

**FOREST RESEARCH INSTITUTE DEEMED TO BE UNIVERSITY
DEHRADUN**

**(Under Section 3 of the UGC Act 1956)
(vide Notification No.F.9-25/89-U.3 dated 6-12-1991)**

**INFORMATION BULLETIN
FOR
ADMISSION TEST
TO**

**Master of Science Courses
2021**

P.O.I.P.E., Kaulagarh Road, Dehradun (Uttarakhand) – 248 195

Tel: 0135-2751826; 0135-222 4495, 4439

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AN OVERVIEW

THE INSTITUTE

Forest Research Institute (F.R.I.), Dehra Dun made a humble beginning as Forest School established in 1878. Initially named as Imperial Forest Research Institute, F.R.I., came into being in 1906. Later renamed as Forest Research Institute and Colleges, with a number of centres located at different places all over the country administering research as well as training of Forest Officers and Forest Rangers. After reorganization of Forestry Research in the country and creation of Indian Council of Forestry Research and Education (ICFRE) in 1988, the training and research centres were given an independent status of institutes. Forest Research Institute, now one of the institutes under ICFRE, was conferred the status of Deemed University in December 1991 on the recommendations of the U.G.C., Ministry of Human Resource Development, Government of India.

OBJECTIVES OF THE FRI DEEMED TO BE UNIVERSITY

- To impart education in different branches of forestry and environment.
- To provide for research, advancement and dissemination of knowledge in the field of forestry and environment.
- To create consciousness about forest and environment among people through forestry extension programme.
- To carry out such other activities as may be necessary and desirable to further the safeguarding of environment and protection of forests and wildlife.

RESEARCH DIVISIONS AND DISCIPLINES IN THE INSTITUTE

- ◆ **BOTANY** (*Systematic Botany, Wood Anatomy*),
- ◆ **CHEMISTRY & BIO-PROSPETING** (*Chemical Extracts from Trees, Forest based Oilseeds, Medicals and Aromatic Plants, Resins and Gums*)
- ◆ **EXTENSION** (*Social Forestry and Extension, Agroforestry*)
- ◆ **FOREST ECOLOGY & CLIMATE CHANGE** (*Forest Productivity, Biodiversity, Environment and Pollution Wasteland, Reclamation, Soil Geology and Mineralogy, Climate Change & Forest Influence*)
- ◆ **FOREST PROTECTION** (*Forest Diseases Forestry Bio-fertilizers Control Measure and Taxonomy*)
- ◆ **FOREST PRODUCTS** (*Timber Mechanics, Wood Seasoning, Wood Preservation, Composite Wood, Wood Working and Finishing, Timber Engineering Cellulose & Paper Technology*)
- ◆ **GENETICS AND TREE IMPROMENT** (*Genetics Improvement Plant Physiology, Tissue Culture, Breeding and Forest Biotechnology*)
- ◆ **SILVICULTURE & FOREST MANAGEMENT** (*Experimental Silviculture, Forest Mensuration, Forest Economics Logging & Seed Technology, ,*)
- ◆ **FOREST INFORMETICS** (*Forest Bio-Informatics & Forest Geo-Informatics*)

THE APPLICATION FORM

The Forest Research Institute Deemed to be University **Online Remote Proctored admission test, 2021** will be held on **Sunday, 16th May, 2021** for the following courses:-

Sl.No.	Courses	Duration (Years)	No. of seats	
			Indian	Foreign Nationals
1.	M.Sc. Forestry	2	38	2
2.	M.Sc. Wood Science & Technology	2	38	2
3.	M.Sc. Environment Management	2	38	2
4.	M.Sc. Cellulose & Paper Technology	2	20	-

The application form can be downloaded from the University website www.fridu.edu.in
The candidates have to submit duly filled Application form along with fee of Rs.1500/- in the form of Demand Draft from any Nationalized Bank to the Registrar, Forest Research Institute Deemed to be University, P.O. IPE Kaulagarh Road, Dehradun-248195.

The last date of receipt of completed application form: 16th April 2021.

(Forms received after the last date will not be accepted in any circumstances)

It is advised that the application form be sent by Registered Post/Speed Post/Courier. Postal delay will not be accepted as a plea to entertain applications after the last date.

Admit card/login details will be provided to the applicant by the 1st week of May, 2021 by the outsourcing agency.

Under no circumstances the admission test fee, once paid, will be Refunded or held in reserve for any future admission test.

ELIGIBILITY REQUIREMENTS

The eligibility requirements for admission to these courses are as follows:

Sl. No.	Course Code No.	Courses of Studies	Eligibility requirement
1	01 (A)	M.Sc. Forestry	B.Sc. degree with at least one of the subjects namely Botany, Chemistry, Geology, Mathematics, Physics, Zoology or a B.Sc. degree in Agriculture or Forestry.
2	01 (B)	M.Sc. Wood Science & Technology	B.Sc. degree with Physics, Mathematics and Chemistry (PCM) or B.Sc. degree in Forestry.
3	01 (C)	M.Sc. Environment Management	B.Sc. degree in any branch of Basic or Applied Sciences or Bachelor's degree in Forestry or Agriculture or BE/B.Tech in Environment Science.
4	01 (D)	M.Sc. Cellulose & Paper Technology	B.Sc. degree with minimum 50% marks in aggregate in Science with Chemistry as one of the subjects. BE/B.Tech. (Chemical or Mechanical Engineering with minimum 50% aggregate).

Age Limit for In-service Candidate:

The maximum age limit in respect of in-service candidate to M.Sc. Environment Management course shall be 50 years. The age shall be reckoned as on 31st July of the year of admission and no further relaxation will be given in any case.

CHOICE BASED CREDIT SYSTEM

The FRI Deemed to be University has implemented the Choice Based Credit System for M.Sc. courses of FRI Deemed to be University from the session 2016-2017.

RESERVATION OF SEATS

A) SCHEDULED CASTES AND SCHEDULED TRIBES:

Fifteen percent (15%) of the total available seats shall be reserved for scheduled castes and seven and half percent (7.5%) for scheduled tribes candidates subject to their being otherwise suitable. These reservations shall be interchangeable e.g. if sufficient number of candidates are not available to fill up the seats reserved for scheduled tribe candidates, these can be filled up from suitable scheduled castes candidates within the course concerned.

B) OTHER BACKWARD CLASSE (OBC):

The reservation to OBC is being provided as per the policy of the Govt. of India as defined by National Commission for Backward Classes (NCBC).

C) PHYSICALLY HANDICAPPED:

3% reservation to the persons with **Disabilities under the persons with Disabilities (Equal opportunities, Protection of Rights and Full Participation) Act, 1995 Chapter No. 39**, in M.Sc. Forestry & M.Sc. Environment Management Courses for the candidates with locomotors disabilities one leg, one arms (without mobility restriction) and persons with partial deafness as per Govt. of India rules. The Candidates will have to produce Disability certificate issued by competent authority at the time of Counseling for admission.

D) IN-SERVICE CANDIDATES:

Five seats shall be reserved in M.Sc. Environment Management course for in-service candidates working in Government Departments/Autonomous bodies under the Central/State/Union Territory/ICFRE. However, if in-service candidates are not available then the seats reserved for them will be filled up by general candidate(s).

E) FOREIGN NATIONALS:

Reservation to the extent of 15% of the prescribed seats on supernumerary basis for Foreign Nationals shall be made for admission to each M.Sc. course available in the Institute. The foreign nationals are **exempted from appearing in admission test** provided they have passed the equivalent qualifying examination from a University outside India and fulfill the following conditions:

- (a) that they must have minimum eligibility requirements;
- (b) that the applications of scholarship holding Foreign Nationals (Under various schemes) are routed through Indian Council for Cultural Relations /Ministry of Human Resource & Development (Dept. of Education), Govt. of India, New Delhi;

- (c) that the applications of self-financing Foreign nationals should be routed through concerned Indian Diplomatic Mission abroad or Diplomatic Mission of the country of the applicant in India and should be reached in the office of the FRI Deemed to be University by the 5th June, 2021. Fee to be charged from the foreign nationals is given below.
- (d) that they have valid residential permit in India granted for studies/Student Visa for the prescribed duration of the concerned course;
- (e) that the antecedents of the candidate have been verified by the forwarding Agencies/Ministry and found in order;
- (f) that the degree/certificates of the candidates have been approved by the Association of Indian Universities (AIU) as equivalent to the corresponding degrees/certificates of the AIU;
- (g) that they have adequate knowledge of English as per requirements of the course.

Fee

- | | | | |
|----|--|---|--|
| 1. | Semester fee | - | 750 US\$ per semester
(1 st installment is payable at the time of admission) |
| 2. | Caution money | - | 50 US\$ (Refundable) |
| 3. | Hostel fee | - | 40 US\$ per month |
| 4. | Sports, Magazines fees | - | 30 US\$ p.a. |
| 5. | Library/Teaching aid fee | - | 50 US\$ per semester |
| 6. | Degree fee | - | 10 US\$ |
| 7. | The mess charges will be around 23 US\$ p.m., if they join mess run by the students. | | |

COMMITTEES

The FRI Deemed to be University has constituted the following committees for safe, secure and stress free environment in the University to the students of the FRI Deemed to be University.

1. Anti-Sexual Harassment Committee
2. Committee to look after the complaints of caste discrimination of SC/ST students
3. Student Counselling Centre
4. Student's Welfare & Disciplinary Committee

GUIDELINES

- ❖ In case a candidate has appeared for the degree examination required for admission but the result of the same has not been announced till the time of submission of application, the application form may still be completed in all other respects and may be submitted to the Registrar, Forest Research Institute Deemed to be University on or before the last date. The degree/result (mark sheet) should however be furnished as soon

as it becomes available, which must reach the office of the Registrar, FRI Deemed to be University on or before the date fixed for admission failing which he/she shall not be admitted treating his/her application for admission as incomplete.

- ❖ In case a candidate comes from a university/institute that follows the course credit system, the application shall be considered even though the final viva/voce is yet to be completed provided a full transcript is enclosed showing the grade point average obtained along with a course completion certificate from the Registrar of the University/Institute/Head of the College, Dean/Associate Dean of the campus of multi-campus, Universities/Institutes to the effect that the candidate has completed all the prescribed work. The certificate issued in this regard by the Head of the Department/Division shall not be entertained. However, at the time of admission a certificate shall have to be produced from the Registrar/Head of the College, Dean/Associate Dean of the campus of multi-campus Universities stating clearly that the candidate has passed the last degree examination, failing which the candidate shall not be admitted treating his/her application for admission as incomplete.
- ❖ The candidate must in his/her own interest fill up the application form most ***carefully and ensure that all the columns are filled up correctly. Incomplete application shall be rejected out right.***
- ❖ A candidate may apply in more than one course in test but he/she is required ***to fill up the separate admission form and separate fee for each course e.g. In case candidate applies for two courses the fee payable shall be Rs.3000/- for application forms. Similarly, for three courses the fee payable shall be Rs.4500/- respectively.***
- ❖ The applicant is required to mention his/her category in clear terms. The category to which the applicant belongs once mentioned on the form shall be final and no subsequent change shall be allowed. If boxes requiring indication of category on the application form are left blank, the candidate shall be treated as general category and he/she cannot claim the benefit of any other category.
- ❖ Candidates are allowed to appear for the Admission Tests provisionally subject to the verification of equivalence of degrees/certificates and validity of certificates/marks-sheets of qualifying examination and also whether involved in the adoption of unfair means in any of the examinations of the University admission tests held earlier at the time of admission in the respective courses. Degree/Certificate recognized by AIU shall be deemed as equivalent degrees.
- ❖ Candidates who were admitted as regular students to any course of studies in this Institute through Admission Test in earlier year(s) shall not be allowed to re-appear in the admission test for admission in same course.
- ❖ Please fill up all the columns correctly.
- ❖ Please read the Information Bulletin thoroughly before filling up the form.

- ❖ In your own interest please do not give any false information which may make you liable for disqualification.

Production of original certificates and mark sheet at the time of admission is an essential requirement which is not relaxed in any case under any circumstances. If any information submitted by the candidate is found to be false at any stage during his/her study at FRI Deemed to be University, his/her admission shall be cancelled.

- ❖ The minimum qualifying marks for allowing candidate to appear in the written test are 50 percent in aggregate at B.Sc. level/M.Sc. level prescribed for admission to the different courses in respect of general category and OBC candidates including physically handicapped, in-service candidates and foreign nationals and 45 percent in aggregate in respect of SC/ST candidates.
- ❖ Candidates selected for written test based on the academic and other requirements will be sent the admit card through e-mail/surface mail. In case of admission to the M.Sc. courses the aggregate marks of all the three science subjects will only be computed for ascertaining the **50%** qualifying marks in respect of General/OBC candidate and **45%** in respect of SC/ST candidates. The marks of other than Science subjects and aggregate marks of honours subject shall not be considered in any case for ascertaining the qualifying marks for appearing in the admission test.

ANNOUNCEMENT OF RESULTS & ADMISSION

- ❖ A merit list of candidates including a waiting list will be formed for each course on the basis of aggregate marks secured in the written test. Candidates will be selected in order of merit in all the categories. The list of selected will be declared on the website www.fridu.edu.in. **Date of first counseling is 05th July, 2021 and date of second counseling is 08th July, 2021. The candidates will be suitably advised before they come for counseling.**
- ❖ The selected candidates will have to pay the prescribed fees and join the course by the due date notified. The fee has to be paid at the time of counseling otherwise the seat will be offered to the next candidate.
- ❖ If a selected candidate does not join by the prescribed date or if no extension has been asked for and **granted** by the University the admission shall stand cancelled automatically and the seat shall be offered to the candidate in the merit/waiting list.

Documents in original to be produced by the candidate at the time of counselling:

1. Transfer Certificate
2. Migration Certificate, if passed from University (to be submitted not later than 90 days of admission)
3. High School Certificate/equivalent Certificate and Mark sheet.
4. Intermediate Certificate/equivalent Certificate and Mark sheet.

5. B.Sc. degree/PDC and Mark sheet of all the three years or transcript
6. M.Sc. degree and Mark sheet if any.
7. OBC certificate from District Magistrate or authorities empowered to issue certificate or verification issued not earlier than six months. Please ensure that you are eligible to get reservation under OBC category only as per the Central Educational Institutions (Reservation in Admissions) Act, 2008 and other relevant guidelines issued by Govt. of India time to time.(National Commission for Backward Classes)
9. SC/ST certificate on the basis of which reservation is claimed.
10. Physically Handicapped certificate from Civil Surgeon/C.M.O.
11. Aadhar Card

❖ *The candidates called for admission have to produce original certificates, mark sheet etc. before the payment of fees. However in cases where the original mark sheet indicates clearly that the candidate have passed the qualifying examination prescribed for admission he/she be admitted on the condition that he/she shall produce the original degree/provisional degree within one month failing which his/her admission is liable to be cancelled. There can be no appeal to any authority if the candidate fails to produce the original documents at the time of admission.*

❖ In case equal marks in written test, the following criteria shall be adopted for taking admission in the course concerned:-

- i) Preference will be given to the candidate who has higher percentage of aggregate marks in the qualifying examination.
- ii) In case the candidates have equal percentage of aggregate marks in qualifying examination then the candidate higher % in graduation will be given preference.

PLACEMENTS

FRI Deemed to be University provides assistance in placement of deserving students. Various industries/ organizations visit the campus for campus interviews. On an average 50% of the students get placements through the campus interviews. However, in case of M.Sc. Wood Science & Technology the placement is 100% in general.

SCHOLARSHIP

FRI Deemed to be University provides merit scholarship to the topper students in each course. The scholarship may be upto Rs.12,000/- per semester and is awarded separately for each semester depending on the result of the previous semester. For the purpose of award of scholarship in the first semester the result of the entrance test is considered and the topper in general category and SC/ST category are awarded the scholarship in each course. However general category candidate must score minimum 50% marks and SC/ST must score 30% marks for obtaining the scholarship.

GENERAL

- a) Candidate who satisfies the above eligibility requirements may apply for admission test on the prescribed application form for any of the courses mentioning the name of the course with its Code No.
- b) The category to which the applicant belongs once mentioned on the form is final and no subsequent change shall be allowed. Boxes requiring indication of category, if left, blank will be treated as indicating General Category.
- c) Application forms of candidates, who have submitted forged/fake certificates or adopted fraudulent means, shall be rejected without any reference to the candidate. Further, such candidates are liable to be prosecuted and shall be debarred from appearing in any subsequent Admission Test conducted by FRI Deemed to be University.
- d) Candidates are allowed to appear in the Admission Tests provisionally subject to the final decision of equivalence of degrees/certificates of qualifying examination at the time of admission in the respective courses.
- e) Mere appearance in the admission test will not entitle a candidate to be considered for admission to the course unless he/she fulfills the eligibility conditions. Applicants must fully satisfy themselves about their eligibility as prescribed above, before filling in the application form.
- f) The **Online Remote Proctored Admission Test will be held on 16th May, 2021**, Date, time and other conditions for test will be indicated in the admit card or with login credentials.
- g) In all matters relating to the Admission Test, the decision of Registrar, FRI Deemed to be University shall be final and binding.
- h) No scrutiny or revaluation of the answer book of the Admission Test shall be allowed on any grounds.
- i) The candidate who wants to apply for more than one course may do so but he/she is required to fill up **separate form and fee @ Rs. 1500/- for each course**. Test for all the courses will be the same.

CANCELLATION OF ADMISSION

REASONS FOR REJECTION OF APPLICATION FORMS

- a) Non-submission of self-attested identical recent photographs at all appropriate places. **(Xeroxed copy/copies of photographs shall not be accepted.)**
- b) Lack of signature of the candidate at any of the appropriate place.
- c) Submission of application form by a candidate after erasing the entries made earlier by another candidate.

FRI Deemed to be University has the right to cancel, at any stage, the admission of a candidate who is admitted to a course to which he/she is not entitled, being unqualified or ineligible in accordance with the rules and regulations in force.

INSTRUCTIONS FOR THE OLIVE REMOTE PROCTORED ENTRANCE TEST

- a) There will be an objective type written test of three hours with questions grouped under the following four sections:
 - I.** Basic Sciences including Social Science (**100 questions**)
 - II.** Arithmetic and Quantitative abilities, Computational ability, Quantitative reasoning, Interpretation of Tables, Graphs, etc. (**40 questions**)
 - III.** General Knowledge and Current Affairs (**30 questions**)
 - IV.** English Language, Comprehension, Vocabulary, Grammar, Idioms, etc. (**30 questions**)
- b) Each question will be followed by four alternative answers. The candidate is required to select the one which he/she feels is correct answer. The detail instructions given accordingly. The candidate is advised to go through the instructions.
- c) **There will be negative marking for wrong answer to the extent of one-fourth ($\frac{1}{4}$) of the marks allotted to the questions.**
- d) In case of any dispute it will be subject to jurisdiction of Dehra Dun court only.

SAMPLE WRITTEN TEST QUESTIONS

The set of questions given below will familiarize the candidates with the type of Questions in the FRI Deemed to be University Admission Test. These questions are only indicative of the nature of the test and it is possible that types of questions not illustrated here may appear in the test.

1. Which of the following is not the force at a distance :
 - a. Electrostatic force
 - b. Gravitational force
 - c. Frictional force
 - d. Magnetic force.
2. The moment of a force about a given axis depends:
 - a. Only on the magnitude of force
 - b. Only on the perpendicular distance of force from the axis.
 - c. Neither on the force nor on the perpendicular distance of force from the axis
 - d. Both on the force and its perpendicular distance from the axis.
3. One horse power is equal to:
 - a. 1000 W
 - b. 500 W
 - c. 764 W
 - d. 746 W

4. A body at a height possesses:
- Kinetic energy
 - Potential energy
 - Solar energy
 - Heat energy
5. The correct relationship between the mechanical advantage (M.A), the velocity ratio (V.R) and the efficiency (η) for a machine is:
- $M.A. = \eta \times V.R$
 - $V.R. = \eta \times M.A.$
 - $\eta = M.A. \times V.R.$
 - None of these
6. Which of the following statement is not true for a machine:
- It always has efficiency less than 100%
 - Its mechanical advantage can be less than 1.
 - It can also be used as a speed multiplier
 - It can have a mechanical advantage greater than the velocity ratio.
7. When a ray of light from air enters a denser medium, it:
- Bends away from the normal
 - Bends towards the normal
 - Goes undeviated
 - Is reflected back
8. The highest refractive index is of:
- Glass
 - Water
 - Diamond
 - Ruby
9. A ray of light suffers refraction through an equilateral prism. The deviation produced by the prism does not depend on the:
- Angle of incidence
 - Colour of light
 - Material of prism
 - Size of prism
10. In the spectrum of white light by a prism, the colour at the extreme end opposite to the base of prism is:
- Violet
 - Yellow
 - Red
 - Blue

11. The most energetic electromagnetic radiations are:
- Microwaves
 - Ultraviolet waves
 - X-rays
 - Gamma rays
12. By reducing the amplitude of a sound wave, its:
- Pitch increases
 - Loudness decreases
 - Loudness increases
 - Pitch decreases
13. In parallel combination of resistances:
- Potential difference same across each resistance
 - Total resistance is increased
 - Current is same in each resistance
 - All above are true
14. An electrical appliance has a rating 100 W, 120 V. The resistance of element of appliance when in use is:
- 1.2Ω
 - $144\ \Omega$
 - $120\ \Omega$
 - $100\ \Omega$
15. Epsom salt is
- $\text{MgSO}_4 \cdot 7\text{H}_2\text{O}$
 - ZnSO_4
 - CaSO_4
 - Mixture of a, b and c
16. 0.450 moles of NaCl are dissolved in 95.0 mL of water. What is the molarity of NaCl solution?
- 4.73 M
 - 0.473 M
 - 47.3M
 - 0.0473M
17. If the valence shell electronic structure for an element is ns^2np^6 , this element will belong to
- Alkali metal
 - Inert metal
 - Noble gas
 - Halogen
18. Buffers are mixtures of
- Strong acid and strong base
 - Weak acid and its conjugate base
 - Strong acid and weak base
 - Strong acid and its conjugate base

19. Brownian movement is a property of the
- Colloidal solution
 - True solutions
 - Suspensions
 - All of the above
20. For a spontaneous reaction ΔG must be -----than zero.
- Lesser
 - Greater
 - Equal to zero
 - Can not be predicted
21. Nitration of benzene is an example of ?
- Electrophilic aromatic substitution
 - Nucleophilic aromatic substitution
 - Nucleophilic addition reaction
 - None of the above
22. Number of dative bonds to central metal ion is its
- Co-ordination number
 - Oxidation number
 - Compound number
 - Dative number
23. In α - decay
- Z and A are unchanged
 - Z decreases by 2 and A increases by 4
 - Z increases by 2 and A decreases by 4
 - Z decreases by 2 and A decreases by 4
24. Ortho- formylation of phenols is carried out by which of the reaction?
- Perkin Elmer reaction
 - Reimer Tiemann reaction
 - Friedal Craft reaction
 - Cannizzaro reaction
25. The amine formed from an amide by means of bromine and alkali has?
- Same number of carbon atoms as that of amide
 - One carbon atom less than that of amide
 - One carbon atom more than that of amide
 - Two carbon atoms more than that of amide
26. The glycosidic linkage between two anhydroglucoseunits in cellulose is ?
- β -1,4
 - β -1,6
 - α -1,4
 - α -1,6

27. Bronze is an alloy of
- Ni and Cu
 - Cu and Fe
 - Cu and Sn
 - Ni, Fe and Cu
28. Which of the following is the life saving mixture for an asthma patient?
- Mixture of He and O₂
 - Mixture of Ne and O₂
 - Mixture of Ar and O₂
 - None of the above
29. A Shield area composed of geologically ancient rocks of diverse origin
- Peninsula
 - Extra-Peninsula
 - Indo-gangetic Plain
 - All the three
30. Which is a metamorphic rock
- Slate
 - Shale
 - Dyke
 - Conglomerate
31. Continental drift theory is given by
- Alfered Wegner
 - Tuzo Wilson
 - Newton
 - Henry Hess
32. A plane which divides the crystal into two halves in such a way that one half may be the mirror image of the other
- An axis of symmetry
 - A plane of symmetry
 - A center of symmetry
 - All the three
33. The value of hardness for Quartz on Moh's Scale of Hardness is
- 2
 - 5
 - 7
 - 10
34. Schistose structure is found in
- Igneous rocks
 - Sedimentary rocks
 - Metamorphic rocks
 - All the three
35. The first amphibians appears at the time of
- Devonian period
 - Silurian period
 - Ordovician period
 - Cambrian period
36. Asaphus is found in
- Brachiopods
 - Trilobites
 - Crinoids
 - Bryozoa

37. Exfoliation is removal of outer skin of a rock mass. It is observed in arid region and the process involved in this feature is referred as
- Mechanical weathering
 - Chemical weathering
 - Biological weathering
 - Hydrolysis
38. L Waves are known as
- Longitudinal waves
 - Transverse waves
 - Surface waves
 - Subsurface waves
39. Rate of weathering depends upon
- Nature of rocks
 - Climate
 - Topography
 - All the three
40. When hematite undergoes hydration, it forms
- Magnetite
 - Ilmenite
 - Limonite
 - Siderite
41. The following sequence best arranges tRNA, rRNA and DNA in order of increasing molecular weights
- tRNA, DNA, rRNA
 - tRNA, rRNA, DNA
 - rRNA, tRNA, DNA
 - rRNA, DNA, tRNA
42. Lyases, a class of enzyme catalyses
- Hydrolysis reaction
 - Group transfer reaction
 - Oxidation and reduction reaction
 - Addition of groups to double bond and vice versa
43. Most CO₂ from catabolism of glucose is released during
- glycolysis
 - the krebs cycle
 - lactate fermentation
 - oxidative phosphorylation
44. In CAM plants, CO₂ acceptor in the night is
- RUBP
 - PEP
 - OAA
 - PGA
45. Any DNA molecule that has the ability to replicate autonomously is called
- plasmid
 - chromosome
 - genome
 - replicon

46. Satellite DNA consists of
- extra chromosomal DNA
 - short repetitive nucleotide sequence
 - ribosomal RNA genes
 - single gene regions
47. Essential elements are
- not required for normal reproduction
 - not replaceable by other elements
 - not directly involved with metabolism
 - required only in those with metabolism
48. Which of the following hormone , in combination with auxin, stimulates call division in plants and determines the course of differentiation
- ethylene
 - indoleacetic acid
 - gibberellins
 - cytokinin
49. Unlike tropisms, nastic movements are in response to
- paratonic stimuli
 - gravity
 - non-directional stimuli
 - directional stimuli
50. A Grafian follicle is
- An immature developing follicle
 - A mature follicle ready to ovulate
 - A follicle undergoing apoptosis
 - Ovulated follicle
51. The protozoans that cause malaria in humans are
- radiolarians
 - trichosomes
 - dinoflagellates
 - sporozoans
52. According to histogen theory, the meristematic zone responsible for the development of pericycle is
- Periblem
 - Plerome
 - Dermatogens
 - Calyptrogens

53. Which one of the following chemical ions plays an important role in the growth of pollen tube
- calcium
 - chlorine
 - magnesium
 - sulphate
54. Which of the following is not reason why population growth declines as population size approaches the carrying capacity
- climate becomes unfavorable
 - competition for resources increases
 - predation rates increase
 - disease rates increase
55. Soil with pH more than 8.5, ESP more than 15 and EC less than 4 ds/m:
- Alkaline soil
 - Saline soil
 - Saline alkaline soil
 - None of above
56. International Institute of Tropical Agriculture is situated at:
- Japan
 - Nigeria
 - Syria
 - India
57. Which among the following is a C₄ plant:
- Rice
 - Wheat
 - Sorghum
 - Barley
58. *Tetrazolium* test is used to determine
- Seed purity
 - Seed viability
 - Seed germination
 - Seed quality
59. A production function with unitary elasticity indicates:
- Increasing returns
 - Decreasing returns
 - Constant returns
 - All of above

60. Red rot in sugarcane is caused by
- Bacteria
 - Virus
 - Fungi
 - Physiological disorder
61. Protein content in soybean is about
- 22%
 - 42%
 - 10%
 - >50%
62. *Gossypium hirsutum* is a group of cotton commonly known as
- Desi cotton
 - American cotton
 - Sea island cotton
 - None of these
63. When water for only one irrigation is available to wheat crop it should be applied at
- Boot stage
 - Tailoring stage
 - Flowering stage
 - CRI stage
64. Cross between an inbred and variety is known as:
- Pure cross
 - Back cross
 - Poly cross
 - Top cross
65. Regular bearing variety of mango is:
- Amrapali
 - Alphanso
 - Langra
 - Honey dew
66. Chromosomal condition $2n - 1 - 1$ is called:
- Monosomy
 - Double monosomy
 - Double Nullisomy
 - Trisomy
67. Paddy has:
- 3 stamens
 - 4 stamens
 - 5 stamens

- d. 6 stamens
68. Which design is used in laboratory experiments?
- a. LSD
 - b. RBD
 - c. Factorial
 - d. CRD
69. Green House Gases are:
- a. CO₂, CFC_s, O₃, NO_x and Water vapour
 - b. CFC_s, CO, CH₄, NO_x and Water vapour
 - c. CO₂, CFC_s, CH₄, NO_x and Water vapour
 - d. CO₂, CFC_s, CH₄, SO_x and Water vapour
70. Under normal conditions, which of the following would be influenced least by thinning?
- a. Diameter growth
 - b. Height growth
 - c. Crown growth (expansion)
 - d. Natural pruning
71. The quality of a forest site is best indicated by the relationship between?
- a. Age and diameter of the trees
 - b. Age and height of the trees
 - c. Diameter and height of the trees
 - d. Diameter and number of trees per acre
72. In which article of the Indian Constitution, Environment protection has been declared as a fundamental duty of citizens?
- a. 38
 - b. 51-A (g)
 - c. 42
 - d. 21
73. The species suitable for planting in water logged areas is?
- a. *Terminalia arjuna*
 - b. *Populus deltoids*
 - c. *Acacia nilotica*
 - d. *Azadirachta indica*
74. Commercial natural rubber latex is tapped from which tree:
- a. *Butea* spp
 - b. *Hevea* spp.
 - c. *Ficus* spp.
 - d. *Acacia* spp.

75. World Forestry Day is celebrated on:
- 25 February
 - 21 March
 - 1 December
 - 11 July
76. In planting seedlings, which of the following is true?
- Taproots should be straight.
 - U-rooting does not affect mortality and growth at normal planting depth.
 - U-rooting will not affect mortality if planted 2 inches deeper than they grew in the nursery.
 - None of the above.
77. Which nutrient is needed in the greatest amount by most plants?
- Potassium
 - Magnesium
 - Phosphorus
 - Nitrogen
78. Bidi is prepared from the leaf of :
- Dhak
 - Sagaon
 - Tendu
 - None of these
79. A type of propagation in which a plant stem is rooted while it is still attached to the parent plant is called :
- Division
 - Layering
 - Grafting
 - All of the above
80. Mangrove forests are located in:
- Himalaya
 - Silent valley
 - Sunder bans
 - Madhya Pradesh
81. The science of constructing map is called
- Topography
 - Demography
 - Cartography
 - Geography

82. Who appoints Supreme Court judges officially in India?
- President
 - Prime Minister
 - Vice president
 - By the permission of both president and Prime Minister
83. Which of the following cities is known as electronic city of India?
- Mumbai
 - Hyderabad
 - Bangalore
 - New Delhi
84. The world famous Ajanta caves are situated in which state of India?
- Maharashtra
 - Madhya Pradesh
 - Odisha
 - Karnataka
85. Which state became the first state in India to achieve 100 % success in Implementing the Pradhan Mantri Jan Dhan Yojana?
- Assam
 - Kerala
 - Punjab
 - Meghalaya
86. Which government agency has developed a handbook of state statistics?
- DEA (Drug Enforcement Administrations)
 - NITI Aayog
 - Planning commission
 - Both a and b
87. is the position of India in terms of highest number of impacted species in hotspots?
- 8th
 - 16th
 - 21st
 - 25th
88. The first Indian to receive Noble Prize in Literature was
- Mother Teresa
 - C. V. Raman
 - Rabindranath Tagore
 - Sarojini Naidu
89. Which country announced a complete ban on import of solid plastic waste/scrap recently?
- India
 - Russia
 - Japan

- d. China
90. Which of the following folk dance forms is associated with Gujarat?
- Garba
 - Kathakali
 - Bhangra
 - Nautanki
91. "India of my dreams" book was written by
- Jawaharlal Nehru
 - Mahatma Gandhi
 - Subhas Chandra Bose
 - Sarojini Naidu
92. LPG is a mixture of
- Methane, ethane and hexane
 - Ethane, nonane and hexane
 - Methane butane and propane
 - Methane and ethane only
93. The members of the Rajya Sabha are elected for a period of
- Four years
 - Five years
 - Six years
 - Seven years
94. The name of the union given in the Constitution is
- Hindustan or Bharatavarsha
 - India or Hindustan
 - India or Bharat
 - Bharatdesch or India
95. A Voice for Freedom' is a book written by
- Nayantara Sahgal
 - Aung San Suu Kyi
 - Benazir Bhutto
 - Corazon Aquino
96. The Shimla convention is an agreement that sets
- Shimla as a tourist spot
 - Shimla as the capital of Himachal Pradesh
 - Boundary between India and Tibet
 - Boundary between Shimla and Nepal

97. Which state bags “Water Digest Award” for best water conservation-diversion and increasing the irrigation capacity for 2018?
- Haryana
 - Uttar Pradesh
 - Chhattisgarh
 - Jharkhand
98. Hundred year war was fought between
- France and England
 - Greek and Persian forces
 - Civil war in England
 - None of the above
99. What is the theme of 2018 world tourism day?
- One billion tourist's one billion opportunities
 - Tourism and the Digital Transformation
 - Sustainable tourism
 - Sustainable tourism for future
100. In which of the following pairs, the two substances forming the pair are chemically most dissimilar
- Sugar and paper
 - Butter and paraffin wax
 - Chalk and marble
 - Charcoal and diamond
101. For some integer m , every even integer is of the form
- | | |
|---------|-----------|
| a. m | c. $m+1$ |
| b. $2m$ | d. $2m+1$ |
102. The largest number which divides 70 and 125, leaving remainders 5 and 8, respectively, is
- | | |
|--------|---------|
| a. 13 | c. 65 |
| b. 875 | d. 1750 |
103. The product of a non-zero rational and an irrational number is
- | | |
|---------------------------|--------------------|
| a. always irrational | c. always rational |
| b. rational or irrational | d. one |
104. A quadratic polynomial, whose zeroes are -3 and 4, is
- | | |
|------------------|-----------------|
| a. x^2-x+12 | c. x^2+x+12 |
| b. $x^2/2-x/2-6$ | d. $2x^2+2x-24$ |
105. In an AP, if $a=3.5$, $d=0$, $n=101$, then a_n will be
- | | |
|----------|----------|
| a. 0 | c. 3.5 |
| b. 103.5 | d. 104.5 |

106. The sum of first 16 terms of the AP: 10, 6, 2,.... is
 a. -320
 b. -352
 c. 320
 d. -400
107. In an AP if $a = -7.2$, $d = 3.6$, $a_n = 7.2$, then n is
 a. 1
 b. 3
 c. 4
 d. 5
108. The distance of the point P (2,3) from the x-axis is
 a. 2
 b. 3
 c. 1
 d. 5
109. The area of a triangle with vertices A (3,0), B (7,0) and C (8,4) is
 a. 14
 b. 28
 c. 8
 d. 6
110. If $\cos A = 4/5$, then the value of $\tan A$ is
 a. $3/5$
 b. $3/4$
 c. $4/3$
 d. $5/3$
111. The value of $\tan 30^\circ / \cot 60^\circ$ is
 a. $1/\sqrt{2}$
 b. $\sqrt{3}$
 c. $1/\sqrt{3}$
 d. 1
112. An even is very unlikely to happen. Its probability is closest to
 a. 0.0001
 b. 0.001
 c. 0.01
 d. 0.1
113. If the probability of an event is p , the probability of its complementary event will be
 a. $p-1$
 b. p
 c. $1-p$
 d. $1-1/p$
114. The card is selected from a deck of 52 cards. The probability of its being a red face card is
 a. $3/26$
 b. $3/13$
 c. $2/13$
 d. $1/2$
115. A surahi is the combination of
 a. a sphere and a cylinder
 b. two hemisphere
 c. a hemisphere and a cylinder
 d. a cylinder and a cone.
116. If the perimeter of a circle is equal to that of a square, then the ratio of their areas is
 a. 22:7
 b. 14:11
 c. 7:22
 d. 11:14

117. If θ is the angle (in degrees) of a sector of a circle of radius r , then area of the sector is
- | | |
|------------------------|------------------------|
| a. $\pi r^2\theta/360$ | c. $\pi r^2\theta/180$ |
| b. $2\pi r\theta/360$ | d. $2\pi r\theta/180$ |
118. The least 4 digit number which is a perfect square is
- | | |
|---------|---------|
| a. 1024 | c. 1016 |
| b. 1036 | d. 1044 |
119. If $a/b - a = 7/8$, find the value of a/b
- | | |
|-----------|------------|
| a. 7 | c. $15/7$ |
| b. $7/15$ | d. $-15/7$ |
120. Which of the following will result in 10, 20, 19, and 40 being in proportion?
- | | |
|------------------|------------------|
| a. Add one to 10 | c. Add one to 20 |
| b. Add one to 19 | d. Add one to 40 |
121. A man sells 200 mangoes at the cost price of 250 mangoes. His profit percentage is
- | | |
|----------|-------------------|
| a. 12.5% | c. 25% |
| b. 20% | d. None of these. |
122. A mechanic sold a scooter for Rs. 9000 at a loss of 10%. In order to gain 5% at what price should he sell it?
- | | |
|----------|----------|
| a. 9500 | c. 10000 |
| b. 10500 | d. 11000 |
123. A certain sum becomes 3 times itself in 6 years at simple interest. In how many years will it become 9 times itself?
- | | |
|-------|-------|
| a. 18 | c. 20 |
| b. 24 | d. 22 |
124. A sum of Rs. 2500 is invested for 2 years at 20% per annum, interest compounded half-yearly. Find the compound interest.
- | | |
|----------------|----------------|
| a. Rs. 3660.25 | c. Rs. 1660.25 |
| b. Rs.1160.25 | d. Rs.1330 |
125. A works 3 times as fast as B. if B can complete a work in 60 days, then in how many days can A and B together complete the same work?
- | | |
|-------|-------|
| a. 20 | c. 12 |
| b. 15 | d. 30 |
126. Rakesh and Siva can do a piece of work in 15 days and 18 days respectively. They work together for 5 days and then Rakesh leaves. In how many days will Siva alone finish the remaining work?
- | | |
|------|------|
| a. 5 | c. 7 |
| b. 6 | d. 8 |

137. If the mean of first y natural numbers is 28, then find y .
- a. 25
 - b. 56
 - c. 27
 - d. 55
138. If a matrix contain 5 rows and 3 columns, then the number of elements of the matrix is _____.
- a. 6
 - b. 10
 - c. 8
 - d. 15
139. If a matrix contains 6 elements then the order of the matrix can be _____.
- a. 3 X 2
 - b. 1 X 6
 - c. 2 X 3
 - d. All the above
140. If a matrix contain 5 elements, then how many different orders of matrices are possible.
- a. 1
 - b. 3
 - c. 2
 - d. 4
141. Who appoints the Chief Election Commissioner?
- a. Parliament
 - b. President of India
 - c. Prime Minister
 - d. Law Minister
142. Sultan Azlan Shah Cup is related to which among the following Sports?
- a. Hockey
 - b. Badminton
 - c. Table Tennis
 - d. Golf
143. Gross Domestic Product is the monetary value of:
- a. Goods produced for the market only
 - b. Goods produced for the market and self consumption
 - c. Stock of goods and services
 - d. All final goods and services produced in a year
144. Barometer is used for:
- a. Measures atmospheric pressure and conditions
 - b. Determines heights and levels
 - c. Determines longitude of a vessel at sea
 - d. Measures the relative density of liquids
145. Which of the following is not a synthetic fibre?
- a. Nylon
 - b. Polyester
 - c. Silk

- d. Acrylic
146. It is not The Sustainable Development Goals (SDGs) set by the United Nations:
- Zero Hunger
 - Gender Equality
 - Life on Land
 - No war, Peaceful life
147. **Sports that is** played in Asian Games and Commonwealth Games, but not in the Olympics:
- Golf
 - Squash
 - Skating
 - Cricket
148. In which city India's first park for differently able inaugurated?
- Mumbai
 - Hyderabad
 - Banglore
 - New Delhi
149. What is the objective of recently launched GARBH-ini Mission:
- Improvement of child sex ratio
 - Care of pregnant women in government hospital
 - To promote maternal and child health
 - Promote health education in tribal women
150. Constitution (One Hundred and Third Amendment) Act 2019, provides_____reservation to the economically weaker sections in jobs as well as educational institutions:
- 5%
 - 10%
 - 15%
 - 20%
151. Kalamsat-V2 is a_____:
- Missile
 - Satellite Launch Vehicle
 - Space craft
 - Satellite
152. Headquarter of international Monetary Fund is in:
- Washington
 - Madrid
 - Tokyo
 - London

153. Insulin controls the metabolism of :
- Hormones
 - FATS
 - Carbohydrate
 - Proteins
154. Who among the following is NOT associated with medicine in ancient India?
- Bhaskaracharya
 - Dhanvantri
 - Charaka
 - Susruta
155. The imaginary line on the earth's surface, which closely follows the 180 ° meridian, is called the_____:
- Tropic of Cancer
 - International Date Line
 - Equator
 - Prime Meridian
156. Which of the following is not a folk dance of Uttar Pradesh?
- Quawwalis
 - Birhas
 - Charkulas
 - Chhau
157. What was the reason for opposing Simon Commission in India?
- Due to absence of any Indian Member in the Commission.
 - It had an Anti Indian sentiment.
 - Both (A) & (B)
 - None of the above
158. Pongal is famous festival of :
- Karnataka
 - Andhra Pradesh
 - Kerala
 - Tamil Nadu
159. **World Water Day is observed on:**
- 15 January
 - 22 March
 - 10 September
 - 5 June
160. TRAI stands for:
- Telecom Regulatory Authority of India
 - Telephone Regulatory Authority of India
 - Telecom Regulations Act of India

- d. Telecom Regulating Act of India
161. Which of the following river does not originate in Indian Territory:
- Mahanadi
 - Beas
 - Satluj
 - Bramaputra
162. Oscar Awards are given for the excellence in the field of :
- Social Service
 - Film
 - Sports
 - Journalism
163. Which of the following awards is given for excellence in the field of Literature?
- Tansen Sanman
 - Kalidas Sanman
 - Saraswati Sanman
 - Arjun Award
164. Name the Best Mobile App, that won the Gold in the Digital India Awards 2019:
- ePathshala
 - Pay TM
 - eCourts Services
 - Meeseva App
165. Who has written the novel Anand Math?
- Sharat Chandra
 - Bankim Chandra
 - Guru Dutt
 - RN Tagore
166. The most important function of lok sabha is:
- Judiciary
 - Executive
 - Legislature
 - None of these
167. The one rupee note bears the signature of:
- President
 - Finance Minister
 - Finance Secretary
 - RBI Governor
168. Which of the following countries is not a member of a SAARC
- Sri Lanka
 - Maldives
 - Bhutan
 - Myanmar

169. Who was appointed the (ICC) International Cricket Council Board's 1st Independent female director?
- Indra Nooyi
 - Kiran Majumdar Shaw
 - Vanitha Narayanan
 - Vinita Bali
170. Green Economy is led by:
- International Hydrological Organization
 - United Nations Environment Programme
 - Intergovernmental Panel for Climate change
 - European Union
- 171-175 Choose the correct meaning of the idioms given in **bold** in the sentences
171. A movement for the world unity is **in the offing**.
- at the end
 - about to start
 - on decline
 - in the air
172. He was a king who ruled his subjects **with a high hand**
- Oppressively
 - Kindly
 - Conveniently
 - Sympathetically
173. He is not **worth his salt** if he fails at this juncture
- Quite worthless
 - Very proud of himself
 - Quite depressed
 - Very strange
174. He does not like to be friendly with Sarla. He always give **her a cold shoulder**.
- Pushes her with his shoulder wherever they meet
 - Insult her in the presence of others
 - Tries to be unfriendly by taking no notice of her
 - Argues with her on any issue
175. His promotion is **on the cards**.
- Due
 - Evident
 - Certain
 - Probable

176-185 Choose the expression which is an improvement upon the **bold** part.

176. He **insisted on** he was innocent.
a. Insisted on that
b. Insisted that
c. Insists that
d. No improvement
177. He is **having** three cars.
a. Has
b. Was
c. To the cinema
d. No improvement
178. **All his answers** were correct.
a. His all answers
b. His every answers
c. All of his answers
d. No improvement
179. They **are waiting** for her since morning.
a. Have been waiting
b. Were waiting
c. Wait
d. No improvement
180. **It is no good to cry** over split milk.
a. It is no good crying
b. It is of no good to cry
c. It is of no good crying
d. No improvement
181. He gave **witness** at the sensational trial.
a. Evidence
b. Proof
c. Advice
d. No improvement
182. He could not **cope up with** the heavy rush.
a. Cope upto
b. Cope by
c. Cope with
d. No improvement

183. Marconi **assembled** the radio.
a. Discovered
b. Made
c. Invented
d. No improvement
184. Prefer tea **rather than** coffee.
a. And
b. Over
c. To
d. No improvement
185. She **is loving** chocolate ice cream.
a. Has loving
b. Has been loved
c. Loves
d. No improvement

186- 188 Choose the word nearest in meaning to **bold** part.

186. The flat has been **refurbished** recently.
a. White-washed
b. Painted
c. Renovated
d. Repaired
187. The navy gave **tactical** support to the marines.
a. Sensitive
b. Strategic
c. Expedient
d. Expert
188. He tried to **alleviate** the sufferings of his neighbours.
a. Abate
b. Dissipate
c. Remove
d. Relieve

189-190 Select the word or the phrase which is closest to the opposite in meaning of the **bold** word or **phrase**.

189. There is not a trace of **vanity** in her behavior.
a. Humility
b. Selflessness
c. Modesty

d. Dignity

190. Some of the needs of a modern man are surely **dispensable**.

- a. Desirable
- b. Acceptable
- c. Relevant
- d. Essential

191-192 Select the word that is furthest (**opposite**) in meaning to the main word.

191. Arid

- a. Cloudy
- b. Juicy
- c. Marshy
- d. Wet

192. Choleric

- a. Affluent
- b. Brave
- c. Pleasant
- d. Tired

193-195 Select the most suitable alternative to fill in the blank in the sentence to make it meaningful.

193. He is very.....on meeting foreigners and befriending them.

- a. Anxious
- b. Find
- c. Insistent
- d. Keen

194. Oh! such a pretty girl. Whom has she.....?

- a. Taken after
- b. Took after
- c. Taken by
- d. Took by

195. Toyourself from.....wear warm clothes.

- a. Prohibit; heat
- b. Protect; cold
- c. Save; heat
- d. Suffer; cold

196-200 Read the passage carefully and answers the question that follow:-

John had never thought much about the origin of wealth or inequalities in life. It was his firm belief that if this world was not good, the next would be good and this faith sustained him. He was not like some others whom he knew, who would sell their souls to the devil.

He always thought of God before doing anything. He lived the life of an honest man. He had not married, but did not desire another man's wife. He believed that women weakened men as was described in the story of Samson and Delilah.

196. "To Sell one's soul to the devil" means
- Suppressing one's conscience
 - Giving up goodness in exchange for evil
 - Giving up one's honesty for the sake of monetary benefits
 - To sell oneself to earn livelihood
197. John thought that women weakened men because
- He thought that women were evil
 - He believed that a woman was a fancy devil
 - He thought that a woman would spoil his life
 - He was convinced that what the story of Samson and Delilah illustrates is correct
198. It was John's belief that
- One can be happy only by remaining a bachelor
 - The world is a happy place
 - There is no other world
 - One must lead an honest life
199. By not desiring another man's wife John showed that
- He wanted to get married
 - He was a man of principles
 - He felt sorry for other men
 - He had no desire for another's wealth
200. From the above passage we understand that John was
- Not highly educated
 - A man of simple faith
 - A deeply pessimistic man
 - A scholar of scriptures

DESCRIPTION OF COURSES OFFERED

M.Sc. Forestry

Programme Objective: Master in Forestry programme aims to provide opportunity to the students wishing to pursue professional careers in the management and policy of forest resources and to make themselves aware about the problems related to forest across the span of urban to rural environments. The syllabus draws from coursework in the natural and social sciences and focuses on the complex relationships among the science, management and policy of forest resources. The structure of the curriculum is designed to synthesis of knowledge in multiple disciplinary exposures in the biological and social sciences. The goal is to prepare students to manage forest resources for various public and private values within a complex social, political and ecological environment. These professional opportunities can be private or public sector forest management, corporate or consulting, government conservation of forest resources or education. Students are also expected to improve their capacities as leaders and managers through summer internships, professional skills courses and other opportunities.

Programme structure: The Programme consists of courses and other requirements worth a total of 90 credits. One credit is equivalent to one hour of teaching (lecture or tutorial) or two hours of practical work/field work per week. Each semester consists of 18 to 20 weeks of academic work equivalent to 90 actual teaching days. The programme structure and respective credits are given below as:

Programme Structure	Credit
Core courses	: 54
Foundation courses	: 5
Elective courses	: 5
Synopsis	: 1
Master's thesis	: 17
Master thesis seminar	: 2
Term paper I	: 2
Term paper II	: 2
Study tour	: 2
Total	: 90

Allotment of credits to different courses

FIRST SEMESTER

Course Code	Course	Credit	
		Theory	Practical
Foundation Course			
FMS 101	Elements of Mathematics and Statistics	1	1
FCR 102	Computer Application, Remote Sensing and GIS	1	1
FOF 103	Overview of Forestry	1	-
Core course			
FBS 111	Elements of Biological Science	1	1
FFF 112	Fundamentals of Forest Ecology	2	1
FSC 113	Silviculture – I	2	1
FGS 114	Basic Geology and Soil science	2	1
FMB 115	Forest Mensuration and Biometry	2	1
FHV 116	Forest Health and Vitality	2	1
FTP 117	Term Paper I	2	-
Total credits in first semester: $14^a+8^b+2^c=24$			

SECOND SEMESTER

Course Code	Course	Credit	
		Theory	Practical
Core course			
FPL 211	Forest Policy and Law	2	-
FLM 212	Landscape Approach to Management	2	1
FRU 213	Forest Resource Utilization – I (NTFP)	2	1
FFE 214	Forest Economics	2	1

FFP 215	Forest and People	2	-
FRM 216	Natural Resource Management	2	-
FSC 217	Silviculture–II	2	1
FSN 218	Seed and Nursery Technology	1	1
FTP 219	Term Paper II	2	-
Total credits in first semester: $15^a+5^b+2^c=22$			

THIRD SEMESTER

Course Code	Course	Credit	
		Theory	Practical
Core course			
FRM 311	Resource Survey and Forest Management	2	1
FWD 312	Wildlife and Eco Development	2	1
FRU 313	Forest Resource Utilization – II (Wood)	2	1
FGT 314	Forest Genetics and Tree Improvement	2	1
FFC 315	Forest Certification	2	-
FCC 316	Forest, Society and Climate Change	2	1
FST 317	Study Tour	2	-
Elective		5	
Total credits in first semester: $12^a+5^b+2^d+5^e=24$			

FOURTH SEMESTER

Code	Particulars	Credit
FSY 441	Synopsis	1
FMT 442	Master's thesis	17
FTS 443	Master thesis seminar	2
Total		20

LIST OF ELECTIVE COURSE

Course Code	Elective Course	Credit	
		Theory	Practical
FGB 321	Forest Genetics and Biotechnology	3	2
FRG 322	Remote Sensing and Geographic Information System	2	3
FWH 323	Wildlife and Habitat Management	3	2
FSM 324	Sustainable Forest Management	3	2
FAF 325	Agro forestry	4	1
FFP 326	Forest Pathology	2	3
FFE 327	Forest Entomology	2	3
EIA 328	Environmental Impact Assessment	4	1
FPT 329	Plantation Technology	4	1
PTN 330	Plant Taxonomy	2	3

a: Theory, b: Practical, c: Term paper, d: Study tour, e: Elective paper.

One lecture credit comprises of one hour teaching of the course in a week, while one practical credit comprises of two hours of practical/assignment work in a week

Descriptions of Course Code

The courses of M. Sc. programme are divided into four series:

- ❖ 100-series courses pertain to first semester
- ❖ 200-series courses pertain to second semester
- ❖ 300-series courses pertain to third semester
- ❖ 400-series courses pertain to fourth semester
- ❖ Credit for Synopsis, Master's thesis and Master thesis seminar is designated by code no. 441, 442 and 443 respectively

Course code is formulated as:

- First alphabet shows programme
- Second and third alphabet shows course name
- First digit shows semester number
- Second digit shows course type (0= foundation, 1= core, 2= elective)
- Last digit shows course number

M.Sc. Wood Science & Technology

Programme Objective: The Master in Wood Science and Technology programme aims to provide opportunity to the students wishing to pursue professional careers in science and technology of wood as natural resource and to make themselves aware about the problems related to wood as basic material to manufacture various useful products. The structure of the curriculum is designed to synthesize multi-disciplinary knowledge in the biological and physical science of wood and its industrial application. The syllabus comprises of basics of wood anatomy, chemistry, physics, mechanics as well as processing knowledge and techniques to manufacture solid and composite wood products. The programme is designed to improve the qualitative, quantitative and futuristic aspects of students. Students are also expected to improve their capacities as leaders and managers through study tour, industrial attachment and excursions and other opportunities. Human Resource Management and Marketing and Enterprise Development are also the part of syllabus to build their entrepreneurial skills and aptitude.

Programme structure: The programme consists of courses and other requirements worth a total of 90 credits. One credit is equivalent to one hour of teaching (lecture or tutorial) or two hours of practical work/field work per week. Each semester will consist of 18 to 20 weeks of academic work equivalent to 90 actual teaching days. The programme structure and respective credits are given below as:

Programme Structure	Credits
Core course	: 59
Foundation courses	: 7
Elective courses	: 5
Master's thesis	: 12
Master thesis seminar	: 2
Study tour	: 2
Industrial Attachment	: 3
Total	: 90

Allotment of credits to different courses

FIRST SEMESTER

Course Code	Course	Credit	
		Theory	Practical
Foundation Course			
WOC 101	Orientation Course (Wood Science, Basic Forestry, Basic Botany)	2	.-
WCA 102	Computer Application	-	1
Core Course			
WWC 111	Wood Chemistry	2	1
WWP 112	Wood Physics - I	2	1
WWP 113	Wood Physics - II	2	
WSM 114	Sawmilling and Saw Doctoring	2	1
WWA 115	Wood Anatomy- I	2	1
WWA 116	Wood Anatomy -II	2	
WEM 117	Timber Entomology and Microbiology	3	1
Total credits in first semester $17^a + 6^b = 23$			

SECOND SEMESTER

Course Code	Course	Credit	
		Theory	Practical
Foundation Course			
WSM 201	Statistics and Research Methodology	1	1
Core Course			
WTM 211	Timber Mechanics -I	2	1
WTM 212	Timber Mechanics -II	2	
WWP 213	Wood Preservation -I	2	1

WAD 214	Composite Wood I - Adhesives	2	1
WPW 215	Composite Wood II - Plywood	2	
WWS 216	Wood Seasoning - I	2	1
WWW217	Wood Working	2	1
Total Credits		15	6
Total credits in second semester $15^a + 6^b = 21$			

THIRD SEMESTER

Course Code	Course	Credit	
		Theory	Practical
Core Course			
WWS 311	Wood Seasoning -II	2	1
WWP 312	Wood Preservation II	2	1
WWF 313	Wood Finishing	2	1
WRW 314	Composite Wood III-Reconstituted Wood	2	1
WLW 315	Composite Wood IV- Laminated Wood	2	
WTE 316	Timber Engineering	2	1
WPD 317	Products Design and Fabrication	2	1
WST 318	Study Tour	2	
WIA 319	Industrial attachment and Report	3	
Total credits in third semester = $14^a + 6^b + 2^c + 3^d = 25$			

FOURTH SEMESTER

Course Code	Course	Credit	
		Theory	Practical
Foundation Course			
WHR 401	Human Resource Management	1	-

WME 402	Marketing and Enterprise Development	1	-
Elective Courses		5	
WFC 421	Forest Certification and Nano-technology	5	-
WFJ 422	Finger Joints for Efficient Wood Utilization	3	2
WVS 423	Vaccum Seasoning Technology	3	2
WMT 441	Master 's thesis	12	
WMS 442	Master thesis seminar	2	
Total credits in fourth semester		$2^a + 5^b + 12^f + 2^g = 21$	

a- Theory, b- Practical, c- Study tour, d- Industrial attachment, e- Elective paper, f- master thesis report, g-seminar . One lecture credit comprises of one hour teaching of the course in a week, while one practical credit comprises of two hours of practical/assignment work in a week

Descriptions of Course Code

The courses of M. Sc. programme are divided into four series:

- ❖ 100-series courses pertain to first semester
- ❖ 200-series courses pertain to second semester
- ❖ 300-series courses pertain to third semester
- ❖ 400-series courses pertain to fourth semester
- ❖ Credit for Master's thesis and Master thesis seminar is designated by code no. 441 by 442 respectively.

Course code is formulated as:

- First alphabet shows programme
- Second and third alphabet shows course name
- First digit shows semester number
- Second digit shows course type (0= foundation, 1= core, 2= elective)
- Last digit shows course number

M.Sc. Environment Management

Programme objectives: The programme aims to provide opportunities to the students to make themselves aware about the problems related to environmental concerns and its management. The programme is designed to provide a holistic and integrated approach of learning comprising of classroom lectures, classroom assignments, practical sessions, interactive seminars, field visits, industrial visits, term papers, divisional attachments and master's thesis writing. The course builds and facilitates understanding of the dynamics of environment especially in the context of ecology, forestry, and climate change. Different types of processes, models, plans and techniques related to environmental processes are described and discussed through class room interaction as well as exposures visits to different ecosystems and institutional/industrial arrangements. The students are expected to get enough exposure for practical solutions to various ecological and environmental problems in the context of today's world.

Programme structure: The programme consists of courses and other requirements worth a total of 89 credits. One credit is equivalent to one hour of teaching (lecture or tutorial) or two hours of practical work/field work per week. Each semester will consist of 18 to 20 weeks of academic work equivalent to 90 actual teaching days. The programme structure and respective credits are given below as:

Programme Structure		Credits
Core courses	:	53
Foundation courses	:	5
Elective courses	:	5
Synopsis	:	1
Master's thesis	:	17
Master thesis seminar	:	2
Term paper I	:	2
Term paper II	:	2
Study tour	:	2
Total	:	89

Allotment of credits to different courses

FIRST SEMESTER

Course Code	Course	Credit	
		Theory	Practical
Foundation Course			
ERG 101	Remote Sensing and Geographical Information System	1	1
Core Course			
EFE 111	Fundamentals of Ecology	3	1
EEA 112	Ecosystem Analysis	3	1
EPB 113	Environment Physics and Biogeochemistry	3	1
ECE 114	Conservation Ecology	3	1
EIA 115	Environment Impact Assessment	3	1
ERE 116	Restoration Ecology	3	1
ETP 117	Term Paper I	2	-
Total credits in first semester		$19^a + 7^b + 2^c = 28$	

SECOND SEMESTER

Course Code	Course	Credit	
		Theory	Practical
Foundation Course			
ESC 201	Environment Statistics and Computer Application	2	1
Core Course			
EFM 211	Forestry for Sustainable Management	3	1
EEM 212	Environment Microbiology	3	1
EGF 213	Global Climate Change and Forest	3	1
EDM 214	Disaster Management	3	1
FFE 214	Forest Economics	2	1

ETM 215	Term Paper II	2	-
Total credits in second semester		$16^a + 6^b + 2^c = 24$	

THIRD SEMESTER

Course Code	Course	Credit	
		Theory	Practical
Core Course			
EPS 311	Environment Policy, Law and Sociology	3	1
EPM 312	Environment Pollution Management	3	1
EFC 313	Forest Certification	2	-
EST 314	Study Tour	2	-
Elective course 5 Credits			
ENM 321	Natural Resource Conservation and Management	4	1
EBM 322	Bio Diversity Monitoring and Management	4	1
EBC 323	Bio Statistics and Computer Application	4	1
ESM 324	Solid Waste Management	4	1
EPC 325	Forest, Society and Climate Change	4	1
ERG 326	Remote sensing and Geographic Information System- Advance and Application in Environment Management	4	1
EIA 328	Environment Impact Assessment	4	1
PTN 330	Plant Taxonomy	2	3
Total credits in first semester		$8^a + 2^b + 5^c + 2^d = 17$	

FOURTH – SEMESTER

Code	Particulars	Credit
ESY 441	Synopsis	1
EMT 442	Master's thesis	17
ETS 443	Master thesis seminar	2
Total		20

a- Theory, b- Practical, c- Term paper, d-Study tour, e- Elective paper. One lecture credit comprises of one hour teaching of the course in a week, while one practical credit comprises of two hours of practical/assignment work in a week

Descriptions of Course Code

The courses of M. Sc. programme are divided into four series:

- ❖ 100-series courses pertain to first semester
- ❖ 200-series courses pertain to second semester
- ❖ 300-series courses pertain to third semester
- ❖ 400-series courses pertain to fourth semester
- ❖ Credit for Synopsis, Master's thesis and Master thesis seminar is designated by code no. 441, 442 and 443 respectively

Course code is formulated as:

- First alphabet shows programme
- Second and third alphabet shows course name
- First digit shows semester number
- Second digit shows course type (0= foundation, 1= core, 2= elective)
- Last digit shows course number

M.Sc. Cellulose & Paper Technology

Programme objectives: The academic programme emphasizes on skills in multidisciplinary and advance education in cellulose and paper sciences. Programme includes courses in modern areas of applied paper science, industrial processing and paper technology. During the university's educational programme at Masters level, the students receive adequate exposure of theoretical and practical aspects of cellulose and paper technology and gain competence in a distinctive set of skills to lead in paper industry. The course is also ideal for

engineers and scientists currently working in the industry who wish to retrain and refresh in a new field. The current demand for pulp and paper experts indicates that this programme will be in high demand in the near future.

Programme structure: The programme consists of courses and other requirements worth a total of 91 credits. One credit is equivalent to one hour of teaching (lecture or tutorial) or two hours of practical work/field work per week. Each semester will consist of 18-20 weeks of academic work equivalent to 90 teaching days. The programme structure and respective credits are given below as:

Programme Structure	Credits
Core courses	: 77
Foundation courses	: 3
Project work	: 8
In Plant training	: 3
Total	: 91

Allotment of credits to different courses

FIRST SEMESTER

S. No.	Course Code	Course	Credit
Foundation course			
1.	PP-111	Basic Forestry	3
Core Course			
2.	PP-112	Paper Industry and Fibrous Raw Materials	4
3.	PP-113	Pulping	4
4.	PP-114	Elements of Mechanical and Electrical Engineering	4
5.	PP-115	Washing of pulp	3
6.	PP-116	Practical	5
Total credits in first semester : 23			

SECOND SEMESTER

S. No	Course code	Course	Credit
Core Course			
1.	PP-121	Refining, Beating and Chemical Additives	4
2.	PP-122	Paper Machines-I	4
3.	PP-123	Paper Machines-II	3
4.	PP-124	Papermaking Chemistry	3
5.	PP-125	Screening and Cleaning	3
6.	PP-126	Practical	5
Total Credits in second semester: 22			

THIRD SEMESTER

S. No	Course code	Course	Credit
Core course			
1.	PP-211	Chemical Recovery	4
2.	PP-212	Bleaching Technology	4
3.	PP-213	Material and Energy Balance	4
4.	PP-214	Specialty Paper	3
5.	PP-215	Secondary Fibre Technology	4
6.	PP-216	Practical	5
Total Credits in third semester: 24			

FOURTH SEMESTER

S. No	Course code	Course	Credit
Core course			
1.	PP-221	Paper Properties	3
2.	PP-222	Environmental Pollution Control	3
3.	PP-223	Project Work	8
4.	PP-224	In Plant Training	3
5.	PP-225	Practical	5
Total Credits in fourth semester: 22			

FEES AND DEPOSITS

The fees is to be paid by a student to the Registrar, FRI Deemed to be University, Dehradun through Bank Draft payable at Dehradun only. A marginal upward revision of the fee is under active consideration of the University.

M.Sc. Courses:

i) General Seats:

Tuition fee Rs. 96,000/- payable in four equal installments of Rs.24,000/- each.

ii) Foreign National Seats:

Tuition fee 3000 US \$ payable in four equal installments of 750 US \$ each.

First installment fee will be paid at the time of admission and rest fee at the beginning of each semester.

Fee once paid will not be refunded under any circumstances.

Besides course fee they have to pay students club, sports and magazine, Library, Degree, Electricity/water, Hostel fees etc. as per schedule fixed by the Institute. The student who will be allotted hostel have to pay hostel fees as per schedule.

a) Caution Money:

Rs. 3,000/- is payable at the time of admission. The caution money will be refunded on completion of the course after making deductions, if any.

The breakup of fee chargeable from students is as follows:-

**Fee Structure of M.Sc. Forestry, Environment Management and
Wood Science & Technology Courses of FRI Deemed to be University**

1st Semester at the time of admission

Sl. No.	Item	Revised Fee (in Rs.)
1	Admission Fee	4000.00
2	Misc. Fee/Sports / Cultural Fee (at the time of admission)	2500.00
3	Degree Fee (at the time of admission)	200.00
4	Tuition Fee per semester	24000.00
5	Hostel charges per semester Double occupancy	3000.00
6	Electricity, Water & Other maintenance per semester	1200.00
7	Library/Teaching aid per semester	1000.00
8	Caution Money (refundable) one time	3000.00
9	Semester Exam Fee M.Sc./PGD/PMD courses	1000.00
10	Study Tour/Field Excursion Fee	500.00
	Total	40400.00
2nd Semester		
1	Tuition fees per semester	24000.00
2	Hostel charges per semester Double occupancy	3000.00
3	Electricity Water & Other maintenance per semester	1200.00
4	Library/Teaching aid per semester	1000.00
5	Semester Exam Fee M.Sc./PGD/PMD courses	1000.00
6	Study Tour/Field Excursion Fee	500.00
	Total	30700.00
3rd Semester		
1	Tuition fees per semester	24000.00
2	Hostel charges per semester Double occupancy	3000.00
3	Electricity Water & Other maintenance per semester	1200.00
4	Library/Teaching aid per semester	1000.00
5	Semester Exam Fee M.Sc./PGD/PMD courses	1000.00
6	Study Tour/Field Excursion Fee	8000.00
	Total	38200.00
4th Semester		
1	Tuition fees per semester	24000.00
2	Hostel charges per semester Double occupancy	3000.00
3	Electricity Water & Other maintenance per semester	1200.00
4	Library/Teaching aid per semester	1000.00
5	Semester Exam Fee M.Sc./PGD/PMD courses	1500.00
	Total	30700.00

**Fee Structure of M.Sc. Cellulose & Paper Technology Course of
FRI Deemed to be University**

1st Semester at the time of admission

Sl. No.	Item	Revised Fee (in Rs.)
1	Admission Fee	4000.00
2	Misc. Fee/Sports / Cultural Fee (at the time of admission)	2500.00
3	Degree Fee (at the time of admission)	200.00
4	Tuition Fee per semester	24000.00
5	Hostel charges per semester Double occupancy	3000.00
6	Electricity, Water & Other maintenance per semester	1200.00
7	Library/Teaching aid per semester	1000.00
8	Caution Money (refundable) one time	3000.00
9	Semester Exam Fee M.Sc./PGD/PMD courses	1000.00
10	Study Tour/Field Excursion Fee	500.00
	Total	40400.00
2nd Semester		
1	Tuition fees per semester	24000.00
2	Hostel charges per semester Double occupancy	3000.00
3	Electricity Water & Other maintenance per semester	1200.00
4	Library/Teaching aid per semester	1000.00
5	Semester Exam Fee M.Sc./PGD/PMD courses	1000.00
6	Study Tour/Field Excursion Fee	500.00
	Total	30700.00
3rd Semester		
1	Tuition fees per semester	24000.00
2	Hostel charges per semester Double occupancy	3000.00
3	Electricity Water & Other maintenance per semester	1200.00
4	Library/Teaching aid per semester	1000.00
5	Semester Exam Fee M.Sc./PGD/PMD courses	1000.00
6	Study Tour/Field Excursion Fee	500.00
	Total	30700.00
4th Semester		
1	Tuition fees per semester	24000.00
2	Hostel charges per semester Double occupancy	3000.00
3	Electricity Water & Other maintenance per semester	1200.00
4	Library/Teaching aid per semester	1000.00
5	Semester Exam Fee M.Sc./PGD/PMD courses	1500.00
	Total	30700.00

Fee payable at the time of admission (with double occupancy) Rs. 40,400.00

HOSTEL RULES

Subject the general control of the Academic Council, the following Ordinances and Regulations shall regulate the maintenance of discipline among the students residing in the Hostels. The hostel facility is normally provided all the students subject to availability.

INSTITUTE HOSTELS

1. Residence

- 1.1 Students may be admitted to the Institute Hostel, according to the criteria laid down (vide Appendix – I) for the purpose and in accordance with the accommodation available for residence.
- 1.2 The Institute hostels should be totally vacated for a period of one month preferably in June, every year to enable the administration to attend to the maintenance and other associated matters of the hostels. However, if the presence of certain research students is considered essential then they may be accommodated in one hostel.
- 1.3 Students failing to secure a seat in a hostel are required to make their own arrangement and intimate to the registry address of their residences.

For the purpose of the above Regulation the term “Guardian” shall mean the legal guardian of the student, if one has been appointed or as an alternative a near relative if any, of responsible age provided that the guardian so declared shall sign a declaration of his relationship if any, with the student and shall execute a bond indicating that he shall be responsible for the good behavior of the student.

2. Disciplinary Control

- 2.1 Every student living in a hostel (city campus) will be subject to the disciplinary control of the Registrar/Warden / Dean or any officer appointed by the Director, as the case may be. The Director shall constitute a Disciplinary Committee which will deal with all matter arising out of indiscipline and misconduct in the hostels.
- 2.2 An officer appointed by the Director shall with the cooperation of warden deal with all cases of indiscipline of students.
- 2.3 So long as the students is on the role of the Institute he/she shall be subject to the disciplinary control of the Institute authorities.

3. Rules of Residence

- 3.1 Students residing in the hostel, shall not absent themselves except under condition prescribed under regulation and shall follow the rules laid down under these regulations.
- 3.2
 - (a) A boy boarder is required to return by 9.00 p.m unless he has taken permission of the concerned warden.
 - (b) A girl boarder is required to return by 7.30 p.m (from September to February) and 8.30 p.m (from March to August) unless she has taken permission from the concerned warden.

- 3.3 No boarder shall leave the hostel or remain outside Dehra Dun when the Institute is open and course under which he has taken admission is running except with the written permission of the warden. Permission shall be given by the warden only when the student concerned has obtained leave from Course Coordinator.
- 3.4 Unless the permission of the warden has been received no boarder shall leave hostel except in an emergency. In the later case he shall inform the warden at the earliest and seek his permission.
- 3.5 Students going out on authorized tours excursion, etc, shall inform the warden in writing, stating that they have been permitted by the Course Coordinator/Dean /Director to go on such tours excursion, etc. for a specific period. The permission must be taken before they leave the hostel.

4. Extra – Curricular Activities

- 4.1 Apart from the official organizations approved by the Institute, students residing in the hostel with the permission of the Director organise Societies and Association for healthy promotion of their academic cultural, athletic and social welfare activities.
- 4.2 The Societies and Associations for promoting the academic cultural and other activities of the inmates of the hostel shall be subject to the guidance and control of the warden. On the recommendations of the warden the names of such Associations or Societies along-with their constitutions shall be forwarded to the Registrar as soon as possible for getting recognition by the Academic Council / Board of Management as the case may be.
- 4.3 For any functions in the hostel in respect of the Associations / Societies use of loudspeaker shall not be permitted.
- 4.4 Students shall not hold any meeting or organise any activity in the hostel without the written permission of the warden.
- 4.5 In all function and meeting organised in the Institute student shall maintain due decorum. Such student as are found to create disturbance or to disobey any instruction given to them shall be liable to disciplinary action as per Appendix-2

5 Accommodation of Guests

No boarder residing in hostel shall accommodate a guest in his/her room.

6 Boarder in Women's Hostel

- 6.1 Women students residing in the Women's hostel are required to return as per time given at 3.2 clause unless specially permitted by the warden.
- 6.2 Women Students residing in the Women's hostel shall be allowed to meet the visitors in the visitors room only from 5:00 p.m. to 6:30. p.m.

6.3 No Women student residing in the Women's hostel shall accommodate guests in her room.

7. **Power of Enquiry from Students**

Every Officer/Scientist and other members of the staff have the power of demanding from the students their identity card and such other information as may be desired by him/her. Students failing to provide the correct information shall be liable to disciplinary action as per Appendix-2.

8. **Penalty for Violation**

For any contravention of the Ordinances/Rules relating to discipline misconduct or moral turpitude the guilty students shall be liable to such punishment as is provided for in the rules. Punishment for any omissions or commissions or for breach of discipline or any misconduct shall be awarded in accordance with the rules mentioned in Appendix-2.

1.1 In case of serious misconduct, the name of the students shall be entered in the conduct book maintained with the warden. If the name of the student has been entered thrice in the conduct book for misconduct the student shall be liable to expulsion from the hostel under the order of the Director.

1.2 Students found guilty of misconduct in the Institute are liable to be denied hostel facility.

1.3 For act of indiscipline and or misconduct student may be fined by the warden upto a limit of Rs. 200/-.

9 **Articles Permitted/Prohibited in the room**

9.1 Every border shall be provided at least the following articles

1	Takhat/Cot	(one)
2	Mattress	(one)
3	Table	(one)
4	Chair	(one)

9.2 Use of the heater or induction by a boarder is not permitted.

9.3 Students desirous of keeping costly items may do at their own risk.

9.4 Students shall not be permitted to keep even licensed firearms, knives contraband material, etc, in the hostel room under any circumstances whatsoever. A breach of this regulation will lead to the expulsion of the student from the hostel without any enquiry.

9.5 Students shall not be permitted to use any hallucinogenic drug or alcoholic drinks. Even possession of these prohibited articles will render them to severe disciplinary action vide Appendix-2

10 Invitation to guests for inaugural and other functions

- 10.1 Students of the Institute may invite any person from outside the Institute for inaugural and other functions of the Societies, Associations, and Students function etc. after obtaining prior permission of the warden.

11 Breach of general rules of the Institute

- 11.1 Students of the Institution shall abide by the general rules of traffic, health, sanitation, messing extra curricular activities and security of property which may be announced by the Institute from time to time. Any breach on their part will render them liable to such disciplinary action as may be taken by the Institute vide Appendix-2. Wearing of helmet is compulsory in the campus.

12 Violation of general Laws of the land

- 12.1 All cases of indiscipline amounting to violation of the law of the land, shall be reported to the Registrar / Director who may after preliminary enquiry handover the student concerned to the police for instituting case in a Court of Law.

13 Saving Clause

- 13.1 Any question of discipline not covered by these rules and other rules framed by the Academic Council shall be dealt with by the Director.

Appendix – I

CATEGORY OF BOARDERS / RESIDENTS IN A INSTITUTE HOSTEL AND PERIOD OF THEIR STAY

1. Ph.D. Research Scholars
 - 1.1 Residence facility - 4 years with effect from the date of registration or till submission of thesis, whichever is earlier.

It may be extended for one year in two installments of 6 months each on recommendation of the Supervisor / Head of the Division. However no extension will be given after the submission of thesis.
2. Other bonafide Students
 - 2.1 Only such students who have joined a regular Post – graduate Degree & other courses in the Institute shall be eligible for hostel accommodation. The period of allotment though renewable every year, shall not exceed the period of the course to which a student has been admitted.
 - 2.2 Students, who have been expelled rusticated or are under suspension for various act (s) of indiscipline during the course of their studentship, shall not be considered for allotment of seats in the hostel.

- 2.3 Unauthorized occupants will be expelled from the hostel by the warden. It is equally the responsibility of the hosteller to see that no guest stays in his room. If they persist in disobeying the orders then they are likely to be subjected to severe disciplinary action including rusticated for a specified period or even expulsion from the Institute.
- 2.4 Defaulters in payment of fees will be liable for cancellation of their allotment in the hostel (vide appendix-2)
- 2.5 It shall be necessary for the boarders of the hostel to fulfill the requirement of attendance in the classes as laid down in the regulations. Boarders are liable to loose their hostel seats if they do not fulfill the attendance requirement as stated above (vide appendix -2)
- 2.6 Not withstanding the period of stay mentioned above at various level, no students of the Institute should be allowed to stay in the hostels of the Institute for a total period exceeding 7 (seven) years. Ordinarily it implies 2 years of post graduate course and maximum of 5 years of Ph.D. Programme but will depend on the duration of the courses run in the Institute.
- 2.7 No students of the Institute shall have the right to stay in the same room in the next academic session. In the beginning of each academic session fresh allotment of accommodation will be made on production of No Dues Certificate.

ATTENDANCE RULES

1. A student has to attend 75% of the lectures delivered and 75% of the practical held separately for each course in each semester.
2. The duration of Industrial attachment/dissertation/thesis works/study tour have to be accounted separately for 75% attendance.
3. The attendance of a student shall be counted from the date of his/her admission, while in the case of promoted student, attendance shall be counted from the date on which respective classes begin.

STUDENTS WELFARE ACTIVITIES

- The Institute provides basic medical facilities to its students.
- Hostel accommodation is available in the Institute. However, the admission to the Institute does not entitle a student to hostel accommodation automatically.
- The facilities for indoor games and common room/Gym are provided to the hostlers.
- Institute library facilities are available to the students.
- For hostel accommodation the students have to apply separately after taking admission in the FRI Deemed to be University.

UNIFORM

Boys

Maroon Blazer with FRI logo on the chest pocket of the Blazer (**In Winters**)

White shirt (Full sleeves)
Tie ; Brick Red with Diagonal pair of white strips and FRI Logo
Trousers : Black
Shoes: Black Leather shoes

Girls

Maroon Blazer with FRI logo on the chest pocket of the Blazer (**In Winters**)
Saree : Cream colour with Red Border of about two inches .
Blouse: Red colour with half sleeves
Shoes: cream colour bellies

ACCIDENTS DURING STUDY PERIOD

The FRI Deemed to be University does not accept any liability in case of any injury caused due to any accident during the duration of the course.

DISCIPLINARY ACTION

Non conformity or infringements of the rules and regulations in force shall render a student liable to disciplinary action which may extend to expulsion of the student from the course and forfeiture of the deposits and fee already paid by him/her.

IMPORTANT DATES

Opening date of downloading the application form from	25th Jan., 2021
Last date of submission of complete application form	16th April,2021
Date of Online Remote Proctored Admission test	16th May,2021
Date of 1st counseling	05th July, 2021
Date of 2nd counseling	08th July, 2021
Date of starting new session	12th July, 2021

❖ In case there is any change in the date of examination for some unforeseen reasons, the University will issue related notice in the website www.fridu.edu.in .