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MAHARASHTRA AGRICULTURAL UNIVERSITIES EXAMINATION BOARD, PUNE SEMESTER END EXAMINATION



B.Sc. (Agri.)

Semester	: IV (New)	Term	: II	Academic Year	: 2011-12
Course No.	: ASDS 242	Title	: Livestock Breeding and Nutrition		
Credits	: 2 (1+1)				
Day & Date	: Monday, 30.04.2012	Time	: 14.00 to 16.00	Total Marks	: 40

- Note :
1. Solve ANY EIGHT questions from SECTION "A".
 2. All questions from SECTION "B" are compulsory.
 3. All questions carry equal marks.
 4. Draw neat diagrams wherever necessary.

SECTION "A"

- Q.1 Enlist the different systems of breeding. Write the advantages and disadvantages of crossbreeding.
- Q.2 Describe the process of carbohydrate digestion in ruminant.
- Q.3 State the Hardy-Weinberg law and give its application.
- Q.4 What is feed additives? Enlist commonly used feed additives and comment on any one.
- Q.5 Explain the term concentrate and classify it by giving suitable examples.
- Q.6 Differentiate between (Any Two)
- 1) Composition of plant and animal body
 - 2) Mitosis and meiosis
 - 3) Qualitative and Quantitative traits
- Q.7 Which are the different basis of selection and describe any one of them?
- Q.8 What is complete feed block? Explain in brief its advantages.
- Q.9 Define protein and write the general functions of protein in animal body.
- Q.10 Write short notes on (Any Two)
- 1) Gene frequency
 - 2) Structural chromosomal abnormalities
 - 3) Functions of gene in animal genetics

SECTION "B"

- Q.11 Define the following terms.
- 1) Gene mutation
 - 2) Feeding standard
 - 3) Animal breeding
 - 4) TDN
- Q.12 Do as directed.
- 1) Give one example of NPN compound.
 - 2) Who is the founder of Animal breeding?
 - 3) Mention the normal chromosome number of *Bos indicus*.
 - 4) Calcium deficiency causes milk fever (State True or False).

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Padmashree Dr. D. Y. Patil College of Agriculture

A/P: Talasande, Tal: Hatakangle, Dist: Kolhapur

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MAHARASHTRA AGRICULTURAL UNIVERSITIES EXAMINATION BOARD, PUNE SEMESTER END EXAMINATION

B.Sc. (Agri.)

Semester	: IV (New)	Term	: II	Academic Year	: 2010-11
Course No.	: ASDS 242	Title	: Livestock Breeding and Nutrition		
Credits	: 2 (1+1)				
Day & Date	: Tuesday, 26.04.2011	Time	: 14.00 to 16.00	Total Marks	: 40

- Note :
1. Solve ANY EIGHT questions from SECTION "A".
 2. All questions from SECTION "B" are compulsory.
 3. All questions carry equal marks.
 4. Draw neat diagrams wherever necessary.

SECTION "A"

- Q.1 Describe in short the functions of various organs of cattle digestive system.
- Q.2 Give the classification of feed-stuffs with suitable examples and write down short note on unconventional feed stuffs.
- Q.3 Give the classification of systems of breeding and differentiate major points between close breeding and line breeding.
- Q.4 Enlist the basis and methods of selection.
- Q.5 What is meant by feeding standards? Enlist advantages of feeding standards.
- Q.6 Define Nutrient. Enlist various six classes of major feed nutrients and write down importance of carbohydrates.
- Q.7 Differentiate between Quantitative and Qualitative traits.
- Q.8 Describe in short the Tanden method.
- Q.9 Differentiate between Roughages and concentrates.
- Q.10 Name various phases of Mitosis and describe anaphase.

SECTION "B"

- Q.11 Define the term:
- | | | | |
|----------------|---------|--------------|-----------|
| 1) Chromosomes | 2) Gene | 3) Half sibs | 4) Ration |
|----------------|---------|--------------|-----------|

- Q.12 Match the pairs:

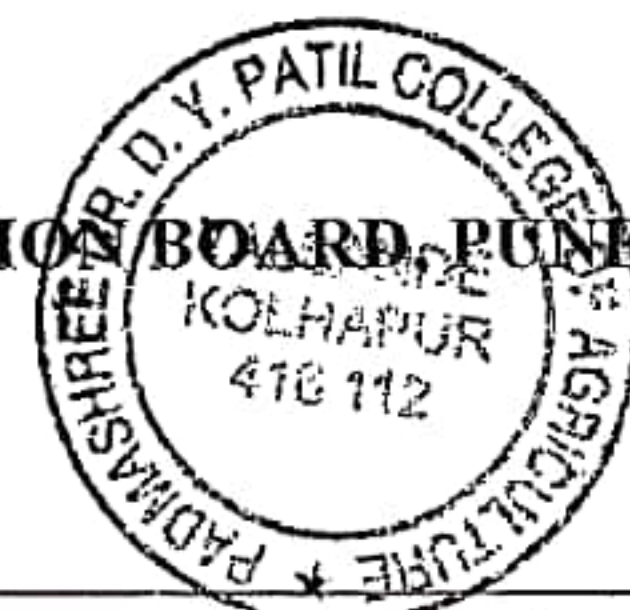
"A"

"B"

- | | |
|-------------------|-------------------------------------|
| 1) Calcium | a) Mating of unrelated animals |
| 2) Vitamin K | b) Delayed blood clotting |
| 3) Vitamin A | c) Mating of different breeds |
| 4) Cross breeding | d) Mating of closely related breeds |
| | e) Night blindness |
| | f) Rickets |



MAHARASHTRA AGRICULTURAL UNIVERSITIES EXAMINATION BOARD, PUNE
SEMESTER END EXAMINATION



B.Sc. (Agri.)

Semester : IV(New)	Term : II	Academic Year : 2009-10
Course No. : ASDS 242	Title : Livestock Breeding and Nutrition	
Credits : 2(1+1)		
Day & Date : Wednesday, 28.4.2010	Time : 14.00 to 16.00	Total Marks : 40

- Note :**
1. Solve ANY FIVE questions from SECTION "A".
 2. All questions from SECTION "B" are compulsory.
 3. All questions carry equal marks.
 4. Draw neat diagrams wherever necessary.

SECTION "A"

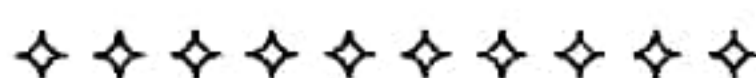
- Q.1 Write in brief the concept of livestock breeding in India.
- Q.2 Draw a neat diagram of animal cell showing internal features and functions of cellular organelles.
- Q.3 Explain the Mendel's Law of phenotypic inheritances.
- Q.4 Give the classification of feeds and fodder with suitable examples.
- Q.5 Narrate the functions of carbohydrates and fats in animal body.
- Q.6 Enlist the parts of digestive system of large ruminant and give their functions in brief.
- Q.7 Write short notes on (Any two):
 - 1) Feed supplements and feed additives.
 - 2) Qualitative and quantitative traits.
 - 2) Concept of preparation of complete feed block.

SECTION "B"

- Q.8 Define the followings:

1) Roughages	2) Heritability	3) Gene
4) Metabolizable Energy	5) Balance Ration	
- Q.9 Do as directed:
Give the chromosome numbers (2N) of -

1) Cattle	2) Goat	3) Sheep	4) Waterbuffaloes	5) Swine
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- Q.10 Answer the followings:
 - 1) Mention three important cereal crops as best energy sources and three legume crops as a rich protein source for livestock.
 - 2) Which plant was used by Mendel for his experiments to state the law of segregation?
 - 3) Which mineral deficiency causes the milk fever?
 - 4) Write names of two text books or reference books with their author, used for this course.
 - 5) What is energy value of 1.0 gm of lipid?



MAHARASHTRA AGRICULTURAL UNIVERSITIES EXAMINATION BOARD, PUNE
SEMESTER END EXAMINATION

B. Sc. (Agri.)

Semester : IV (New)	Academic Year : 2008-09
Course No. : ASDS 242	Title : Livestock Breeding and Nutrition
Credits : 2 (1+1)	
Day & Date : Monday, 11.5.2009	Time : 14.00 to 16.00
	Total Marks: 40

- Note:
1. Solve ANY FIVE questions from SECTION "A".
 2. All questions from SECTION "B" are compulsory.
 3. All questions carry equal marks.
 4. Draw neat diagrams wherever necessary.

SECTION "A"

- Q.1 Draw a neat diagram of digestive system of ruminants, label it and explain about breakdown of protein in it.
- Q.2 Define chromosomal abnormality and explain its different types found in animals.
- Q.3 Explain in brief the functions of carbohydrates and fats.
- Q.4 Compare (Any Two).
- 1) Plant and animal body composition.
 - 2) Mitosis and meiosis
 - 3) Feed supplements and feed additives
- Q.5 Write in brief (Any Two).
- 1) Quantitative and qualitative traits
 - 2) Pedigree method of selection
 - 3) Method of measuring feed value
- Q.6 What do you mean by gene mutation. Explain its types and state the significance of mutation.
- Q.7 Explain in brief different systems of mating with suitable example for each.

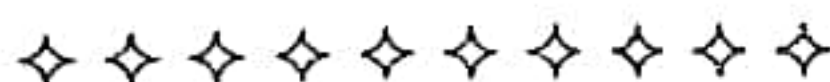
SECTION "B"

- Q.8 Define.
- 1) Atavism
 - 2) Aneuploidy
 - 3) Gametogenesis
 - 4) Roughages
 - 5) Heritability
- Q.9 Answer in one sentence.
- Protein source concentrate: Blood meal, meat meal, oilseed cake.
- 1) Which base is present in RNA instead of thymine in DNA?
 - 2) Which concentrates will be used as energy source? \Rightarrow Roots & Tubers, Cereals grain
 - 3) Which plant was used by Mendel for his experiments? \Rightarrow Pea plant
 - 4) Which are the essential fatty acids? \Rightarrow Lipid
 - 5) Which mineral's deficiency causes Osteomalacia and Osteoporosis in adult? \Rightarrow Phosphorus

(P.T.O.)

0 Fill in the blanks.

- 1) In cell mitochondria are responsible for generating energy for functions of cell.
- 2) Excess carbohydrates are stored in the form of glycogen in animal body.
- 3) The traits affected by many genes are called as Polygenes (Quantitative trait)
- 4) Frequency of desirable/undesirable gene is increased in inbreeding system of mating.
- 5) Structural protein, which is present in nail, hair and hoof, is known as keratin.



MAHARASHTRA AGRICULTURAL UNIVERSITIES EXAMINATION BOARD, PUNE
SEMESTER END EXAMINATION

B.Sc. (Agri.)

Semester : IV (New)	Term : II	Academic Year : 2012-13
Course No. : ASDS 242	Title : Livestock Breeding and Nutrition	
Credits : 2 (1+1)		
Day & Date : Thursday, 25.04.2013	Time : 14.00 to 16.00	Total Marks : 40

- Note :**
1. Solve ANY EIGHT questions from SECTION "A".
 2. All questions from SECTION "B" are compulsory.
 3. All questions carry equal marks.
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SECTION "A"

- Q.1 Define feeding standard. State advantages of feeding standard.
- Q.2 Differentiate between quantitative and qualitative traits.
- Q.3 What is meiosis? Describe in short the stages of meiosis.
- Q.4 Give classification of feed stuffs with suitable example.
- Q.5 State the systems of breeding. Write in short grading up in development of nondescript buffalo to Pandharpuri buffalo breed.
- Q.6 What is nutrient? Enlist different nutrient and explain function of water in animal body.
- Q.7 Describe the digestion and absorption of carbohydrates in ruminants.
- Q.8 Enlist the methods of selection. Explain independent culling level.
- Q.9 Enlist different parts of alimentary canal of large ruminant and explain in short rumen.
- Q.10 Write short notes on:
- 1) Urea feeding (NPN) through dry roughages in live stock
 - 2) Hardy and Weinberg Law

SECTION "B"

- Q.11 Fill in the blanks.
- 1) In animal cell _____ organelles removes foreign material from cell.
 - 2) Deficiency of vitamin _____ causes night blindness.
 - 3) The phenomenon causing sudden discrete and heritable change in the genotype of organism is called _____.
 - 4) In animal body at embryonic stage _____ % of water is present.
- Q.12 Match the pairs.

"A"

"B"

- | | |
|-----------------|---------------------------|
| 1) Cow | a) Rickets |
| 2) Vitamin K | b) Bomb calorimeter |
| 3) Gross energy | c) 60 (2n) |
| 4) Calcium | d) Delayed blood clotting |

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MAHARASHTRA AGRICULTURAL UNIVERSITIES EXAMINATION BOARD, PUNE
SEMESTER END EXAMINATION

B.Sc. (Agri.)

Semester : IV (New)	Term : II	Academic Year : 2012-13
Course No. : ASDS 242	Title : Livestock Breeding and Nutrition	
Credits : 2 (1+1)		
Day & Date : Thursday, 25.04.2013	Time : 14.00 to 16.00	Total Marks : 40

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MAHARASHTRA AGRICULTURAL UNIVERSITIES EXAMINATION BOARD, PUNE
SEMESTER END EXAMINATION

B.Sc. (Agri.)

Semester : IV (New)	Term : II	Academic Year : 2013-14
Course No. : ASDS 242	Title : Livestock Breeding and Nutrition	
Credits : 2 (1+1)		
Day & Date : Monday, 05.05.2014	Time : 14.00 to 16.00	Total Marks : 40

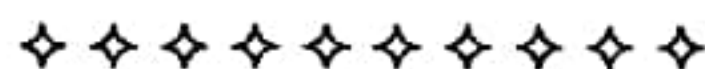
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 2. All questions from **SECTION "B"** are compulsory.
 3. All questions carry equal marks.
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SECTION "A"

- Q.1 Enlist methods of animal breeding and explain grading up in detail.
- Q.2 Write in detail about care and management of breeding bull.
- Q.3 What do you mean by mutation? Enlist characteristics of mutation.
- Q.4 Draw a neat diagram of male reproductive system and give the functions of scrotum.
- Q.5 Classify feed stuff and explain in brief the role of feed additives and supplements in animal nutrition.
- Q.6 Enlist digestive organs of cow and write their functions in detail.
- Q.7 Explain in detail the complete feed block for ruminant.
- Q.8 What is silage? Give advantages and disadvantages of silage.
- Q.9 Explain the structure of animal cell with suitable diagram.
- Q.10 Describe the methods of feed processing and enlist its objectives.

SECTION "B"

- Q.11 Define the following terms.
- 1) Species
 - 2) Nutrition
 - 3) Livestock
 - 4) Animal Husbandry
- Q.12 Fill in the blanks.
- 1) Law of inheritance was postulated by_____.
 - 2) _____ part of stomach is fully developed in a suckling calf.
 - 3) The period of estrus cycle of ewe is _____.
 - 4) The deposition of semen in the female genitalie rather than natural service is called as _____.



MAHARASHTRA AGRICULTURAL UNIVERSITIES EXAMINATION BOARD, PUNE
SEMESTER END EXAMINATION

B.Sc. (Agri.)

Semester : IV (New)	Term : II	Academic Year : 2014-15
Course No. : ASDS 242	Title : Livestock Breeding and Nutrition	
Credits : 2 (1+1)		
Day & Date : Tuesday, 12.05.2015	Time : 14.00 to 16.00	Total Marks : 40

- Note :**
1. Solve ANY EIGHT questions from SECTION "A".
 2. All questions from SECTION "B" are compulsory.
 3. All questions carry equal marks.
 4. Draw neat diagrams wherever necessary.

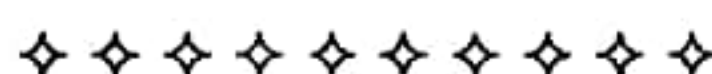


SECTION "A"

- Q.1 Enlist various phases followed during cell division under Mitosis and Meiosis. Describe in short various events followed at Mitosis.
- Q.2 What is mean by chromosomal aberration? Explain in short and give the classification of chromosomal aberrations.
- Q.3 What is Hardy-Weinberg law? Enlist four steps of proof of Hardy-Weinberg law with constancy of gene frequency and give the properties of Hardy-Weinberg law.
- Q.4 Enlist the basis and methods of selection and write down advantages and limitations of Pedigree selection.
- Q.5 Give the classification of feed stuffs with suitable examples and write down short note on unconventional feed stuffs.
- Q.6 Define Nutrient. Enlist various six major feed nutrients and write down functions of carbohydrates in animal body.
- Q.7 What is mean by feeding standards? Enlist advantages of feeding standards.
- Q.8 Describe in short functions of various organs of cattle digestive system.
- Q.9 Write short notes on (Any two).
- 1) Spermatogenesis
 - 2) Urea Molasses Mineral Blocks (UMMB) Licks
 - 3) Advantages of Silage making
- Q.10 Differentiate between (Any two).
- 1) Qualitative and Quantitative trait
 - 2) Roughages and Concentrates
 - 3) Plant cell and Animal cell

SECTION "B"

- Q.11 Define the following terms.
- 1) Half sib
 - 2) Balance Ration
 - 3) Repeatability
 - 4) Selection
- Q.12 Select proper answer.
- 1) Sudden change in the structure of gene is known as (migration/mutation/selection).
 - 2) (Silage / Molasses / Brains) is the byproduct obtained from sugar industry.
 - 3) (Mendal/Mullar/Khurana) is known as father of genetics.
 - 4) Milk fever is cause due to deficiency of (calcium/copper/cobalt).



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SEMESTER END EXAMINATION

B.Sc. (Agri.)

Semester : IV (New)	Term : II	Academic Year : 2014-15
Course No. : ASDS 242	Title : Livestock Breeding and Nutrition	
Credits : 2 (1+1)		
Day & Date : Tuesday, 12.05.2015	Time : 14.00 to 16.00	Total Marks : 40

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