

Complimentary Copy

PROSPECTUS

(ACADEMIC SESSION 2017-18)

**FOR ADMISSION TO
POSTGRADUATE PROGRAMMES**



**Dr YASHWANT SINGH PARMAR UNIVERSITY OF
HORTICULTURE & FORESTRY
NAUNI-SOLAN (HP) -173 230**

IMPORTANT DATES

(For admission to M Sc Programme)

1.	Last date of receipt of online application	17.06.2017
2.	Last date of receipt of online application with late fee of ₹1000/-	24.06.2017
3.	Date of written test	02.07.2017
4.	Date of declaration of result	07.07.2017
5.	Last date for submission of B Sc Degree Certificate	13.07.2017
6.	Date of 1 st counselling	17.07.2017
7.	Date of 2 nd counselling	28.07.2017
8.	Date of 3 rd counselling	05.08.2017

- The candidate claiming weightage for participation in sports/ co-curricular activities shall have to upload the copies of the certificate alongwith online application.
- No document/ enclosure of the online application shall be accepted *in person*.
- The candidates applying for admission to M Sc programme can submit their degree certificate on or before 13th July, 2017 by uploading scanned copy on their login ID, otherwise they shall not be considered for appearing in the counselling.
- Only those candidates shall be considered for appearing in the 2nd/3rd counselling, who have appeared in 1st counselling.

Price:

Upto 17th June, 2017

- ➔ Cost of Online Application for General Category Candidates: ₹1500/-
- ➔ Cost of Online Application for SC/ ST/ PH Category Candidates: ₹1000/-

Upto 24th June, 2017

- ➔ Cost of Online Application for General Category Candidates: ₹2500/-
- ➔ Cost of Online Application for SC/ ST/ PH Category Candidates: ₹2000/-

(For admission to Ph D Programme)

Sr No	Particulars	Date
1.	Last date of receipt of online application	03.01.2018
2.	Last date for receipt of online application with late fee of ₹1000/-	10.01.2018
3.	Date of counseling: i) College of Horticulture ii) College of Forestry	17.01.2018 (COH) 18.01.2018 (COF)
4.	Date of notification of select/waiting list	19.01.2018
5.	Date of registration from select list	20.01.2018
6.	Date of registration from waiting list	22.01.2018

Price:

Upto 3rd Janaury, 2018

- Cost of Online Application for General Category Candidates: ₹ 1500/-
→ Cost of Online Application for SC/ ST/ PH Category Candidates: ₹ 1000/-

Upto 10th January, 2018

- Cost of Online Application for General Category Candidates: ₹ 2500/-
→ Cost of Online Application for SC/ ST/ PH Category Candidates: ₹ 2000/-

DISCLAIMER

1. The information contained in this Prospectus is of general nature for the candidates seeking admission in various Postgraduate Degree Programmes of the University. It is neither an exhaustive nor a legal document. The information contained herein is believed to be correct at the time of publication. However, the University reserves the right to make any alteration without any notice in the provisions made in the prospectus, whereupon, the University will not be responsible for any hardship or expense incurred by any student or any other person for such changes, additions, omissions or errors, no matter how they are caused.
2. Candidates are advised to refer to the Academic Regulations and other Statutory/ Administrative provisions applicable on a particular point of time on various aspects, viz., System of Education, Residence in the University Hostels, Award of Scholarships/ Stipends, Fellowships, Medals, Certificates of Merit, Conduct of the Students in the University, etc. They should also note that the provisions of the Act, Statutes and Academic Regulations or any other legal/ administrative notifications, orders, instructions and fee structure can be changed by the Competent Authority at any time without any prior notice.

Chapter-I

General Information

1.1 Historical Background

Dr. Yashwant Singh Parmar University of Horticulture and Forestry, Nauni, Solan, was established on 1st December, 1985 with the objective to promote education, research and extension education in the fields of horticulture, forestry and allied disciplines. Late Dr. Yashwant Singh Parmar, the 1st Chief Minister and the architect of Himachal Pradesh perceived the importance of Horticulture and Forestry to develop and improve the State economy which led to the establishment of this University. Its history lies in erstwhile Himachal Agricultural College, Solan, established in 1962 and affiliated to the Panjab University. It became one of the Agriculture Campuses of Himachal Pradesh University on its formation in 1970. Consequent upon the establishment of Himachal Pradesh Krishi Vishvavidyalaya in 1978, this campus became its Horticulture Complex and finally in 1985, assumed the status of a State University, being the only University in the country engaged exclusively in teaching, research and extension in horticulture and forestry.

The University is located at Nauni in Solan district of Himachal Pradesh, 13 km from Solan on Solan-Rajgarh road, at an elevation of 1300 metres above mean sea level. Solan town is situated on national highway (NH-22) and is well connected by train and bus services.

The University has three constituent colleges, out of which, two are located at the main campus Nauni, one for horticulture and the other for forestry, having 9 and 7 departments, respectively. The third College i.e., College of Horticulture & Forestry is located at Neri in Hamirpur District on Nadaun-Hamirpur state highway, about 6 Km from Hamirpur town and is well connected with bus service. The College offers three undergraduate degree programmes i.e., B Sc (Hons) Horticulture, B Sc (Hons) Forestry, B Tech Biotechnology and M Sc degree in a few disciplines of horticulture, forestry and allied disciplines. In addition, there are six Regional Research Stations, 12 Satellite Stations and five Krishi Vigyan Kendras (KVKs) situated in different zones of the State.

1.2. System of Education

The University follows the semester system of education with partially internal and external evaluation which requires continuous hard work and regularity on the part of the students in the classes throughout the semester.

The education aims at an all-round development of the student for which the University provides all necessary facilities. Emphasis is laid on the high academic standards and discipline. The University also provides facilities for different games, sports, and other co-curricular activities (literary, cultural, hobby development, etc.). These activities are looked after by the Students' Welfare Organization.

Faculty and Infrastructure

1.3.1 Faculty

The University has a faculty of 219 teachers/ scientists catering to the needs of teaching, research and extension education activities.

1.3.2 Laboratories & Research Farms

The colleges have well equipped laboratories and class rooms with state of art instruments and teaching aids. Separate laboratories for conducting undergraduate practicals are available besides postgraduate laboratories catering to latest research. Being farm University, it has a vast experimental area of about 550 hectare provided with modern facilities like polyhouses, glass houses, mist chambers, sprinklers/ drip irrigation system, precision farming etc. Besides, herbal garden and demonstration area serve as effective live tools for easy learning.

1.3.3 Satyanand Stokes Library

The University library named after Satyanand Stokes, who was pioneer in introducing delicious varieties of apple in Himachal Pradesh and heralding a Horticultural revolution and economic prosperity in the state, has the credit of being pioneer in introducing latest information technology to automate library services. It initiated the computerized operations as early as in April 1989. Its whole collection has been computerized for electronic retrieval by creating in-house databases. It has been providing access to national and international databases available on CD-ROM and its online catalogue is electronically accessible. Ours is the first SAU library in the country which has been converted into a *Wi-Fi* library in 2003-04. The scientists/ teachers and students have been given electronic access to 2000 + e-journals through CERA: Consortium for e-resources in Agriculture. Besides this 120 journals are subscribed in hard copy form. All the Ph D Theses with effect from 2000 onwards have been digitized under the ICAR Krishi Prabha Project and are available on-line. The Library is centrally located and housed in a beautiful building that offers excellent environment for study. The library has a unique collection of 66000 books in the field of Horticulture, Forestry and allied subjects. For linking the Regional Research Stations of the University with the library, the connectivity facilities have been established in all the Regional Stations of the University so that the scientist/ staff working there can access the latest information and be in a position to communicate fast through E-mail. The library offers PGS-501 course 'Library and Information Services' and PGS-502 course 'Technical Writing and Communication Skills' of 0+1 credit hours to M Sc and Ph D students.

1.3.4 Computer Centre and Information Network

The University has a separate Computer Centre which provides information technology facilities to all staff and students, besides connectivity to National Network under Agricultural Research Information System (ARIS) of ICAR. All academic departments and offices within the campus have connectivity through Local Area Network for resource sharing and exchange of information. It is on global network through Internet and E-mail facilities. In addition, each College has full-fledged 'Education Technology Cell' providing free service to all the students. There is also one Bioinformatic Sub-Centre which provides support base in bioinformatics and access to various databases and softwares in specific areas of horticulture and forestry.

1.3.5 Students Welfare Activities

The Students' Welfare Organization of the University attends to the residential requirements, sports, cultural/ co-curricular activities and medical care of the students.

1.3.5.1. Hostels

The University has 11 hostels, 5 for boys and 6 for girls and one international hostel for foreign national students. Each hostel has a common room equipped with TV, facilities for indoor games, badminton court and a big gymnasium hall. Important newspapers and magazines are also subscribed for general reading of the students. The accommodation in the hostels shall be allotted purely on the basis of merit subject to its availability.

1.3.5.2. Other Welfare Activities

The University has a placement cell for career counselling and a big playground where facilities for all outdoor games and sports exist. A newly constructed Dr L S Negi Auditorium have been added as a new facility for various students activities. The students are encouraged to participate in District, State and Inter-university competitions. The Campus has facilities of well equipped health centre, student centre, shopping centre, banks and post office.

1.4. Academic Programme

The normal duration for different Programmes:

- | | | |
|----------|---|-----------------------|
| i) M Sc | - | 4 Semesters (2-years) |
| ii) Ph D | - | 6 Semesters (3-years) |

The Academic Session comprises two semesters each of 21 weeks and two semester breaks of 5 weeks each.

1.5. Financial Assistance

1.5.1 Master's Programme

- | | | |
|---|---|-------------|
| i) University Merit Scholarship
(one in each discipline) | : | ₹ 2500/- PM |
| ii) University Stipend
(for HP domiciles not getting any financial assistance) | : | ₹ 1200/- PM |

1.5.2 Doctoral Programme

- | | | |
|---|---|-------------|
| i) University Merit Scholarship
(one in each discipline) | : | ₹ 4000/- PM |
| ii) University Stipend
(for HP domiciles not getting any financial assistance) | : | ₹ 1800/- PM |

1.5.3 ICAR/ CSIR Fellowship

Awarded on the basis of All India Competitive Examination conducted by the ICAR/ CSIR to the following programmes:

a) Master's Programme

- | | | |
|------------------------|---|--|
| ICAR Junior Fellowship | : | ₹8640/- PM + contingent grant of ₹6000/- per annum |
|------------------------|---|--|

b) Doctoral Programme

ICAR/ CSIR Senior Fellowship

i)	1 st and 2 nd year	:	₹ 12000/- PM
ii)	3 rd year	:	₹ 14000/- PM +contingent grant of ₹ 10000/- per annum

Number of other agencies such as Inspire (UGC), Aspee Foundation etc also award fellowship to postgraduate students. The applications for these fellowships are to be submitted to the awarding agencies through the concerned Dean.

1.6. Medals

Gold Medals are awarded at the University level according to the provision of Academic Regulations to a student who tops in the following programmes.

College of Forestry	College of Horticulture	College of Horticulture & Forestry
M Sc Ph D	M Sc/MBA Ph D	M Sc -

“Dr SP Dhall Memorial Gold Medal for Overall Best M Sc Student of the University”.

1.7. Certificate of Merit

The University awards Certificate of Merit to the students securing an OGPA of 8.00/10 and above.

Chapter-II

Admission Rules

2.1 Educational Programme

The Educational Programme of the University is laboratory and field oriented with the objective of imparting education in Horticulture, Forestry and its allied sciences.

2.2 Programme of Studies and Admission Capacity

The admission shall be made for the following programmes:

M Sc Programme

College of Horticulture, Solan (Nauni)	HP Quota			Open for all at National Level	ICAR Quota
	General	SC	ST		
Entomology	9	2	-	4	-
Floriculture & Landscape Architecture	4	1	1	1	3
Food Technology	5	1	-	2	2
Fruit Science	4	1	1	3	3
Molecular Biology & Biotechnology	5	1	-	2	2
Plant Pathology	6	1	1	3	4
Seed Science & Technology	4	1	-	2	3
Spices, Plantation & Medicinal & Aromatic Plants	2	-	-	1	2
Vegetable Science	4	1	1	1	3
Total	43	9	4	19	22

College of Forestry, Solan (Nauni)	HP Quota			Open for all at National Level	ICAR Quota
	General	SC	ST		
Agricultural Economics	4	1	1	1	3
Agroforestry	3	-	-	1	1
Environmental Management	3	1	-	1	-
Environmental Science	2	-	-	-	3
Forest Genetic Resources	3	-	-	1	1
Medicinal & Aromatic Plants	2	1	1	2	-
Microbiology	4	1	-	2	3
Silviculture	3	-	-	1	1
Soil Science	2	1	1	2	2
Statistics	3	-	-	2	1
Watershed Management	3	-	-	2	-
Wood Science & Technology	2	1	-	1	1
Total	31	6	3	16	16

College of Horticulture & Forestry Hamirpur (Neri)	HP Quota			Open for all at National Level
	General	SC	ST	
Agroforestry	4	-	-	1
Entomology	3	1	-	1
Food Technology	4	-	-	1
Fruit Science	2	1	1	1
Molecular Biology & Biotechnology	3	1	-	1
Plant Pathology	4	-	-	1
Silviculture	2	1	1	1
Soil Science	4	-	-	1
Vegetable Science	3	1	-	1
Total	29	5	2	9

NOTE:

- i) The candidates with three year B Sc degree programme, shall have to clear remedial courses besides normal prescribed courses.
- ii) In case, any seat remains vacant in the HP Quota, the same shall be filled up from amongst the Non-HP candidates with preference to those, who pass out from this University.
- iii) In case the candidates in either of the two categories i.e., SC/ST are not available, the seat(s) will be interchangeable.
- iv) In case the candidates in both categories i.e., SC/ST are not available, the seat(s) will be filled from general category candidates.

Ph D Programme

College of Horticulture, Solan (Nauni)	HP Quota			Open for all at National Level	ICAR Quota
	General	SC	ST		
Entomology	3	1	1	3	2
Floriculture & Landscape Architecture	3	-	-	1	1
Food Technology	3	-	-	1	1
Fruit Science	2	1	-	1	1
Molecular Biology & Biotechnology	3	-	-	1	1
Plant Pathology	2	-	1	1	2
Seed Science & Technology	2	1	-	1	1
Vegetable Science	2	1	-	1	1
Total	20	4	2	10	10

College of Forestry, Solan (Nauni)	HP Quota			Open for all at National Level	ICAR Quota
	General	SC	ST		
Agricultural Economics	1	-	-	1	1
Agroforestry	1	-	-	1	1
Environmental Science	2	-	-	1	1
Forest Genetic Resources	-	1	-	1	1
Medicinal & Aromatic Plants	2	-	1	1	1
Microbiology	1	1	-	1	1
Silviculture	1	-	-	1	1
Soil Science	1	-	-	1	1
Wood Science & Technology	1	-	-	1	1
Total	10	2	1	9	9

NOTE:

- i) The seats shown under ICAR quota shall be filled up through an all India competitive examination conducted by the ICAR.
- ii) In case, any seat remains vacant in the HP Quota, the same shall be filled up from amongst the Non-HP candidates with preference to those, who pass out from this University.
- iii) In case the candidates in either of the two categories i.e., SC/ ST are not available, the seat(s) will be interchangeable.
- iv) In case the candidates in both categories i.e., SC/ ST are not available, the seat(s) will be filled from general category candidates of HP quota.

2.3 Nomenclature of Degrees awarded**2.3.1 M Sc Programme****College of Horticulture**

1. M Sc (Horticulture) Fruit Science
2. M Sc (Horticulture) Floriculture & Landscape Architecture
3. M Sc (Ag.) Entomology
4. M Sc (Ag.) Plant Pathology
5. M Sc (Ag.) Seed Science & Technology
6. M Sc Food Technology
7. M Sc Molecular Biology & Biotechnology
8. M Sc Spices, Plantation, Medicinal & Aromatic Plants
9. M Sc Vegetable Science

College of Forestry

1. M Sc (Forestry) Agroforestry
2. M Sc (Forestry) Environmental Management
3. M Sc (Forestry) Forest Genetic Resources
4. M Sc (Forestry) Medicinal & Aromatic Plants
5. M Sc (Forestry) Silviculture
6. M Sc (Forestry) Wood Science & Technology
7. M Sc (Forestry) Watershed Management
8. M Sc (Ag.) Agricultural Economics
9. M Sc (Ag.) Soil Science
10. M Sc Environmental Science
11. M Sc Microbiology
12. M Sc Statistics

2.3.2 Ph D Programme**College of Horticulture**

1. Ph D Entomology
2. Ph D Floriculture & Landscape Architecture
3. Ph D Food Technology
4. Ph D Fruit Science
5. Ph D Molecular Biology & Biotechnology
6. Ph D Plant Pathology
7. Ph D Seed Science & Technology
8. Ph D Vegetable Science

College of Forestry

1. Ph D Agricultural Economics
2. Ph D (Forestry) Agroforestry
3. Ph D (Forestry) Forest Genetic Resources
4. Ph D (Forestry) Medicinal & Aromatic Plants
5. Ph D (Forestry) Wood Science & Technology
6. Ph D (Forestry) Silviculture
7. Ph D Environmental Science
8. Ph D Microbiology
9. Ph D Soil Science

2.4. Submission of Application Form

On-line application form can be submitted upto **17th June, 2017**. The same can also be submitted late upto **24th June, 2017** with late fee of ₹1000/-.

2.5 Written Test

The written test for admission to M Sc programme shall be conducted on 2nd July, 2017 (Sunday). The question paper carrying 100 multiple choice questions shall have three parts viz., Part-I General Knowledge (20 questions), Part-II Rural Awareness (20 questions) and Part-III Specialization (Optional-60 questions). Part-I and Part-II shall be compulsory for all and Part-III shall be attempted in accordance with the nomenclature of the qualifying degree. The result of the written test shall be declared on 7th July, 2017 on the University Website www.yspuniversity.ac.in.

2.6 Counselling

A candidate shall be required to submit a copy of the degree certificate showing marks obtained on or before 13th July, 2017 on the login ID and University will not be responsible for any postal delay or for any other reason, whatsoever. **Those candidates, who fail to supply the copy of degree certificate showing marks obtained in the degree programme shall not be allowed to participate in the counselling on 17th July, 2017.**

Admission to M Sc Programme shall be on the basis of merit of the qualifying degree plus written test i.e., on the basis of combined merit of written test plus OGPA/ percentage of marks obtained in the qualifying degree on 50:50 basis. The candidates shall attend the counselling on the scheduled date and time and have to produce all the original certificates/ testimonials. The candidate, who fails to attend the counselling, shall not be considered for admission.

The admission to Ph D programme shall be on the basis of merit of the qualifying degree.

2.7 Minimum Qualification

The minimum qualification(s) for admission to the various programmes are as under:

2.7.1 Master's Programme

B Sc Horticulture/B Sc (Hons) Horticulture/B Sc Forestry/B Sc (Hons) Forestry/ B Sc Agriculture/ B Sc (Hons) Agriculture/ B Sc with an OGPA of 6.00/10 under course credit system or with a minimum of 60% under annual system from a recognized University or degree

from a foreign University with at least 'B' grade or its equivalent recognized by the University.
The qualifications for different disciplines in order of preference shall be as under:-

- i) M Sc Horticulture (Floriculture & Landscape Architecture, Fruit Science) and M Sc Vegetable Science**
 - a) B Sc Horticulture 4-year programme
 - b) B Sc Agriculture 4-year programme
- ii) M Sc Food Technology**
 - a) B Sc/ B Tech Food Technology 4-year programme
 - b) B Sc Horticulture 4-year programme
 - c) B Sc Agriculture 4-year programme
 - d) B Sc Biotechnology 4-year programme
 - e) B Sc Home Science 4-year programme
- iii) M Sc (Ag.) Seed Science & Technology and M Sc Spices, Plantation and Medicinal & Aromatic Plants**
 - a) B Sc Horticulture 4-year programme
 - b) B Sc Forestry 4-year programme
 - c) B Sc Agriculture 4-year programme
- iv) M Sc Forestry (Agroforestry, Environmental Management, Forest Genetic Resources, Wood Science & Technology, Medicinal & Aromatic Plants, Silviculture, Watershed Management)**
 - a) B Sc Forestry 4-year programme
 - b) B Sc Agriculture 4-year programme
 - c) B Sc Horticulture 4-year programme
 - d) B Sc with 2-year Ranger Certificate course from recognized University/ College
 - e) B Sc (Pass Course) with Bio-science subjects*
- v) M Sc (Ag.) Soil Science**
 - a) B Sc Forestry 4-year programme
 - b) B Sc Horticulture 4-year programme
 - c) B Sc Agriculture 4-year programme
 - d) B Sc Pass Course with Physics/ Chemistry as one of the subject
- vi) M Sc (Ag.) Agricultural Economics**
 - a) B Sc Forestry 4-year programme
 - b) B Sc Horticulture 4-year programme
 - c) B Sc Agriculture 4-year programme
 - d) B Sc (Pass course) with Maths/ Economics/ Statistics as one of the subject
- vii) M Sc (Ag.) Entomology, Plant Pathology**
 - a) B Sc Horticulture 4-year programme
 - b) B Sc Forestry 4-year programme
 - c) B Sc Agriculture 4-year programme

- d) B Sc Biotechnology 4-year programme
- e) B Sc (Pass Course) with Bio-sciences subjects*

viii) M Sc Microbiology

- a) B Sc Horticulture/Forestry 4-year programme
- b) B Sc Agriculture 4-year programme
- c) B Sc Biotechnology 4-year programme
- d) B Sc Biotechnology/ Microbiology/ Bio-chemistry
- e) B Sc (Pass Course) with Bio-sciences subjects*

ix) M Sc Molecular Biology & Biotechnology

- a) B Sc Biotechnology 4-year programme
- b) B Sc Horticulture/ Forestry 4-year programme
- c) B Sc Agriculture 4-year programme
- d) B Sc Biotechnology/ Microbiology/ Bio-chemistry
- e) B Sc (Pass Course) with Bio-sciences subjects*

x) M Sc Environmental Science

- a) B Sc Forestry 4-year programme
- b) B Sc Horticulture 4-year programme
- c) B Sc Agriculture 4-year programme
- d) B Sc Biotechnology 4-year programme
- e) B Sc Environmental Science/ Biotechnology/ Microbiology/ Biochemistry
- f) B Sc (Pass Course) with Bio-sciences subjects*
- g) B Sc (Pass Course) with Non-medical subjects**

xi) M Sc Statistics

- a) B Sc Forestry/Horticulture 4-year programme
- b) B Sc Agriculture 4-year programme
- c) B Sc (Pass Course) with Non-medical subjects**
- d) B Sc Statistics

* **Bio-sciences - Botany, Zoology/Biotechnology and Chemistry**

** **Non-Medical - Physics, Chemistry and Mathematics**

General Conditions/Instructions for Admission

- a) The prescribed minimum marks in all the programmes shall be relaxed by 5% in the case of SC/ ST candidates and in-service nominees.
- b) The admission of inservice nominees of HP Government/ HP Government Undertakings/ ICAR will normally be limited to one seat in each discipline over and above the approved intake capacity.
- c) The candidate would be deemed to have passed the qualifying examination only after his/ her result has been formally declared by the University on or before the date of counselling and duly supported by PDC/ Result Notification issued by the Competent Authority. However, in case of the candidate passing his/ her qualifying examination from this university, the PDC/ Result Notification issued by the Registrar or a Certificate issued by the Dean of the College to the effect of having passed all the requirements for the award of degree in respect of the candidate will be accepted.
- d) The OGPA will be converted into percentage of marks on per cent basis.

- e) The candidate must bring all the original certificates at the time of counselling.
- f) No separate call letter for attending the counselling shall be sent. The candidates shall have to ascertain their eligibility before attending the counselling.
- g) Personal appearance in the counselling on scheduled date and time shall be compulsory.
- h) No TA/DA is admissible for attending the counselling.

2.7.2 Doctoral Programme

The minimum qualification for admission to Ph D degree programme in respect of different disciplines **in order of preference** shall be as under:-

Ph D (Floriculture & Landscape Architecture, Fruit Science, Vegetable Science & Seed Science & Technology)

M Sc degree in concerned discipline with research thesis submitted in partial fulfilment of the programme in the concerned discipline from a recognized University under ICAR-AU system of education with an OGPA of 6.50/10 (65% marks).

Ph D Food Technology

- (i) M Sc degree in Food Technology/ Food Science & Technology with research thesis submitted in partial fulfilment of the programme in the concerned discipline from a recognized University under ICAR-AU system of education with an OGPA of 6.50/10 (65% marks).
- (ii) M Tech degree in Food Technology holders with research thesis submitted in partial fulfilment of the programme and an OGPA of 6.50/10 (65 % marks).

Ph D (Forestry) Agroforestry, Forest Genetic Resources, Medicinal & Aromatic Plants, Silviculture, Wood Science & Technology

- (i) M Sc degree in concerned discipline with research thesis submitted in partial fulfilment of the programme in the concerned discipline from a recognized University under ICAR-AU system of education with an OGPA of 6.50/10 (65% marks).

PROVISO: For the disciplines of Forest Genetic Resources, Silviculture, Agroforestry, Wood Science & Technology, Medicinal & Aromatic Plants, Natural Resource Economics; first priority shall be given to the candidates having specialization in the same discipline. However, if any seat remains vacant in any of these disciplines, the candidates from across other disciplines within the group viz., Forest Genetic Resources, Silviculture, Agroforestry, Wood Science & Technology, Medicinal & Aromatic Plants, Plantation Technology and Watershed Management shall also be considered on merit basis.

- (ii) For Ph D (Forestry) Agroforestry, the candidates with M Sc Horticulture/ Agriculture/ Animal Science with research thesis submitted in partial fulfilment of the programme in the concerned discipline from a recognized University under ICAR-AU system of education with an OGPA of 6.50/10 (65% marks)/ candidates with AIFC diploma will also be eligible.

Ph D Soil Science

M Sc degree in Soil Science with research thesis submitted in partial fulfilment of the programme in the concerned discipline from a recognized University under ICAR-AU system

of education with an OGPA of 6.50/10 (65% marks). However, if any seat remains vacant, the candidates with M Sc (Forestry) Watershed Management shall be considered on merit basis.

Ph D Agricultural Economics

- (i) M Sc degree in Agricultural Economics/ Economics with research thesis submitted in partial fulfilment of the programme in the concerned discipline from a recognized University under ICAR-AU system with an OGPA of 6.50/10 (65% marks).
- (ii) M Phil degree in Agricultural Economics/ Economics from a recognized University under UGC system of education with 65% marks. The candidate must have also secured 65% marks at M Sc level.

Ph D Entomology

- (i) M Sc degree in Entomology/ Nematology with research thesis submitted in partial fulfilment of the programme in the concerned discipline from a recognized University under ICAR-AU system of education with an OGPA of 6.50/10 (65% marks).
- (ii) M Phil degree in Entomology/ Zoology from a recognized University under UGC system of education with 65% marks. The candidate must have also secured 65% marks at M Sc level.

Ph D Plant Pathology

- (i) M Sc degree in Plant Pathology/ Mycology & Plant Pathology with research thesis submitted in partial fulfilment of the programme in the concerned discipline from a recognized University under ICAR-AU system of education with an OGPA of 6.50/10 (65% marks).
- (ii) M Phil degree in Plant Pathology/ Botany from a recognized University under UGC system of education with 65% marks. The candidate must have obtained 65% marks at M Sc level.

Ph D Molecular Biology & Biotechnology

- (i) M Sc degree in Molecular Biology & Biotechnology/ Biotechnology with research thesis submitted in partial fulfilment of the programme in the concerned discipline from a recognized University under ICAR-AU system of education with an OGPA of 6.50/10 (65% marks).
- (ii) M Phil degree in Molecular Biology & Biotechnology/ Biotechnology from a recognized University under UGC system of education with 65% marks. The candidate must have also secured 65% marks at M Sc level.
- (iii) M Tech degree in Molecular Biology & Biotechnology holders with research thesis submitted in partial fulfilment of the programme and an OGPA of 6.50/10 (65 % marks).

Ph D Microbiology

- (i) M Sc degree in Microbiology with research thesis submitted in partial fulfilment of the programme in the concerned discipline from a recognized University under ICAR-AU system of education with an OGPA of 6.50/10 (65% marks).
- (ii) M Phil degree in Microbiology from a recognized University under UGC system of education with 65% marks. The candidate must have obtained atleast 65% marks at M Sc level.

Ph D Environmental Science

- (a) (i) M Sc (Forestry) Environmental Management or M Sc Environmental Science with thesis in partial fulfilment of the programme from recognized University under ICAR- AU system of education with an OGPA of 6.50/10 (65% marks).
(ii) M Sc Forestry/ Horticulture/ Agriculture and its allied disciplines with thesis in partial fulfilment of the programme from recognized University under ICAR-AU system of education with an OGPA of 6.50/10 (65% marks).
(iii) M Phil degree in Bio-Sciences/ Physical Sciences from a recognized University under UGC system of education with 65% marks. The candidate must have also secured 65% marks at M Sc level.
- (b) Inservice candidates with M Sc degree from ICAR/ State/ Central Institutes including Associate of IGFNA with diploma equivalent to M Sc Forestry with an OGPA of 6.50/10 (65% marks). For such candidates having atleast 3 years research/ teaching experience, the requirement of thesis in partial fulfilment at M Sc shall be relaxed.

General Conditions/Instructions for Admission

- (i) The prescribed minimum marks in all the programmes shall be relaxed by 5% in the case of SC/ ST candidates and in service nominees.
- (ii) The admission of inservice nominees of HP Government nominees/ HP Government Undertakings/ ICAR nominees will normally be limited to one seat in each discipline over and above the approved intake capacity.
- (iii) The candidate would be deemed to have passed the qualifying examination only after his/ her result has been formally declared by the University on or before the date of counselling and duly supported by PDC/ Result Notification issued by the Competent Authority. However, in case of the candidate passing his/ her qualifying examination from this university, the PDC/ Result Notification issued by the Registrar or a Certificate issued by the Head of the Department to the effect of having passed thesis *viva-voce* examination held in respect of the candidate will be accepted.
- (iv) The OGPA will be converted into percentage of marks on per cent basis.
- (v) The candidate must bring all the original certificates alongwith M Sc/ M Phil thesis and transcript of academic record in original at the time of counselling.
- (vi) No separate call letter for attending the counselling shall be sent. The candidates shall have to ascertain their eligibility before attending the counselling.
- (vii) Personal appearance in the counselling on scheduled date and time shall be compulsory.
- (viii) No TA/DA is admissible for attending the counselling.

2.8 Reservation of Seats

Admission to various Programmes shall be open to all eligible persons subject to the reservation of seats as under:-

- a) 50% of the total seats shall be reserved for the domicile/ bonafide residents of Himachal Pradesh and shall be filled up by this University in the following manner:

22.5% of the seats shall be reserved for Scheduled Caste (15%) and Scheduled Tribe (7.5%) candidates. However, the reservation for SC/ ST candidates shall be made in accordance with 100 point roster system in each college by arranging disciplines alphabetically and filling the

assigned reserved seats discipline-wise only. In case, the seat assigned to SC/ ST category cannot be filled due to non-availability of candidates, the same shall be filled from general category candidate.

- b) 25% of the total seats shall be open for all at National level and shall be filled up by this University.
- c) 25% of the total seats shall be filled up by the ICAR quota through an All India Entrance Examination conducted by the Indian Council of Agricultural Research, New Delhi.

3% of the total seats under HP quota in M Sc and Ph D programmes shall be reserved for the PH candidates having permanent disability of not less than 40% (Low vision, hearing impairment, locomotor disability or cerebral palsy), whosoever is found suitable by the admission committee, provided the candidate is otherwise fit for admission. The candidates will be required to perform field operations, activities pertaining to Horticulture/ Forestry and allied disciplines. These seats will be over and above the intake capacity and will remain vacant in case of non-availability of suitable candidates in this category.

2.9 Basis of Admission

- a) The basis of admission to M Sc Programmes shall be merit as determined by the result of the qualifying degree plus written test to be conducted by this University on 2nd July, 2017 on 50:50 basis.
- b) The basis of admission to Ph D Programmes shall be the merit of qualifying degree examination only.
- c) While determining the merit, the following percentage of marks shall be added to the result of those who have distinguished themselves in sports and games recognized by the Indian Olympic Association/Association of Indian Universities and for significant participation in NCC and co-curricular activities:-

A. Sports/ Games

- i. Sportsperson(s) who have represented India in any International Competition like Olympic games/ World Championship and obtained 1st, 2nd or 3rd position. 5%
- ii. Sportsperson(s) who have represented India in any International Competition like Olympic games/ World Championship. 4%
- iii. Sportsperson(s) who have represented the State in a National Competition and obtained 1st, 2nd or 3rd position conducted by Statutory Sports Bodies (SAI, IOA, National Sports Federation). 3%

OR

Sportsperson(s) who have represented the State School Teams in the National Sports/ Games for School conducted by the All India School Games Federation and obtained 1st, 2nd or 3rd position.

- iv. Sportsperson(s) who have represented the State in a National Competition. 2%

OR

Sportsperson(s) who have represented the State School Teams in the National Sports/ Games for School conducted by the All India School Games Federation.

- v. Sportsperson(s) who have obtained 1st, 2nd or 3rd position by representing their University in the Inter-university Competition conducted by the Inter-University Sports Board/ ICAR. 2%

OR

Sportsperson(s) who have obtained 1st, 2nd or 3rd position at the State Sports/ Games organized by the State Government.

- vi. Sportsperson(s) who have represented their University in the Inter-University tournament conducted by the Inter University Sports Board/ ICAR. 1%
- vii. Sportsperson(s) who have obtained 1st, 2nd or 3rd position at the University Level/ District Level organized by Statutory Sports body of the State. 1%

B. NCC

- i. Having “C” Certificate and participated in the National Republic Day Parade. 3%
- ii. Having “C” Certificate only or participated in the National Republic Day Parade. 2%

C. Scouting

- i. Participation in Jamboree organized by Government of India at National Level and having certificate of appreciation from the President of India. 3%
- ii. Participation in Jamboree in the State/ Government of India. 2%

D. NSS

- i. Participation in the National Integration Camp or National Mega Camp of minimum 7 days duration organized by the Government of India outside the State. 2%
- ii. Participation in National Integration Camp or National Mega Camp of minimum 7 days duration organized by the Government of India. 1%

E. Cultural Activities

- i. Participated at International Level and obtained 1st, 2nd or 3rd Position organized/sponsored by the Statutory Body of the Government of India. 5%
- ii. Participated at International Level organized/sponsored by the Statutory Body of the Government of India. 4%
- iii. Participated at National Level organized/sponsored by the Statutory Body of the Government of India and obtained 1st, 2nd or 3rd position. 3%
- iv. Participated at National Level organized/sponsored by the Statutory Body of the Government of India. 2%

- v. 1st, 2nd or 3rd Position at the Inter-University Level/ State Level/ ICAR Youth Festival organized by the Concerned State Government/Department. 2%
- vi. Participated at the State level organized by the concerned State Government Department. 1%

Provided that:

1. The above weightage can be availed of only once and only when the position obtained/ participation made is not earlier than four academic years preceding the year of admission.
 2. Only one of the above weightage, which is the most beneficial to a candidate, shall be allowed while determining relative merit.
 3. The games/ sports should have been organized by the Sports Authority of India/ Indian Olympic Association/ Inter-University Sports Board/All India School Games Federation/ State Government.
 4. All sports/ games/ cultural activities (literary activities and fine art) recognized by the Government of Himachal Pradesh will only be recognized by the Dr Y S Parmar University of Horticulture & Forestry for giving weightage in admissions to various programmes.
 5. The candidate shall have to upload the copy(copies) of the certificate alongwith online application and no certificate/ document shall be accepted in person.
- d) In case two or more candidates obtain the same percentage of marks, the candidate who is elder in age shall be considered for admission.
- e) The merit of the candidates will be determined keeping in view the reservation of various categories of seats.

2.7 Refusal of Admission

The past conduct of a candidate shall be considered while deciding his/her admission. If it is found that the candidate has been indulging in act of indiscipline or guilty of having organized unlawful demonstration or has affiliated with any political organization etc., he/she may be refused admission by the Admission Committee. Such candidates as have been rusticated/ debarred shall not be admitted during the period of disqualification.

The Vice-Chancellor reserves the right to refuse admission to any candidate whose admission in his opinion, is not in the interest of the University.

Chapter-III

Procedure of Written Test for Admission to M Sc Programme

- 3.1 The written test will be conducted at the University Main Campus, Solan (Nauni) on **2nd July, 2017 (Sunday)** from 11.00 AM to 1.00 PM.
- 3.2 Candidates are expected to take their seats 15 minutes before the commencement of the examination.
- 3.3 Candidate who does not possess the 'Admit Card' will not be allowed to enter the examination hall.
- 3.4 The duration of the examination will be two hours. Candidate who comes after 30 minutes of the commencement of the examination shall not be permitted to sit in the examination.
- 3.5 No candidate shall normally be allowed to leave the examination hall till the completion of the examination and under no circumstances within the first hour of the examination.
- 3.6 Candidates shall not be allowed to carry any material inside the examination hall.
- 3.7 Calculator, cell phone, electronic watches with facilities of calculator, slide rule, log tables, etc. are not allowed inside the examination hall.
- 3.8 The dispute relating to written test will be subject to Solan jurisdiction.
- 3.9 The candidate shall forfeit the right of selection in case of unfair means, impersonation, disturbance, mis-behaviour, non-return of question book, answer sheer, admit card, etc. The decision of the Examination Coordinator shall be final.
- 3.10 There will be a composite question paper of 100 marks of two hours duration. The question paper will have three parts. The outline of syllabus is given in Annexure-I. The total marks obtained in the written test by a candidate will be displayed on the University website.

Chapter-IV

GUIDELINES FOR ATTEMPTING THE QUESTION PAPER

4.1 The candidate will be provided with a question paper and an OMR answer sheet. The candidate will not write his/ her name or roll number at any other place on the answer sheet.

4.2 The question paper for written test will be of objective type carrying 100 marks as under:

Part-A: General Knowledge - 20 questions

Part-B: Rural Awareness - 20 questions

Part-C: Specialization (Optional) - 60 questions

Part-A and Part-B are compulsory for all, Part-C shall have the options. The candidate will choose the subject of specialization (optional) strictly in accordance with the nomenclature of qualifying degree.

Part-C shall be conducted for the following specializations and the syllabus for each subject is given as per annexure-I:

- i) Horticulture
- ii) Forestry
- iii) Agriculture
- iv) Bio-sciences:
 - a) Medical (Chemistry, Botany & Zoology)
 - b) Non-Medical (Mathematics, Physics & Chemistry)
- v) Food Technology
- vi) Home Science
- vii) Biotechnology
- viii) Microbiology
- ix) Environmental Science
- x) Biochemistry
- xi) Statistics
- xii) Economics

4.3 The candidate will opt for the optional subject for attempting Part-C strictly as per nomenclature of his/ her qualifying degree.

4.4 Each question has four responses and out of these only one is the most appropriate. The OMR answer sheet will have three sections which are numbered as per serial number of questions in the question paper. Candidate is required to fill the boxes according to serial number of question with appropriate response i.e., A, B, C or D with ball point pen.

4.5 **Scoring:** Each question carries one mark and for each correct response the candidate will get one mark. More than one answer indicated against a question will be deemed as incorrect response. Erasing, cutting or overwriting is not allowed.

4.6 The candidate should not do any rough work on the answer sheet. All rough work is to be done in question paper itself or on the plain paper attached with it.

4.7 At the end of the examination, the candidate should put back the question paper and answer sheet in the envelope and return the same to the invigilator.

OUTLINE OF THE SYLLABUS FOR WRITTEN TEST

Part-A: General Knowledge

- Current affairs related to national and international politics, sports; Achievements – Scientific inventions, various government programmes related to technology, rural development in agriculture, horticulture, forestry, health and education.
- History,1 geography, civilization, economy and culture of India and their significance in the development of agriculture, horticulture and forestry.

Part-B: Rural Awareness

- Knowledge of Panchayati Raj, Various agencies of agriculture, horticulture and forestry.
- Rural banking system in agriculture, horticulture and forestry. Role of co-operative societies in the development of agriculture and horticulture.
- Role of village level officers such as Patwari, Gram Sewak, Panchayat Secretary and Block Development Officer (BDO) in the development
- Knowledge of MGNREGA, National horticulture mission, Sarv shiksha abhiyan, adult education, non-conventional energy resources.

Part-C: Specialization (Optional)

a) Horticulture

Importance in national economy; principles of cytology and cytogenetics; Structure and function of cell organelles, elementary knowledge of photosynthesis, respiration and transpiration; Structure and functions of major biomolecules; Methods of crop improvement and breeding mechanisms in fruits, vegetables and flower crops; Use of biotechnological tools in horticultural crops; Planning, layout and establishment of orchards; Principles and methods of training and pruning, orchard floor management, irrigation, propagation and nursery management, weed management; Soil and climatic requirements, varieties and rootstocks, cultivation and nutrition of temperate, subtropical and tropical fruits and plantation crops; Importance, scope and classification of vegetable gardening; Important varieties and hybrid, Cultural practices, protected cultivation and marketing of major vegetables, tuber crops and condiments; Scope and methods of seed production of vegetable and flower crops; Cultivation of major flower crops like rose, carnation, chrysanthemum, marigold, tuberose, gladiolus, *Lilium*, orchids etc. for commercial purposes; Establishment and maintenance of lawns, ornamental trees, shrubs, climbers, hedges and annuals; Landscape gardening; Importance of postharvest technology in horticultural crops; pre-harvest factors, maturity indices, harvesting, handling, grading, postharvest treatments and storage of fruits, vegetables, cut-flowers and plantation crops; Food and its functions, composition, nutritive value and energy needs of body; Principles and methods of food preservation, food spoilage and quality control of processed products; Major insect-pest, diseases, physiological disorders and their management in fruit, vegetable and flower crops.

b) Forestry

Principles and practices of silviculture; Silviculture of Indian trees; Silvicultural systems; Plantation forestry; Nursery management; Tree seed technology; Forest mensuration; Forest management, policy and legislation; Forest engineering; World forestry systems; Agro-forestry

systems and management; Rangeland management; livestock management; Fundamentals of wildlife; Wildlife management; Forest entomology & pathology.

Forest ecology and biodiversity; Environmental science; Agro-meteorology; Dendrology; Principles and methods of tree improvement; Introductory crop & tree physiology; Principles of cytology and cytogenetics; Plant biochemistry and biotechnology.

Wood anatomy; Wood science and technology; Wood products and utilization; Logging and ergonomics; Ethnobotany; Utilization of non-timber forest products; Important resources and cultivation of medicinal & aromatic plants.

Fundamentals of soil science; Chemistry and fertility of forest soils; Principles of hydrology; Soil and water conservation; Soil survey, remote sensing & wasteland development.

Introductory economics; Principles of forest economics; Project planning and evaluation; Forest Business management; Marketing and trade of forest produce; Fundamentals of extension education; Tribiology and anthropology; Communication skills and entrepreneurship development.

c) Agriculture

Seed and seed technology, importance, types of seed and their production, processing, testing, certification and regulation. Cropping patterns and cropping systems in different agro-climate zones of the country. Package of practices for the production of important cereals, pulses, oil seeds, fibre, sugar, fruits vegetables, ornamental, species and plantation crops grown in the country. Commercial production of crops under protected cultivation. Weeds, their association with crops and control in different crops.

Soil conservation. Integrated watershed management, Rainwater harvesting, Micro and Macro irrigation, Soil physico-chemical and biological properties, problematic soils and their management. Organic manure/enriched compost, biofertilizers and integrated nutrient management, Organic farming. Soil health management.

Historical background of genetics. Physical and chemical basis of heredity. Mendelian genetics. Quantitative inheritance, linkage and crossing over. Sex linked inheritance and characters, Cytoplasmic inheritance, Chromosomal aberrations. Application of the principles of plant breeding to the improvement of major field and horticultural crops. Methods of breeding of self and cross pollinated crops. Heterosis and its exploitation. Utilization of mutation and polyploidy in breeding. Plant Biotechnology in crop improvement.

Pest and disease of field crops, fruits, vegetables, plantation crops, stored grains and other farm produce. Different means of management including pest and disease management.

Principles of agricultural economies, farm management and farm business. Agricultural extension and technology dissemination. Farm power and machinery.

d) Bio-sciences (Medical)

Chemistry

Inorganic Chemistry: Atomic structure, periodic properties, covalent bond, ionic solids, chemistry of noble gases, transition metal compounds, chemistry of Lanthanides and Actinides, co-ordination chemistry, acids and bases, metal-ligand bonding in transition metal complexes, magneto chemistry, thermodynamic and kinetic aspect of metal complexes, introductory analytical chemistry, organometallic compounds, bioinorganic chemistry, inorganic polymers and environmental pollution.

Organic Chemistry: Structure and bonding, basic concepts of organic reactions, stereochemistry of organic compounds, alkanes and cycloalkanes, alkenes and cycloalkenes, dienes and alkynes, Alk-I, Ary-I halides, Arenes and Aromaticity, polynuclear hydrocarbons,

alcohols, phenols, ethers and epoxides, aldehydes and ketones, carboxylic acids and their derivatives, organic compounds of nitrogen, halonitroarenes, organomagnesium, organozinc, organolithium compounds, spectroscopy, NMR, photochemistry, heterochemistry, heterocyclic compounds, carbohydrates, amino-acids, peptides, proteins and nucleic acids.

Physical Chemistry: Gaseous state, critical phenomena, solid state, colloidal state, chemical kinetics and catalysis theories of chemical kinetics, catalysis, indication, thermodynamics, First, Second and Third Law of thermodynamics, thermochemistry, concept of entropy, free energy and work function, partial molar properties, solid solutions, fugacity and activity, the activity coefficient, ideal solutions and Raoult's Law, colligative properties, chemical equilibria, electrochemistry, applications of conductivity measurements, electrolytic and Galvanic cells, Elementary Quantum Mechanics, statistical thermodynamics, heat capacity of solids, spectroscopy, rotational, vibrational and electronic spectrum, photochemistry, molecular structure and physical properties.

Botany

Phycology and Microbiology: General characters, classification and economic importance, life history of *Volvox*, *Oedogonium*, *diatoms*, *Vaucheriar*, *Ectocarpus* and *Olysiphonia*; Viruses and Bacteria- general account, structure, nutrition, reproduction and economic importance of Cyanobacteria: TMV, Citrus Canker, AIDS.

Mycology, Plant Pathology and Lichens: General characters, classification and economic importance and life history of *Albugo*, *Phytophthora*, *Rhizopus*, *Saccaromycetes*, *Eurotium*, *Neurospora*, *Peziza*, *Puccinia*, *Agaricus*, *Cercospora* and *Colletotrichum*. White rust, Early and Late Blight of Potato, Apple Scab, Loose smut and rust of Wheat, Red Rot of Sugarcane and general account of Lichens.

Bryophyta: Morphology, structure, reproduction and life history, distribution, classification and general account of Marchantiales, Jungermaniales, Anthocerotales, Sphagnales, Funariales and Polytrichales, economic and ecological importance.

Pteridophyta: Classification, morphology, anatomy and reproduction of Psilopsida, Lycopsida, Sphanopsida and Pteropsida. Evolution of stele, heterospory and origin of seed habit, general account of fossil Pteridophytes

Reproductive biology, Gymnosperms and Angiosperms: Characteristics of seed plants, evolution of seed habit; fossil and living seed plants; General features, classification, evolution, diversity geological time scale, fossilization and fossil Gymnosperms; morphology of vegetative and reproductive parts, anatomy of root, stem and leaf, secondary growth, reproduction and life cycle of *Pinus*, *Cycus* and *Ephedra*; Flower, significance of seed and vegetative reproduction; Origin, evolution taxonomy, , classification(Bentham and Hooker and Engler and Prantl), cytology, phytochemistry and taximetrics, families Ranunculaceae, Brassicaceae, Malvaceae, Rutaceae, Fabaceae, Apiaceae, Acanthaceae, Apocynaceae, Asclepiadaceae, Solanaceae, Lamiaceae, Chenopodiaceae, Euphorbiaceae, Liliaceae and Poaceae.

Cell biology and genetics: Structure and function of nucleus; chromosome organization; DNA, cell-division; genetic inheritance; gene expression; genetic variations; extranuclear genome; structure and functions of other organalles, the cell envelops.

Plant physiology, biochemistry and biotechnology: Basics of enzymology; plant-water relations; mineral nutrition; transport of organic substances; photosynthesis; respiration; nitrogen and lipid metabolism; growth and development; genetic engineering and basic aspects of biotechnology.

Ecology and utilization of plants: Plants and environment; morphological, anatomical and physiological responses of plants to water; population and community ecology, Ecosystems; bio-geographical regions and vegetation types of India; general account of food plants(rice,

wheat, maize, potato, sugarcane); fibres (cotton and jute); vegetable oils (groundnut, mustard and coconut); spices; medicinal plants, beverages (tea and coffee) and rubber.

Zoology

Invertebrates: General characters and comparison with chordates; protozoa; porifera; cnidaria; ctenophora; platyhelminthes, nemathelminthes; annelida; arthropoda; mollusca and echinodermata.

Chordata: Origin, general characters and classification of chordates upto orders; detailed study of *Balanoglossus*, *Herdmania*, *Amphioxus*, *Patromyzon*, *Scoliodon*, Frog, *Uromastix*, Pigeon and Rat; Functional anatomy of integumentary, skeletal, digestive, circulatory, respiratory and urino-genital nervous systems and sense organs.

Cell biology: Cell theory, diversity of cell size and shape; structure of Pro- and Eukaryotic cells; cell adhesions and junctions; ultrastructure of a typical animal cell; cellular energy transactions- role of mitochondria; membrane transport of small molecules and ionic basis of membrane excitability; cell differentiation and biology of cancer cells.

Developmental biology: Types of eggs; fertilization; cleavage; development up to gastrulation in *Amphioxus*, frog and chick; metamorphosis in frog; embryonic and extra embryonic membranes in birds and mammals; implantation, placenta in mammals; parturition and lactation.

Evolution: Brief account of Zoo- geographical regions; fossil types and their formation; types of evolution- parallel, convergent and divergent; sources and nature of variations; natural selection; isolatory mechanisms and their role in evolution; adaptations and adaptive radiations.

Biochemistry: Elementary idea of analytical and separation techniques; chemical nature of protoplasm; enzymes and co-enzymes; nature and function of co-enzyme A, Q, NAD, NADP, FMM and FAD; high energy compounds; intermediary metabolism- carbohydrates, lipids and proteins; migration of fishes and birds; Mesozoic reptiles; origin and flight mechanism of birds; poison apparatus of snakes.

Mammalian physiology: Nutrition, digestion and absorption; blood; heart; respiration; excretion; muscles; nervous; endocrines and reproductive system.

Environmental biology: Medical zoology- Arthropods as vectors of human diseases (malaria, filariasis and plague); brief account of diseases caused by pathogenic protozoa and helminthes; epidemic diseases such as typhoid, cholera and small pox, their occurrence and eradication programme; human defence mechanism, antigens and antibodies, lymphoid tissue, allergies and AIDS; genetics- cloning and genetic engineering; environmental biology- concept of ecosystem and introduction to laws of limiting factors, energy flow of ecosystem, food chain, environmental pollution and green house effect; toxicity-classification of toxicants, toxic agents and their mode of action; brief account of apiculture, sericulture, lac-culture and pisciculture; important wild life sanctuaries, national parks and reserves.

e) Non-medical

Mathematics

Number System, Complex Numbers, Set Theory, Matrices and Determinants & their applications, Solution of Quadratic, Cubic and Biquadratic Equations, Trigonometry, Functions, Limits and Continuity, Differential Calculus, Partial Differentiation, Applications of Derivatives, Ordinary Differential Equations, Partial Differential Equations, Power Series, Indefinite and Definite Integrals, Improper Integrals, Vectors, Plane and Solid Geometry, Convergence and Divergence of Sequences and Series, Metric Spaces, Riemann Integration, Groups, Rings, Fields, Vector Spaces, Linear Transformations, inner Product Spaces,

Measures of Central Tendency and Dispersion, Elementary idea of Probability, Simple application of Numerical Analysis.

Physics

Basic ideas of statistical physics, Entropy and laws of thermodynamics, statistical interpretation of entropy. Maxwell's thermodynamics. Curl of a vector field. Electric potential, electric current and fields of moving charges. Magnetic field and electrostatic fields in matter. Introductory quantum mechanics, Quantum theory of hydrogen atom. Atom with one electron. Atom with many electrons. Molecules. Geometrical optics. Nature of Light. Interference of light. Diffraction. Polarization. Double diffraction and optical rotation. Laser. Spread sheet. Crystal structure. Crystal diffraction and reciprocal lattice. Crystal bonding. Lattice vibration. Free electron theory of metals. Band theory of solids. Nano-science. Super conductivity. Junction diodes. Crystal diode rectifiers and filters. Bipolar junction transistors and amplifiers and amplifiers. Feed back in amplifiers. Small signal amplifiers. Oscillators. Modulation and demodulation. Radio communication. Digital fundamentals. General properties of nuclei. Nuclear models. Radioactivity. Alpha, beta and gamma rays spectra. Nuclear reactions. Interaction of nuclear radiation with matter. Particle accelerators. Cosmic rays and elementary particles. Radiation detector.

Chemistry

Inorganic Chemistry: Atomic structure, periodic properties, covalent bond, ionic solids, chemistry of noble gases, transition metal compounds, chemistry of Lanthanides and Actinides, co-ordination chemistry, acids and bases, metal-ligand bonding in transition metal complexes, magneto chemistry, thermodynamic and kinetic aspect of metal complexes, introductory analytical chemistry, organo-metallic compounds, bioinorganic chemistry, inorganic polymers and environmental pollution.

Organic Chemistry: Structure and bonding, basic concepts of organic reactions, stereochemistry of organic compounds, alkanes and cyclo-alkanes, alkenes and cyclo-alkenes, dienes and alkynes, Alkyl, Aryl halides, Arenes and Aromaticity, polynuclear hydrocarbons, alcohols, phenols, ethers and epoxides, aldehydes and ketones, carboxylic acids and their derivatives, organic compounds of nitrogen, halo-nitroarenes, organo-magnesium, organo-zinc, organo-lithium compounds, spectroscopy, NMR, photochemistry, hetero-chemistry, heterocyclic compounds, carbohydrates, amino-acids, peptides, proteins and nucleic acids.

Physical Chemistry: Gaseous state, critical phenomena, solid state, colloidal state, chemical kinetics and catalysis theories of chemical kinetics, catalysis, indication, thermodynamics, First, Second and Third Law of thermodynamics, thermo-chemistry, concept of entropy, free energy and work function, partial molar properties, solid solutions, fugacity and activity, the activity coefficient, ideal solutions and Raoult's Law, colligative properties, chemical equilibria, electrochemistry, applications of conductivity measurements, electrolytic and Galvanic cells, Elementary Quantum Mechanics, statistical thermodynamics, heat capacity of solids, spectroscopy, rotational, vibrational and electronic spectrum, photochemistry, molecular structure and physical properties.

f) Food Technology

Composition and nutritive quality of food, physical properties of food, physico-chemical changes in food during processing and storage, functions of food nutrients, dietary allowances and nutritional requirements, food additives, types of containers, hermetic closures, contaminants and anti-nutritional factors; enzymes used in processing; causes of spoilage of food, role of intrinsic and extrinsic properties of food in relation to microbial growth,

microbiology of food products; history and current status of food preservation, postharvest handling, transportation and marketing of food products, packaging, functions of packaging, packaging operations, packaging materials and package testing; storage of fresh food, principles and methods of food preservation-by heat, chemicals, mode of action of preservatives, low temperature, drying, irradiation, fermentation: preparation and manufacturing technology of cereals and bakery products, meat, fish egg, dairy products, processed fruits and vegetables, fats and oils, fermented foods, alcoholic and non-alcoholic beverages, engineering properties of food materials, mass and energy balance; principal operations and equipment for food materials-flow handling, cleaning, dehusking, sorting and grading, peeling, size reduction, mixing and forming, extrusion, separation, filtration and membrane processes, baking, roasting, frying, extraction and leaching, crystallization, distillation, blanching, pasteurization, sterilization, evaporation, packing, heat exchanging, dairy specific operations, process equipment design, heat and mass transfer, equipment for steam generation, compressed air, refrigeration and air conditioning, biochemical engineering, food plant layout and design, waste management, effluent treatment and environment pollution, waste solids upgrading and treatment, pesticide residues, heavy metals, adulterants, malpractices in food industry: quality assurance in food industry, food safety aspects, food pathogens and their toxins, food hygiene and safety regulations, food standards and regulations- FISSAL, ISO, HACCP, BIS and emerging technologies in food processing.

g) Home Science

Elements of Human Nutrition; Food groups, composition and nutritive value of foods; food processing and preservation; meal planning for different age and stage of life; normal and therapeutic nutrition, diet therapy; institutional food management; community nutrition and health; food borne disease; food related laws, policy and programmes in India; Organic and genetically modified foods; food adulteration and food analysis. Human Development: Meaning, concept, principles, prenatal development (conception to child birth); care of new born, prenatal and post natal care of mother; development of child in early and late childhood; childhood education, adolescence, development and relationship with peers & family, marriage and family dynamics: meaning, definition of family life cycle; family welfare programmes-recent approaches, community education, child studies methods, participation in pre-school/ creche. Concept and principles of management; management process; work, work environment and simplification; fundamentals and principles of house design, organization of rooms & home furnishing. Selection, care and maintenance of household equipments (Furniture, paintings and other accessories); family finance/ economics and consumer education; management of human resources, classification and basic characteristics of resources. Introduction to clothing construction-sewing machine its parts and use; preparation of fabric for lay out textile fibre-classification; textile design: principles and concepts; processing/manufacturing method; clothing need of family members; household textile and consumers; weaving and hosiery; traditional textiles and embroideries of India; care of clothing and textile finishes; dying & printing; organic dyes; fashion design; fashion cycle and business merchandise; laundry agents: methods and equipments. Introduction to Home Science Education communication and extension methods; programme planning & evaluation; projected and non-projected aids (audio-visual aids); rural development programmes in India; Empowerment of women; self-employment and entrepreneurial education.

h) Biotechnology

Characteristics of prokaryotic and eukaryotic organisms, differences between fungi, bacteria, mycoplasmas and viruses; Bright field Microscopy and specimen preparation, fixation, dyes. Simple staining and differential staining, prokaryotic cell structure, type of culture media and pure culture techniques, microbial growth general principles of bacterial genetics and DNA as genetic material. Importance of Biochemistry in Agriculture; Acid-base concept, buffer and pH; Classification, structure and metabolic functions of carbohydrates, lipids and proteins; Enzymes: structure, nomenclature, mechanism of action; vitamins and minerals as coenzymes and cofactors; Physical and chemical basis of heredity, chromosome structure; Structure and function of nucleic acids, DNA replication, operon concept, transcription, genetic code, translation; Genetic engineering, restriction enzymes, vectors, gene cloning, gene transfer; Plant cell and tissue culture; micro-propagation, somaclonal variation, Genetic transformation, recombination; Molecular and immunological techniques; Concept of bioinformatics, genomics and proteomics; General application of biotechnology; Metabolic pathways, glycolysis, TCA cycle, fatty acid oxidation and biosynthesis; Electron transport chain, ATP formation; Photosynthesis, non-cycle photophosphorylation, significance of C-3, C-4 and CAM pathways, photorespiration and its implication. Plant nutrients and their functions; Phyto-hormones and their physiological role. Colorimetric and chromatographic techniques.

i) Microbiology

History and development of Microbiology, Broad Classification of microorganisms and their place in living world, Distinguishing feature of major groups of microorganisms: bacteria, fungi and virus. Microscope: Light microscope, Electron microscope, Microscopy: bright field microscopy, dark field microscopy, fluorescent microscopy, phase contrast microscopy, Electron microscopy. Prokaryotic cell structure and function, size, shape, capsule, cell wall, cell membrane, cell organelles. Cultivation of bacteria. Growth of bacteria, different type of media and nutrition, estimation. Pure culture technique and cultural characteristics. Reproduction of microorganisms. General properties of virus and bacteriophages. General principles of bacterial genetics, DNA as genetic material, Transformation, Transduction, Conjugation, General concept of mutation and mutagens, Mendel's law of inheritance, Intermicrobial and intramicrobial association: Symbiosis and antibiosis.

j) Environmental Science

History and scope of environmental science, importance of environmental science, global environmental problems, environmental issues in India, environmental ethics; Man-environment relationships; Principles of ecology, ecosystem concept, biotic and abiotic components of ecosystem, ecological pyramids, food chain, food web, and tropic levels, ecological niches, flow of energy in an ecosystem; Major ecosystems of the world; Biogeochemical cycles; Natural resources: concepts, types and conservation; Environmental components: structure and composition of the atmosphere, hydrosphere, biosphere and lithosphere; Biodiversity: concept, origin, values, measurement, threats and conservation; Wildlife and forest management; Agro-forestry and social forestry; Environmental pollution-sources, types, effects, control, sampling, measurements, and quality standards; Human population dynamics; Environmental Impact Assessment (EIA) and environmental economics; Waste: types, sources and management; Disaster and their management; Survey, photography, mapping and interpretation, principles of remote sensing and GIS; Collection, tabulation, classification and statistical analysis of data; Environmental legislations; Agencies, conventions, declarations and peoples' movement related to environment and climate change.

k) Biochemistry

Definition, importance in agriculture. **Acid Base Concept-** buffer, pH
Carbohydrates- Definition, Classification, Structures, function, physical and chemical properties.
Lipids- Definition, Classification, Structures of important fatty acids and triglycerides, Physical properties, Acid Value, saponification value, iodine value. Phospholipids- Types and importance. Structure of Cholesterol. **Amino Acids-** Classification, Structure of essential amino acids. Properties and reactions of amino acids, acid base behavior, reaction with Ninhydrin, Sanger's reaction, peptides. **Proteins-** Classification on basis of solubility of function, Structure of proteins- primary, secondary, tertiary and quaternary. **Enzymes-** Definition, cofactor, Classification, specificity. Mechanism of action, factors effecting rate of enzyme catalyzed reaction, isoenzymes. **Vitamins-** their biochemical role. **Carbohydrate Metabolism-** Glycolysis under aerobic and anaerobic conditions, ATP yield. TCA Cycle- Reactions and ATP yield. **Lipid Metabolism-** Oxidation and Biosynthesis of fatty acids. **Protein Metabolism-** Proteolytic enzymes, Transamination and deamination reaction. **Respiration:** Electron Transport chain and oxidative phosphorylation, Bioenergetics of glucose and fatty acids. **Photosynthesis-** Structure and function of chlorophyll and carotenoids, Noncyclic-Photophosphorylation, Cyclic Photophosphorylation, Calvin cycle, Photorespiration and its implication. **Biological Nitrogen Fixation,** Nitrogenase, ammonia assimilation and transport in ureides and amide plants, role of leghaemoglobin. **Nucleic acids-** Components, Differences between DNA and RNA, Types of RNAs, DNA structure Watson and Crick model, A and Z-DNA, DNA Replication, Transcription, Genetic Code, Translation. **Recombinant DNA Technology-** Definition, Restriction endo-nucleases, gene amplification through PCR, Vectors, Integration of DNA insert into vector and expression.

l) Statistics

Measurement of central tendency and dispersion. Moments, Skewness and kurtosis, Bi-variate data. Scatter diagram, linear correlation, rank correlation, partial and multiple correlation. Linear and non linear regression. Multiple linear regression. Properties of good estimator. Methods of estimation. Point and interval estimates. Test of significance – t, F and Chi-square test. Large sample test. Non – parametric test. Sign, run, median, Wilcoxon U test. Probability. Rules of addition and multiplication, Random variable discrete and continuous. Joint probability mass function. Expectation. Probability distributions. Binomial, Poisson and Normal distributions. Elementary idea of sampling. Simple random sampling, stratified and systematic sampling. Analysis of variance – one way and two way classification. Principles of design, latin square design and simple factorial experiments.

m) Economics

Theory of demand, firm, market and distribution. Price and output determination under perfect competition, monopoly and monopolistic competition. Theories of wage, interest, rent and profit. Basic features, problems of economy and planning in India. Problem of poverty, inequalities, unemployment in India. New economic reforms
Concepts of General Equilibrium, linear models, welfare economics. National Income, classical and Keynesian approach. Theories of consumption and investment functions. Accelerator principle, money concepts, role and kind of finance, components of financial system, financial intermediaries, theories of money demand and measures of money supply, commercial banks, central bank, cooperative banking, capital market, monetary policies, Inflation:- meaning, causes, consequences and control measure.

Comparative advantage theory, concept and components of exchange rates and balance of payment

Development problems and policies. Capital accumulation, characteristics and issues of employment and unemployment, green revolution, economic liberalization, agricultural and industrial policy in India. Public finance, main features of Indian economy. A broad review of role of technology, institutions, ownership forms, land reforms, irrigation, credit, critical inputs, and price policy on the growth of Indian agriculture. Industry and Foreign trade. Problems and instruments of mobilisation of internal and external resources in various sectors of the economy. Types of economic systems. Fiscal functions in an economy, Government budgeting, public receipts and borrowings. Major features of structural changes, comparative study of historical pattern of development, emergence of regional groupings

Functions, matrices, derivatives, integration, univariate, bivariate frequency distribution. Sampling theory, index numbers, time series analysis, linear and exponential growth curves

Chapter-V
COUNSELLING

5.1 M Sc Programme

The result of the written test conducted by the University shall be declared on **7th July, 2017**. No separate intimation will be sent and, as such, the candidates are required to attend the counselling on **17th July, 2017** at 10.00 AM in the College of Horticulture.

Candidates found indulging in impersonation will be debarred from counselling and shall be dealt as per law. Candidates reporting late shall be considered for the vacant seats, if available, at that point of time and their turn for choice shall come after the candidates already sent for personal appearance. The candidate despite marking attendance does not present himself/ herself for personal appearance before the committee shall be considered as unwilling for counselling, however, he/ she shall be eligible for next counselling. If a candidate fails to attend the counselling, he/ she shall not be eligible for next counselling.

The admissions for all available seats category-wise shall be made by the counselling committee on **17th July, 2017** according to (a) order of preference as per prescribed minimum qualification, (b) merit drawn on the basis of (i) percentage of marks obtained in the written test (ii) percentage of marks obtained in B Sc degree and (iii) weightage, for participation in sports/ co-curricular activities, if any. The seats in each discipline have been assigned to general category, SC category and ST category in accordance with the 100 point roster and shall be filled accordingly. In case, the candidate belonging to SC category/ ST category is not available, the said reserved seat shall be allotted to candidate belonging to general category in accordance with his/her merit.

The candidates shall be required to bring with them the following documents in ORIGINAL alongwith a set of attested copies of all the original certificates for verification failing which they shall not be allowed to participate in the counselling:-

1. 10th certificate
2. 10+2 level certificate
3. B Sc degree certificate
4. Character certificate from the Institution last attended
5. Sports/ co-curricular activities certificate (if applicable)
6. SC/ ST category certificate (if applicable)
7. Physical disability certificate issued from a duly constituted and authorized medical board (if applicable)

Under no circumstances candidates without original certificates shall be allowed to participate in the counselling. If a candidate fails to deposit the counselling fee on the day of counselling, his/ her candidature will be cancelled and seat shall be allotted to the next candidate on merit, in the respective category.

5.2. Ph D Programme

No separate intimation will be sent and, as such, the candidates are required to attend the Counselling on scheduled date in the main campus of the University.

The counselling for all the available seats shall be made (a) order of preference as per prescribed minimum qualification, (b) merit drawn on the basis of (i) percentage of marks

obtained in the written test (ii) percentage of marks obtained in B Sc degree and (iii) weightage, for participation in sports/ co-curricular activities, if any. category-wise shall be made by the counselling committee on 17th January, 2018 in the College of Horticulture and on 18th January, 2018 in the College of Forestry in accordance with the merit drawn on the basis of (i) percentage of marks obtained in M Sc degree and (ii) weightage for participation in sports/ games/ co-curricular activities, if any. The seats in each discipline have been assigned to general category, SC category and ST category in accordance with the 100 point roster and shall be filled accordingly. In case, the candidate belonging to SC category/ ST category is not available, the said reserved seat shall be allotted to candidate belonging to general category in accordance with his/her merit.

The candidates are required to bring with them the following documents in ORIGINAL alongwith a set of attested copies of all the original certificates for verification failing which they shall not be allowed to participate in the counselling:-

1. 10th certificate
2. 10+2 level certificate
3. B Sc degree certificate & Transcript of academic record
4. M Sc degree certificate & Transcript of academic record
5. Copy of M Sc Thesis
6. Character certificate from the Institution last attended
7. Certificate for participation in sports/ co-curricular activities already uploaded
8. SC/ ST certificate (if Applicable)
9. Physical disability certificate issued from a duly constituted and authorized medical board (if applicable)

Under no circumstances candidates without original certificates shall be allowed to participate in the counselling. If a candidate fails to deposit the counselling fee on the day of counselling, his/ her candidature will be cancelled and seat shall be allotted to the next candidate on merit, in the respective category.

The select list and waiting list discipline-wise shall be notified on 2nd January, 2017. The candidates from select list shall be required to deposit fee and get themselves registered on 4th or 5th January, 2017 failing which the seat shall be offered to the next candidates placed on the waiting list on 6th January, 2017.

5.4 Migration Certificate

Each admitted student is to submit migration certificate within one year of admission, failing which his/ her admission shall be cancelled.

5.5 Advisement and Registration

5.5.1 Advisement

Newly admitted students shall present themselves to the Dean of the College on the day notified by the Registrar for advisement. Newly admitted students shall be assigned to Staff Advisors by the Dean of the College.

The advisor shall help the student(s) in planning the programme of his/her studies and the choice of courses. The advisor shall also guide the students in determining the credit load which he/she can carry in each semester and shall advise him/her regarding adding/withdrawing of the course(s) during a semester. Each advisor shall maintain a close contact with his/her advisee(s) and keep them abreast of their progress.

5.5.2 Registration

Registration of selected candidates and continuing students shall be completed on the date notified by the Registrar in the Academic Calendar. The process of registration is as under:-

- i) Medical check-up of fresh students
- ii) Meeting with Advisor, enrolment of students in different courses by concerned teacher
- iii) Payment of fee and other dues in office of the Dean of the College.
- iv) Depositing registration cards duly filled in by the student and signed by the Advisor and teacher, in the Dean's office.
- v) Meeting with the SWO/ Hostel Warden for allotment of room.

5.6. Details of Fee

Sr No	Particulars	Fee (₹)	Remarks
1.	Admission fee	5000	At the time of admission
2.	Registration fee	3000	Annual
3.	Tuition fee (exempted in case of girls belonging to HP-BPL families)	25000	Semester-wise
4.	Continuation fee	1500	Semester-wise from 2 nd Semester
5.	Change of course fee	300	At the time of change of course
6.	Late admission/ registration	1000	Per day
7.	Re-registration fee	2000	At the time of re-admission
8.	Sports, games and youth welfare activity	1000	Semester-wise
9.	Examination fee	3000	Semester-wise
10.	Comprehensive examination fee (Ph D Programme Only)	5000	At the time of comprehensive examination
11.	→ Thesis fee (M Sc Programme)	2500	At the time of submission/ re-submission of thesis
	→ Thesis fee (Ph D Programme)	5000	At the time of submission/ re-submission of thesis
12.	Infra-structure development/ maintenance fund	1500	Semester-wise
13.	Placement guidance Fee	50	Semester-wise
14.	Identity card fee	100	At the time of admission
15.	Library card fee	100	Annual
16.	Library service charges	500	Semester-wise
17.	College security (Refundable)	500	At the time of admission
18.	Library security (Refundable)	500	At the time of admission
19.	Amalgamated fund	1000	Semester-wise

20.	Medical charges	500	Semester-wise
21.	CSA	150	Semester-wise
22.	Bus fare:		
	→ Non-hostellers (Except day scholars staying at nearby Nauni)	1200	semester-wise
	→ Hostellers & day scholars staying at nearby Nauni	700	semester-wise
Hostellers Only			
23.	Room rent (Exempted in case of SC/ST students):		
	→ Sharing accommodation	1000	Semester-wise
	→ Cubical	2000	Semester-wise
24.	Hostel security (refundable)	300	At the time of admission
25.	Mess security (adjusted in the last bill)	2000	At the time of admission
26.	Water charges	100	Semester-wise
27.	Mess service charges	1500	Semester-wise
28.	Maintenance charges	1000	Semester-wise
29.	Utensil & crockery charges	200	Semester-wise
30.	Common room charges	200	Semester-wise
31.	Electricity charges	1200	Semester-wise

Note:

- In case, two siblings of same parents are admitted to same or different Academic Programme of the University, fee concession @ 50% of tuition fee will be given to younger one.
- No fee except food charges shall be paid by the students admitted under PH category.
- All the securities must be claimed within one year of leaving the University, failing which the same shall stand forfeited.
- The above fee structure is liable to be changed at any time without any notice to this effect.

Approximate fee (in ₹) at the time of admission

	Fee	College Security	Bus Fare	Hostel Charges	Hostel Security	Total
Non-Hosteller	40900	1000	1200	-	-	43100
Hosteller	40900	1000	700	4900	2300	49800

Refund/adjustment of fee for M Sc programmes:-

Sr No	Situation	Refund/Adjustment
1.	On request received by the Registrar before 2 nd Counselling i.e., upto 27.07. 2017	Entire fee less by ₹1000/- i.e., processing charges
2.	On request received by the Registrar after 2 nd Counselling and before 3 rd Counselling i.e., from 29.07. 2017 to 04.08.2017	Entire fee less by ₹8300/- + ₹1000/- = ₹9300/- i.e., one month proportionate fee + processing charges
3.	On request received by the Registrar after 3 rd Counselling i.e., after 05.08. 2017	Only security deposits will be refunded.
4.	If a student shifts from one discipline to another discipline within the University.	Processing fee of ₹1000/- shall be charged.

Club Fee

The University would provide matching grant out of amalgamated fund on the formation of the clubs such as badminton, table tennis, music, cultural and literary, dramatics and any other club recognized by the University.

Fee for various types of certificates

1.	Degree Charges	₹1500
2.	Provisional Degree Certificate	₹300
3.	Transcript of Academic Record	₹300
4.	Duplicate Provisional Degree Certificate	₹1000
5.	Duplicate Transcript of Academic Record	₹1000
6.	Duplicate Semester Report	₹100
7.	Inter-University Migration Certificate	₹1000
8.	Duplicate Degree Certificate	₹3000
9.	Duplicate Migration Certificate	₹2000
10.	Transfer Certificate	₹200
11.	Personality development fee (payable only in 3 rd Semester)	₹500
12.	Fine for absence per lecture	₹50
13.	Fine for absence per day	₹250

Chapter-VI

INSTRUCTIONS/ REGULATIONS REGARDING RAGGING

6.1 Ragging

Ragging in any form is strictly banned and is a cognizable offence as per the directions of Hon'ble Supreme Court. If any incident of ragging comes to the notice of the authority, the authority would take stern action including expulsion from the Institution as per Academic Regulations. At the time of Admission, every student and his/ her parents shall be required to sign a declaration in the format as per annexure-II that on admission he/she submits himself/ herself to the several authorities of the University who may be vested with the powers to exercise discipline under the Act, Statutes and the Academic Regulations that have been framed thereunder by the University.

6.2 Preamble

Any conduct by any student or students whether by words spoken or written or by an act which has the effect of teasing, treating or handling with rudeness a fresher or any other student, or indulging in rowdy or in-discipline activities by any student or students which causes or is likely to cause annoyance, hardship or psychological harm or to raise fear of apprehension thereof in any fresher or any other student or asking any student to do any act which such student will not in the ordinary course do and which has the effect of causing or generating a sense of shame, or torment to embarrassment so as to adversely affect the physique or psyche of such fresher or any student, with or without an intent to derive a sadistic pleasure or showing off power, authority or superiority by a student over any fresher or any other student, in the University. Therefore, to provide conducive and healthy environment for proper physical and psychological development of all students, the Dr. Yashwant Singh Parmar University of Horticulture and Forestry in accordance with the UGC guidelines and the Himachal Pradesh Educational Institutions (Prohibition of Ragging) Act, 2009, brings forth the Regulations to curb the menace of ragging.

6.3 Ragging includes the following acts:

- i) any conduct by any student or students whether by words spoken or written or by an act which has the effect of teasing, treating or handling with rudeness any fresher or any other student.
- ii) indulging in rowdy or in-disciplined activities by any student or students which causes or is likely to cause annoyance, hardship or psychological harm or to raise fear or apprehension thereof in any fresher or any other student.
- iii) asking any student to do any act or perform something which such student will not in the ordinary course do and which has the effect of causing or generating a sense of shame or torment or embarrassment so as to adversely affect the physique or psyche of a fresher or any other student.
- iv) any act by a senior student that prevents, disrupts or disturbs the regular academic activity of any other student or a fresher.
- v) exploiting the services of a fresher or any other student for completing the academic tasks assigned to an individual or a group of students.
- vi) any act of financial extortion or forceful expenditure burden put on a fresher or any other student by students.

- vii) any act of physical abuse including all variants of it; sexual abuse, homosexual assaults, stripping, forcing obscene and lewd acts, gestures, causing bodily harm or any other danger to health of a person.
- viii) any act or abuse by spoken words, e-mails, post, public insults which would also include deriving perverted pleasure, vicarious or sadistic thrill from actively or passively participating in the discomfiture to fresher or any other student.
- ix) any act that affects the mental health and self-confidence of a fresher or any other student with or without an intent to derive a sadistic pleasure or showing off power, authority or superiority by a student over any fresher or any other student.

6.4 Administrative Action in the event of Ragging:

The University shall punish a student found guilty of ragging after following the procedure and in the manner prescribed hereinunder:

The Anti-ragging Committee of the University shall take an appropriate decision, in regard to punishment or otherwise, depending on the facts of each incident of ragging and nature and gravity of the incident of ragging established in the recommendations of the Anti-ragging Squad. The Anti-ragging Committee may, depending on the nature and gravity of the guilt established by the Anti-Ragging Squad, award, to those found guilty, one or more of the following punishments:

- cancellation of admission
- suspension from attending the classes
- withholding/ withdrawing scholarship/ fellowship and other benefits
- debarring from appearing in any test/ examination or other evaluation process
- withholding results
- debarring from representing the University in any regional, national or international meet, tournament, youth festival, etc
- suspension/ expulsion from the hostel
- rustication from the University for period ranging from one to four semesters
- expulsion from the University and consequent debarring from admission to any other institution/ university for a specified period.
- Fine of ₹ 25,000/-
- Collective punishment: when the persons committing or abetting the crime of ragging are not identified, the University shall resort to collective punishment as a deterrent to ensure community pressure on the potential raggers.

6.5 Action to be taken by the Vice-Chancellor:

On the receipt of any information concerning any reported incident of ragging, the Vice-Chancellor shall immediately determine, if a case under the penal laws is made out and if so, either on his/her own or through a member of the anti-ragging committee authorized by him/her in this behalf, proceed to file a first information report (FIR), within twenty four hours of receipt of such information or recommendation, with the police and local authorities, under the appropriate penal provisions relating to one or more of the following, namely;

- i) Abetment to ragging
- ii) Criminal conspiracy to rag
- iii) Unlawful assembly and rioting while ragging
- iv) public nuisance created during ragging

- v) violation of decency and morals through ragging
- vi) injury to body, causing hurt or grievous hurt
- vii) wrongful restraint
- viii) wrongful confinement
- ix) use of criminal force
- x) assault as well as sexual offences or unnatural offences
- xi) extortion
- xii) criminal trespass
- xiii) offences against property
- xiv) criminal intimidation
- xv) attempts to commit any or all of the above mentioned offences against the victim(s)
- xvi) threat to commit any or all of the above mentioned offences against the victim(s)
- xvii) physical or psychological humiliation
- xviii) all other offences following from the definition of “Ragging”

Provided further that the University shall also continue with its own enquiry initiated under this regulation and other measures without waiting for action on the part of the police/ local authorities and such remedial action shall be initiated and completed immediately and in no case later than a period of seven days of the reported occurrence of the incident of ragging.

Contacts in case of “Ragging”

Fax No. 01792-252 242 and 01792-252 009

Web site: www.yspuniversity.ac.in

Sr No	Designation	E-mail Address	Telephone Numbers (10.00 AM to 5.00 PM)
1.	Vice-Chancellor	vcuhf@yspuniversity.ac.in	01792-252363
2.	Dean, College of Horticulture	deancoh@yspuniversity.ac.in	01792-252344
3.	Dean, College of Forestry	deancof@yspuniversity.ac.in	01792-252354
4.	Dean, College of Horticulture & Forestry	deancohf@yspuniversity.ac.in	01972-208319
4.	Students’ Welfare Officer	swo@yspuniversity.ac.in	01792-252312
5.	Registrar	registrar@yspuniversity.ac.in	01792-252219

AFFIDAVIT BY THE STUDENT

(Note: To be submitted by the admitted candidates only)

- 1) I, _____ S/O, D/O Shri/ Smt. _____, having been admitted to _____, have received a copy of the Academic Regulations on Ragging carefully read and fully understood the provisions contained in the said Regulations.
- 2) I am fully aware as to what constitutes ragging and am fully aware of the penal and administrative action that is liable to be taken against me in case I am found guilty of or abetting ragging, actively or passively, or being part of a conspiracy to promote ragging.
- 3) I hereby solemnly aver and undertake that:-
 - a) I will not indulge in any behaviour or act that may be constituted as ragging under Academic Regulations.
 - b) I will not participate in or abet or propagate through any act of commission or omission that may be constituted as ragging under the Regulations.
- 4) I hereby affirm that, if found guilty of ragging, I am liable for punishment under the Regulations, without prejudice to any other criminal action that may be taken against me under any penal law or any law for the time being in force.
- 5) I hereby declare that I have not been expelled or debarred from admission in any institution in the country on account of being found guilty of, abetting or being part of a conspiracy to promote, ragging; and further affirm that, in case the declaration is found to be untrue, I am aware that my admission is liable to be cancelled.

Declared this ____ day of _____ month of _____ year.

Signature of deponent
Name:_____

VERIFICATION

Verified that the contents of this affidavit are true to the best of my knowledge and no part of the affidavit is false and nothing has been concealed or misstated therein.

Verified at _____ on this the _____ day of _____ month _____ Year

Counter Signature of Parent/ Guardian

Signature of Deponent

Academic Calendar

Sr. No.	Particulars	1 st Semester	2 nd Semester
1.	1 st counselling for M Sc Programmes	17.07.2017	-
2.	Registration of new entrants of M Sc Programmes admitted in the 1 st counselling	18.07.2017 to 19.07.2017	-
3.	Registration of new entrants of M Sc Programme under ICAR quota/ Foreign Nationals/ In-service candidates	18.07.2017 to 19.07.2017	-
4.	Registration of new entrants of M Sc under ICAR quota/ Foreign Nationals/ In-service candidates with late fee	20.07.2017 to 21.07.2017	-
5.	2 nd counselling for M Sc Programme	28.07.2017	-
6.	Registration of new entrants admitted in 2 nd counselling	29.07.2017	-
7.	Registration of new entrants of M Sc under ICAR quota candidates from waiting list	22.07.2017 to 31.07.2017	-
8.	Registration of continuing students	17.07.2017 to 20.07.2017	17.01.2018 to 19.01.2018
9.	Commencement of classes	24.07.2017	22.01.2018
10.	3 rd counselling for M Sc Programme	05.08.2017	-
11.	Registration of continuing students with late fee	21.07.2017 to 24.07.2017	20.01.2018 to 23.01.2018
12.	Registration of new entrants of M Sc admitted during 3 rd Counselling	06.08.2017	-
13.	Registration of new entrants of M Sc under ICAR quota from waiting list/ foreign nationals	20.07.2017 to 24.07.2017	-
14.	Counselling for admission to Ph D Programme in the College of Horticulture	-	17.01.2018
15.	Counselling for admission to Ph D Programme in the College of Forestry	-	18.01.2018
16.	Registration of new entrants to Ph D Programme	-	19.01.2018 to 22.01.2018
17.	Addition of courses	08.08.2017	01.02.2018
18.	Withdrawal of courses without charges	08.08.2017	01.02.2018
19.	Mid-semester examination	19.09.2017 to 29.09.2017	26.03.2018 to 06.04.2018
20.	Mid-semester report by Instructor to Dean	04.10.2017	09.04.2018
21.	Withdrawal of courses with charges	07.10.2017	12.04.2018
22.	Sports and Cultural Activities	09.10.2017 to 12.10.2017	-
23.	End-semester examination	07.12.2017 to 20.12.2017	02.06.2018 to 13.06.2018

24.	Last date for submission of Results:		
	i) Instructor to Dean	24.12.2017	17.06.2018
	ii) Dean to Registrar	27.12.2017	19.06.2018
23.	Collation of Result	03.01.2018	25.06.2018
24.	Announcement of Results	06.01.2018	28.06.2018
25.	Semester break	21.12.2017 to 21.01.2018	14.06.2018 to 22.07.2018

Semester = 21 weeks (each)

Semester break = 05 weeks (each)

NOTE: If the date fixed happens to be a holiday, the next working day will be considered as the date fixed for a particular purpose.