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MAHARANA PRATAP UNIVERSITY OF AGRICULTURE & TECHNOLOGY UDAIPUR



16th PRE-P.G. TEST-2006

Information Bulletin & Application Form

For Admission To :

M. Sc. Agriculture

M. Sc. Home Science

M. V. Sc.

Udaipur court alone shall have jurisdiction to determine all disputes pertaining to the interpretation of provisions of PRE-P.G. Test - 2006

(T O B E R E T A I N E D B Y T H E C A N D I D A T E)

Co-ordinator, JET/PRE-P.G. 2006, MPUAT, Rajasthan College of Agriculture, Udaipur-313 001

Phone/ Fax: 0294-2423119

Website: www.mpuat.ac.in

General Guidelines for the Candidates

- ☞ Candidates can download Application form along with Admit Card and Duplicate Admit Card and submit to the Coordinator along with demand draft of Rs. 500 /- for General/ OBC category and Rs. 250/- for SC/ST/PH category payable in favour of the Comptroller, MPUAT, Udaipur.
- ☞ Candidates are required to complete the application form and transmit the same for (i) admission and (ii) appearing at the Pre-P.G. Test to Co-ordinator, JET/Pre-P.G. Test, Maharana Pratap University of Agriculture & Technology (MPUAT), Rajasthan College of Agriculture, Udaipur-313001 in the enclosed envelope through **registered post**.
- ☞ Only photocopies of all documents (Mark sheets, Caste/PH certificate in case of reservation) are required along with application form.
- ☞ All the original certificates and mark sheets must be brought at the time of the registration in the college where the seat is allotted.
- ☞ Graduates of Home Science and Veterinary interested in M.Sc. Ag Extension Education must enclose a DD of Rs. 150 in favour of Comptroller, MPUAT, Udaipur
- ☞ Any application received after **5.00 PM on 25th May, 2006** or incomplete in any respect will be rejected without giving any notice to the candidate.
- ☞ Candidates who have appeared at the qualifying main examination but their result has not been declared, shall be provisionally allowed to appear at the Pre-P.G. Test. The candidates awarded supplementary in the qualifying examination shall not be considered for admission.
- ☞ The examination will be held as per schedule given below:

Date	Day	Time	Paper
27-06-2006	Tuesday	9 AM - 11 AM	Home Science/Veterinary & Animal Science
27-06-2006	Tuesday	3 PM - 5 PM	Agriculture

- ☞ The following centres would be allotted for various programmes:
 - (i) Agriculture - Udaipur, Bikaner & Jobner
 - (ii) Home Science - Udaipur & Bikaner
 - (iii) Veterinary & Animal Science - Bikaner

ELIGIBILITY

(A) Residential :

- (i) The candidate must have studied for last three years of qualifying examination continuously as a regular candidate in a recognised Institution in Rajasthan.
OR
- (ii) 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 atleast 5 years during this period in a recognised educational institution in Rajasthan.
OR
- (iii) The candidate must be a bonafide resident of Rajasthan. He/She may be presently studying in any of the states other than Rajasthan.
OR
- (iv) The candidate is a Son/Daughter of a serving or retired employee of (a) Government of Rajasthan including Officer of All India Services Borne on 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 Universities in Rajasthan or Secondary Board of Education, Rajasthan provided that

employee has worked in Rajasthan for three years preceding the last date of submission of the application.

OR

- (v) Candidate is a Son/Daughter of a permanent or retired employee of Indian Defence Service and the employee is either of Rajasthan Origin irrespective of his place of posting or is posted in Rajasthan at the time of last date of the application for admission provided that in case the Defence Personnel is of the Rajasthan origin, a Certificate has to be submitted by him from the employer to the effect that his State of origin is Rajasthan at the time of his entry in to service.

The eligible candidates shall be admitted as per following priorities-cum-merit of the Pre-P.G. Test :

Priority-I : Widows/Wards of Defence Personnel killed in action.

Priority-II : Wards of serving personnel and ex-serviceman disabled in action.

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

Priority-IV : Wards of Defence Personnel disabled in peace time with disability attributable to military service.

Priority-V : Wards of ex-servicemen and serving personnel who are in receipt of following Gallantry Awards.

(1) Param Vir Chakra

(7) Vir Chakra

(2) Ashok Chakra

(8) Shaurya Chakra

(3) Sarvottam Yuddh Seva Medal

(9) Yuddh Seva Medal

(4) Maha Vir Chakra

(10) Sena, Nausena, Vayusena Medal

(5) Kirti Chakra

(11) Mention-in-despatches

(6) Uttam Yuddh Seva Medal

Priority-VI: Wards of ex-servicemen.

Priority-VII: Wards of serving personnel.

OR

- (vi) Candidate is a son/daughter of permanent (serving/retired) employee of Para-Military Forces of India and the employee is either of Rajasthan origin irrespective of his 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 from the employer to the effect that his State of origin is Rajasthan at the time of his entry into service.

OR

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

Note:

- (i) The relevant certificates which are the basis of eligibility of the candidate will have to be furnished by the candidate at the time of counselling.
- (ii) The residence certificate wherever required will have to be duly signed by the District Magistrate of the concerned district.
- (iii) In case of serving personnel, where service conditions have resulted into eligibility, a certificate of the employer will have to be submitted by the candidate.

(B) Academic: Those candidates who fulfil the residential requirement will have to fulfil the following academic qualification to appear in the test.

For admission in M.Sc. (Agriculture): The candidates should have Bachelor's degree in Agriculture from the Rajasthan Agricultural University (RAU), Bikaner/Maharana Pratap

University of Agriculture & Technology (MPUAT), Udaipur or an equivalent, securing 50% or above marks in aggregate or equivalent O.G.P.A. The candidates having Bachelors' degree in Horticulture are eligible for M.Sc.Ag. in Horticulture, Molecular Biology and Biotechnology and Biotechnology only whereas candidates with bachelors degree in Forestry are eligible for Molecular Biology and Biotechnology and Biotechnology.

For Admission in M.Sc. (Home Science): The candidates should have four years Bachelor's Degree in Home Science from the RAU, Bikaner or MPUAT, Udaipur or an examination declared equivalent to it, securing 50% or above marks in aggregate or equivalent O.G.P.A. Only women candidates are eligible. Duration of M.Sc. programme is two years for the students with 4 years degree programme. The students from non-agriculture universities and those from three-year degree programme will take one additional semester to complete deficiency courses.

For Admission in M.V.Sc.: The candidates should have Bachelor's Degree in Veterinary and Animal Science from the RAU, Bikaner or an equivalent securing 50% or above marks in aggregate or equivalent O.G.P.A.

Note:

- (i) A relaxation of 5% marks would be allowed to candidates belonging to SC/ST/OBC category in all the above course programmes.
- (ii) B.V.Sc. & A.H. passed candidates are also eligible for subject Extension Education in faculty of Agriculture.
- (iii) B.Sc. (Home Science) passed candidates are also eligible for the subject Extension Education in the faculty of Agriculture.
- (iv) A candidate with B.Sc. (Agriculture) may appear in Agriculture paper only.

One sheet is reserved in the memory of late Shri Karan Narendra Singh at SKNCOA, Jobner will be allotted on the basis of recommendation of direct descendant of the founder from amongst the candidates who have applied for it and who have not appeared in the Pre-P.G. Entrance Test. Further, the candidate must have passed B.Sc. Ag. (Honours) or equivalent examination with not less than 50% marks in the aggregate.

NUMBER OF SEATS (Excluding ICAR quota)

A. M.Sc. (Agriculture)

S.No.	Subject	Campus			TOTAL
		RCA Udaipur	COA Bikaner	SKNCA Jobner	
1.	Agronomy	4	5	5	14
2.	Soil Science	3	4	4	11
3.	Entomology	3	3	4	10
4.	Plant Pathology	3	3	4	10
5.	Plant Breeding & Genetics	4	4	5	13
6.	Horticulture	4	4	5	13
7.	Agricultural Economics	3	5	4	12
8.	Extension Education	3	-	5	8
9.	Animal Husbandry	3	-	-	3
10.	Plant Physiology	-	-	3	3
11.	Nematology	3	-	-	3
12.	Molecular Biology & Biotechnology	3+4*	-	-	3+4*
13.	Bio-Technology	-	3+3*	-	3+3*
	Super Numerary (founder quota)	-	-	1	1
Total		36+4*	31+3*	40	107+7*

* Payment seats

B. M.Sc. (Home Science)

S.No.	Subject	Number of Seats		TOTAL
		Udaipur Campus	Bikaner Campus	
1.	Foods & Nutrition	4	5	10
2.	Family Resource Management	4	-	5
3.	Human Development & Family Studies	4	3	8
4 (a)	Home Science Extension Education	—	5	5
(b)	Home Science Extension & Communication Management	4	—	5
5.	Textile and Apparel Designing	3	-	4
Total		19	13	32

C. Master of Veterinary Science :

S.No.	Name of Department	No. of seats (Minimum)
1.	Vety. Anatomy & Histology	3
2.	Vety. Physiology	2
3.	Animal Nutrition	3
4.	Animal Breeding & Genetics	3
5.	Livestock Prod. & Management	3
6.	Vety. Microbiology	3
7.	Vety. Pathology	3
8.	Vety. Parasitology	2
9.	Vety. Surgery & Radiology	6
10.	Vety. Public Health	3
11.	Animal Reproduction, Obstetrics and Gynaecology	3
12.	Vety. Clinical Medicine	3
13.	Vety. Biochemistry	2
14.	Vety. Epidemiology and Preventive Medicine	3
Total		42

Note : Admission will be made subject to the availability of manpower and funds and as per the decision of the University at the time of admission.

RESERVATION

- (i) The reservation of seats for SC/ST/OBC/PH and others will be as per rules of Government of Rajasthan, ICAR, RAU, Bikaner & MPUAT, Udaipur as applicable from time to time.
- (ii) Reservation quota is determined on the basis of combined intake in all subjects of the faculty and not subject wise following the roster system. Subject choice will be given on the basis of his/her order of choice in option form and position in the roster.

SCHEME OF EXAMINATION

In the very nature of competitive examination no syllabus can be prescribed. It is an exercise to pick up the best. However, for guidance to the candidates the syllabus and standard of the Entrance Test will be that of B.Sc. (Ag.)/B.Sc. (Home Science) and B.V.Sc. & A.H. examination of RAU, Bikaner and MPUAT, Udaipur.

Units	No. of Questions in Unit
A. Faculty of Agriculture :	
1. Agronomy + Soil Science, Biochemistry	20
2. Plant Pathology + Nematology	15
3. Entomology	10
4. Plant Breeding & Genetics + Plant Physiology	15
5. Horticulture	10
6. Animal Husbandry	10
7. Ag. Economics & Statistics	10
8. Extension Education	10
Total	100
B. Faculty of Home Science	
1. Home Management	18
2. Child Development	18
3. Foods & Nutrition	18
4. Home Science Extension Education	18
5. Clothing and Textiles	18
6. Basic Agriculture	10
Total	100
C. Faculty of Veterinary & Animal Science	
1. Physiology, Bio-Chemistry, Pharmacology & Toxicology	20
2. Parasitology and Pathology	12
3. Veterinary Microbiology and Public Health	12
4. Animal Nutrition and Livestock Production & Management	14
5. Basic Statistics (Animal Breeding & Genetics)	10
6. Veterinary Anatomy and Histology	10
7. Animal Reproduction, Gynaecology & Obstetrics	10
8. Clinical Medicines and Preventive Medicines	12
Total	100

- ☞ The Question paper will consist of multiple choice objective type questions.
- ☞ The question paper of either faculty will be in the form of a test booklet containing 100 questions bearing number 1, 2, 3..... 100. There would be four suggested answers (1,2,3,4) to each question. The candidates are required to choose the correct answer and blacken the corresponding circle with ball pen (Details for filling answer sheet is given on side I of sample answer sheet) in the answer sheet.
- ☞ The test booklet may be used by the students for rough work and the squares printed in it may be used for deciding the correct answer from the various alternatives. It will be collected from them at the end of the examination along with the answer sheet. **Assessment will be made only on the basis of the answer sheet.**
- ☞ **Three marks will be awarded for every correct answer and one mark will be deducted for every wrong answer. Thus there will be negative marking.**
- ☞ **The answer sheet of the Test shall not be subject to production before any court (civil or criminal) or before the candidate or any body else on his behalf or before any internal or external authority.**
- ☞ Merit of Pre-P.G. examination will be notified in news paper/on university website. The candidates securing 33% marks or above (28% or above for SC/ST/OBC) would be eligible for submitting the Option Form.

- ☞ The Option Form should reach to the Co-ordinator office before stipulated date and time along with DD of Rs. 4000/- payable to **Comptroller, MPUAT, Udaipur** and copy of any document not enclosed earlier with application form (Particularly PDC of B.Sc.Ag.). **The Co-ordinator office will not accept any Option Form after stipulated date and time.**

ALLOTMENT OF SUBJECT AND PLACE OF STUDY

- ☞ The centralised admission of various programmes will be done strictly on the basis of merit and option given by the candidate in the option form following the roster system.
- ☞ Candidates securing equal number of marks in the Pre-P.G. Entrance Test will be admitted in the following order of preference: –
 - (i) One who has secured more marks in the Bachelor's Degree examination or its equivalent examination.
 - (ii) Among candidates securing equal number of marks in the Bachelor's Degree examination or its equivalent examination, those who have passed in lesser number of attempts will be given preference. If there is a further tie, candidates securing more marks in Senior Higher Secondary Examination (10+2) or its equivalent examination will be given preference.
- ☞ After first seat allotment and reporting of candidates in the respective Colleges on stipulated date, the vacant seats of different categories will be filled by upward assessment and other candidates stand in the merit.
- ☞ The University reserves the right to admit or reject admission of any candidate without assigning any reason.
- ☞ Admission of the candidates who have passed qualifying examination from a University of the State other than Rajasthan will be provisional, till the eligibility certificate is issued by the University.
- ☞ If for reason to be recorded in writing the Admission Committee suspects that a particular candidate has obtained a certificate by mis-representing facts, matter will be referred to the concerned D.M. On receipt of the enquiry report, the Admission Committee would take the final decision regarding the admission of the candidate.
- ☞ Documents not found confirming to requirement may lead to disqualification.
- ☞ Admission letters will be dispatched by registered post. **The University will not accept any responsibility of delayed/non-receipt of admission letters.**
- ☞ The candidate fails to report in the college on stipulated date will not be further admitted and his total amount of fees will be forfeited.
- ☞ All candidates provisionally admitted will be examined by the physician of the respective colleges regarding their general and physical fitness for the studies. The candidates found unsuitable will be rejected. The decision of the Board in this respect will be final. In such cases fees will be forfeited.

UPWARD ASSESSMENT (Transfer/change of subject of higher choice)

The candidates admitted in different subjects and who reported in the college at stipulated date are eligible for upward assesment. The upward assessment will be made on the basis of Option Form already submitted by the candidate. No new option will be allowed. They should submit application to the Head of the Institution for upward assessment along with fee of Rs. 200/-(This fees is transferable to Co-ordinator). Only those candidates will be considered for upward assessment whose name reaches to the Co-ordinator on or before stipulated date and time. After new allotment they will loos their claim on the previous sheet. There after no request for change will be entertained.

Note: Any person other than the parents of the candidate can become guardian, only if the parents of the candidate are not alive or have been declared insane.

SYLLABUS FOR PRE-PG TEST

A - Faculty of Agriculture

1. Agronomy:

Agro-climatic zones of India and Rajasthan, their effect on plant growth & development, adaptation and distribution of crops. Crop production, cropping system. Concept and extent 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: function, occurrence, cycling in soils and their availability. Irrigation in India and Rajasthan. Quality of water, requirement, management, drainage. Dryland agriculture in India and Rajasthan. Agronomical study of Kharif and Rabi crops. Seed quality and certification. Problem weeds of Rajasthan and their physical, cultural, biological and chemical control.

2. Soil Science & Agricultural Chemistry:

Soil erosion, conservation, productivity, fertility and management of saline, alkaline and acid soils. Micro-organisms in soil and their role. Soil as medium for plant growth, soil composition, formation, profile, survey and classification. Physical properties of soil, soil moisture. Soil air and temperature in relation to plant growth. Clay minerals, organic colloids, cation exchange phenomenon, soil reaction and buffering. Fixation of phosphorus, potassium and ammonium in soils.

3. Biochemistry:

Chemistry of carbohydrates, lipids, proteins, vitamins, hormones and nucleic acids. Outlines of metabolism of carbohydrate and lipid, protein biosynthesis. General account of enzymes and role of vitamins and hormones.

4. Entomology:

Animal kingdom- Classification and nomenclature. Morphology and anatomy of rabbit. Economic importance of invertebrates and vertebrate. Control of animal pests of agriculture. Ecosystem and wild life preservation. Insect dominance. Anatomy and morphology of grasshopper. Insect reproduction and development, pest management, identification, bionomics and control of crop and stored product pests. Lac culture, sericulture and apiculture. Physical, mechanical, cultural, chemical, biological, legal and other modern approaches to control insect pests.

5. Plant Pathology:

Importance of microbes in agriculture and industry. Micro-organisms, classification, nutrition, growth and reproduction. Host-microbe relationship. Morphology, reproduction, nutrition and nomenclature of fungi. Classification of plant pathogenic fungi. Importance of plant pathology. Symptomatology. Disease development and methods of plant disease control of important crops.

6. Nematology:

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

7. Plant Breeding & Genetics:

Variation- Its causes and importance. General classification of plant kingdom of agricultural importance. Pollination and fertilization. Micro and megasporogenesis. Cell structure, division and differentiation. Internal structure of dicot and monocot root, stem and leaf. Secondary growth. Mendel and his work. Monohybrid and dihybrid crosses. Gene interactions. Multiple alleles and blood groups. Linkage. Crossing over and mapping of chromosomes. Sex

determination. Multiple genes, selection and hybridization. Heterosis, seed testing, production and distribution. Breeding for diseases and pest resistance. Gene mutations, chromosomal aberrations and polyploidy. Cytoplasmic, chromosomal inheritance. Sterility and incompatibility and application in plant breeding. Mutation and polyploidy breeding.

8. Horticulture

Floriculture- Ornamental gardening styles, features. Winter, Summer and Rainy season annuals. Flower arrangement. Vegetables- Type of farming and classification. Seed industry, seed testing. Raising of seedling in nursery. Pomology- Selection of site, preparation and layout of orchard; planting system. Principles of fruit production, propagation, cultivation and storage. Methods of preparation of juices, squashes, cordials, jams, jellies and marmalades, preserves, tomato squashes and pickles, canning and dehydration of fruits and vegetables.

9. Plant Physiology:

Cell physiology, plant water relations, photosynthesis and photo-respiration. Respiration. Inorganic plant nutrition, physiology of flowering, Photoperiodism. Vernalization and phytochrome. Physiology of growth hormones and regulation. Seed germination and dormancy.

10. Animal Husbandry:

Importance of Livestock and poultry in national economy. Cattle management and housing of cattle, buffalo, sheep, goat, poultry, swine and camel. Common livestock diseases. Functions of nutrients, their deficiencies in animal and sources. Digestive system of ruminants and poultry, Nutritive value of feeds and nutrient requirements. Important breeds of farm animals and poultry. Methods and systems of breeding. Principles and methods of selection. Purchase of dairy animals. Elementary knowledge of endocrine glands and their secretions. Physiology of male and female reproduction. Egg formation and embryonic development in poultry. Infertility, sterility, their causes and prevention.

11. Agricultural Economics:

Meaning of utility, factors of production and their characteristics. Classical production functions and law of diminishing returns. Factors affecting demand and supply. Price determination. Importance of agriculture in national economy. Peculiarities of agriculture. Population problem and food. Land reforms and ceilings. Problems of agricultural labour. Agricultural finance. Credit. Credit institution. Agricultural development and poverty alleviation programmes. Nature and problems of agricultural marketing and prices. Regulated market. Economic Principles of farm management, Farm planning and budgeting. Measures of farm efficiency.

12. Extension Education:

Extension education- Definition, philosophy and principles. Rural Sociology scope and extension education. 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 of agriculture innovation and information. History of early extension programme in India, five year plans. Developmental programmes and institutions- IRDP, NREP, RLEGP, T&V, NARP, TRYSEM, Lab to Land, ORP, PMRY, Swarn Jayanti Gram Swarojgar Yojna, K.V.K., ATIC, IVLP and ATMA.

13. Statistics:

Basic principles of statistics. Data summarization. Measures of central tendency and dispersion. Correlation and regression- elementary idea and test of significance. Analysis of variance and its application in design of experiments.

B - Faculty of Home Science

1. Home Management:

Philosophy of management:

Definition, components of management, resources, process of management. Decision making. Management of human and non-human resources. Budget work simplification. Introduction to economic human wants. Consumer behaviour. Demand & law of demand.

House/Housing:

Function, importance and types, selection of site, physical components, orientation, zoning of residential accommodation, space distribution, ventilation light, sanitation and plumbing circulation. Flexibility of space used, storage facility. Building components and building materials. House ownership, buying/constructing & renting. Elements of art & principles of design. Picture and wall hanging. Flower arrangement, Material used for household equipment. Factors in selection of household equipment & methods of forming electricity heat.

Principles, selection, use, care and maintenance of household tools- Beaters and mashers, knives, forks, cutters, slicers, kattles, coffee percolators, toasters, ovens, gas tandoor, cooking range, mixers, blenders, refrigerators, vacuum cleaner, washing machine, irons, electrified water heaters, room coolers, fans, air conditioner and room heaters.

2. Child Development:

Human Development:

Meaning, purpose, scope and principles. Stages of growth and development. Development 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, stage of family, life cycle, 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.

Child psychology:

Definition, meaning, objectives and scope of child psychology. Theories of child development. Cognitive theory of Jean Piaget, Erikson theory of psychological development.

3. Foods & Nutrition:

Functions, sources, deficiency and excess intake of energy. Carbohydrates, proteins, fat. Fat soluble and water soluble vitamins and minerals. Classifications and chemistry of amino acids, fatty acids and carbohydrates. Interrelationship of nutrients. Cooking methods-merits and demerits. Importance, method and principles of foods preservation. Meal planning importance, factors to be considered, planning meals for family, modification of diet during various age and sex group, income group physical and physiological conditions of body. Modification of normal diet therapeutic diet. Diet during disease like fever, liver disease. Cardiovascular diseases and metabolic disorders like over weight, under weight and diabetes. Assessment of nutritional status, nutritional problems arising from food habits. Role of National & International agencies for overcoming nutritional problems in India.

4. Home Science Extension Education:

Sociology:

Definition, scope, relation with home extension education. Meaning, definition, type & function of major social groups as family, class & kinship group. Problems of rural society. Concept & need of rural development.

Extension Education:

Meaning, aims & functions in rural development, philosophy and principles of Home Science Extension Education. Achievements and failures of community development programme. Panchayati Raj., voluntary organisation & their role in rural development. Qualities of local leaders. Audio-Visual aids- Role & classification. Classification of teaching methods, nature, principles, preparation, advantage, limitation of each method. Principles of teaching in Home Science Extension Education. Difference in teaching in formal and informal situation.

Adoption Process:

Meaning, definition of adoption, diffusion & communication. Meaning & characteristics of innovation. Importance, elements & problems of communication, stages & factors affecting adoption.

Planning:

Nature role, meaning, principles and process of programme planning. Classification of a food programme. Implementation of programme. Social and cultural problems in programme implementation, problems of extension work and way of solving them. Evaluation of extension programme, meaning, definition and importance of evaluation. Methods of evaluation, use of evaluation results in programme planning. On-going rural development programmes- ICDS, IRDP, TRYSEM, PMRY, Swarn Jayanti Gram Swarajgar Yojna, Smokeless chulha, Biogas, Solar Cooker. India's five year plans with special reference to rural development.

5. Clothing and Textiles:

Textiles:

Classification, properties and basic concepts of production of textile fibre, 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.

Laundry:

Principles and process of laundering, laundry equipments, water, soaps and detergents, bleaches, blues, stiffening agents and their uses, laundering and stain removal of different fabrics. Dry-cleaning and storage of clothes.

Clothing:

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, sizes, habits and needs. Principles in selecting fabrics, colours and textures for different age groups. Traditional textiles of India and embroidery. Flat pattern method, shifting of darts by slash and pivot method.

6. Basic Agriculture:

1. Importance and scope of fruits and vegetables. Cultivation of important fruit crops (in brief) with reference to climate, soil, varieties, manuring, irrigation, harvesting, yield and plant protection measures: lime, mandarin, sweet orange, mango, grape, papaya, ber, aonla and pomegranate.
2. Cultivation of important vegetable crops (in brief) with reference to climate, soil, varieties, manuring, irrigation, harvesting, yield and plant protection measures: tomato, brinjal, chilies, okra, pea, cucurbits, bitter gourd, bottle gourd, ridge gourd, cauliflower, cabbage, onion, potato, radish and carrot.
3. Planting and maintenance of lawn, trees, shrubs and shrubbery border, hedge, edge & annuals. Bonsai and its maintenance. Cultivation of commercial flowers like rose, chrysanthemum, jasmine, gladiolus and marigold.
4. Essential nutrient criteria, available forms, functions and deficiency symptoms of nitrogen and phosphorus. Fertilizer and organic manure- Types, methods of application and time of application. Definition and types of cropping systems- monoculture and sole cropping, multiple cropping including sequential, Inter mixed, relay and multi-storeyed cropping. Area, production and productivity and package of practices for wheat, maize, groundnut and soybean.
5. Breeds of dairy cattle and buffaloes (Gir, Rathi, Tharparkar, Jersey, Murrah, Surti). Advantage and disadvantage of AI (Artificial Insemination), Common diseases of dairy animals, (FMD, BQ, HS, Mastitis, Bloat, Milk fever, Calf scour and Pneumonia). Milk composition and importance in diet.

C - Faculty of Veterinary and Animal Science

1. Veterinary Anatomy & Histology:

Study of topographic anatomy of the Ox and Comparison with those of Horse, Camel, Dog and Fowl. General Characteristic and classification of skeleton and bones. Detailed description of the bones of axial and appendicular skeleton including their joints. Different type of joints and movement. Cell and basic tissues, Microanatomy of the different organs of body. General embryology Granalogenis, fertilization, cleavage, gastrulation, Foetal membranes, implantation and classification of placenta, foetal circulation, organogency of mammals and chicks. Teartology, Detailed description of the splanchnic organs of body. General circulation of body.

2. Veterinary Physiology:

Chemical composition and physiological properties of muscles. Composition and function of blood, lymph, cerebrospinal fluid and synovial fluid. Neural and chemical regulation of heart. Haemodynamics of circulation. Shock, fluid and electrolyte balance: Chemistry of respiration. Digestion in monogastric and ruminant animals. Physical characteristics and composition of urine in health and diseases. Functions of skin. Degeneration and regeneration of nerve fibers. Mechanism of vision. Structure and mechanism of hearing, physiology of olfaction and taste. Physiology of hormones, physical reactions to environmental changes.

3. Veterinary Biochemistry:

Biochemistry of cellular and sub-cellular components, Biochemistry of Carbohydrates, proteins and lipids and their metabolism in ruminants and non-ruminants. Enzymes, coenzymes and cofactors. Metabolic role of essential minerals and vitamins. Basic principles of biosynthesis of proteins and nucleic acids. Biochemical processes in health and diseases in relation with diagnostic bio-chemistry.

4. Pharmacology and Toxicology:

Principles of drug activity. Drugs acting on CNS, autonomic nervous system, cardio-vascular system digestive tract. Hormones and autocoids, respiratory system, urinogenital system and mucous membranes. Antibacterial agents and Antifungal agents, Anthelimitics (commonly used). Antiprotozoal agents. Antiuiral agents. Anticancer agents. Antiseptics and disinfectants. Sources of poisoning. Toxicity caused by metals, non-metals, drugs and agrochemicals, Venomous bites and stains, Environmental toxicity.

5. Veterinary Parasitology:

Parasites and parasitism- Types of hosts. General control measures against parasitic diseases. Parasitic diseases. Parasitic zoonoses, role of wild animals in parasite zoonosis. Use & abuses of antiparasitic drugs, insecticides and acaricides in veterinary practice. Important morphological features, life cycles and pathogenesis of common helminth parasites, protozoan parasites and ecto-parasites of domestic animals and birds. Immunity against parasites immune diagnosis and immune prophylaxis against parasites.

6. Veterinary Microbiology:

Microbiology of unicellular organisms and their classification. Morphology and structure of bacteria. Isolation of bacteria in pure culture. Sterilization and disinfection. Morphology, growth, reproduction and classification of fungi. General properties, classification, cultivation and replication of viruses. Humoral and cellular immune responses. Antigens, antibodies, hyper sensitivity, biologicals in immunoprophylaxis and diagnosis of diseases and immunization of animals.

7. Veterinary Pathology:

Developmental disturbances, anomalies and monsters. Disturbances of circulation. Disturbances of cell metabolism. Disturbances in growth. Inflammation. Immune reaction, hyper sensitivity and auto-immunity, Necrosis, gangrene, and post-mortem changes. Pathology of cardiovascular system, haemopoetic system, respiratory system, digestive system, urinary system, genital system, nervous system, endocrine glands and musculo-skeletal system. Neoplasms. Pathology of common diseases caused by bacteria, viruses, fungi, helminths and protozoa. Biopsy as a tool of diagnosis and its limitations in the diagnosis of lesions. Pathology of common nutritional deficiency diseases.

8. Veterinary Public Health:

Sources of bacterial contamination of raw milk and methods of control. Clean milk production. Quality control of milk and milk products. Milk borne diseases. Elements of meat inspection. Managemental aspects of abattoir. Methods of slaughter. Characteristics of meats of different food animals. Emergency slaughter. Disposal of unsound meat. Inspection of poultry, eggs, fish and farm animals. Meatborne diseases and methods of their control. Common, zoonotic diseases, their transmission, prevention, control and eradication. Sources of contamination of water. Purification and sterilization of water, sanitation of animal house. Methods of prevention and control of air and water borne diseases of man and animals.

9. Animal Nutrition:

Fundamentals of Animal Nutrition. Nutrients (Protein, Carbohydrate, Fat, Vitamins and minerals) and their metabolism with special reference to mal-nutrition and deficiency diseases. Feed and fodders, their classification and composition. Conservation and preservation of fodders. Improvement of poor quality roughage. Subsidiary feeds and feed additives. Anti-nutritional factors and toxic feeds. Ruminant and non-ruminant nutrition. Computation of ration for various conditions. Feeding of cattle, sheep, goat, horse and poultry. Veterinary dietetics.

10. Animal Breeding and Genetics:

Basic Statistics:

Observation and data recordings, mean, variance, standard error, co-efficient of variation, correlation and regression. Test for significance. Computer programmes and use of computers for statistical analysis, epidemiology, farms and Veterinary hospitals.

11. Livestock Production and Management:

Common animal husbandry terms. Common vices of animals and their prevention and cure. Cure and management of sick animals. Disinfection, isolation, quarantine and disposal of

carcasses. Dentition and age of animals. Rules and regulations regarding transport of livestock. Care and management of young stock, dry and pregnant animals. Methods of administration of medicines to animals. Storage of feeds and fodders. Treatment of hard water and purification of water supplies. Amount of water required by domestic animals. Testing of drains. General principles of sewage disposal and purification. General principles of housing, feeding, breeding and marketing of animals and poultry. Importance of management and health care of zoo animals, wild life, laboratory animals, and pet animals. Preparation of milk products. Abattoir practices and meat production.

12. Animal Reproduction, Gynaecology and Obstetrics:

Sexual maturity in relation to reproduction. Role of hormones in various phases of reproduction. Oestrus cycle in domestic animals. Fertilisation and development of foetus. Gestation, embryo transfer, pregnancy diagnosis. Fertilisation failure and repeat breeding. Infertility and sterility. Parturition in domestic animals. Expulsion and retention of after birth. Postpartum diseases and complications. Dystokia. Endocrine control of reproduction in male animals, causes, diagnosis and treatment of infertility in males. Diseases of accessory sex glands. Techniques of artificial insemination. Storage and shipment of semen. Biochemistry of semen, Assessment of sires.

13. Veterinary Clinical Medicine:

Aetiology, symptoms, pathogenesis, clinical pathology, diagnosis and treatment, prevential and control of common systemic, metabolic, deficiency and clinical diseases of domestic animals, physical examination of animals and examinations of body systems. Examination of animals for soundness. Collection, preservation and dispatch of materials for laboratory examination. Code of conduct and ethics of veterinarians and jurisprudence.

14. Veterinary Surgery & Radiology:

Asepsis, antisepsis and their application in veterinary surgery. Wound-classification, symptoms, diagnosis and treatment, wound healing. Haemorrhage and homeostasis. Shock-aetiology, pathophysiology, clinical signs and treatment. Fracture-Classification, aetiology, symptoms and their treatment. Healing of fracture. Signs and stages of general anaesthesia. Epidural and paravertebral analgesia in cattle. X-ray machine and its accessories. Radiographic detail, density and contrast. Radiographic processing. Contrast radiography. Horn cancer and its treatment. Haematoma of ear, Surgical affection of eye, cataract, panophthalmia, Yoke gall. Oesophageal obstruction, Hernia-its classification, aetiology and treatment. Traumatic reticulitisorumenotomy. Urolithiasis and surgical treatment. Overiohysterectomy in bitch. Definition, classification, aetiology, clinical signs and treatment of following conditions of limb : Bicipital bursitis, radial nerve paralysis, contraction of flexor tendon, ring bone, navicular disease, laminitis, upward fixation of patella in cattle, spavin in horse.

15. Veterinary Preventive Medicine:

Aetiology, symptoms, pathogenesis, clinical pathology, diagnosis, treatment, prevention and control of infectious diseases of animals. Epidemiology of diseases.

IMPORTANT DATES AT A GLANCE

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|-----|---|---|--------------------------|
| 1. | Sale of Information Bulletin and Application Form | : | 21-04-2006 to 20-05-2006 |
| 2. | Last date and Time of receipt of Application Form | : | 25-05-2006 upto 5.00 PM |
| 3. | Date of entrance examination | : | 27-06-2006 |
| 4. | Declaration of result (on or before) | : | 05-07-2006 |
| 5. | Last date for receipt of option form | : | 15-07-2006 upto 5.00 PM |
| 6. | Display of 1 st provisional admission list | : | 21-07-2006 |
| 7. | Date for reporting in the college | : | 01-08-2006 |
| 8. | Last date for upward assessment request | : | 03-08-2006 upto 5.00 PM |
| 9. | Display of 2 nd provisional admission list | : | 05-08-2006 |
| 10. | Last date for reporting in the college | : | 14-08-2006 |

Note: No admission will be made after 2nd seat allotment even seats remain vacant.

If a candidate fails to get Admit Card for any reason, he/she should report to the Examination Centre (he/she has opted) one day before the start of Examination and contact Centre Incharge for issuance of duplicate Admit Card. He/She should bring alongwith him/her the following documents :

- (i) Proof of having submitted application
(Postal Registration Receipt) in time
- (ii) Photocopies of the application form
- (iii) Photographs (3 copies) duly attested by the
Principal/Dean of the College last attended

Candidates are advised to retain a photocopy of the application form for their personal record. It may be used any time in support of having submitted application and also retain a copy of the Registration Receipt of Post Office.

IMPORTANT

The following sheets duly completed in all respects are to be sent to the Co-ordinator JET/PRE-PG, Maharana Pratap University of Agriculture & Technology, Rajasthan College of Agriculture, Udaipur-313 001 upto 25-05-2006, 5.00 P.M.:

- i. Application form and photocopies of mark sheets and Caste/PH certificate for reservation
- ii. Admit Card for candidates
- iii. Duplicate Admit Card for centre
- iv. Two self addressed envelopes
- v. Demand draft of Rs. 150/- for Home science and Veterinary graduates also desirous to seek admission in M.Sc.Ag. Extension education.
(Demand Draft in favour of **Comptroller, MPUAT, Udaipur**)

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- Note:**
1. **All information related to the JET/PRE PG 2006 (Information Bulletin and Application Form, Notices/results/seat allotment) will be available on university website www.mpuat.ac.in**
 2. **Downloaded Application Form, Admit Card and Duplicate Admit Card duly filled by the candidate must be submitted along with demand draft of Rs. 500/- for General /OBC and Rs. 250/- for SC/ST/PH category payable in favour of Comptroller, MPUAT, Udaipur.**