

Pre-PG ENTRANCE EXAMINATION – 2023

For Admission to Master's Degree Programme in Agriculture and Allied Sciences
in
State Agriculture Universities of Rajasthan



GENERAL GUIDELINES

For Admission to

- M. Sc. Agriculture
- M. Sc. Horticulture
- M. Sc. Forestry
- M. Sc. Home Science/Community Science



Conducted by

AGRICULTURE UNIVERSITY JODHPUR
Jodhpur-342304, (Rajasthan)

ऑनलाइन आवेदन फॉर्म जमा करने की अन्तिम तिथि : 27 मार्च 2023

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For any kind of disputes/ litigation, the jurisdiction relating to the admission process through JET/Pre P.G. and Ph.D. Entrance Examination-2023 will be of Hon'ble Rajasthan High Court, Jodhpur.

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GENERAL GUIDELINES Pre-PG ENTRANCE EXAMINATION-2023

The Pre-PG Entrance Examination is conducted for admission to different Master's Degree Programme in Agriculture and Allied Science offered by State Agriculture Universities of Rajasthan (SKRAU Bikaner, MPUAT Udaipur, SKNAU Jobner, AU Jodhpur and AU Kota).

Candidates are advised to read all the instructions of the Pre-PG guidelines before filling online application form.

1.0 ONLINE SUBMISSION OF APPLICATION FORM

- Only online application form will be accepted through the official website of JET-2023: <https://www.jetauj2023.com>
- The online application form can be filled as per schedule dates (**ANNEXURE-IV**) of admission process and instructions given at point no. 4.0.
- The candidate can edit the application form till given date except the personal information viz., name, father's name, date of birth, gender, category, mobile number and related to fee. **Do not disclose the password to any one as he/she may change your details and misuse it.** The organizers will not be responsible for such changes and consequences thereon.
- **Deposition of application fees:** The fee is Rs. 1400/- (excluding bank charges if any) for UR/OBC/MBC/EWS candidates and Rs. 1150/- (excluding bank charges if any) for SC/ST/SAP (40% and above disability) candidates. **Amount is to be deposited online only. This amount is not refundable/transferable/ adjustable in any case.**
- There will be four separate papers for admission to M. Sc. (Ag.), M. Sc. (Hort.), M. Sc. (Forestry) and M.Sc. (Home Science/Community Science).

2.0 ELIGIBILITY CRITERIA FOR ADMISSION

- A candidate must ensure that he/she is eligible for admission to various courses before filling the online application form. If a non-eligible candidate is admitted due to any reason, then the admission of such candidate will be cancelled as soon as the mistake is detected even at later stage. Various eligibility criteria for admission through Pre-PG are as under:

2.1 EDUCATIONAL QUALIFICATION:

- A candidate must have secured at least 55% marks or equivalent OGPA in the four years undergraduate qualifying degree examinations. A relaxation of 5% marks would be allowed to candidates belonging to SC/ST/OBC (Non creamy layer)/ MBC/EWS/SAP categories. **The candidates taking the advantage of 5% relaxation will not be considered in UR category.**
- Candidates who have appeared at any of the aforesaid qualifying examinations and whose results have not been declared before the commencement of the Pre-PG shall provisionally be allowed to appear in the examination. The result of the examinations *i.e. Degree/Provisional degree and Transcript is essential at the time of option form filling.*
- Candidates who have completed their UG Degree programme through JET / National level/ State level entrance examination or the candidates completed their degree programme from SAUs and their constituent colleges of Rajasthan.

2.2 DOMICILE CRITERIA/RESIDENTIAL REQUIREMENT

The Examination is open to the candidate fulfilling one of the following Domicile Criteria:

- **CRITERIA I** – Candidates having domicile certificate of Rajasthan.
OR
- **CRITERIA II** - The candidate must have studied for the last three years continuously as a regular student in recognized institution in Rajasthan i.e. passed 10th, 11th and 12th (in the qualifying subjects) from schools located in Rajasthan.
OR
- **CRITERIA III** - Natural Father/Mother of the candidate has been continuously residing in Rajasthan for a period of last 10 years and the candidate has studied for at least 5 years during this

period in the recognized educational institution in Rajasthan.

OR

- **CRITERIA IV** - The candidate must be a bonafide resident of Rajasthan. He/ She may be presently studying in any of the states other than Rajasthan.

OR

- **CRITERIA V** - The candidate is a son/daughter of a serving or retired employee of (a) Government of Rajasthan and Officer of All India Services of the State Cadre of Rajasthan or (b) Undertaking/ Corporation/ Improvement Trust/ Municipal Bodies duly constituted by the Government of Rajasthan by an act of Law or (c) any of the State Universities in Rajasthan or Board of Secondary Education, Rajasthan provided that the employee has worked in Rajasthan for three years preceding the last date of submission of the application.

OR

- **CRITERIA VI** - Candidate is a son/daughter of a permanent serving or retired employee of Indian Defence Service (Army/Navy/Air force) either of Rajasthan origin irrespective of his/her place of posting or is posted in Rajasthan at the time of last date of the submission of application for admission. Provided that in case the Defence personnel of Rajasthan origin, a Certificate has to be submitted by him/her from the employer to the effect that his/her State of origin is Rajasthan at the time of entry in to the service.

OR

- **CRITERIA VII** - Candidate is a son/daughter of serving/retired employee of Para-Military Forces of India and the employee is either of Rajasthan origin irrespective of his/her place of posting or is posted in Rajasthan at the time of last date of application for admission provided that in case of Para-Military Personnel from the Rajasthan origin, a certificate has to be submitted by him/her from the employer to the effect that his/her State of origin is Rajasthan at the time of entry into service.

OR

- **CRITERIA VIII** - Candidate is a son/daughter/ wife of serving/ retired employee of Rajasthan Police of Rajasthan origin irrespective of his/her place of posting at the time of last date of application for admission. A certificate has to be submitted by him/her from the employer to the effect that his/her State of origin is Rajasthan at the time of entry into service.

OR

- **CRITERIA IX** - Candidate is a son/ daughter of a Judge of Rajasthan High Court subject to that he/she submit an undertaking/affidavit stating that such benefit is not claimed or availed by them in any other State.

Note:

- The relevant original documents /certificates which are the basis of eligibility of the candidate are to be furnished by the candidate **at the time of registration in the college along with one self-attested set of above documents and photograph.**
- The certificate of bonafide resident of Rajasthan will have to be duly signed by the District Magistrate of the concerned District or officer authorized by him, and must bear the authenticated photograph of the candidate.
- In case of serving personnel, where in-service conditions have resulted into eligibility, a certificate of the employer will have to be submitted by the candidate, with appropriate authentication, identification and verification.

3.0 RESERVATION OF SEATS

- The reservation of seats for various categories will be as per the rules of Government of Rajasthan and subsequently adopted by **State Agricultural Universities.**
- The caste certificate must bear the photograph of the candidate and must be issued by the competent authority.
- **In case of OBC/MBC/EWS, the certificate should not be older than One Year and it must clearly indicate non creamy layer.** Such certificate along with affidavit of non-creamy layer should not be earlier than three years at the time of reporting in allotted college.

3.1 Reservation for wards of Defence/Paramilitary/Police personnel will be in the following priority order (On producing of certificate in format as per ANNEXURE-I or certificate

having all details. Certificate with incomplete information will not be considered for Defence/Paramilitary/Police ward benefit), in pursuance to Deputy Secretary Agriculture (Gr. III) letter No. प- 3(9)कृषि-3/2018 जयपुर दिनांक 03-07-2018 and Director General Rajasthan Police, Jaipur Letter No. कमांक-स6(159)आएवं क./सीडब्ल्यू आरक्षण/2021/3000 दिनांक 21.06.2022 ::

Priority - I: Widows/Wards of Defence/Paramilitary/Police Personnel Killed in Action.

Priority- II: Wards of disabled in action and boarded out from Defence/Paramilitary/Police service.

Priority-III: Widows/Wards of Defence/Police Personnel who died while in service with death attributable to military/Paramilitary/Police service.

Priority-IV: Wards of disabled in Defence/Paramilitary/Police service and boarded out with disability attributable to Defence/Paramilitary/Police service.

Priority-V: Wards of Ex-Servicemen and Defence/Paramilitary/Police serving personnel who are in receipt of Gallantry Award: [i. Param Vir Chakra; ii. Ashok Chakra; iii. Maha Vir Chakra; iv. Kirti Chakra; v. Vir Chakra; vi. Shaurya Chakra; vii. Sena, Nau Sena, Vayu Sena Medal; viii. Mention-in-Despatches].

Priority-VI: Wards of Ex-Servicemen of Defence/Paramilitary/Police.

Priority-VII: Wives of:

- i. Defence/Paramilitary/Police personnel disabled in action and boarded out from service;
- ii. Defence/Paramilitary/Police personnel disabled in service and boarded out with disability attributable to military/Paramilitary/Police service;
- iii. ex-servicemen and Defence/Paramilitary/Police serving personnel who are in receipt of Gallantry Awards.

Priority-VIII: Wards of Defence/Paramilitary/Police Serving Personnel.

Priority- IX: Wives of Defence/Paramilitary/Police Serving Personnel.

Note:

- Apart from the above wards of Defence/Paramilitary/Police serving servicemen and wards of non-domicile of Rajasthan Defence/Paramilitary/Police servicemen are not entitled for reservation.
- The domicile requirement for the wards of the Defence/Paramilitary/Police personnel from the State of Rajasthan but serving in other States is waived off.
- For wards of Defence/Paramilitary/Police personnel from other States but serving in the State of Rajasthan, the domicile condition is waived off to enable them to be selected in general quota. However, they would not be eligible for the above-mentioned concessions.
- 50% of the reserved seats for Defence/Paramilitary/Police quota are earmarked for the girls. In case of non-utilization by girls, the vacancies would revert back to the boys category.
- **Wards/Widow of Serving Personnel of only Rajasthan Police Services will be eligible. Wards/Widows of other State Police Service Personnel are not eligible for this reservation.**
- Candidates are requested to upload the valid relation certificate issued by competent Army/Paramilitary/Police authority where priority should be clearly mentioned.
- **Please note that Army/Paramilitary/Police Canteen Cards or ID cards, PPO etc. will not be considered as valid document for Defence/Paramilitary/Police ward benefit.**

4.0 INSTRUCTIONS FOR FILLING ONLINE APPLICATION FORM

The application will be accepted online only. The process of online submission of application form will be available at the website <https://www.jetauj2023.com> link of this website will also be available on AU, Jodhpur website www.aujodhpur.ac.in. The examination schedule is given in **ANNEXURE-IV** separately.

Note: Request for any changes in details filled in application form will NOT be accepted at any stage of the admission procedure.

Candidates must perform the following activities while submitting the online application form:

- Date of commencement for filling the online application : 20.02.2023
- Last date for filling and online depositing the application forms without late fee : 27.03.2023
- Last date for filling & online depositing the application forms with late fee Rs. 500/-:30.03.2023
- Last date for editing the application form : 03.04.2023

Step-1: Preparation for filling the Online Application Form:

Candidates are advised to go through the following instructions before filling the application form, he or she must keep all relevant documents ready to avoid any reason for non-accepting the form by the system.

Ensure that **Photograph, Signature and Right-Hand Thumb Impression** are to be uploaded in the respective fields. The system will allow uploading of photograph with one face only by using the technique of face-detection.

- Scan a passport size photograph showing the date and name of the candidate in jpg/jpeg/png/bmp/tif/gif format with minimum 80 pixels resolution. The image size of photo should be in between 30 to 50 KB. Sample image is already given on web site. The Photograph will be displayed after successful uploading. Photograph should not have cap or goggles. Spectacles are allowed if being used regularly. POLAROID and COMPUTER generated photos are not acceptable.
- Signature of the candidate should be clear and photo of signature should be in jpg/jpeg/png/bmp/tif/gif format with minimum 80 pixels per inch resolution. The image size of signature should be in between 10 to 30 KB. Sample image is already given on web site. The Signature image will be displayed after successful uploading.
- Right Hand Thumb impression (*if a candidate is not having thumb then right-hand index finger impression, or left hand thumb impression in case of without right hand*) of the candidate should be clear and image of thumb impression should be in jpg/jpeg/png/bmp/tif/gif format with minimum 80 pixels per inch resolution. The image size of Thumb impression should be in between 10 to 30 KB. Sample image is already given on web site. The Thumb impression image will be displayed after successful uploading. The uploaded thumb impression of the candidate will be verified by Scanning the Thumb at the Examination Centre as well as at the College reporting.
- Applications not complying with these instructions or without clear photographs are liable to be rejected. Candidates may please note that if it is found that photograph affixed is fabricated i.e. de-shaped or seems to be manipulated or digitally edited, the form of the candidate will be rejected and the same would be considered as using unfair means and candidate would accordingly be dealt with as per the rules of unfair means.
- **It is mandatory for the candidate to bring his/her passport size (5H x 4W cm) photograph, similar to the photo uploaded in application form duly pasted on the given format during the conduct of JET Examination.**
- Photograph should have white background only.
- It is **mandatory** for the candidates to provide **Aadhaar Number (last 4 digits)** in the application form.
- Fee concession certificate i.e. caste category and/or Specially Abled Person (SAP) certificate indicating 40% and above disability should be scanned in **“PDF”** format having size 100 to 200 KB.
- Scan mark sheets of X and XII examination and PDC/Degree of UG in **“PDF”** format having size **100 to 200 KB.**
- Candidate must fill his/her own active Email-Id and mobile number or father's or mother's mobile number only in the online application form to get email and SMS, which must be active till admission process is completed.
- **Note: Do not use email and mobile number of Coaching Centre and E-mitra.**
- **In case of non-availability of email and mobile number or change in email & mobile number or network problem, the candidate will not get the information at personal level and in such conditions the candidate has to check the website regularly for information. For above such conditions, the JET office will not bear any responsibility.**

Step-2: Depositing the fees: Candidate must read the instructions given on the web site carefully.

- Pre-PG application form fee is **Rs. 1400/- + Bank charges**, if any for all the candidates. For candidates of SC/ST/SAP (40% and above disability) of Rajasthan, the fee will **Rs. 1150/- + Bank charges**, if any. Application form fee amount is to be deposited online only. This amount is non-

refundable/non-transferable/non-adjustable in any case.

- Deposit the fees from your own **or** close relative account/credit/debit card and note down transaction detail including Bank account number, transaction ID and date for refund, if any. Avoid the account **or** credit/debit card of E-Mitra **or** any other agency. If use in compulsion, then note down transaction details including Bank account number, transaction ID and date to avoid difficulty in case of refund, if any.
- Candidates are advised to keep the details of bank account viz., Name of the bank and branch, account holders' name, number, type of the account, etc. for ready reference in near future correspondence.
- **The JET office will not provide bank details of refunded amount to the candidate, as the amount will be refunded in the bank account details mentioned in the application form.**
- **Candidates are required to submit their active personal account details during the filling of online application form, which will be used for the refund process (if applicable) (In case of not having personal account then fill the account details of the nearest relative viz. Father, Mother, Brother or Sister)**
- **DO NOT FILL THE BANK ACCOUNT DETAILS OF E-MITRA OR COACHING INSTITUTES OR ANY OTHER AGENCIES.**

Step-3: Filling of Online Application Form

- The entries of online application form must be filled as required. Please note down immediately your Registration Number and Password for future use. If you do not get SMS of registration number and password, JET office will not be responsible for this.
- Check all entries & spelling before final submission.
- Candidate should ensure that the photo, signature and thumb impression belong to the same person i.e. his/her only.
- The changes (if required) will be allowed in online application form up to a given date using registration number and password. **Keep the password very safe as anyone can change your details and misuse it. Due to this for any change in your application form Coordinator Office will not be responsible. Do not share the password details.**

Step-4: Printing of application form

- Click the Print button on the web portal and get print of application form. Keep this print for your record. If print application form option is not available it means your application is not successfully submitted.
- **Candidates need not to send hard copy of filled application to the JET/Pre PG/Ph.D. Office.**

5. ADMIT CARD

Admit card will be available on web site <https://www.jetaui2023.com> from given date in the schedule to till the commencement of exam. **No admit card will be sent by post or personally to the candidates.** The Coordinator reserves the right to withdraw the permission granted by error to a candidate who is not eligible to appear in the examination even though the admission card has been issued and produced by the candidate before the center superintendent.

6. EXAMINATION SCHEME

- In the very nature of competitive examination, no syllabus can be prescribed. It is an exercise to pick up the best. However, a broad outline is given as appended in **ANNEXURE-II**.
- **There would be a separate question paper for each subject of Pre-PG examination. (subjects are as given in the table under point no. 6.1)**
- **Candidate who wants to give examination for both Pre-PG Agriculture and Pre-PG Horticulture subjects, then he/she must fill separate application form for each Pre-PG Entrance Examination.**
- **Also, candidate must ensure his/her eligibility for the examination as per the subject wise eligibility criteria mentioned in the table given in point no. 10 of this booklet.**
- University won't make any modifications regarding this matter.
- The Question Paper would be covering the most of the subjects studied in Undergraduate Degree programme.

6.1 Broad outline of subject content is given in the syllabus.

Unit	Pre-PG	No. of questions
A.	Agriculture	100
1.	Agromony	14
2.	Genetics and Plant Breeding	12
3.	Soil Science and Agricultural Chemistry	10
4.	Plant Pathology + Nematology	10
5.	Horticulture	10
6.	Entomology	10
7.	Biochemistry + Biotechnology + Plant Physiology	08
8.	Extension Education	08
9.	Agricultural Economics + Agricultural Statistics	07
10.	Agricultural Engineering	05
11.	Animal Husbandry	04
12.	Forestry	02

B.	Horticulture	100
1.	Fruit Science	24
2.	Vegetable Science	17
3.	Floriculture and Landscape Architecture	12
4.	Post-Harvest Technology	7
5.	Plant Protection (Pathology + Entomology + Nematology)	13
6.	Natural Resource Management (Soil Science + Organic farming + Ag. Engineering + Field crops + Agro-meteorology + Environmental studies+ Agroforestry)	13
7.	Basic Sciences (Statistics + Biochemistry + Microbiology + Crop Physiology & growth and developments + Biotechnology)	7
8.	Social Sciences (Extension + Economics + Business management)	7

C.	Forestry	100
1.	Silviculture and Agroforestry	25
2.	Forest Products and Utilization	16
3.	Forest Biology and Tree Improvement	12
4.	Wildlife Sciences	7
5.	Natural Resource Management	24
6.	Basic Science and Social Science (Statistics + Biochemistry+ Extension Education+ Economics and Forest Business Management)	16

D.	Home Science/Community Science (Community & Applied Science)	100
1.	Food Science and Nutrition/ Food and Nutrition	30
2.	Resource Management and Consumer Science	18
3.	Human Development and Family Studies	18
4.	Extension Education and Communication Management	17
5.	Textiles and Apparel Designing	17

- The candidates desiring admission in M.Sc. (Agriculture)/ M.Sc. (Horticulture)/ M.Sc. (Forestry)/ M.Sc. Home Science/Community Science have to attempt the paper of respective Pre-PG.
- The question paper in the form of question booklet will be only in **English** and consists of **100**

Multiple Choice Type Questions.

- The candidates are required to choose the most appropriate option and blacken the corresponding circle with the “**Black Ball Point Pen**” in the OMR sheet (Details for filling answer sheet are given on back side of OMR sheet). The test booklet may be used by the candidates for rough work and the circle/squares printed in it may be used for deciding the correct answer. Assessment will be made only on the basis of marking on the OMR sheet. At the end of examination, candidates may carry question booklets with them.
- **Marking scheme:** Four marks will be awarded for every correct answer and one mark will be deducted for every wrong answer (**Negative marking will be there**). If more than one option is chosen, it will be treated as wrong answer. No marks will be awarded or deducted for unmarked/un-attempted questions.
- The merit list will be prepared on the basis of marks obtained in this test only.
- After obtaining the objections, if any question is found ambiguous or having ambiguous answer or correct answer more than one or no correct answer; such questions will be dropped and marks of remaining questions will be used for merit preparation.

7. WRITTEN EXAMINATION SCHEDULE:

Written examination will be conducted as per the below given schedule on 14.05.2023:

Schedule	M.Sc. (Ag.)	M.Sc. (Hort.), M.Sc. (Forestry), & M.Sc. Home Science/ Community Science
Candidate should report to the examination centre	09:30 AM	01:30 PM
No candidate will be permitted after	10:30 AM	02:30 PM
Commencement of the examination	11:00 AM	03:00 PM
Candidate will not be allowed to leave the examination hall before	01:00 PM	05:00 PM

NOTE: Information regarding college wise number of seats, filling of option form etc. for seeking admission will be displayed after declaration of result.

8.0 INSTRUCTIONS FOR WRITTEN EXAMINATION

- To avoid delay in reaching to center on the day of examination, candidates are advised to visit center or confirm the address of center and mode of transport one day prior to the examination.
- The center will be allotted from the selected cities of the Rajasthan. The center will be allotted randomly to allot from the choice filled by the candidate through online.
- Request for change in examination center will not be considered.
- **The examination will be held as per the programme given as above mention. The doors of examination center will be opened at 9:30 AM for M.Sc. (Ag.) and 01.30 PM for M.Sc. (Hort.) M.Sc. (Forestry) & M.Sc. (Home Science/Community Science).**
- The candidate should ensure that he/ she occupies the allotted seat at allotted place well in time only.
- Any candidate occupying the seat of another candidate or change the place shall be treated as case of unfair means and his/her candidature will not be considered for admission

8.1 Candidates should bring the following documents/items at the time of examination

- i. The admit card downloaded from the website <https://www.jetauj2023.com> for your entry in the examination center and hall.
- ii. **Original recent photo ID: Bring one photo ID in original along with one passport size photo similar with uploaded in application form otherwise you will not be allowed to appear in examination. Photo ID preferably (Aadhar card/ PAN card/Driving license/ Passport/ Voter ID).**
- iii. Use only ‘**Black Ball Point Pen**’ provided at the center for marking the answers.

8.2 Candidates should not bring any text-book or notes, log tables, calculators, cell phone, purse/bag, watch, jewelry, any electronic gadget by which communication is possible and any other objectionable material with them in the examination hall. **Any kinds of electronic devices are not allowed in the campus of examination center.** Having any electronic device, paper, book or purse with you in exam hall, talking with any other person in examination hall or showing question booklet/ OMR/answers to others, removing any page from question booklet, seating at other than allotted seat and disobeying the instruction will be treated as unfair means.

8.3 Dress Code:

- Half sleeves shirt/ T- shirt (Boys), Half sleeves kurta / top (girls), Sandal or sleeper in feet. Wearing shoes, shocks, wrist watch, ear or nose pins, lockets in chain or any kind of ornament will not be allowed during examination. Wearing of specific dress of any coaching institute should be avoided.
- All jewelry should be removed at the home so that no problem may arises at Examination Center regarding removing the same and theft (if any). The Examination Centers shall not be responsible for security of belongings of candidates.

8.4 Discipline and unfair means

- During the course of examination, the candidate shall be under the discipline and control of the Centre Superintendent and shall abide by the instructions issued during the examination by the invigilators or the Centre Superintendent from time to time.
- Candidate found acting in a manner, which in the opinion of the invigilator, is liable to give unfair advantage to another candidate, shall be treated as case of unfair means and his/her candidature will be cancelled.
- The Invigilators, Flying Squad and Centre Superintendent shall be competent to take search of any candidate. A candidate possessing objectionable material or resisting search shall be punishable as per rules of unfair means and loose his/her candidature.
- Candidate resorting to use of unfair-means shall be turned out of the examination hall/room and his examination shall be treated as cancelled. The Centre Superintendent shall be the judge to determine whether unfair-means have been resorted to. The Center Superintendent will submit the report stating full facts of the case of unfair-means to the JET Coordinator for further necessary action, required if any.
- Examinees can use only the urinals available at the center and earmarked for them. For this the candidate shall not leave the examination room without the permission of the invigilator and escort, permissible only in case of emergency.
- Smoking and consumption of other intoxicants by the candidates are strictly prohibited in the examination hall/room/center and will be treated as unfair means.

8.5 Question booklet/OMR Sheets: Candidates should carefully read the instructions given in the question paper booklet and OMR before they begin to mark their answers.

- The question paper will be only in English language.
- Soon after the question booklet is given to the candidate, he/she should ensure before writing his role number that it is sealed and contains all the pages and no question is missing.
- No guarantee is given to the candidates regarding the order of the questions in question paper.
- Entry of booklet number and series code on OMR should be done only after getting proper question booklet and satisfying yourself.
- Question booklet/OMR sheet shall be replaced to candidate only when there is any printing defect/torn condition within 10 minutes i.e., up to **11:10 AM for M.Sc. (Ag.) and 3:10 PM for M.Sc. (Hort.), M.Sc. (Forestry) & M.Sc. (Home Science/Community Science) examination.**
- Do not use Eraser, Correcting Fluid or Blade to make any correction in OMR.
- Before attempting the answers, the candidate shall write his/her Roll number and other details at the place provided for the purpose on the test booklet and OMR sheet. The candidate should indicate the answer by blackening the circle with '**Black Ball Point Pen**' provided for the purpose in the OMR sheet itself, otherwise his/her answer will not be evaluated. Candidate must ensure

that their OMR has been duly signed by invigilator also.

- The candidate should not write his/her name or any sign/mark at any place on the OMR sheet, which may disclose his/her identity else their candidature will be cancelled.
- Sample of OMR is given in **ANNEXURE-III**.

8.6 EVALUATION OF OMR SHEETS: The OMR sheets will be evaluated and marks will be displayed as per schedule date given in **ANNEXURE-IV**.

- Four marks will be awarded for every correct answer and one mark will be deducted for every wrong answer (Negative marking). If more than one option is chosen, it will be treated as wrong answer. No marks will be awarded or deducted for unmarked/un-attempted questions.
- Candidate should note that there will be no re-evaluation of the OMR sheet.
- Candidate can challenge the answer key as per given schedule (objection on any question) by paying Rs. 500/- towards processing fees per question, the fees can be paid online through Debit/Credit/Net Banking etc. Candidate should note that the fee paid will be refunded if the challenge is found correct and forfeited if incorrect. However, no challenge will be entertained without receipt of processing fees.
- After obtaining the objections, if any question found ambiguous or having ambiguous answer, correct answer more than one, no correct answer will be dropped and merit will be prepared.
- Revised marks will be updated and filling the option form will be allowed as per schedule in **ANNEXURE-IV**.

NOTE: Information regarding college wise number of seats, filling of option form, *etc.* for seeking admission will be displayed after declaration of result.

- The result of the test will be declared on specified date. No enquiries by email, telephone or post concerning the result will be attended by the Office of the JET Coordinator.

9.0 ELIGIBILITY FOR ONLINE OPTION FORM

- All the candidates appeared in Pre-PG Entrance Examination-2023 will be eligible for filling online option form during the admission process, irrespective of marks obtained.

10.0 FILLING THE ONLINE OPTION FORM

- **Fee Details:**
 - To fill online option form, fee of Rs. 5000/- (Rs. Five thousand) + bank charges (if any) will be charged.
 - If candidate is allotted any college, then candidate has to pay the Acceptance Fees of Rs. 1000/- (Rs. One Thousand) + bank charges (if any) to accept that college.
 - Out of this total Fees of Rs. 6000/- deposited online, Rs. 5000/- will be adjusted in college fees and Rs. 1000/- (Non-Refundable) will be with JET office as counselling fee of the candidate.
 - In case of not depositing remaining fee or not accepting allotted college, Rs. 5000/- will be forfeited *i.e.*, neither it will be refunded to the candidate nor transferred to the institute where candidate admitted provisionally.
 - In case of not reporting in college at prescribed date and time this total amount of Rs. 6000/- (5000+1000) will be forfeited *i.e.* neither it will be refunded to the candidate nor transferred to the institute where candidate admitted provisionally.
- **Candidate must read the instructions ad schedule in *ANNEXURE-IV* very carefully before filling up the option form to avoid any mistake.**
- Candidate must keep ready the information and list of subjects along with colleges with order of choice on a separate paper and mark sheets or desired certificates if any.
- **There will be no provision for any change/modification after final submission of the option form however candidate may edit the option up to stipulated date.**

- **In case of Pre-PG, the eligibility of candidates for different subjects are as follows:**

Degree programme	Basic qualification	Subjects of Entrance examination
M.Sc. Agriculture	B.Sc. (Hons.) Ag.; B.Sc. (Hons.) Hort. (Except M.Sc. Agronomy, Livestock Production & Management and Animal Production) and B.Sc. (Hons.) Forestry (Except M.Sc. Agronomy, Livestock Production Management, Animal Production, GPB, Statistic)	Pre-PG Ag.
M.Sc. Horticulture	B.Sc. (Hons.) Ag. / B.Sc. (Hons.) Hort.	Pre-PG Hort.
M.Sc. Forestry	B.Sc. (Hons.) Forestry	Pre-PG Forestry
M.Sc. Home Science/ Community Science (Community & Applied Science)	B.Sc. (Hons.) Home Science/Community Science/ Food Nutrition and Dietetics	Pre-PG H.Sc. /CS

- Candidate willing to seek admission **on payment seat** should also fill the option for the same with appropriate number of choices. These seats will also be filled from the same merit.
- Details about college, fees and hostel facility may be obtained from the web site or he/she may contact to the college directly.
- **Candidate is advised to check the correctness of information before submitting the option form. In case of any wrong information the admission will be cancelled at college level and candidate will be treated as not reported and this seat will be allotted to another candidate in next counselling and option form fee will be forfeited.**
- **If candidate does not get admission in any of the institute filled in option form, the fee of Rs. 5000/- will be refunded through the same channel from where the fee was paid.**
- **In case amount is deposited from E-Mitra or any other agency account take all bank details where from this amount has been deducted. As amount will be refunded in this account and he may not refuse to pay the refund. Jet Coordinator Office will not be responsible for providing the bank details of refund amount.**

11.0 SEAT ALLOTMENT

- Seat in college and universities will be allotted on the basis of marks obtained in Pre PG-Entrance Examination, choice filled by candidate in option form and reservation policy. The roster will start from next point where admission was stopped last year.
- In case of any tie, the tie will be broken on the basis of higher marks obtained in UG then in 12th followed by in 10th and then more in age will be given priority.
- Through above option form, three times seats will be allotted.
- The reserve seats will be allotted to reserve candidates only based on merit, 200-point roster and candidate choice, if option form of those category candidates is available. Else, the seat will be allotted to reservation category candidate following same pattern of merit, 200-point roster and candidate choice, where from that seat get reserve. If reserved candidate is not available then seat will be allotted to UR candidate.
- Seats of not-reported reserved category candidates will be filled from remaining candidates of same category who have filled the option form. In case of non-availability of candidates in the same category then the vacant seats will be filled as per the reservation policy.
- Candidate has to deposit the fee of allotted college online and report in the college on given date along with all original documents and their self-attested copies.

11.1 First Counseling:

- All the candidates will be arranged in a queue for seat allotment following the reservation roster and marks obtained in Pre-PG. In case of any tie, the tie will be broken on the basis of higher marks obtained in UG then in 12th followed by in 10th and then more in age will be given

priority.

- Option form of candidate stand at the top in the queue will be assessed and institution in the order of priority given by the candidate will be allotted subject to availability of seats.
- In case of non-availability of horizontal reservation category candidate, the seat will be filled by vertical reservation candidate and then by the candidate stand in the merit.

11.2 UPWARD ASSESSMENT

First upward assessment and second counselling:

- If the candidate gets institution in first allotment, either deposit the fees of that institution online or apply for upward assessment in case he/she wants to change the institution. Candidates have to pay non-refundable **online fee of Rs 1000/-** for upward assessment else, the candidate will be treated as not reported.
- The seats of not reported candidates and candidates applied for upward assessment and gets other institution, will be filled by the remaining candidates and candidates applied for upward assessment on the basis of merit. The reserve seat will be filled by the same category candidates, if no such candidate is available, the roster will start from next point where admission was stopped last year.

11.3 Second upward assessment and third counselling:

- Candidates get seat in second allotment (upward or new) have to either deposit the fees of that institution online or apply for further upward assessment. In case he/she wants to change the institution have to pay online fee of Rs 1000/- else candidate will be treated as not reported.
- The seats of not reported candidates and candidates applied for upward assessment and gets seat in the other institution their seat will be filled by the remaining candidates and candidates applied for upward assessment on the basis of merit. The reserve seat will be filled by the same category candidates, if no such candidate is available, the roster will start from next point where admission was stopped last year.
- On or before stipulated date the candidates get seat in third allotment has to deposit the fees of that institution online else candidate will be treated as not reported.
- The upward assessment fee of Rs.1000/- is non-refundable whether candidates get better choice from the option form or not.
- After upward assessment if he/she get any other college or allotment remain unchanged, he or she will be required to accept final allotment and deposit the requisite fee of allotted college otherwise the admission will be treated as cancelled and amount of Rs.5000/- deposited will be forfeited.

12.0 REPORTING IN THE INSTITUTION

- All original documents are to be submitted to the allotted college at the time of registration.
- Candidate accepted the allotment and deposited online fee has to report in the institution on the schedule date along with all original documents and their self-attested copies viz. 10th & 12th mark sheets and certificates, UG PDC/degree, domicile certificate, reservation certificate, self-declaration (in case of OBC) certificate, recent income certificate and fee deposition receipt, etc.
- Failing to report on the given date or lacking any document will be treated as not reported candidate and fees of total Rs. 6000/- will be forfeited. Vacant seat will be filled by other candidate in next counselling.

13.0 ONLINE FINAL COUNSELLING

- The seats remain vacant after above reporting same will be filled through final online counselling
- Online option form will be invited as per the schedule in **ANNEXURE-IV**
- Candidates who did not get admission or not reported candidates will be eligible for final online option form. Candidates reported in the institutions will not be eligible.
- Online option form for counselling may be filled after paying Rs. 5000/- + the bank charges.
- Candidate who did not get seat through previous option form, need not to pay the option form fee again but, have to fill the fresh option form.
- Vacant seats will be filled by the category candidates, if available else from the candidates where from the seat get reserve using merit and above option form.

- Candidate has to deposit the fee of allotted college online and report in the college on given date alongwith all original documents and their self-attested copies.
- Seats of not reported candidates will be filled from remaining candidates filled the option form by the category candidates if available else from the candidates wherefrom the seat get reserve.
- Candidate has to deposit the fee of allotted college online and report in the college on given date alongwith all original documents and their self-attested copies.
- Candidate has to report in the college on given date. The admission process will be closed with this process even seat remains vacant. The last date of admission process is **26-07-2023**.

Note: Candidates are advised to visit the website for changes in dates, system, or any other information from time to time. The JET office will not be responsible for not reaching the changes to the candidate in time.

CERTIFICATE FOR DEFENCE/PARAMILITARY/POLICE WARDS/WIDOWS

This is to certify that Mr./Ms./Widow (Name of candidate).....born on dated.....son/daughter/widow of (Father's/Mother's/Husband's Name)worked in the(Army/Navy/Airforce/Paramilitary/Police). He/She belongs to Defence/Paramilitary/Police **Priority** (I/II/III/IV/V/VI/VII/VIII/IX).

Priority -I: Widows/Wards of Defence/Paramilitary/Police Personnel killed in Action.

Priority-II: Wards of disabled in action and boarded out from service of Defence/Paramilitary/Police Personnel.

Priority-III: Widows/Wards of Defence/Paramilitary/Police Personnel who died while in service with death attributable to military service/Paramilitary/Police Service.

Priority-IV: Wards of disabled in service and boarded out with disability attributable to Defence/Paramilitary/Police service.

Priority-V: Wards of Ex-Servicemen and serving personnel who are in receipt of Gallantry Award under service of Defence/Paramilitary/Police Personnel: [i. Param Vir Chakra; ii. Ashok Chakra; iii. Maha Vir Chakra; iv. Kirti Chakra; v. Vir Chakra; vi. Shaurya Chakra; vii. Sena, Nau Sena, Vayu Sena Medal; viii. Mention-in-Despatches].

Priority-VI: Wards of Ex-Servicemen under service of Defence/Paramilitary/Police Personnel.

Priority-VII: Wives of (i. Defence/Paramilitary/Police Personnel disabled in action and boarded out from service; ii. Defence/Paramilitary/Police Personnel disabled in service and boarded out with disability attributable to military service; iii. ex-servicemen and serving personnel of Defence/Paramilitary/Police who are in receipt of Gallantry Awards).

Priority-VIII: Wards of Serving Personnel of Defence/Paramilitary/Police.

Priority- IX: Wives of Serving Personnel of Defence/Paramilitary/Police.

Note:

- **50% of the reserved seats of the Defence/Paramilitary/Police quota are earmarked for girls.**
- **Wards/Widow of Serving Personnel of only Rajasthan Police Services will be eligible. Wards/Widows of other State Police Service Personnel are not eligible for this certificate.**

Candidate's
photo

Candidate's
father's photo

Signature of competent Authority with Seal

रक्षा/अर्द्धसैनिक/पुलिस कर्मियों के बच्चों/विधवाओं के लिए प्रमाण पत्र

यह प्रमाणित किया जाता है कि श्री/सुश्री/विधवा (अभ्यर्थी का नाम)
जन्म तिथि.....पुत्र/पुत्री/विधवा (पिता/माता/पति का नाम)
ने सेना की (थलसेना/नौसेना/वायुसेना/अर्द्धसैनिक/पुलिस).....में काम किया है। ये
सैन्य सेवा/अर्द्धसैनिक/पुलिस सेवा के लाभ हेतु प्राथमिकता.....
(I/II/III/IV/V/VI/VII/VIII/IX) से संबंधित हैं।

प्राथमिकता-I: सैन्य कार्यवाही के दौरान शहीद हुए रक्षा/अर्द्धसैनिक/पुलिस कर्मियों की विधवाएं/बच्चे

प्राथमिकता-II: सैन्य कार्यवाही/अर्द्धसैनिक/पुलिस के दौरान दिव्यांग होने पर सेवा से बाहर हुए
रक्षा/अर्द्धसैनिक/पुलिस कर्मियों के बच्चे

प्राथमिकता-III: सेवा काल के दौरान सैन्य सेवा/अर्द्धसैनिक/पुलिस कारणों से मृत्यु होने वाले
रक्षा/अर्द्धसैनिक/पुलिस कर्मियों की विधवाएं/बच्चे

प्राथमिकता-IV: सेवा काल के दौरान सैन्य सेवा कारणों से दिव्यांग होने पर सेवा से बाहर हुए
रक्षा/अर्द्धसैनिक/पुलिस कर्मियों के बच्चे

प्राथमिकता-V: गैलेंट्री अवार्ड प्राप्त पूर्व एवं सेवारत रक्षा/अर्द्धसैनिक/पुलिस कर्मियों के बच्चे:

{i. परम वीर चक्र, ii. अशोक चक्र, iii. महा वीर चक्र, iv. कीर्ति चक्र, v. वीर चक्र,
vi. शौर्य चक्र, vii. सेना, नौ सेना, वायु सेना मेडल, viii. मेन्सन-इन-डिस्पैचेज}

प्राथमिकता-VI: पूर्व रक्षा/अर्द्धसैनिक/पुलिस कर्मियों के बच्चे

प्राथमिकता-VII: उन रक्षा/अर्द्धसैनिक/पुलिस कर्मियों की पत्नियाँ जो-

i. सैन्य/अर्द्धसैनिक/पुलिस कार्यवाही के दौरान दिव्यांग हो जाने पर सेवा से बाहर हुए
रक्षा/अर्द्धसैनिक/पुलिस कर्मी,

ii. सेवा काल के दौरान सैन्य सेवा कारणों से दिव्यांग हो जाने के कारण सेवा से बाहर
हुए रक्षा/अर्द्धसैनिक/पुलिस कर्मी,

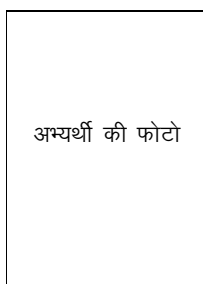
iii. गैलेंट्री अवार्ड प्राप्त पूर्व एवं सेवारत रक्षा/अर्द्धसैनिक/पुलिस कर्मी।

प्राथमिकता-VIII: सेवारत रक्षा/अर्द्धसैनिक/पुलिस कर्मियों के बच्चे

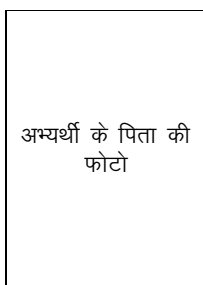
प्राथमिकता-IX: सेवारत रक्षा/अर्द्धसैनिक/पुलिस कर्मियों की पत्नियाँ

नोट:

- सैन्य/अर्द्धसैनिक/पुलिस कोटे की आरक्षित 50 प्रतिशत सीटें बालिकाओं के लिये विहित की गई हैं।
- केवल राजस्थान पुलिस सेवाओं के सेवारत कर्मियों के वार्ड/विधवा पात्र होंगे। अन्य राज्य पुलिस सेवा कर्मियों के वार्ड/विधवा इस प्रमाण पत्र के लिए पात्र नहीं हैं।



अभ्यर्थी की फोटो



अभ्यर्थी के पिता की
फोटो

सक्षम अधिकारी के हस्ताक्षर मय सील

Broad Outlines of Syllabus for Masters Degree Programme- 2023:

Objective of such type of Entrance Test is to select the best candidates; therefore, no syllabus can be prescribed, however, broad outlines are given as follows:

A. Pre-PG Agriculture**1. Agronomy****(Question 14)**

Agro-climatic zones of India and Rajasthan, adaptation and distribution of crops. Weather and climate. Basics of weather forecasting. Modern concepts of tillage. Management of crop residue, soil organic matter, bio-fertilizers, green manuring, oil cakes, fertilizers. Consumption of straight and complex fertilizers, foliar application. Plant nutrients: occurrence, cycling in soils and their availability. INM concept and vermi-compositing. Cropping and farming systems. Sustainable agriculture: concept and details. Organic farming: principles, objectives, certification, labeling and accreditation process. Water resources of India and Rajasthan. Methods of irrigation. Irrigation efficiencies. Water management in crops. Quality of irrigation water. Agricultural drainage: methods. Dry land agriculture in India and Rajasthan. Concept, importance, objectives and benefits of watershed. Agronomy of important crops of *kharij, rabi and zaid* seasons of Rajasthan. Weed biology and ecology, crop-weed association. Problem of weeds in Rajasthan and their physical, cultural, biological and chemical control. Integrated weed management. Herbicide selectivity. Adjuvants. Geo-informatics, nano- technology and precision farming; concepts, techniques & their applications in agriculture.

2. Genetics and Plant Breeding**(Question 12)**

Variation – its causes and importance. Pollination and fertilization. Cell structure and division. Mendel and his work. Gene interactions. Multiple alleles and blood groups. Linkage, crossing over and mapping of chromosomes. Gene mutations, chromosomal aberrations, polyploidy and their role in crop improvement. Cytoplasmic and chromosomal inheritance. Sterility and incompatibility and their application in plant breeding. Heterosis and its exploitation for crop improvement. Germplasm conservation and exploitation. Breeding methods of self, cross and vegetatively propagated crops. Breeding for biotic and abiotic stresses. Application of genetic engineering and biotechnology in crop improvement. Seed, its types and classes. Seed certification: principles and procedures. Minimum seed certification standards. Seed production of important field crops.

3. Soil Science and Agricultural Chemistry**(Question 10)**

Soil as a medium for plant growth, soil composition, formation, profile, rocks and minerals. Soil survey, classification and Remotesensing. Physical properties of soil-texture, structure, soil moisture, air and temperature in relation to plant growth. Chemical properties of soil-clay minerals, organic and inorganic colloids, cation exchange phenomenon. Soil reaction and buffering capacity. Soil erosion, conservation. Problematic soils. Essential nutrients, their functions, deficiency symptoms and their availability. Soil fertility evaluation, nutrient recommendations. Manures and fertilizers.

4. Plant Pathology + Nematology**(Question 10)**

Importance of microbes and plant pathology in agriculture. Micro-organisms (Fungi & bacteria) and their classification, nutrition, growth and reproduction. Host-pathogen relationship. Morphology, reproduction, nutrition and nomenclature of fungi. Classification of plant pathogenic fungi. Symptomology, disease cycle. Important disease and their management- cereals, pulses, oil seeds, fruits, vegetables, spices, medicinal and aromatic, forest plant and cash crops. Integrated disease management

and principles of plant disease control and novel approaches for disease management.

Introduction and brief history of plant parasitic nematodes, their morphological structure, biology, ecology and various physiological process. Symptomatology and nematode diseases with special reference to root-knot, reniform, citrus, ear cockle, tundu and molya and their management. Interaction of plant parasitic nematodes with other micro-organisms like fungi, bacteria and viruses, etc.

5. Horticulture

(Question 10)

Floriculture- History of ornamental gardening, garden styles, garden features and important commercial cut flowers and loose flowers cultivation. Uses of ornamental annuals, trees, shrubs and climbers. Vegetables- importance in human diet, type of farming and classification. Raising of seedling in nursery and pro-tray. Cultivation of important vegetables. Protected cultivation. Pomology- Selection of site, preparation and layout of orchard, planting system. Principles of fruit production, propagation, cultivation of important fruits of Rajasthan. Methods of preparation of juices, squashes, jams, jellies and marmalades, preserves, squashes and pickles, canning and dehydration of fruits and vegetables. Seed spices – production technology. Important medicinal and aromatic plants of Rajasthan.

6. Entomology

(Question 10)

Animal kingdom- Classification and nomenclature. Economic importance of Arthropods, insects and mites in particular. Management of insect-pest and mites in agriculture. Ecosystem and wild life preservation. Insect dominance. Anatomy and morphology of grass hopper. Insect reproduction and development; identification. Lac culture, sericulture and apiculture. Physical, mechanical, cultural, chemical, biological, legal and other modern approaches of insect pest management.

7. Biochemistry + Biotechnology +Plant Physiology

(Question 8)

Chemistry of carbohydrates, lipids, proteins and amino acids. Chemistry of Nucleic acids and their functions. Outlines of metabolism of carbohydrate, lipid and protein. General characteristics of enzymes, coenzymes and secondary metabolites terpenoids, alkaloids and phenolics. Brief out lines of plant tissue culture and plant biotechnology DNA recombinant technology, transgenics Molecular markers and their application in Agriculture.

Cell: an overview, physiological functions of cell organelles, plant water relations, photosynthesis and photorespiration, Respiration, Transpiration, plant nutrition, physiology of flowering. Physiology of growth, PGRs and their role, biosynthesis and physiological responses. Post-harvest physiology, Seed development, germination and dormancy. Climate change and stress physiology, hydroponics.

8. Extension Education

(Question 8)

Extension Education- Definition, objectives and principles. Rural sociology: Meaning, definition, scope, social control and social change. Rural institutions- caste and family, rural leadership. Teaching-learning process. A.V. aids, teaching methods and their use in different situations. Programme planning and evaluation in extension education. Communication process and its elements. Diffusion and adoption of agriculture innovations. Pre-independence extension programmes in India: Gurgoan, Marthandam, Shriniketan and Sewagram projects. Developmental programmes and institutions- IRDP, CD, NES, Panchayati Raj System, T & V system, NATP, PMRY, Swarn Jayanti Gram Swarojgar Yojna, KVK, ATIC, IVLP and ATMA. Entrepreneurship development: concept and meaning. Government schemes and incentives for promotion of entrepreneurship. Contract farming and joint ventures, public private

partnership.

9. Agricultural Economics + Agricultural Statistics

(Question 7)

Meaning of utility, factors of production and their characteristics. Classical production function and law of diminishing returns. Factors affecting demand and supply. Price determination. Concept of elasticity and its measurement. Agricultural finance. Credit and credit institution. Agricultural cooperation. Nature and problems of agricultural marketing and prices. Regulated market. Marketing channels and price spread. Cooperative marketing. Nationalization of commercial banks. Economic principles of farm management, financial tools of farm management and farm planning and budgeting. Risk and uncertainty in agriculture. Importance of agri-business in Indian Economy. Discounted and undiscounted methods of project analysis. Marketing management.

Meaning and scope of statistics. Data summarization. Measures of central tendency and dispersion. Elementary idea of correlation and regression. Tests of significance. Field experimentation. Analysis of variance and its application in basic design of experiments.

10. Agriculture Engineering

(Question 5)

Introduction to Soil and Water Conservation, soil erosion, types, and method for control of soil erosion. Status of Farm Power in India, Sources of Farm Power, different type of engines, Familiarization with Power transmission system: clutch, gear box, differential and final drive of a tractor, Tractor types and farm implements. Familiarization with sowing and planting equipment, Familiarization with harvesting and threshing equipment. Classification of energy source agricultural sector, Familiarization with biomass utilization for biofuel, biogas plants, biodiesel and biooil production. Introduction of solar energy. Green house technology, green house equipment, materials of construction for traditional and low-cost green houses. Irrigation systems used in greenhouses, Important Engineering properties such as physical, thermal and aero & hydrodynamic properties of cereals, pulses and oilseed, their application in PHT equipment design and operation. Drying and dehydration.

11. Animal Husbandry

(Question 4)

Importance of Livestock and Poultry in national economy, cattle management and housing of cattle, buffalo, sheep, goat, poultry and camel. Prevention and control of common livestock diseases. Classification of feedstuff and computation of balanced ration. Important breeds of farm animals and poultry. Methods and system of breeding. Principles and methods of selection. Purchase of dairy animals. Infertility and sterility, their causes and prevention. Hatching, brooding and feeding management in poultry. Hay and silage making.

12. Forestry

(Question 2)

Status of forests in India and Rajasthan. Forest: importance, types, classification, ecosystem, biotic and abiotic components, ecological succession and climax. nursery and planting technique, social forestry, farm forestry, urban forestry, community forestry, forest management, silvicultural practices, forest mensuration, natural regeneration, man-made plantations, shifting cultivation, taungya, dendrology, hardwoods, softwoods, pulp woods, fuel woods, multipurpose, tree species, wasteland management. Agroforestry– importance and land use system, forest soils, classification and conservation, watershed management, forest genetics and biotechnology and tree improvement, tree seed technology, rangelands, wildlife- importance, abuse, depletion, management, major and minor forest products including medicinal and aromatic plants, forest inventory, aerial photo interpretation and remote sensing, forest depletion and degradation – importance and impact on environment, global warming, role of forests and trees in

climate mitigation, tree diseases , wood decay and discolorations, tree pests, integrated pest and disease management, biological and chemical wood preservation, forest conservation, Indian and Rajasthan State forest policies and acts, forest economics, joint forest management and tribology.

B. Pre-PG Horticulture

1. Fruit Science

(Question 24)

Scope and importance of Horticulture, classification of horticultural crops, area and production, exports and imports of fruits, soil and climatic requirements of horticultural crops, vegetable gardens, planting systems, pruning and training of fruit crops, types and use of growth regulators in horticulture, water management, fruitfulness and unfruitfulness, rejuvenation of old orchards.

Propagation, sexual and asexual methods of propagation, graft incompatibility, seed dormancy and methods to overcome dormancy, phytotrons nursery, micro grafting, meristem culture, callus culture, anther culture, organogenesis, somaclonal variation, hardening of plants in nurseries, nursery registration act.

Tropical, sub-tropical and temperate horticultural systems, crop models and crop regulation in relation to fruit orchard, climate aberrations and mitigation measures of fruit crops.

Production technologies of tropical, sub-tropical and temperate fruits, nuts and plantation crops.

Weeds- Introduction, harmful and beneficial effects, weed management in major horticultural crops, shift of weed flora in cropping systems, aquatic and problematic weeds and their control.

Genetic basis of plant breeding, pollination, incompatibility and sterility, breeding strategies, selection, hybridization, heterosis, heterobeltiosis, GCA, SCA, inbreeding depression, heritability and genetic advance, breeding for resistance of biotic and abiotic stresses. Physical basis of heredity, cell reproduction, mitosis, meiosis and its significance, mendelian genetics, chromosome theory of inheritance, chemical basis of heredity, structure of DNA and its replication. Domestication and adaptation of commercially important fruits, breeding methods, bud mutations, mutagenesis and its application in crop improvement, ploidy manipulations, in-vitro breeding tools in important fruit and plantation crops.

Definition, importance, limitation and management of dry land horticulture, watershed development, soil and water conservation methods, impounding of run-off water, water harvesting methods, water use efficiency, characters and special adaptation of dryland horticultural crops.

2. Vegetable Science

(Question 17)

Origin, distribution of species, wild relatives, Area, production, economic importance and export potential of vegetable, tuber and spice crops. Description of varieties and hybrids, climate, soil requirements, seed rate, field preparation, nursery practices, sowing/transplanting, spacing, planting systems, mulching, water requirement, weed management; nutrient management, PGRs, physiological disorders, harvesting, post-harvest handling, economics and marketing of tropical, sub-tropical and temperate vegetables and tuber and spice crops. Role of spice board and pepper, export promotion council, institutions and research centres in R&D.

Breeding objectives and important concept of breeding self-pollinated, cross pollinated and vegetatively propagated vegetable crops. Plant genetic resources, their conservation and utilization in crop improvement, breeding for biotic (insect, diseases) and abiotic resistance. Male sterility, incompatibility and their utilization in development of hybrids. Breeding procedures for development of hybrids and varieties in self and cross pollinated vegetables. Genetic basis of adoptability and stability.

Introduction and history of seed industry in India, types of seed. Principles of vegetable seed production. Role of temperature, humidity and light in vegetable seed production. Land requirement, climate, season, planting time, nursery management, seed rate, isolation distance, rouging, seed extraction and storage of vegetable crops. Field and seed standards. Seed drying and extraction. Seed legislation.

Precision farming, greenhouse technology, passive solar green house, hot air greenhouse, heating systems,

greenhouse drying. Choice of crops for cultivation under greenhouse. Problems/constraints of greenhouse cultivation and future strategies. Growing media, nutrient film technique (NFT) of hydroponics. Cost estimation and economic analysis.

3. Floriculture and Landscaping Architecture

(Question 12)

Historical importance of Indian and ancient world gardens, Styles of garden, Use of Auto-CAD and Arch-CAD in designing gardens. Principles and elements of landscape gardens. Bio-aesthetic planning. Planning and designing of home gardens, colonies, country planning, urban landscape, institutional gardens, planning and planting of avenues, beautifying schools, railway lines & railway stations, factories, bus stands, air ports, corporate buildings, dams, hydroelectric stations, river banks, play grounds, gardens for places of religious importance, features of English, Japanese, Mughal, French, Persian, Italian, Hindu and Buddhist gardens, Xeriscaping. Propagation techniques for bulbous plants, History importance and scope, classification and general cultivation aspects of ornamental plants viz. annuals, biennales, herbaceous perennials, grasses and bulbous ornamentals, shrubs, climbers, trees, indoor plants, palms and cycads, ferns and sellagenellas, cacti and succulents, garden features/components; garden adornments. Lawn, flower arrangement, vertical garden, bottle garden and terrarium, Bonsai.

Scope and importance of commercial floriculture in India. Production technologies of commercial loose and cut flower crops, foliage and filler materials in open and protected conditions, Postharvest technology of commercial cut and loose flower crops. Dehydration techniques for drying of flowers. History, scope, cultivation and marketing of medicinal and aromatic plants, chemical composition, extraction and therapeutic and pharmaceutical uses of important medicinal and aromatic plants, Storage techniques of essential oils.

History of improvement of ornamental plants, centres of origin of flower and ornamental crops, objectives and techniques in ornamental plant breeding. Introduction, selection, hybridization, mutation and biotechnological techniques for improvement of ornamental and flower crops, breeding for disease resistance. Role of heterosis and its exploitation. Production of F_1 hybrids and open pollinated seed, utilization of male sterility, Harvesting, processing and storage of seed.

4. Post-Harvest Technology

(Question 7)

Food and its function, physico-chemical properties of foods, food preparation techniques. Nutrition, relation of nutrition to good health. Role of fruits and vegetables in human nutrition. Energy: definition, determination of energy requirements, food energy and total energy needs of the body. Functions, source, requirements, digestion, absorption and utilization of Carbohydrates, Protein, Lipids, Minerals and Vitamins and effect of their deficiency on human health. Essential and non-essential amino acids, saturated and unsaturated fatty acids. Balanced diet: recommended dietary allowances for various age groups, common disorders due to malnutrition in population, assessment of nutritional status of the population.

Importance & scope of post-harvest management and processing of horticultural crops in India. Maturity indices, harvesting, post-harvest handling operations and treatments for fresh horticultural produce including precooling, sorting, grading, pre harvest sprays, curing, de-greening, waxing, fumigation, irradiations, VHT, etc. Pre and post-harvest factors affecting quality. Factors responsible for deterioration of horticultural produce. Physiological and biochemical changes during ripening. Hastening and delaying ripening process. Quality parameters and specifications. Structure of fruits, vegetables and cut flowers related to physiological changes after harvest. Different systems of storage including CA & MA storage, low cost cooling structures for fresh produces. Packaging, prepackaging treatments, types of packages, types of cushioning materials, and recent advances in packaging technology of horticultural crops. Transportation of fresh horticultural produce to local and export market. Food pipe line, unit operations in food processing.

General principles and methods of preservation of fruits and vegetables. Preservation by heat, pasteurization and sterilization, canning and bottling of fruits and vegetables. Preservation by chemical preservatives. Preparation and preservation of fermented and unfermented beverages. Preservation by sugar and preparation of Jam, jelly and marmalade, preserves, candies, crystallized fruits, etc. Preservation

with salt, spices, oil and vinegar, pickling, chutneys and tomato products. Freezing, drying & dehydration of fruits & vegetables. Spoilage in processed foods, utilization and disposal of waste from processing unit, quality control of processed products, Govt. policy on import and export of processed fruits. Food laws. Principles and guidelines for the establishment of processing units.

5. Plant Protection (Pathology + Entomology +Nematology)

(Question 13)

Entomology- Animal kingdom- Classification and nomenclature. Economic importance of Arthropods, insects and mites in particular. Comparative account of external morphology, structure and function of insect anatomy specially grass hopper. Types of reproduction. Postembryonic development-exclusion, Metamorphosis, Types of egg larvae and pupa. Classification of insects upto orders, sub-order and families of economic importance and their distinguished characters. Plant mites– morphological features, important families with examples.

Economic classification of insects; Bio-ecology and insect-pest management with reference to fruit, plantation, medicinal, aromatic, vegetable, ornamental, spice crops and storage products. Management of mites in horticulture. Ecosystem and wild life preservation. Insect dominance. Physical, mechanical, cultural, chemical, biological, legal and other modern approaches of insect pest management. Insecticide residue problems in fruit, plantation, medicinal, vegetable, ornamental and aromatic crops and their maximum residue limits (MRLs). Lac culture, sericulture and apiculture.

Plant Pathology- Importance of microbes and plant pathology in horticulture. Micro-organisms (fungi & bacteria) and their classification, nutrition, growth and reproduction. Host-pathogen relationship. Morphology, reproduction, nutrition and nomenclature of fungi. Parasitic causes of plant diseases (fungi, bacteria, viruses, phytoplasma, protozoa, algae and flowering parasitic plants), their characteristics and classification. Non-parasitic causes of plant diseases. Classification of plant pathogenic fungi. Symptomology, disease cycle. Fungicide's classification based on chemical nature, commonly used fungicides, bactericides and nematocides.

Etiology, symptoms, mode of spread, epidemiology and integrated management of the diseases and post-harvest diseases of fruit, plantation, medicinal, aromatic, vegetable, ornamental and spice crops. Principles and integrated plant disease management.

Nematology- History and development of nematology- definition, economic importance. General characters of plant parasitic nematodes, their morphology, taxonomy, classification, biology, symptomatology and control of important plant parasitic nematodes of fruits, vegetables, ornamental, spice and plantation crops. Role of nematodes in plant disease complex. Integrated nematode management.

6. Natural Resource Management (Soil Science + Organic Farming + Ag. Engineering + Field Crops + Agro-meteorology + Environmental Studies + Agroforestry)

(Question 13)

Soil Science– Composition of earth's crust, soil as a natural body- major components. Soil forming rocks and minerals; weathering and processes of soil formation. Physical parameters; texture, structure, particle density, bulk density, Pore space, Soil colour, Soil consistency, plasticity, Atterberg's constants, Soil air, Soil temperature and Soil water. Soil colloids, Ion exchange. Soil Classification–Taxonomy- soil orders & characteristics, land capability classification; soil of different eco-systems and their properties. Introduction to soil fertility and productivity- factors. Essential plant nutrient elements functions, deficiency symptoms, transformations and availability. Acid, calcareous and salt affected soils – characteristics and management. NPK, Secondary and micronutrient fertilizers: composition and application methodology. Manures classification and Biofertilizer. Quality of irrigation water. Soil and Water pollution. Soil, water and plant analysis. Management of poor-quality irrigation water in crop management. Organic farming- Introduction, concept, relevance in present context.

Agricultural Engineering -Available and unavailable soil moisture – water budgeting. lysimeter studies, pan evaporimeter, Irrigation scheduling & it's different approaches. Sprinkler and drip irrigation, their suitability, merits and limitations, fertigation, Layout of underground pipeline system. Basic principles and operation of IC Engines, two stroke and four stroke engines, cooling, lubrication & power transmission system of tractors. Tillage- types, implements- indigenous ploughs, mould board ploughs, disc and rotary

ploughs, harrows, levelers, ridgers and bund formers. Seed drills, Crop harvesting equipments.

Agronomy- Cultivation practices of kharif and rabi crops. Farming and cropping systems – mono, sole and multiple cropping, relay, sequential and inter cropping, green manuring, crop rotation. Integrated Nutrient Management. Weed control. Agricultural Meteorology, weather and climate- aspects involved in weather and climate, soil & atmospheric temperature, solar radiation, atmospheric pressure, humidity.

Environmental Studies- Multidisciplinary nature of environmental studies: Definition, scope and importance. Ecosystems, Structure and function of an ecosystem. Ecological succession. Food chains, food webs and ecological pyramids. Biodiversity and its conservation. Environmental Pollution: definition, cause, effects and control measures of Air, Water, Soil, Marine, Noise and Thermal pollution. Disaster Management.

Agro-forestry- Agroforestry definition, objectives and potential. Agroforestry system, sub-system and practice: shifting cultivation, taungya, home gardens, diagnosis & design methodology, multipurpose tree species and tree management practices in agroforestry

7. Basic Science (Statistics + Biochemistry + Microbiology + Crop Physiology & Growth and Development + Biotechnology) (Question 7)

Statistics-Introduction to statistics, Basic concepts, data-classification and their graphic representation, measures of location, Dispersion, basics of Probability, additive and multiplicative laws. Distributions, Sampling methods, Tests of Significance, different tests, Correlation, regression, Experimental designs, Computer application: Introduction to computers, Windows, MS Word, MS Excel, MS Power point-preparation, Multi-media Internet.

Biochemistry-Structure, function and classification of Plant Biomolecules, and their metabolism. Water Relations in Plants, Drought, types of stresses & mechanism, Plant Nutrition, Biological Nitrogen Fixation, Photosynthesis, CO₂ fixation, Photorespiration.

Microbiology - History and Scope of Microbiology, germ theory of diseases, Development of microbiology, Microscopy and Specimen Preparation, staining. Types of culture media and pre-culture techniques, growth curve, viruses, bacteriophages, Sterilization methods, Mushrooms culture, production and applications.

Crop Physiology and growth and development of horticultural crops–Photosynthesis, respiration, plant water relation, crop Growth and development of Horticultural crops, Plant bio-regulators, vernalization, photoperiodism, pruning and training, Physiology of seed development, seed dormancy, fruit setting, physiology of fruits under post-harvest storage.

Biotechnology - Basic concepts and application plant Biotechnology, Plant Tissue Culture and Plant Genetic Engineering; Techniques of In-vitro cultures, Micropropagation, Somaclonal Variation, Somatic embryogenesis and synthetic seed production technology, Basics of gene cloning, gene transfer, PCR and other molecular techniques, Mapping QTL and MAS, and its application in crop improvement. Nanotechnology, types of nano material and their synthesis, Tools and techniques to characterize the nano particles, Applications in agriculture and Nano toxicology.

8. Social Science (Extension + Economics + Business Management) (Question 7)

Extension Education: meaning, definition, scope, objectives & principles. Motivation, Pre-independence & Post independence rural development programme, TOT programmes, Communication, Audio-visual Aids, Adoption & diffusion, Teaching & learning, Programme planning, Evaluation, PRA & RRA, Management & Administration, Human resource development, ICT, Entrepreneurship development process, Decision making, Business communication, Management, Planning, Monitoring, Evaluation, SWOT analysis, Institutes involved in EDP, Supply chain management, Note taking & record maintenance, Communication skills, Personality development, Abstracting, Individual & Group Presentation, Public speaking, Group discussion, Organizing seminar & conferences.

Economics and Marketing- Consumption – theory of consumer behaviour, laws of consumption, law of diminishing marginal utility, law of equi-marginal utility, indifference curve and its properties, consumer

equilibrium. Demand schedule and curve. Price, income and cross elasticities, consumer's surplus. factors of production – land and its characteristics, labour and division of labour, Capital and its characteristics – classification -Enterprises – forms of business organization – merits and demerits. Laws of return – law of diminishing marginal return – cost concepts. Law of supply – supply schedule and curve elasticities. - Classification of markets – Marketing of various channels – Price spread – Marketing Efficiency – Integration – Basic guidelines for preparation of project reports

Horti-Business Management- Farm management principles and decision making, production function, technical relationships, cost concepts, curves and functions – factors, product, relationship – factors relationship, product relationship, Farming systems and types. Planning – meaning, steps and methods of planning, organizational principles, Direction – guiding, leading, motivating, supervising, coordination – meaning, methods of controlling – evaluation, control systems and devices. Budgeting as a tool for planning and control. Functional areas of management – operations management – physical facilities, Materials management – types of inventories, economic order quantity (EOQ). Personnel management – recruitment, selection and training, Marketing management – definitions, marketing mix and four P's. Financial management – financial statements and ratios, capital budgeting. Project management – project preparation evaluation measures.

C. Pre-PG Forestry

1. Silviculture and Agroforestry

(Question 25)

Forests, forestry and silviculture- Objectives and scope, classification. Locality factors and their interactions. Growth and development of Trees. Silvicultural systems, Tending operations- Objectives, types and methods. Succession– types, stages and climax, Forest Regeneration- Artificial and Natural, methods, advantages and disadvantages, Regeneration Survey. Forest types of India, Silviculture of economically important tree species of Rajasthan and India, Tree Seed Technology – Seed collection, processing and storage, Seed dormancy- types and treatments, Seed testing, Tree seed pests and diseases and their control measures. Forest Nursery: Types, layout, soil mixture, Hi-tech Nurseries, raising seedlings, care and protection.

Plantation: Scope, types, site preparation, planting methods, Plantation management, Plantations of difficult sites, Industrial and Energy plantation- high density short rotation plantations- petro crops, avenue plantations and social forestry plantations.

National Forest policies, Indian judicial system- Legal definitions, application of IPC to forests, general principles of criminal law, punishment, criminal procedure code, Forest Laws - Indian Forest Act, 1927 - general provisions, FCA-1980, NGT, Forest Dwellers Act 2006 , EPA (1986), WPA (1972) and its amendments. National Agroforestry Policy 2014, Green highways-2015, Rajasthan State Forest Acts and Rules.

Injury to forests by fire, grazing, mining, man and his domestic animals, wild animals, weeds, Frost, flood, landslides, drought, etc. and protection measures. Principles, Classification, methods and control measures for major pests and diseases of Nursery, plantations and forests. Forest management- Scope, objectives and principles, organization of state forests, sustained and progressive yield, Normal Forest, Rotation – types, choice and factors affecting length of rotation. Working plan -preparations, objectives and uses, National working plan code 2014. JFM- concept, principles, rules, CFM, Scope and importance of PRA, Social Forestry- need and purpose.

Forest Mensuration- objectives and scope, Diameter, Height and Volume measurements of standing trees, logs -formulae involved and methods. Determination of growth of trees, Stump analysis and Stem analysis. Estimation of biomass. Crop age-crop volume. Yield regulation - In regular and irregular forests. Estimation of growth and Yield of stands. Forest Inventory -enumeration, Sampling, Sampling design , Stand structure - Growth and Stand density, Canopy density , Volume tables and Yield tables- types, preparation and uses.

Agroforestry- Benefits and Components. Soil improvement- Nutrient cycling, Microclimate amelioration and carbon sequestration, Tree-crop interaction. Classification of agroforestry systems, Major practices in

different agro ecological zones of India and Rajasthan - arid and semi-arid regions. Tree Management – practices in agroforestry, structure and growth of trees - crown and root architecture, Diagnosis and design methodology, National and International organizations in Agroforestry. Forest recreation –social and environmental aspects of recreation components. Principles and elements of landscaping. Landscape components. Urban forestry – definition, uses, scope and Management, Arboriculture, Nature park, nature trail, Biological park, Ecopark, BD park, Ecotourism, Signages, Restoration and rehabilitation of natural landscapes in India. Climatology – components and phenomenon, Climate change and global warming, Kyoto protocol, CDM, REDD+ etc.

2. Forest Products and Utilization

(Question 16)

Wood anatomy (dicots and monocots). Simple and Complex tissues. Secondary growth. Anatomical features of common Indian timbers. Kinds of woods and their properties. Wood seasoning- defects, types and mechanism. Classification of timbers. Wood preservation, Wood machining. Various forest based industries. Composite and improved woods. Wood modification and types. Adhesives and their uses. Rayon manufacture and destructive distillation of wood. Logging and conversion. Felling rules and methods. Transport of timber. Grading and storage of timber. Ergonomics: components and provision of energy. Personal protective equipment's.

Non timber forest products: classification like Gum, Resin, Dyes, Tannins, Fibres, Flosses, edible plants, Animal products, Grasses, bamboos and Canes etc., sources, extraction, storage and uses. Ethnobotany - Terms & Folk uses of plants for medicines, food, dyes, tans, etc. Medicinal and Aromatic plants in Rajasthan and India, origin, cultivation, Active principles and their uses. Anthropology: Terms and description. Distribution and classification of tribes in Rajasthan and India.

3. Forest Biology and Tree Improvement

(Question 12)

Structure and functions of cell, Cell reproduction- Mitosis, Meiosis and its significance. Mendelism & Mutation, Modification to Mendelian inheritance, Chromosomes. Dendrology- ICBN. Families' description of some important monocot and dicot plants. C3, C4 and CAM plants. Photosynthesis, Respiration, Plant water relations, PGR's, Tree improvement: Germplasm, In-situ and Ex-situ conservation of forest germplasm and types, Biodiversity and conservation, Measurement of diversity and diversity indices. Incompatibility and sterility. Quantitative genetics. variability. Provenance trials, Selection methods, seed production areas, seed orchards. Progeny trial and improvement of seed orchards. Hybridization, back cross and heterosis breeding.

Ecosystem and its components, Forest Biomes. Nutrient cycling, Population ecology, Community ecology and species interaction, Ecological successions, Wetland and Ramsar sites of Rajasthan. Restoration of degraded lands. Weather and climate and their interactions with plants. Livestock management, important breeds of livestock, Fodder resources and grassland types of India.

4. Wildlife Sciences

(Question 7)

Wildlife, Wildlife Ecology- habitat and its management. Edge effect, Cruising Radius, Carrying Capacity. Biogeographic zones of India, IUCN threat categories, Red data book, wildlife census. Telemetry, Conservation and its methods. Projects: Tiger, Elephant, Musk deer, Wildlife Corridors, MAB, CITES, Protected areas: National Parks, Sanctuaries and Biosphere Reserves. Important PA's of Rajasthan and India. Origin and classification of birds, Thermoregulation, Migration, Feeding, Song, Nests. Herpetology: Classification and origin of amphibians and reptiles. Nutrition and disease management in wild animals. Taxidermy and its techniques.

5. Natural Resource Management

(Question 24)

Agriculture Engineering-Surveying - methods, uses, classification. Instruments used Scales, Measurement of linear distance. Surveying: Chain Surveying, Plane table and Contour surveying, Buildings materials- types, strength and characteristics, forest roads- alignment, construction and drainage. Hydrological cycle. precipitation- rain and snow hydrology. Interception, infiltration, evaporation and transpiration- surface water, run off processes. Watershed management- principles and practices, Methods for water conservation. Role of trees in water conservation, natural terracing, species suitability-

Recharging of water springs.

Soil Science- Forest soil formation and vegetation development, Essential nutrient elements – occurrence, function and deficiencies. Macro and micro nutrient fertilizers. Rocks- types, minerals classification, weathering of rocks and minerals. Physical parameters of soil – texture, structure, bulk density, particle density, porosity, soil colour, soil air, soil temperature and soil water. A brief overview of saline, sodic, acid and calcareous soils. Properties of soils under different forests. Site productivity and nutrient cycling. Role of micro-organisms in soil fertility. Bio-fertilizers – their importance. symbiosis, asymbiotic, Mycorrhizae: types, biology and importance in forestry. INM in plantation forestry. Aerial photographs and Photo interpretation, Remote sensing –classification, key elements; image processing; GIS and GPS – process, application and uses in forestry.

6. Basic Sciences and Social Sciences

(Question 16)

Statistics- Measurement of Central Tendency, Standard error and deviation, Correlation and regression, Tests of Significance- T, F and Chi square test, ANOVA, Experimental designs-CRD, LSD, SPD, RBD and Factorial experiments.

Extension Education- Basics of communication skills and personality development- Structural grammar and spoken English, Information technology and tools. Computer- Fundamentals, software, Hardware and languages, LAN, WAN, WWW and MS Office. Audiovisual aids.

Biochemistry- Chemistry of carbohydrates, lipids, proteins and amino acids. Nucleic acids and their functions. Outlines of metabolism of carbohydrates, lipids and proteins. Photosynthesis and plant hormones. Basics of forest Biotechnology and their applications in Forestry.

Economics and Forest Business Management-Definition and Basic concepts, Theory of consumption- Laws of utility, Consumer surplus, Demand and supply with reference to timber and non-timber products. Production –Meaning, factors & functions, Marketing- definition, process, Need, Role, functions and channels, Classification of markets, Price spread, Marketing Efficiency, Integration, Constraints in marketing of forest produce. SWOT analysis. Markets- features and classification, Market inefficiencies in timber and NTFP's and measures to check it. Essentials of WTO, GATT, Dunkel proposals, IPR and Patenting. ITTO and timber certification. Forest certification- Definition, Principal stages and Key aspects, Certification schemes in operation.

Entrepreneurship Development – Overview and concepts, Economic systems and their implications, Government schemes, Export import policies and business communication skills.

D. Pre-PG Home Science/ Community Science (Community & Applied Science)

1. Resource Management and Consumer Science :

(Question 18)

System approach to management. Management concepts: value, goals, standards. Management process. Resources-classification and characteristics. Communication–process, classification, barriers, Decision making process. Time management and work simplification. Money management. Housing and its importance, selection of site, orientation and zoning, factors considered while planning a house, building materials, house wiring-Electrical fittings and fixtures. Housing problems in India. Housing finance. Elements of art and principles of design, colour, home lighting, flower arrangement. Human wants and demands. Family budget, savings and investment. Consumer problems, consumers' rights and responsibilities, standardization, grading, labeling and packaging, unfair trade practices, consumer protection and welfare, right to information. Marketing mix and marketing environment, marketing research. Product planning. Sales management. Entrepreneurship-definition, classification, importance, Government support. Selection, use and care of household equipment.

2. Human Development and Family Studies:

(Question 18)

Meaning, purpose, scope and principles. Stages of growth and development. Developmental pattern and task of children till adolescence. Physical and motor development, cognitive, mental development, emotional, social and personality development. Moral development and guidance. Family: meaning and definition, functions of traditional and modern family, stages of family, lifecycle, expectations and specific roles of family members of each stage. Importance of family and child welfare. Classification and various areas of family and child welfare services in India and role of National and International agencies. Theories of child development- Cognitive theory of Jean Piaget, Erikson's theory of psychological development. Early childhood care and development. Children with developmental challenges.

3. Food Science & Nutrition/ Food & Nutrition:

(Question 30)

Functions, Sources, deficiency and excess intake of energy, carbohydrates, proteins, fat, fat soluble and water-soluble vitamins and minerals (Classification and chemistry of amino acids and carbohydrates). Interrelationship of nutrients. Cooking methods- merits and demerits. Methods, principles and advantages of food preservation. Meal planning: importance, factors to be considered, planning meals for family, modification of diet for various age, sex and income groups and physical and physiological conditions of body. Modification of normal diet to therapeutic diet. Diet during disease like fever, liver disease, cardiovascular diseases and metabolic disorders like overweight, underweight and diabetes. Assessment of nutritional status, nutritional problems arising from food habits. Role of National and International agencies for overcoming nutritional problems in India.

4. Extension Education and Communication Management:

(Question 17)

Meaning, aims, philosophy and principles of Home Science Extension Education. Problems of rural society. Concept and need of rural development. Audio-Visual Aids-Role and classification. Teaching methods- classification, advantages and limitations of each method, principles of extension teaching. Difference in teaching in formal and informal situation. Achievements and failures of community development programme. Panchayati Raj, Voluntary organization and their role in rural development, rural leadership. Concept, importance, elements and problems of communication, Meaning of adoption and diffusion. Meaning and characteristics of innovation. Stages and factors affecting adoption. Nature, role, meaning, principles and process of programme planning. Characteristics of good programme, problems of extension work and ways to solve them. Concept, importance and methods of evaluation, use of evaluation result in programme planning. Rural development programmes-ICDS, IRDP, TRYSEM, *Swarn Jayanti Gram Swarozgar Yojna* and MGNREGA, India's five-year plans with special reference to rural development.

5. Textile and Apparel Designing:

(Question 17)

Classification, properties and basic concepts of production of textile fiber, yarn structure, complex and textured yarns, various fabric construction processes. Loom and its parts. Basic and fancy weaves. Printing and their methods. Dyes and their application, general and special finishes. Principles and process of laundering, laundry equipment's, water, soaps and detergents, bleaches, blues, stiffening agents and their uses, laundering and stain removal of different fabrics. Dry cleaning and storage of cloths. Social-psychological aspects and needs of clothing in the family. Changing needs of the family. Study of ready-made and tailor-made garments in terms of finish, cost and quality. Clothing budget for the family of different income levels, size habits and needs. Principles in selecting fabrics, colours and textures for different age groups. Traditional textiles of India and embroidery. Flat pattern methods, shifting of darts by slash and pivot method. Principles and elements of design applied to apparel designing. Introduction of CAD, CAM. Application of CAD in Textile and Apparel Designing. Fashion Terminology, Fashion cycle, theories of fashion adoption, factors affecting fashion.

OMR ANSWER SHEET, SIDE-I

(USE PROVIDED BLACK BALL POINT PEN ONLY)

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SERIES **FACULTY**

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INSTRUCTIONS FOR FILLING SIDE-II OF ANSWER SHEET (OMR)

Example for filling side II of Answer Sheet

ROLL NO.										Number	Example
1	2	0	8	5	4	7	7			1	1
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2		2	2	2	2	2	2			4	4
3	3	3	3	3	3	3	3			5	5
4	4	4	4	4		4	4			6	6
5	5	5	5		5	5	5			7	7
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There are 1 to 100 questions of multiple choice darken only one circle out of four option.

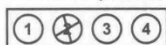
Example :

Q. Jaipur is the capital of ?

1. Punjab 2. Uttar Pradesh 3. Gujarat 4. Rajasthan (1) (2) (3) ●

Instructions for marking answers

1. Use provided black ball point pen only for blackening (shading) the circle on side-II of the answer sheet.
2. Blacken the circle completely and uniformly so that the letter / number inside the circle is not visible.
3. Blacken only **ONE** circle for each answer as shown in the example below.



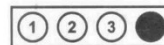
Wrong



Wrong



Wrong



Correct

4. Blacken/Darken the circle with pen in the space provided. Do not make any stray mark on the Answer sheet or touch pen on any other circle
5. Rough work must not be done on the answer sheet. Use your test booklet for doing the rough work.
6. Once you darken the circle, you cannot change the answer. Do not use any eraser or whitener.
7. For every correct answer four marks will be awarded.
8. There will be negative marking (one mark will be deducted for every wrong answer).

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ONE	TWO	ZERO	EIGHT	FIVE	FOUR	SEVEN	SEVEN
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Pre - P.G. ENTRANCE TEST - 2023

OMR ANSWER SHEET, SIDE-II

ROLL NO.	BOOKLET SERIES	FACULTY		SIGNATURE OF CANDIDATE	SIGNATURE OF INVIGILATOR																																																																																								
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1	1	2	3	4	26	1	2	3	4	51	1	2	3	4	76	1	2	3	4
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19	1	2	3	4	44	1	2	3	4	69	1	2	3	4	94	1	2	3	4
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21	1	2	3	4	46	1	2	3	4	71	1	2	3	4	96	1	2	3	4
22	1	2	3	4	47	1	2	3	4	72	1	2	3	4	97	1	2	3	4
23	1	2	3	4	48	1	2	3	4	73	1	2	3	4	98	1	2	3	4
24	1	2	3	4	49	1	2	3	4	74	1	2	3	4	99	1	2	3	4
25	1	2	3	4	50	1	2	3	4	75	1	2	3	4	100	1	2	3	4

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EXAM CENTRE STAMP

ANNEXURE-IV
SCHEDULE OF ENTIRE ADMISSION PROCESS THROUGH Pre-PG 2023

S. No.	Activities	Proposed Date & Day	
1	Issuing Notification	18.02.2023	Saturday
2	Date of commencement for filling the online application	20.02.2023	Monday
3	Last date for filling and online depositing the application forms without late fee	27.03.2023 12:00 Midnight	Monday
4	Last date for filling & online depositing the application forms with late fee Rs. 500/-	30.03.2023 12:00 Midnight	Thursday
5	Last date for editing applications form	03.04.2023 12:00 Midnight	Monday
6	Online Admit cards available	08.05.2023	Monday
7	Date of Entrance Examination	14.05.2023	Sunday
8	Display of OMR Sheets and answer key	19.05.2023	Friday
9	Last date for objections, if any	22.05.2023 12:00 Midnight	Monday
10	Declaration of result	01.06.2023	Thursday
11	Opening of Online Option Form	02.06.2023	Friday
12	Last date for depositing the Online Option Form fee	06.06.2023 12:00 Midnight	Tuesday
13	Last date for editing the Online Option Form	07.06.2023 12:00 Midnight	Wednesday
14	Display of 1st Provisional Admission List	17.06.2023	Saturday
15	Last date for accepting allotment and depositing the fee or submitting request for upward assessment (Online)	20.06.2023 12:00 Midnight	Tuesday
16	Display of 2nd Provisional Admission List	24.06.2023	Saturday
17	Last date for accepting allotment and depositing the fee or submitting request for 2nd upward assessment (Online)	27.06.2023 12:00 Midnight	Tuesday
18	Display of 3rd Provisional Admission List	29.06.2023	Thursday
19	Last date for accepting allotment and depositing fee (Online)	01.07.2023 12:00 Midnight	Saturday
20	Reporting with original documents in respective College (up to 5:00 PM)	04.07.2023	Tuesday
	If seats remain vacant		
21	Opening of Option Form for Online Spot Counselling	06.07.2023	Thursday
22	Last date for Online Option Form (12:00 Midnight)	09.07.2023 12:00 Midnight	Sunday
23	Display of 1st Provisional Admission List	14.07.2023	Friday
24	Last date for depositing the Online fees (12:00 Midnight)	17.07.2023 12:00 Midnight	Monday
25	Reporting with original documents in the College (up to 5:00 PM)	18.07.2023	Tuesday
26	Display of 2nd Provisional Admission List	22.07.2023	Saturday
27	Last date for depositing the online fees (12:00 Midnight)	24.07.2023 12:00 Midnight	Monday
28	Reporting with original documents in the College (up to 5:00 PM)	26.07.2023	Wednesday

NOTE: Candidates are advised to visit the website for changes in dates, system, or any other information from time to time. The coordinator will not be responsible for not reaching the changes to the candidate in time.

Admission process for 2023-24 will be over by 26.07.2023. Although, Coordinator JET/Pre-PG/ Ph.D. reserves the right to change the dates and schedule.

Contact Details:

JET Landline number: **02912948573**

JET Mobile Number.: **8441882023**

Help Line: Between 10.00 am and 5.00 pm on working days.

Bank Contact number: **8003698791**

Bank email id.: **virendra.sardiwal@gmail.com**

COORDINATOR

JET/Pre-PG/Ph.D. Entrance Examination - 2023