who have: (a) cleared all Institute and Hostel dues of the previous semesters (b) paid all required fees for the current semester, and (c) not been debarred from registering for a specified period on disciplinary action or any other ground.
- v. The students will choose the subjects for registration in consultation with the Faculty Advisor/Mentor.
- vi. A student who has already registered may
 - a. register for a new course in addition to the courses he/she has already registered for
 - b. opt for a new course in place of the one already registered for with the concurrence of the faculty advisor.

Any change of the course as permissible by sub-paras (a) and (b), above must however, be done within two weeks after registration.
- vii. A Student can register for a backlog subject either for (i) Study or for (ii) Examination. In case of Study, his / her previous marks are cancelled and will have to attend all classes and examinations along with next batch of students. Major changes in the time table shall not be entertained to accommodate backlog students. In case of registration for examination, he/she will not attend the classes, but will appear only for the end-semester examinations or make-up examinations as and when they are conducted. Backlog students registering for study or examinations have to submit an undertaking that they will not change the status of their registration in the subject during the semester.
- viii. If a student is unable to submit the dissertation to the satisfaction of Department of study by the end of fourth semester or stipulated period, he/she is required to

get registered every subsequent year till the submission of the dissertation or the prescribed time limit whichever is earlier. For every onward registration after two years, he/she has to get registered and pay the required fee as notified by the University. Student is required to pay the annual fee as prescribed by University for all years of his/her course duration within stipulated period as notified by the University.

- ix. The admission of a student shall be cancelled if he/she is found unable to submit his/her dissertation upto the satisfaction of Department of study within maximum stipulated period (i.e. 4 years) from the day of his/her first registration in the Institute.

R .27 Withdrawal from a Course

A student who wants to withdraw from a course shall apply to the Head of the department, on a prescribed form under the advice of his/her Faculty Advisor. If his request for withdrawal is granted, it will be recorded in the registration record of the student and the concerned Course Coordinator will be informed about it. The student will be awarded a withdrawal grade at the end of the semester.

R .28 Semester Withdrawal

In case a student is unable to attend classes for more than twenty (20) working days in a semester, he/she may apply to the Head of the department, through the course coordinator for withdrawal. Such application shall be made under the advice of the Faculty Advisor, as early as possible, but at least seven clear days before the start of the End- Term Examination. Partial withdrawal from the semester shall not be allowed.

R .29 Reservation

Reservation as per prevailing rules of the state govt. shall be applicable. However, the institute at its discretion may reserve one seat in each discipline for its employees/wards of employee only. Furthermore, the institutes reserving such one seat shall publish the same in the advertisement issued for applications.

R .30 Scholarship/Assistantship/Prizes/Medals

- a.
 - i. The University shall award MHRD scholarship/ assistantship / fee-waiver, to eligible categories, if available.
 - ii. Scholarship/ assistantship / fee-waiver from the university resources may be given to eligible students with the approval of the board.
 - iii. The other scholarships may be instituted by grant from individuals, trusts, organizations and the Government with a view to provide financial assistance to needy students under the terms and conditions specified by the University.

However, announcements on these scholarships stating eligibility terms & conditions and the value of scholarships, etc. shall be made while inviting applications from time to time.

- b. A student may draw scholarships or stipends from outside sources with the permission from the Principal of the institute.
- c. Awards/Prizes as approved by the University authorities shall also be given to outstanding students.
- d. The following provisions shall govern the grant of assistantships to M. Tech. students.
 - i. The students having qualified GATE score (other than sponsored students), shall be eligible for Assistantship as per prevailing norms. The Continuation of Assistantship is subjected to satisfactory academic performance and discharge of the responsibilities under the Scheme.

e. Attendance Requirement for Scholarship/Assistantship

Subject to conditions laid down in the Ordinances or Regulations, the payment of scholarship/assistantship to a student of a full time Programme shall be made on the basis of his attendance in the courses registered in a semester and his fulfilling the requirements of weekly work- hours assigned to him on the recommendation of the faculty advisor. The deduction from the scholarship/ assistantship due to absence in class or non-fulfillment of the weekly work-hour's assignment shall be made on pro-rata basis.

f. Leave (Assistantship Holder)

- i. Subject to fulfilling the attendance requirements as detailed in R-15 and above, a full-time PG student, during his stay at the Institute, will be entitled to leave for 15 days (including leave on medical grounds) in a semester. He will not be entitled to mid-semester breaks and summer and winter vacations.
- ii. The leave will be subjected to approval of the concerned faculty advisor. However, no relaxation in attendance requirements on account of availing of leaves shall be admissible.
- iii. Reservations in award of fellowships/scholarships shall be in accordance with the guidelines issued by MHRD/UGC/AICTE/other statutory bodies of the Government from time to time.

R .31 Maternity Leave to Female Student

Female students shall be admissible six months maternity leaves. Such candidates have to drop the semester(s) falling within the period of maternity leaves. The student will require registering for the semester in which such leaves commenced. However, this period shall not be counted for computation of maximum duration of the Programme. No fee will be payable for the dropped semesters and fee already paid, if any shall be adjusted in the subsequent semesters when the candidate registers again.

R .32 Award of Gold Medal & Determination of Merit

- a. A gold medal shall be awarded in each specialization of M. Tech branch to a student who is top in the merit of that branch.
- b. A Student shall be considered for determining the merit only if he / she have completed all requirements for the award of degree without any back exam and grace marks.
- c. A Student shall be considered for determining the merit if he / she has cleared all the papers and practical and has submitted his Thesis / Dissertation with in stipulated time or between up to 31st August of that year in which student completes its two year.
- d. In case there is / are holidays on 31st August or 31st October, working day prior to theses day shall be considered as last date.

R .33 Emergent Cases

Notwithstanding anything contained in the above regulations, the Vice Chancellor may, in emergent situation, take such action on behalf of the Council, as he deems appropriate and report it to the next meeting of the Council for its approval.

R .34 Special Permission for Old Students

Students who were admitted to M.Tech in academic session 2018-19 shall have a last chance to complete their degree requirement up to 31st August 2022. Even after that if student are not able to complete the degree requirement, enrollment shall be cancelled.

R .35 Interpretation of Regulation

In case of any dispute or difference of opinion in interpretation of these regulations or any other matter not covered in these regulations, the decision of the Vice Chancellor shall be final and binding. Appeal on such decisions, if any, may be permitted by the Academic Council.

APPENDIX-I

STUDENTS' CONDUCT AND DISCIPLINARY CODE

It is the responsibility and duty of each and every student of the Institute to become acquainted with "Students Conduct and Disciplinary Code". It is presumed that every student from the date of his/her admission to the Institute has knowledge of this code. All students are required to strictly adhere to this code as a condition of their admission to the Institute and these rules would be binding on and enforceable against them or any one among them.

Section 1: Responsibilities of the Students

It shall be the responsibility of the students

- a) To behave and conduct themselves in the Institute campus, hostels and premises in a dignified and courteous manner and show due respect to the authorities, employees and elders.
- ii) To follow decent and formal dressing manners. Students should avoid clothing depicting illegal drugs, alcohol, profane language, racial, sexual and vulgar captions etc.
- iii) To access all educational opportunities and benefits available at the Institute and make good use of them to prosper academically and develop scientific temper.
- iv) To respect the laws of the country, human rights and to conduct in a responsible and dignified manner at all times.
- v) To report any violation of this Code to the functionaries under this Code.

Section 2: Behavior of the Students

1. Groupism of any kind that would distort the harmony is not permitted.
2. Students are expected to spend their free time in the Library. They shall not loiter along the verandas or crowd in front of the offices or the campus roads. Students should refrain from sitting on places such as parapets, stairs, footpaths etc.
3. Possession or consumption of narcotic drugs and other intoxicating substances are strictly prohibited in the campus and hostels.
4. Silence shall be maintained in the premises of the Institute.
5. Students are not permitted to use mobile phones in the class room, library, computer centre, examination halls, etc.
6. **Students shall refrain from all activities considered as ragging which is a criminal offence.**
7. Students are prohibited from indulging in anti-institutional, anti-national, antisocial, communal, immoral or political expressions and activities within the campus and hostels.

8. Politically based students' and other organizations or outfits are not allowed in the campus. Students are strictly prohibited from organizing, attending or participating in any activity or agitation sponsored by politically based organizations.
9. Students shall not deface, disfigure, damage or destroy or cause any loss in any manner to all the public, private or Institute properties.
10. Without specific permission of the authorities, students shall not bring outsiders to the Institute or hostels.
11. No one shall bring, distribute or circulate unauthorized notices, pamphlets, leaflets etc within the campus or hostels. The possession, distribution or exhibition of any item by any means which is *per se* obscene is prohibited within the campus or on any property owned/ managed by the Institute.
12. No student shall collect money either by request or by coercion from others within the campus or hostels.
13. The Institute being a place of learning and an exclusive academic zone, nobody shall respond to any call for any form of strike, procession or agitation including slogan shouting, *dharna*, *gherao*, burning of effigy or indulge in anything which may harm the peaceful atmosphere of the Institution and shall eschew from violence in the campus and hostels and even out side.
14. Possession or usage of weapons, explosives or anything that causes injury/ damage to the life and limb or body of any human being or property is prohibited.
15. Students shall only use the waste bins for dispensing waste materials within the campus including classrooms, hostels, offices, canteen and messes.
16. Any conduct which leads to lowering of the esteem of the Institute is prohibited.

Section 3: Disciplinary Sanctions

Any student exhibiting prohibited behavior mentioned in this Code shall, depending upon the gravity of the misconduct or depending on its recurrence, be subjected to any of the following disciplinary sanctions. Any student who is persistently insubordinate, who is repeatedly or wilfully mischievous, who is guilty of fraud, in the opinion of the competent authority, is likely to have an unwholesome influence on his/ her fellow students, will be removed from the rolls.

I. Minor Sanctions

- i. Warning or Reprimand: This is the least sanction envisaged in this Code. The student engaged in any prohibited behaviour will be issued a warning letter.

- ii. Tendering Apology: The student engaged in any prohibited behaviour may be asked to tender an apology for his/her act and undertaking that he/she shall not indulge in such or any of the prohibited behaviour in future.

II. Major Sanctions

- i. Debarring from Examinations: A student/group of students may be debarred from writing all/any/some of the examinations, which forms part of the academic Programme for which he/she/they has/ have joined.
- ii. Suspension: A student may be suspended from the Institute for violation of any of the provisions of this Code. The period of suspension and conditions, if any, shall be clearly indicated in the communication addressed to the student. The student shall lose his/her attendance for the suspended period.
- iii. Restitution: Restitution implies reimbursement in terms of money and/or services to compensate for personal injury or loss, damage/disfiguration to property of the Institute or any property kept in the premises of the Institute in any manner. The students/group of students may be asked to compensate for the loss that has been caused to any person or property of the Institute or any property kept in the premises of the Institute due to the act of vandalism perpetrated by the students. The students/group of students shall also be liable to put in their service to restore any loss or damage caused to any property and thereby bringing it to its original form if it is possible.
- iv. Forfeiture: Caution deposit of any student engaged in any prohibited behaviour shall be forfeited.
- v. Expulsion: This is the extreme form of disciplinary action and shall be resorted to only in cases where stringent action is warranted. Expulsion is the permanent dismissal of a student from the Institute. Such a student will not be eligible for readmission to any of the courses of this Institute.

Section 4: Functionaries under the Code

- i) **Heads of the Departments/ Faculty Advisors/Chief Warden/ Wardens of Hostels:** As the persons in charge of the Departments/Hostels, the respective functionaries of all Teaching Departments and Hostels shall have the power and duty to take immediate action to curb any prohibitory behavior as envisaged under this code. As these functionaries cannot single handedly manage all the issues, they can assign part of the work to the teachers and the teachers of all the departments/wardens have the responsibility to inform

any incident of prohibited behaviour to the Heads of the Departments/ Chief Warden so that any serious issue can be settled before the same goes out of control. The Head of the Departments/ Chief Warden shall have the power to impose minor sanctions as envisaged under section 3(I) of this Code.

They can also recommend imposition of major sanctions as envisaged under Section 3(II) of this Code to the Vice Chancellor. The Head of the Departments/ Faculty Advisors/Chief Warden/ Wardens of Hostels while taking any action as envisaged in the code shall do so in an impartial manner and see to it that the sanction imposed/proposed is commensurate with the gravity of the prohibited behaviour. Any lapse on the part of a teacher/ Warden to report any instance of violence and misconduct on the part of the students shall be reported to the Vice Chancellor by the respective Head of the Departments/Chief Warden. The Wardens of Hostels shall be responsible for maintaining strict discipline and decorum in the hostel. He/she shall specifically see to it that the inmates of the hostel do not involve themselves in violation of any clause under Section 2 of this Code.

ii) Deans

Any authority of the Institute with delegated powers shall have the power to visit/inspect any premises, buildings or any property of the Institute when there is a genuine doubt that any act of prohibited behavior is taking place and can take any lawful actions to curb such behavior. The HODs/ Faculty Advisors/Chief Warden/ Wardens of Hostels shall report to the Dean (Students) any instances of prohibited behavior, who in turn shall bring it to the notice of the Vice Chancellor . The Dean (Students) shall forward the recommendations from the HODs/ Chief Warden to impose a major sanction under Section 3(II) of this Code to the Vice Chancellor after noting his observations. The Dean (Students) can also *suo moto* recommend action against any student/students indulging in prohibited behavior which is brought to his/ her notice.

iii) Vice Chancellor

The Vice Chancellor shall be the ultimate authority in imposing major sanctions as envisaged under Section 3(II) against the students for acts of prohibited behaviour. The Vice Chancellor can also entertain any appeal from any student/students aggrieved by the action of any authority of the Institute under or subordinate to the Vice Chancellor and decide the case on merit.

Section 5: Right to Appeal

The student/students aggrieved by the action of any authority of the Institute under or subordinate to the Vice Chancellor can appeal to the Vice Chancellor and any student

aggrieved by the action of the Vice Chancellor can appeal to the Board of Management. The decision of the BoM shall be final and binding on the students.

Section 6: Assistance from Law Enforcement Agencies

The Deans/ HoDs/ Chief Warden shall have the power and duty to call the Police immediately with the concurrence of the Vice Chancellor when there is a threat of Law and Order situation in the Campus and also when there is a genuine apprehension that any incident of rioting, vandalism or any other act prohibited by law is likely to take place. The Deans/ HoDs/ Chief Warden shall in such a case give a detailed report to the Vice Chancellor . The Vice Chancellor / Deans/ HoDs/ Chief Warden can also arrange for video recording of the entire situation and take requisite actions through police and other concerned authorities.

Section 7: Grievance Redressal Committee

The Institute will also set up “Grievance Redressal Committee” where the students can air their grievances. The Committee shall consist of the Deans/ HoDs/ Chief Warden and also members of the Parent-Teacher Association. Till these committees are constituted, *ad-hoc* committees shall be formed by the Vice Chancellor .

Section 8: Undertaking by the Students

The students joining any academic Programme of the Institute will have to give an undertaking to the effect that he/she will comply with the provisions envisaged in this Code in letter and spirit and even if it is not given them as well, will be bound by the provisions of this Code.

Section 9: Opportunity for Hearing

No order other than the order suspending or warning a student shall be passed without giving an opportunity of hearing to the Student/ Students.

Section 10: Ultimate Authority

For all disciplinary matters related to students, the Vice Chancellor shall be the ultimate authority as provided herein.

Section 11: Amendments to the Code

The BoM of the Institute shall have the power to amend any of the provisions in this Code. The amendments shall be brought to the notice of the students and faculty of the Institute through notice put on the Institute web site, notice boards of the Institute or through emails.

APPENDIX-II

GUIDELINES FOR PREPARATION OF DISSERTATION REPORTS

Preamble

While utmost attention must be paid to the content of the dissertation report, which is being submitted in partial fulfilment of the requirements of the M.Tech degree, it is imperative that a standard format be prescribed. The same format shall also be followed in preparation of the final soft copies to be submitted to the Library in future.

1. Organisation of the Dissertation

The dissertation report shall be presented in a number of chapters, starting with Introduction and ending with Summary and Conclusions. Each of the other chapters will have a precise title reflecting the contents of the chapter. A chapter can be subdivided into sections, subsections and sub-subsection so as to present the content discretely and with due emphasis. When the work comprises two or more mutually independent investigations, the dissertation report may be divided into two or more parts, each with an appropriate title. However, the numbering of chapters will be continuous right through, for example Part 1 may comprise Chapters 2 - 5, Part 2, Chapters 6 - 9.

1.1 Introduction

The title of Chapter 1 shall be Introduction. It shall justify and highlight the problem posed, define the topic and explain the aim and scope of the work presented in the dissertation report. It may also highlight the significant contributions from the investigation.

1.2 Review of Literature

This shall normally form Chapter 2 and shall present a critical appraisal of the previous work published in the literature pertaining to the topic of the investigation. The extent and emphasis of the chapter shall depend on the nature of the investigation.

1.3 Report on the present investigation

The reporting on the investigation shall be presented in one or more chapters with appropriate chapter titles. Due importance shall be given to experimental setups, procedures adopted, techniques developed, methodologies developed and adopted. While important derivations/formulae should normally be presented in the text of these chapters, extensive and long treatments, copious details and tedious information, detailed results in tabular and graphical forms may be presented in Appendices. Representative data in table and figures may, however, be included in appropriate chapters. Figures and tables should be presented immediately following their first mention in the text. Short tables and figures (say, less than half the writing area of the page) should be presented within the text, while large table and figures may be presented on separate pages. Equations should form separate lines with appropriate paragraph separation above and below the equation line, with equation numbers flushed to the right.

1.4 Results and Discussion

This shall form the penultimate chapter of the dissertation report and shall include a thorough evaluation of the investigation carried out and bring out the contributions from the study. The discussion shall logically lead to inferences and conclusions as well as scope for possible further future work.

1.5 Summary and Conclusions

This will be the final chapter of the dissertation report. A brief report of the work carried out shall form the first part of the Chapter. Conclusions derived from the logical analysis presented in the Results and Discussions Chapter shall be presented and clearly enumerated, each point stated separately. Scope for future work should be stated lucidly in the last part of the chapter.

1.6 Appendix

Detailed information, lengthy derivations, raw experimental observations etc. are to be presented in separate appendices, which shall be numbered in Roman Capitals (e.g. “Appendix IV”). Since reference can be drawn to published/unpublished literature in the appendices these should precede the “Literature Cited” section.

1.7 Literature Cited

This should follow the Appendices, if any, otherwise the Summary and Conclusions chapter. The candidates shall follow the style of citation and style of listing in one of the standard journals in the subject area consistently throughout his/her report, for example, IEEE in the Department of Electrical Engineering. However, the names of all the authors along with their initials and the full title of the article/monogram/book etc. have to be given in addition to the journals/publishers, volume, number, pages(s) and year of publication. Citation from websites should include the names(s) of author(s) (including the initials), full title of the article, website reference and when last accessed. Reference to personal communications, similarly, shall include the author, title of the communication (if any) and date of receipt.

1.8 Publications by the candidate

Articles, technical notes etc. on the topic of the dissertation report published by the candidate may be separately listed after the literature cited. This may also be included in the contents. The candidates may also include reprints of his/her publications after the literature citation.

1.9 Acknowledgements

The acknowledgments by the candidate shall follow the citation of literature, signed by him/her, with date.

2. DISSERTATION FORMAT

2.1 Paper

2.1.1 Quality: The dissertation report shall be printed / photo copied on white bond paper, whiteness 95% or above, weight 70 gram or more per square meter.

2.1.2 Size: The size of the paper shall be standard A4; height 297 mm, width 210 mm.

2.1.3 Type Setting, Text Processing and Printing: The text shall be printed employing Laserjet or Inkjet printer, the text having been processed using a standard text processor. The standard font shall be Times New Roman of 12 pts with 1.5 line spacing.

2.1.4 Page Format: The Printed Sheets shall have the following written area and margins:

Top Margin 15 mm

Head Height 3 mm

Head Separation 12 mm

Bottom Margin 22 mm

Footer 3 mm

Foot Separation 10 mm

Text Height 245 mm

Text Width 160 mm

When header is not used the top margin shall be 30 mm.

Left and Right Margins

Single sided

Left Margin 30mm

Right Margin 20 mm

2.1.5 Pagnation: Page numbering in the text of the report shall be Hindu Arabic numerals at the centre of the footer. But when the candidate opts for header style the page number shall appear at the right and left top corner for the odd and even number pages, respectively. Page number “1” for the first page of the Introduction chapter shall not appear in print, only the second page will bear the number “2”. The subsequent chapters shall begin on a fresh page. When header style is chosen the first page of each chapter will not have the header and the page number shall be printed at the centre of the footer. Pagnation for pages before the Introduction chapter shall be in lower case Roman numerals, e.g., “iv”.

2.1.6 Header: When the header style is chosen, the header can have the Chapter number and Section number (e.g., Chapter 2, Section 3) on even numbered page headers and Chapter title or Section title on the odd numbered page header.

2.1.7 Paragraph format: Vertical space between paragraphs shall be about 2.5 line spacing. The first line of each paragraph should normally be indented by five characters or 12mm. A candidate may, however, choose not to indent if he/she has provided sufficient paragraph separation. A paragraph should normally comprise more than one line. A single line of a paragraph shall not be left at the top or bottom of a page (that is, no windows or orphans should be left). The word at the right end of the first line of a page or paragraph should, as far as possible, not be hyphenated.

2.2 Chapter and Section Format

2.2.1 Chapter: Each chapter shall begin on a fresh page with an additional top margin of about 75mm. Chapter number (in Hindu-Arabic) and title shall be printed at the centre

of the line in 6mm font size (18pt) in bold face using both upper and lower case (all capitals or small capitals shall not be used). A vertical gap of about 25mm shall be left between the Chapter number and Chapter title lines and between chapter title line and the first paragraph.

2.2.2 Sections and Subsections: A chapter can be divided into Sections, Subsections and Sub-sub Sections so as to present different concepts separately. Sections and subsections can be numbered using decimal points, e.g. 2.2 for the second section in Chapter 2 and 2.3.4 for the fourth Subsection in third Section of Chapter 2. Chapters, Sections and Subsections shall be included in the contents with page numbers flushed to the right. Further subsections need not be numbered or included in the contents. The Section and Sub-Section titles along with their numbers in 5 and 4mm (16 and 14 pt) fonts, respectively, in bold face shall be flushed to the left (not centred) with 15 mm space above and below these lines. In further subdivisions character size of 3 and 3.5 with bold face, small caps, all caps and italics may be used for the titles flushed left or centred. These shall not feature in the contents.

2.2.3 Table / Figure Format: As far as possible, tables and figures should be presented in portrait style. Small size table and figures (less than half of writing area of a page) should be incorporated within the text, while larger ones may be presented on separate pages. Table and figures shall be numbered chapter wise.

For example, the fourth figure in chapter 5 will bear the number Figure 5.4 or Fig 5.4 Table number and title will be placed above the table while the figure number and caption will be located below the figure. Reference for Table and Figures reproduced from elsewhere shall be cited in the last and separate line in the table and figure caption, e.g. (after McGregor[12]).

3 Auxiliary Format

3.1 Binding: The evaluation copies of the dissertation report may be spiral bound or soft bound. The final hard bound copies to be submitted after the viva-voce examination will be accepted during the submission of dissertation report with the following colour specification:

M.Tech. Dissertation

Light Blue

3.2 Front Covers: The front covers shall contain the following details:

Full title of report in 6 mm 22 point's size font properly centred and positioned at the top. Full name of the candidate in 4.5 mm 15 point's size font properly centred at the middle of the page. A 40 mm dia replica of the Institute emblem followed by the name of department, name of the Institute and the year of submission, each in a separate line and properly centred and located at the bottom of page as per format prescribe .

- 3.2.1 Lettering:** All lettering shall be embossed in gold.
- 3.2.2 Bound back:** The degree, the name of the candidate and the year of submission shall also be embossed on the bound (side) in gold.
- 3.3 Blank Sheets:** In addition to the white sheets (binding requirement) two white sheets shall be put at the beginning and the end of the report.
- 3.4 Title Sheet:** This shall be the first printed page of the Dissertation and shall contain the submission statement: the Dissertation Report submitted in partial fulfilment of the requirements of the M.Tech Degree, the name and Roll No. of the candidate, name(s) of the Supervisor and Co-supervisor(s) (if any), Department, Institute and year of submission.
Sample copy of the 'Title Sheet' is appended (Specimen 'A').
- 3.5 Dedication Sheet:** If the candidate so desires(s), he/she may dedicate his/her report, which statement shall follow the title page. If included, this shall form the page 1 of the auxiliary sheets but shall not have a page number.
- 3.6 Approval Sheet:** In the absence of a dedication sheet this will form the first page and in that case shall not have a page number. Otherwise, this will bear the number two in Roman lower case “ii” at the centre of the footer. The top line shall be:

Dissertation Approval for M.Tech

A sample copy of the Approval Sheet is appended (Specimen `B')

- 3.7 Abstract:** The 500 word abstract shall highlight the important features of the dissertation report and shall correspond to the electronic version to be submitted to the Library for inclusion in the website. The Abstract in the report, however, shall have two more parts, namely, the layout of the report giving a brief chapter wise description of the work and the key words.

3.8 Contents: The contents shall follow the Abstract and shall enlist the titles of the chapters, section and subsection using decimal notation, as in the text, with corresponding page number against them, flushed to the right.

3.8.1 List of Figures and Tables: Two separate lists of Figure captions and Table titles along with their numbers and corresponding page numbers against them shall follow the Contents.

3.9 Abbreviation Notation and Nomenclature: A complete and comprehensive list of all abbreviations, notations and nomenclature including Greek alphabets with subscripts and superscripts shall be provided after the list of tables and figures. As far as possible, generally accepted symbols and notation should be used.

Auxiliary page from dedication (if any) to abbreviations shall be numbered using Roman numerals in lower case, while the text starting from the Introduction shall be in Hindu Arabic.

The first pages in the both the cases shall not bear a page number.

3.10 A Declaration of Academic Honesty and Integrity: A declaration of Academic honesty and integrity is required to be included along with every dissertation report after the approval sheet. The format of this declaration is given in Specimen 'C' attached.

Format - 1 – Cover Page

Specimen 'A': Title Sheet

(Title)

Submitted in partial fulfilment of the requirements

of the degree of

(Master of Technology)

From

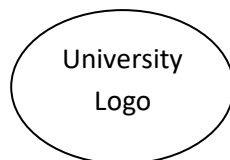
Bikaner Technical University Bikaner

by

(Name of the Student)

(Roll No. _____)

Supervisor (s):



(Name of the Department)

Name of Institute

(Year)

Format - 2 Approval Sheet

Specimen `B': Approval Sheet

This dissertation entitled (Title) by (Author Name) is approved for the
degree of _____ (Degree details).

Examiners

Supervisor (s)

Chairman

Date : _____

Place : _____

Format – 3 Declaration Sheet

Specimen `C' – Declaration

I declare that this written submission represents my ideas in my own words and where others' ideas or words have been included, I have adequately cited and referenced the original sources. I also declare that I have adhered to all principles of academic honesty and integrity and have not misrepresented or fabricated or falsified any idea/data/fact/source in my submission. I understand that any violation of the above will be cause for disciplinary action by the Institute and can also evoke penal action from the sources which have thus not been properly cited or from whom proper permission has not been taken when needed.

(Signature)

(Name of the student)

(Roll No.)

Date: _____

Format – 4: Certificate of Supervisor

Certificate

This is to certify that dissertation entitled “.....” that is being submitted by “.....” to Bikaner Technical University is a record of bonafide work carried out by him/her under my guidance and supervision. He/ She has completed all the requirements as per M.Tech regulations of the University. I recommended the submission of dissertation.

Supervisor

Counter signed by

Head of the Department

Date:

Place:

Internship Proposal Approval Form

1. Name of the Student :
2. Name of the Organization (attach Company Profile):
3. Turnover of the Company (For Private Companies):
4. Duration for Which Allowed :
5. Paid/Unpaid: if Paid, then monthly stipend: Rs.
6. Assigned Department/ Division/ Unit :
7. Name & Designation of Project Mentor:
8. Brief Work of Profile of student during internship:

9. Work targets/Objectives to be achieved during internship

The attendance record of the student would be maintained and be submitted to the University at the end of internship duration.

Signature of Project Mentor with Seal

Joining Report

1. Student Name: _____
2. Roll No. : _____
3. Project Title : _____
4. Name & Address of Organization : _____
 Contact No. _____ E-Mail: _____

5. Address of the Site : _____
 Contact No. _____ E-Mail: _____

6. Residential Address of the student: _____
 Contact No. _____ E-Mail: _____

I hereby inform that I have joined the organization on _____ for the semester project in the above stated organization.

Signature of the student

Certificate by the Co-ordinator in the Industry

Certificate that the above-mentioned student has joined our organization for the semester project in the organization.

Dated:

Signature of Project Mentor (With Seal)

Name of the Coordinator:

Designation:

Email

Phone No.: