

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

- FOREST BOTANY (Systematic Botany, Wood Anatomy and Plant Physiology)
- CHEMISTRY of FOREST PRODUCT (Chemical Extracts from Trees and Forest Based Oilseeds)
- EXTENSION (Social Forestry, Extension and Agro-forestry)
- ECOLOGY, CLIMATE CHANGE AND FOREST INFLUENCE (Forest Productivity, Biodiversity, Environment and Pollution)
- FOREST ENTOMOLOGY (Control Measures and Taxonomy)
- FOREST PATHOLOGY (Forest Diseases and Biofertilizers)
- FOREST PRODUCTS (Timber Mechanics, Wood Seasoning, Wood Preservation, Composite Wood, Wood Working & Finishing, and Timber Engineering)
- FOREST SOIL and LAND RECLAMATION (Wasteland reclamation, Soil Fertility, Soil Geology and Mineralogy)

- GENETICS and TREE PROPAGATION (Genetics, Improvement, Breeding and Tissue Culture)
- NON WOOD FOREST PRODUCTS (Medicinal and Aromatic Plants, Resins and Gums)
- RESOURCE SURVEY and MANAGEMENT (Forest Mensuration and Forest Economics)
- SILVICULTURE (Experimental Silviculture, Logging and Seed Technology)
- CELLULOSE & PAPER (Paper Technology)
- FOREST BIOTECHNOLOGY
- FOREST BIO INFORMATICS
- ENVIRONMENT MANAGEMENT
- WILDLIFE MANAGEMENT
- FOREST GEOINFORMATICS
- FOREST HYDROLOGY

THE APPLICATION FORM

The Forest Research Institute Deemed to be University admission test, 2019 will be held at 12 centres in the country on **Sunday, 19th May, 2019** 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	-

Applications for admission shall be made in the prescribed form available from the Registrar, Forest Research Institute Deemed to be University, Dehra Dun. The application form and the 'Information Bulletin' can be obtained in person or by post on payment of Rs.1200/- wherever applicable through bank draft drawn in favour of Registrar, Forest Research Institute Deemed to be University payable at Dehra Dun. **Forms can also be downloaded from the website www.fridu.edu.in**

Date of sale of forms: 21st January, 2019 to 29th March, 2019

Application forms will be available from 21st January to 29th March 2019 from the counter of the office of the FRI Deemed to be University/ Union Bank of India, FRI Branch, Dehra Dun. The last date for issue of forms from the office of the FRI Deemed to be University by post is 29th March, 2019. Thereafter any request for sending the forms by post will not be entertained. *(For details of important dates please see the last page of the Information Bulletin, 2019)*

Application duly filled in legibly in applicant's own handwriting with blue/black pen should be sent so as to reach the Registrar, Forest Research Institute Deemed to be University, P.O.: I.P.E., Kaulagarh Road, Dehra Dun – 248 195 on or before the last date. The application form can also be downloaded from the website www.fridu.edu.in . The candidates filling the downloaded form must pay fee of Rs.1200/-.

The last date of receipt of completed application form: 08th April 2019.

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

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 containing centre code and roll number will be mailed to the applicant by the fourth week of April, 2019.

If the admit card is not received by 30th April, 2019, the Registrar, FRI Deemed to be University may be contacted on e-mail tripathiak@icfre.org & registrarfri@icfre.org

Please quote your Name, Fathers Name and Date of Birth in all correspondence with the Registrar, FRI Deemed to be University, P.O. I.P.E., Kaulagarh Road, Dehra Dun – 248 195.

In case a candidate has either not received the admit card or has lost it, duplicate card can be obtained from the centre superintendent of his/her examination centre. Alternatively, the candidate may reach office of the Registrar, FRI Deemed to be University, Dehra Dun on working day during working hours. Where duplicate admit card will be issued after submission of a bank draft of Rs. 50/- and a photograph identical to that pasted on the admission test form.

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	Three years bachelor's degree in science with at least one of the subjects namely Botany, Chemistry, Geology, Mathematics, Physics, Zoology or a Bachelor's degree in Agriculture or Forestry.
2	01 (B)	M.Sc. Wood Science & Technology	Three years bachelor's degree with Physics, Mathematics and Chemistry or B.Sc. degree in Forestry.
3	01 (C)	M.Sc. Environment Management	Three years bachelor's 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	Graduate 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.

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 each course for the candidates with locomotor 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 31st May, 2019. 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 candidate must submit certificate duly verified by the Ministry/Agencies to the effect that he/she has been subjected to AIDS test and found negative;
- (g) 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;
- (h) 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 Counseling 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 multicampus 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.2400/- for application forms. Similarly, for three courses the fee payable shall be Rs.3600/- 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.

- ❖ List of test centres and their codes are as follows.

<u>Test Centre</u>	<u>Code No.</u>	<u>Test Centre</u>	<u>Code No.</u>
Bangalore	1	Jodhpur	7
Chandigarh	2	Jorhat	8
Coimbatore	3	Kolkata	9
Dehradun	4	Lucknow	10
Delhi	5	Ranchi	11
Jabalpur	6	Shimla	12

Production of original certificates and mark sheet at the time of admission is an essential requirement which is not relaxable 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 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.

❖ In case there is any change in the date of examination for some unforeseen reasons, the final date will be indicated in the admit card.

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 result of the exam will be declared on the website www.fridu.edu.in. **Date of first counseling is 05th July, 2019 and date of second counseling is 08th July, 2019. 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 and Mark sheet of all the three years.
6. M.Sc. degree and Mark sheet.
7. Admission Test admit card issued from this office.
8. 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.
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) No candidate shall be allowed to appear in the Admission Test without a valid admit card issued by the office of the Registrar, FRI Deemed to be University.
- g) The **Admission Test will be held on 19th May, 2019.** Date, time and venue for test will be indicated on the admit card.

- h) In all matters relating to the Admission Test, the decision of Registrar, FRI Deemed to be University shall be final and binding.
- i) No scrutiny or revaluation of the answer book of the Admission Test shall be allowed on any grounds.
- j) 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. 1200/- for each course** and indicate the same in prescribed column of the form. 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 WRITTEN 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) The candidate will check within 5 minutes of issue of the test booklet, and ensure that it contains all the pages and no question is missing. If any discrepancy is noticed the candidate must bring it to the notice of the Superintendent/Invigilator and obtain a fresh booklet.
- c) The entries in answer sheet must be made with Black/Blue ball point pen only. The options in the answers are also to be rounded with ball point pen only.
- d) The candidate will fill in all the details in the space provided for it on the front page and affix his signature before starting to answer the questions.

- e) 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 will be printed on the answer sheet. The candidate is advised to go through the instructions.
- f) **There will be negative marking for wrong answer to the extent of one-fourth ($\frac{1}{4}$) of the marks allotted to the questions.**
- g) No page from the test booklet is to be torn or removed. If candidate is found tearing any paper from the test booklet, he/she is liable to be punished for use of unfair means.
- h) Inner cover page of the Test Booklet or the blank space/pages at the end of the Test Booklet may be used for rough work.
- i) 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.

ANSWER ALL THE QUESTIONS

1. What should be the angle between force and displacement to get the minimum work?
 - a. 0°
 - b. 90°
 - c. 45°
 - d. 180°
2. The work done by the heart is 1 joule per beat. Calculate the power of the heart, if it beats 72 times in one minute
 - a. 1.2 watt
 - b. 2.4 watt
 - c. 4.2 watt
 - d. 72 watt
3. When the wave passes from one medium to another which property of wave remain constant?
 - a. Wavelength
 - b. Velocity
 - c. Frequency
 - d. None
4. The sum of mechanical energy, for a free fall of a body, at any point is always ----
 - a. Zero
 - b. Infinite
 - c. Constant
 - d. Varies

5. 1 electron volt (eV) is -----
- 1.6×10^{-19} Joule
 - 9.1×10^{-31} Joule
 - 1.6×10^{-31} Joule
 - 9.1×10^{-19} Joule
6. One of the important properties of fuse wire is -----
- Low resistivity
 - Low melting point
 - Bad conductor of electricity
 - All of above
7. For which of the following substance, resistance decreases with increase in temperature?
- Copper
 - Mercury
 - Carbon
 - Platinum
8. The characteristics of sound which enables a person to differentiate between two sounds of same soundness and frequency but produced by two different instruments is ----
- Pitch
 - Amplitude
 - Both
 - None
9. Name the metal which is used as electron emitter -----
- Tungsten
 - Mercury
 - Copper
 - Iron
10. Which radiation produces maximum biological damages?
- Alpha
 - Beta
 - Gamma
 - None
11. Name the liquid which has highest specific heat capacity -----
- Water
 - Mercury
 - Alcohol
 - Milk
12. Which characteristic property of light is responsible for blue colour of sky?
- Dispersion
 - Refraction
 - Interference
 - Diffraction

13. Which characteristic of sound will change if there is change in its amplitude?
- Loudness
 - Pitch
 - Both
 - None
14. The electric meter in a house records -----
- Charge
 - Current
 - Energy
 - Power
15. Oleum is
- $\text{H}_2\text{S}_2\text{O}_7$
 - H_2SO_4
 - $\text{H}_2\text{S}_2\text{O}_6$
 - H_2SO_3
16. The molarity of pure water ($d=1\text{g /mL}$) is
- 55.5 M
 - 5.55 M
 - 555M
 - 0.555M
17. If the valence shell electronic structure for an element is ns^2np^5 , this element will belong to
- Alkali metal
 - Inert metal
 - Noble gas
 - Halogen
18. Which of the following is a buffer system ?
- Ammonium chloride and sodium hydroxide
 - Acetic acid and sodium acetate
 - Hydrochloric acid and sodium chloride
 - Sulphuric acid and sodium sulphate
19. Tyndall effect 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
 - Cannot be predicted
21. Which of the following is used as a catalyst in Friedel- Crafts reaction?
- a. AlCl_3 b. Anhydrous AlCl_3 c. AlBr_3 d. Anhydrous AlBr_3
22. The color of the transition metal complexes arises because of
- d-d transitions
 - s-d transitions
 - p-p transitions
 - s-p transitions
23. In β - decay
- Z and A are unchanged
 - Z decreases by 1 and A increases by 1
 - Z decreases by 2 and A decreases by 4
 - Z increases by 1 and A remains unchanged
24. Which of the following reacts with NH_4OH to form oximes?
- RCHO only
 - RCOR only
 - Both RCHO and RCOR
 - None of the above
25. Which of the following method could be used to distinguish between 1° , 2° , 3° amines?
- Hinsberg method
 - Hofmann method
 - Both of the above
 - None of the above
26. Which of the following is also known as fruit sugar?
- a. Glucose b. Fructose c. Sucrose d. Lactose
27. German silver is an alloy of
- Ag and Cu
 - Cu, Sn and Ag
 - Cu, Zn and Ni
 - Ni, Fe and Zn

28. The principal source of helium is
- Air
 - Monozite
 - Radium
 - All of the above
29. Important nutrient element S (Sulfur) is being derived from:
- Muscovite
 - Calcite
 - Gypsum
 - Quartz
30. The chemical composition of mineral Quartz is :
- CaCO_3
 - Al_2O_3
 - SiO_2
 - Fe_2O_3
31. Which is a metamorphic rock:
- Slate
 - Shale
 - Dyke
 - Conglomerate
32. A Shield area composed of geologically ancient rocks of diverse origin:
- Peninsula
 - Extra-Peninsula
 - Indo-gangetic Plain
 - All the three
33. Average altitude of Lesser Himalayan Zone is:
- 1000m
 - 2000m
 - 3000m
 - 4000m
34. Soft – bodied animals and plants came into existence during:
- Silurian
 - Ordovician
 - Cambrian
 - Pre-Cambrian
35. Asaphus is found in:
- Brachiopods
 - Trilobites
 - Crinoids
 - Bryozoa
36. Fossils are generally present in:
- Igneous rocks
 - Sedimentary rocks
 - Metamorphic rocks
 - All the three
37. Rate of weathering depends upon:
- Nature of rocks
 - Climate
 - Topography
 - All the three
38. The water between surface of earth and the water table is called as:
- Zone of saturation
 - Zone of aeration
 - Vadose
 - All the three
39. Admantine is the typical luster of:
- Quartz
 - Galena
 - Diamond
 - Topaz

40. Badland topography is a peculiar feature of weathering by:
- a. Wind
 - b. Water
 - c. Snow
 - d. None of the three
41. An example of weeds are
- a. Lantana camara
 - b. Eupatorium odoratum
 - c. Cassia tora
 - d. All of the above
42. Foot and mouth disease is caused by
- a. Picorna virus
 - b. Paramyxo virus
 - c. Anthrax bacteria
 - d. Brucella virus
43. Which is /are the exotic species?
- a. Casuarinas species
 - b. Eucalyptus species
 - c. Poplar species
 - d. All of the above
44. Transpiration is measured by
- a. Lysimeter
 - b. Tensiometer
 - c. Potometer
 - d. Auxanometer
45. The silkworm (*Bombyx mori*) feeds of leaves of which tree
- a. Mulberry (*Morus alba*)
 - b. Arjun (*Terminalia arjuna*)
 - c. Both A&B
 - d. None of the above
46. Embryo of a seed is made up of
- a. Meristematic tissue
 - b. Paraenchyma
 - c. Collenchyma
 - d. Sclerenchyma

47. Characteristic unique to DNA is
- Replication
 - Denaturation and renaturation
 - Resistance to temperature change
 - Polymer complex
48. Eukaryotic DNA synthesis is inhibited by
- ampicillin
 - chloramphenicol
 - aphidicoline
 - cyclohexamide
49. Any DNA molecule that has the ability to replicate autonomously is called
- replicon
 - genome
 - plasmid
 - chromosome
50. Noncoding DNA in eukaryotic cells may include
- introns
 - pseudogenes
 - spacer DNA
 - all
51. Skin cancer is induced by which type of DNA damage caused by exposure to harmful UV rays in sunlight?
- pyrimidine dimer formation
 - deamination
 - alkylation
 - depurination
52. Which biological characteristic is not commonly found in invasive species?
- optimal local adaptation
 - high reproductive capacity
 - broad ecological tolerance
 - well-developed dispersal mechanism
53. Law of minimum was given by
- Liebig's
 - Drawin
 - Transley
 - Shelford's

54. If individuals of genotype AaBbCc are intercrossed, how many different genotypes can occur in their progeny?
- 8
 - 64
 - 27
 - 9
55. Prabhani Kranti is a variety of:
- Tomato
 - Okra
 - Cotton
 - Brinjal
56. Gene “Dee-gee-woo-gen” is referred in:
- Rice
 - Wheat
 - Sorghum
 - Brinjal
57. Black cotton soils are deficient in
- nitrogen
 - calcium
 - potash
 - iron
58. Critical stage of irrigation for sugarcane is:
- Germination stage
 - Grand growth stage
 - Flowering stage
 - Formative stage
59. Which one of the following fertilizers is least hygroscopic?
- Urea
 - Ammonium sulphate
 - Diammonium phosphate
 - Calcium ammonium nitrate
60. Which one of the following is used as an amendment in acidic soils ?
- Lime
 - Gypsum
 - Urea
 - Ammonium sulphate

61. Which one of the following is a composite variety of maize?

- a. Arjun
- b. Kissan
- c. Ganga-2
- d. Ganga-101

62. Price elasticity of supply of food products is generally:

- a. Infinite
- b. Zero
- c. More than one
- d. Less than one

63. Bacterial leaf blight of rice is caused by:

- a. *Xanthomonas malvacearum*
- b. *Xanthomonas compestris* pv. *oryzae*
- c. *Pseudomonas rubrileans*
- d. *Erwinia zeae*

64. Piercing and sucking types of mouth parts are found in:

- a. Aphid
- b. Grasshopper
- c. House fly
- d. Beetles

65. Male sterile line is referred as:

- a. A-line
- b. B-line
- c. C-line
- d. R-line

66. Chromosome number of a trisomic individual would be:

- a. $2n+1$
- b. $2n-1$
- c. $2n+2$
- d. $2n-2$

67. Back cross, is a cross between:

- a. $F_1 \times F_1$
- b. $F_1 \times$ Dominant parent
- c. $F_1 \times$ Recessive parent
- d. $F_1 \times$ Any parent

68. Which among the following is a C₄ plant?
- Wheat
 - Rice
 - Sorghum
 - Barley
69. A non-leguminous nitrogen fixing tree is
- Pinus roxburghii*
 - Quercus leucotrichophora*
 - Alnus nepalensis*
 - Cedrus deodara*
70. *Shorea robusta* belongs to.....family
- Verbenaceae
 - Euphorbiaceae
 - Asteraceae
 - Dipterocarpaceae
71. *Cycas* is.....
- angiosperm
 - gymnosperm
 - pteridophyte
 - bryophyte
72. The tree that does not coppice at all
- Eucalyptus tereticornis*
 - Picea smithiana*
 - Salix alba*
 - Populus deltoides*
73. In India, the standard height for measuring tree diameter/girth is
- 1.35 m
 - 1.36 m
 - 1.37 m
 - 1.38 m
74. Maximum volume/ha is obtained on harvesting a crop at the age when
- CAI and MAI are equal
 - CAI is lower than MAI
 - CAI is greater than MAI
 - MAI is maximum
75. World Forestry Day is celebrated on
- 20th March
 - 21th March
 - 22th March
 - 23th March

76. The forestry crop/stand produces in the clear felling system is
- Even aged
 - Uneven aged
 - Two storeyed
 - Multi-storeyed
77. Age of a tree can be determined by
- Increment borer
 - Altimeter
 - Hypsometer
 - Abney's level
78. Elite tree is
- Genetically superior
 - Phenotypically superior
 - Straight in bole
 - Highly tolerant to salts
79. Headquarters of International Center for Research in Agroforestry (ICRAF) is
- Paris
 - Nairobi, Kenya
 - Washington, DC
 - Richmond, UK
80. Southern Montane Wet Temperate (*Shola*) forests are present in
- Western Himalaya
 - Western Ghats
 - Shivalik Hills
 - Khasi Hills
81. Which is the earliest discovered city in India
- Ayodya
 - Magadh
 - Harrapa
 - Mohenjodaro
82. Ancient university *Nalanda* is situated in which present state of India
- New Delhi
 - Bihar
 - Jharkhand
 - Chhattisgarh
83. Champaran Movement was associated with
- Quit India
 - Removal of untouchability from the country
 - Forced farming of Indigo
 - Subhash Chandra Bose

84. First railway line in India was started in the year
- 1953
 - 1853
 - 1935
 - 1835
85. Shri Aurobindo Ashram was founded in 1926 in
- Puducherry
 - Kolkatta
 - Odisha
 - Chennai
86. The Scheme of Indian Federation in the Constitution of India was borrowed from the constitution of
- UK
 - Canada
 - USA
 - Australia
87. Which of the following state don't have bicameral legislature
- Andhra Pradesh,
 - Telangana
 - Jammu-Kashmir
 - Uttarakhand
88. What is GNI in Indian economy represents
- Gross National Income
 - Gross National Investment
 - Gross National Import
 - None of the above
89. RTI is _____
- Right to Identity Card
 - Right to Information
 - Right to invest in India
 - None of the above
90. "AADHAR" is launched by the government for
- Identification of Indian citizens
 - Providing mobile phones to all
 - Issuing pass ports to its citizens
 - To identify voters

91. Who is the present Chief Election Commissioner of India
- Shri S. Y. Qureshi
 - Shri V. S. Sampath
 - Shri H. S. Bramha
 - Dr Nasim Zaidi
92. National E-Governance Plan was approved by the cabinet in the year
- 2004
 - 2006
 - 2005
 - 2007
93. Who was first president of India
- Dr Zakir Hussain
 - Dr S. Radhakrishnan
 - Dr Rajendra Prasad
 - Sri V. V. Giri
94. The name of Ganga river as it leaves Gaumukh (Gangotri glacier) is
- Bhagirathi
 - Mandakini
 - Alaknanda
 - Dhauri
95. Which is nick named as “ Electronic City of India”
- Bangaluru
 - New Delhi
 - Mumbai
 - Chennai
96. Which state is known for Sandal Wood Oil industry
- Tamil Nadu
 - Karnataka
 - Andhra Pradesh
 - Indian Parliament
97. As per 2011 census which state ranked first in overall literacy
- Uttarakhand
 - Assam
 - Kerala
 - Andhra Pradesh

98. To ensure food security for all, create a hunger free India which of the programme was launched
- Annapurna Scheme**
 - Food for Work Programme**
 - Mid-Day Meal Scheme**
 - None of the above**
99. Niti Ayog came to existence on 1st January _____
- 2016
 - 2015
 - [2014](#)
 - 2017
100. The Holy Bodhi Tree is located in
- Bihar
 - Chhattisgarh
 - Maharashtra
 - Uttar Pradesh
101. Face value of “3” in 31005660 is
- 3 crores
 - 30 lakhs
 - 3
 - 30
102. How many three-digit numbers can be formed using 3,5,0 if the digits cannot be repeated?
- 3
 - 4
 - 5
 - 6
103. If $a \times b = 0$, then
- $a \neq 0$
 - Either $a = 0$ or $b = 0$
 - $b \neq 0$
 - Neither $a = 0$ nor $b = 0$
104. The expression $6(b + c)$ is equivalent to $6b + 6c$, uses theproperty.
- Commutative
 - Closure
 - Identity
 - Distributive

105. What list value should be given to * so that the number $653*47$ is divisible by 11.
- 9
 - 6
 - 7
 - 1
106. The HCF of two numbers is 28 and their LCM is 336. If one number is 112, then the other number is....
- 64
 - 84
 - 34
 - 92
107. A pair of lines which do not intersect at any point are calledlines.
- Perpendicular
 - Concurrent
 - Parallel
 - Intersecting
108. If $a : b = c : d$, then $(ma + nc) / (mb + nd)$ is equal to
- $m : n$
 - $na : mb$
 - $a : b$
 - $md : nc$
109. Which of the following alphabets has no line of symmetry?
- O
 - B
 - Q
 - A
110. If $(p + q)/(r + s) = (t + u)/(v + w)$, express v in terms of p, q, r, s and w.
- $\{(t + u)(r + s) - (p + q)w\}/(p + q)$
 - $\{(r + s) - (p + q)w\}/(p + q)$
 - $\{(p + q) - (r + s)w\}/(p + q)$
 - $\{(t - u)(r + s) - (p - q)w\}/(p + q)$
111. In a school there are 650 students. The ratio of the boys to that of the girls is 8 : 5. How many more girls should join the school so that the ratio becomes 4 : 3?
- 25
 - 50
 - 100
 - 200

112. If $5^a = 3125$, then the value of $5^{(a-3)}$ is:

- a. 25
- b. 125
- c. 625
- d. 50

113. A bag contains 2 red, 3 green and 2 blue balls. Two balls are drawn at random. What is the probability that none of the balls drawn is blue?

- a. $\frac{7}{21}$
- b. $\frac{10}{21}$
- c. $\frac{11}{21}$
- d. $\frac{3}{7}$

114. How many terms are there in 20, 25, 30..... 140

- a. 20
- b. 25
- c. 30
- d. 8

115. What is the probability of getting a sum 9 from two throws of a dice?

- a. $\frac{1}{6}$
- b. $\frac{1}{9}$
- c. $\frac{1}{12}$
- d. $\frac{1}{15}$

116. How many terms are there in the series 5, 20, 80, 320..... 20480?

- a. 6
- b. 7
- c. 8
- d. 9

117. A father said to his son, "I was as old as you are at the present at the time of your birth". If the father's age is 38 years now, the son's age five years back was:

- a. 10
- b. 12
- c. 14
- d. 15

118. The market price of an article is Rs 50. If the percentage of discount given on the article is numerically equal to half the selling price of the article, then find the selling price.

- a. 30
- b. 35
- c. 40
- d. 42

119. A boat travels 24 km upstream in 6 hours and 20 km downstream in 4 hours. Find the speed of the water current per hour.

- a. 4.5 km
- b. 2.5 km
- c. 0.50 km
- d. 0.25 km

120. A car covers a certain distance travelling at a speed of 60 km per hour and returns to the starting point at a speed of 40 km per hour. Find the average speed for the entire journey.

- a. 45 km per hour
- b. 48 km per hour
- c. 50 km per hour
- d. 42 km per hour

121. Find value of $(49\frac{1}{2})^2$

- a. 2450.50
- b. 2450
- c. 2450.25
- d. 2450.75

122. If $x : y : z = 3 : 4 : 5$; and $x^3 + y^3 + z^3 = 1728$, then find the value of $(x - y + z)$

- a. 8
- b. 10
- c. 6
- d. 12

123. By what per cent is the sum of Rs 100 more than the sum of Rs 90.

- a. 11%
- b. $(11\frac{1}{9}\%)$
- c. $(10\frac{1}{9}\%)$
- d. 13%

124. A shopkeeper bought a cycle for Rs 1200 and sold it for Rs 1500. Find the profit (or) loss percentage.

- a. 20%
- b. 25%
- c. 30%
- d. 35%

125. Three partners shared the profit in a business in the ratio 5 : 7 : 8. They had partnered for 14 months, 8 months and 7 months respectively. What was the ratio of their investments?

- a. 10 : 12 : 18
- b. 20 : 49 : 64
- c. 6 : 9 : 11
- d. 111 : 88 : 77

126. The average of the first five multiples of 9 is:
- 25
 - 27
 - 30
 - 9
127. 3 pumps, working 8 hours a day, can empty a tank in 2 days. How many hours a day must 4 pumps work to empty the tank in 1 day?
- 10
 - 11
 - 12
 - 13
128. An error 2% in excess is made while measuring the side of a square. The percentage of error in the calculated area of the square is:
- 2%
 - 4%
 - 2.02%
 - 4.04%
129. It was Sunday on Jan 1, 2006. What was the day of the week Jan 1, 2010?
- Tuesday
 - Wednesday
 - Friday
 - Sunday
130. The length of the bridge, which a train 130 metres long and travelling at 45 km/hr can cross in 30 seconds, is:
- 240 m
 - 245 m
 - 240 km
 - 245 km
131. If a man were to sell his chair for Rs. 720, he would lose 25%. To gain 25% he should sell it for:
- Rs 1200
 - Rs 1000
 - Rs 900
 - Rs 1150
132. A boat can travel with a speed of 13 km/hr in still water. If the speed of the stream is 4 km/hr, find the time taken by the boat to go 68 km downstream.
- 4 hours
 - 4.5 hours
 - 5.5 hours
 - 1.0 hours

133. A is two years older than B who is twice as old as C. If the total of the ages of A, B and C be 27, the how old is B?
- 9
 - 10
 - 15
 - 14
134. The cube root of .000216 is:
- 0.6
 - 6.0
 - 0.06
 - 0.006
135. The least perfect square, which is divisible by each of 21, 36 and 66 is:
- 213444
 - 214344
 - 214444
 - 214434
136. How many Permutations of the letters of the word APPLE are there?
- 60
 - 80
 - 40
 - 100
137. In how many ways 4 boys and 3 girls can be seated in a row so that they are alternate.
- 288
 - 12
 - 6
 - 144
138. If $abc = 8$ and $\frac{1}{a} + \frac{1}{b} + \frac{1}{c} = \frac{3}{2}$; then find the value of $ab + bc + ac$
- 16
 - 24
 - 12
 - 20
139. A steamer can cover 'k' km by consuming 'm' liter of diesel. What would be distance 'd' in km covered by the steamer which uses 'n' liter of diesel.
- km/n
 - mn/k
 - kn/m
 - k/mn

140. In a certain month, Amar donated 8% of his monthly income to a charity and deposited 25% of the remaining in a bank. He was left with Rs 27600. Find his monthly income.
- 35000
 - 40000
 - 45000
 - 50000
141. Laxman Pai was awarded Padma Bhushan in 2018 in field of _____
- Literature & Education
 - Public Affairs
 - Painting
 - Music
142. 23rd Winter Olympics 2018 was held in _____.
- South Korea
 - Switzerland
 - Russia
 - Canada
143. The number of major languages, recognized in the Indian Union as official language or scheduled language, are _____.
- 18
 - 22
 - 24
 - 26
144. ICC Men's Emerging Cricketer of the Year 2018 was conferred to _____
- Steve Smith
 - Hasan Ali
 - Yuzvendra Chahal
 - Ben Stokes
145. _____ is a non metal that remains liquid at room temperature?
- Fluorine
 - Chlorine
 - Helium
 - Bromine
146. Oldest stock exchange in India is _____.
- Bombay stock exchange
 - Bangalore stock exchange
 - Delhi stock exchange
 - Madras stock exchange
147. The new rupee symbol ₹ was designed by _____.
- S Ravi Chandra
 - D. Udaya Kumar
 - Amit Agnihotri
 - Vijay Kumar

148. Bhabha Atomic Research Centre is situated at_____
- Kalapakkam
 - Hyderabad
 - Mumbai
 - Bangalore
149. Jallikattu is a_____.
- Folk dance
 - Indian dialect
 - Indian Art
 - Animal Sport
150. Guest of Republic day in 2018_____
- Heads of ASEAN countries
 - Heads of SAARC countries
 - Heads of OPEC countries
 - Heads of BRICS countries
151. _____is a high-performance computer system launched by Ministry of Earth Science, India recently to predict severe climate-related calamities and warnings for fishermen.
- Pawan
 - Sameer
 - Mihir
 - Marut
152. Chlorofluorocarbons (CFC) gas is used in which of the following domestic products?
- Television
 - Tube light
 - Cooking gas
 - Refrigerator
153. First woman combat officer to be commissioned in the BSF is_____.
- Tanushree Pareek
 - Punita Arora
 - Shubhangi Swaroop
 - Aastha Segal
154. _____is a digital payment platform that uses AADHAAR number.
- Paytm
 - Bhim
 - SBI Buddy
 - Mobikwik
155. The fifth schedule to the constitution of India deals with administration and control of _____:
- The Forms of Oaths or Affirmations
 - The Union list, State list and the concurrent list
 - Provisions as to disqualification on ground of defection
 - Scheduled areas and Scheduled Tribes

156. Which of the following is the country's only operational Ship submersible Ballistic Nuclear asset which can stay undetectable deep underwater for long periods?

- a. INS Vikrant
- b. INS Arihant
- c. INS Viraat
- d. INS Vishal

157. Head quarter of UNDP (United Nations Development Programme)_____.

- a. Vienna
- b. Germany
- c. New York
- d. Geneva

158. Chlorophyll is a naturally occurring chelate compound in which central metal is_____.

- a. Magnesium
- b. iron
- c. Calcium
- d. Copper

159. The theory of economic drain of India during British period was given by _____.

- a. M. K. Gandhi
- b. Dadabhai Naoroji
- c. Jawaharlal Nehru
- d. R. C. Dutt

160. Who issues Eco mark certificate?

- a. Ministry of Environment
- b. Bureau of Indian Standard
- c. Ministry of consumer affairs
- d. Ministry of commerce

161. The oldest form of composition of the Hindustani Vocal Music is_____.

- a. Thumri
- b. Ghazal
- c. Dhruwad
- d. Khayal

162. WADA stands for

- a. World Anti-Drug Agency
- b. World Anti-Doping Association
- c. World Anti-Doping Agency
- d. World Anti- Drug Association

163. Which of the following Mountain passes forms the 'tri-junction' of India,China and Myanmar?

- a. Nathu La
- b. Jelep La
- c. Bomdi La
- d. Diphu

164. Which amendment gave constitutional status to Panchayati Raj in India?
a. 73rd
b. 42nd
c. 78th
d. 56th
165. “Emotionally yours” is the tag line of _____?
a. LIC
b. Raymonds
c. Sahara
d. Big Bazar
166. World forestry day is celebrated on____?
a. 5th June
b. 15th January
c. 21st march
d. 23rd September
167. Pulitzer Prize is awarded for outstanding work in the field of _____?
a. Literature & Journalism
b. Science and Technology
c. Education
d. Public Services
168. Which of the following is NOT written by Munshi Premchand?
a. Gaban
b. Godan
c. Idgah
d. Saketa
169. VVPAT stands for-----
a. Voter Verifiable Paper Audit Trail
b. Voter Verifiable Paper Audit Trial
c. Voter Verifiable Paper Advance Test
d. Voter Verified Paper Audit Trail
170. Human Development Index is published by _____.
a. UNESCO
b. UNDP
c. UNICEF
d. IMF

Select the word closest in meaning:

171. Indispensable
a. Superfluous b. Requisite c. Surplus d. Redundant

Select the opposite:

172. Lucrative
a. Bequest b. Unprofitable c. Profitable d. Productive
173. **Mark the option with the correct spelling of the word:**
a. Commemorate b. Commemorate c. Commemorate d. None of these
174. **Mark the option with the incorrect spelling of the word:**
a. Summary b. Summery c. Summation d. None of these

Match the idioms with the most appropriate meanings:

175. Born with a silver spoon in his mouth.
a. Born very rich
b. A person who eats his meals only with his silver spoon
c. Both 'a' and 'b'
d. None of the above

176. Pick the word which means differently from the following words:

Adversity, Affliction, Blessing, Causality, Catastrophe, Mischance, Termination, End
a. Catastrophe b. Mischance c. Blessing d. End

177. Mark the most appropriate word for the given description:
Study of the evolution of man as an animal
a. Anthropology b. Angelology c. Archaeology d. Chronology

Choose the word which best fills the blank from the four options.

178. They are good at finishing _____ work on time.
a. my b. your c. his d. their

Select the meaning of the given phrases / idioms:

179. In cold blood
a. in full operation b. unintentionally c. deliberately d. aimlessly

180. Re order the given phrases to make meaningful sentences out of them:

- P. of vegetarians are
Q. shown that the
R. surveys have
S. medical bills
T. than those of non vegetarians
U. considerably lower
- a. P-Q-R-S-T-U
b. U-T-S-R-Q-P
c. R-Q-S-P-U-T
d. S-R-Q-P-U-T

181-182. Fill in the blanks:

181. _____ footprints are these?

- a. Which
- b. What
- c. Whose
- d. None of these

182. _____ you pleased to know your results? You have stood first in the state!

- a. Is
- b. Are
- c. Am
- d. None of these

183. Change the following sentences into passive voice:

Jyoti said to her mother, “ Did the sun rise in the East ?”

- a. Jyoti said to her mother Did the sun rise in the East.
- b. Jyoti asked her mother if the sun is rising from the East.
- c. Jyoti asked her mother if the sun rose in the East.
- d. None of the above.

184. Punctuate the given sentences:

when a pet dies a part yourself dies too

- a. When a pet dies, a part yourself dies too.
- b. When a pet dies a part yourself dies too.
- c. When, a pet dies, a part yourself, dies too,
- d. When a pet dies a part yourself dies too

185-186. Read the following passage and answer the question that follow:

The greatest thing this age can be proud of, is the birth of **consciousness** in men. When organized national selfishness, racial antipathy and commercial self seeking begin to display their **ugly** deformities, then comes the time for man to know that a man’s salvation is not in political organizations and extended trade relations, not in any mechanical re-arrangement of social system but in a deeper transformation of life, in the liberation of consciousness in love, in the realization of God in man.

185. ‘Consciousness’ as used here means _____.

- a. awareness
- b. perception
- c. realization
- d. all of these.

186. The opposite of ‘Ugly’ is _____

- a. obnoxious
- b. good looking
- c. beautiful
- d. both ‘b’ and ‘c’

187-190. Laws of nature are not commands but statements of acts. The use of the word ‘law’ in this **context** is rather unfortunate. It would be better to speak of **uniformities** in nature. This would do away with the elementary **fallacy** that a law implies a law giver. If a piece of matter does not obey a law of nature, it is punished. On the **contrary**, we say that the law has been incorrectly started.

197. For a business letter, arrange the following in the correct sequence

- a. Subject b. Senders address c. Body of the letter d. Salutation
- a. b-a-c-d b. b-d-c-a c. b-a-d-c d. b-c-a-d.

198. Following questions have the second sentence missing. Choose the appropriate sentence from the given options to complete it.

- a. My sister and I have never seen a house on fire before.
b. _____
c. We rushed out and saw fire blazing in the distance.

- a. We joined a large crowd of people who had gathered at the end of the street.
b. One evening when we heard fire engines rushing past my house.
c. What a terrible scene we saw that day.
d. We went out with everyone.

199. Read each of the components of the given sentence and mark the component with the grammatical errors:

- P. The government
Q. has been working
R. on this project
S. from the last 20 years

- a. P
b. Q
c. R
d. S

200. Select the meaning of the given phrases / idioms:

By leaps and bounds

- a. very fast. b. very slow c. in details d. aimlessly

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	2	.-

	Forestry, Basic Botany)		
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
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		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
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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 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 Diploma, 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
 Trouser : 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 Institute 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

Issue of application forms starts on	21st January, 2019
Last date for issue of application forms by post	25th March, 2019
Last date for issue of application forms from Institute's/ Bank counter at Dehra Dun	29th March, 2019
Last date for receiving completed application forms	08th April, 2019
Date of admission test	19th May, 2019
Date of Ist counseling	05th July, 2019
Date of IInd counseling	08th July, 2019
Date of starting new session	15th July, 2019

The FRI Deemed to be University has the right to change these dates, if required. However, the candidates will be informed in case of a change of date.