

B.V.Sc. & A.H. (Second Professional) Examination – 2022
Animal Genetics and Breeding Paper -II

Time: Three Hours

Maximum Marks: 100

Weightage: 20

Unit-3 (Principles of Animal Breeding)

Instructions:

- 1) Attempt all questions
- 2) Answer of all questions is to be written in the space provided along with the question in question-booklet.
- 3) Overwriting is not allowed in the objective type question.

Q.1 Fill in the blanks. (20x0.5 = 10)

- 1.1 _____ is scientific name of sheep.
- 1.2 According to 20th livestock census the population of buffaloes is _____ millions.
- 1.3 Intensity of selection is also called as _____ selection differential.
- 1.4 Copper color breed of Buffalo _____.
- 1.5 Crossing of large number of individual with a tester line(inbred) is called _____.
- 1.6 EPD stands for expected _____ difference.
- 1.7 Nageshwari breed is an example of _____ sp/ of India .
- 1.8 Project directorate for cattle is located at _____ in India.
- 1.9 _____ breed of cattle is used for grading up of local cattle in Kerala.
- 1.10 When more than two criterion is used selection is called as _____ selection.
- 1.11 _____ is considered as founder of Animal Breeding.
- 1.12 F1 male progeny produced by crossing Cows with Mithun bull are called as _____.
- 1.13 _____ is known as Dwarf cattle.
- 1.14 Heaviest breed of Buffalo is _____.
- 1.15 India has _____ recognized cattle breeds.
- 1.16 _____ breed of horse was recognized as breed recently by NBAGR.

Please write your Roll Number above this line

1.17 _____ is milch cattle breed also called as "Desert Breed" due to hardiness.

1.18 The actual breeding _____ of the animal is never known but it can be predicted

1.19 _____ is the inbreeding coefficient of progeny produced by mating of Full Sibs

1.20 Out crossing within a herd by the use of selected sires is known as _____

Q.2 Choose the most suitable answer and write the number of the correct answer 1 or 2 or 3 or 4 in the space given against each sub question: (20x0.5 = 10)

2.1 Mating of unrelated individuals of same breed is known as ()

1. Grading up
2. Crossbreeding
3. Inbreeding
4. Outcrossing

2.2 Tester line is used in ()

1. Recurrent selection
2. Individual selection
3. Reciprocal recurrent selection
4. None of the above

2.3 The following is/are a factor/factors affecting Response to Selection ()

1. Intensity of selection
2. Accuracy of selection
3. Generation Interval
4. All of above

2.4 The status of a species is called 'Vulnerable' when population size remains ()

1. 0-100
2. 1000-5000
3. 100-1000
4. 5000-10000

2.5 The slowest genetic gain is achieved in _____ method of Selection ()

1. Tandem method
2. Independent culling method
3. Selection index
4. Sire index

2.6 Which of the following is not a major area of economic importance with regard to genetic improvement of beef cattle ()

1. mature size
2. resistance to environmental stress
3. maternal performance
4. carcass traits

- 2.7 The measure of individual performance for a specific trait is its value _____ ()
1. Average
 2. Additive
 3. Phenotypic
 4. Genotypic
- 2.8 Famous milch breed of India with half moon appearance of horns ()
1. Kankeraaj
 2. Shahiwal
 3. Gir
 4. Umblacherry
- 2.9 Mule is an example of _____ ()
1. Cross breeding
 2. Species Hybridization
 3. Grading up
 4. Commercial synthetic method
- 2.10 Highest milk yielding goat breed of India _____ ()
1. Beetal
 2. Laskar
 3. Jamnapari
 4. Black Bengal
- 2.11 Central Institute for Research in Goats is located at _____ ()
1. Avikanagar
 2. Mumbai
 3. Meerut
 4. Makhdoom
- 2.12 Project Directorate of Poultry is located at _____ ()
1. Chennai
 2. New delhi
 3. Hydreabad
 4. Nagaland
- 2.13 First five year plan started in _____ ()
1. 1949
 2. 1956
 3. 1947
 4. 1951
- 2.14 Which famous milch breed of India had its native tract in Rajasthan ()
1. Gir
 2. Red sindhi
 3. Tharparkar
 4. Shahiwal
- 2.15 In hilly and coastal area which exotic breed of cattle is used for crossbreeding in India _____ ()
1. Jersey
 2. HF
 3. Brown swiss
 4. Ayreshire

Please write your Roll Number above this line

- 2.16 A native poultry breed of Gujarat with single comb ()
1. Naked neck
2. Frizzle fowl
3. Ghagus
4. Ankaleshwar
- 2.17 Cental duck breeding farm is located at ()
1. Hessarghatta
2. Mumbai
3. Ludhiana
4. Ahmedabad
- 2.18 Which is smallest dog breed in world ()
1. Pug
2. Chihuahua
3. Dalmatian
4. Pocket pom
- 2.19 Culled rabbit is called as ()
1. Kit
2. Bunny
3. Roaster
4. Weaner
- 2.20 Which one of following is a cat breed ()
1. Greece
2. Bombay
3. Athens
4. Americana

Q.3 Attempt any ten out of the following twelve questions. Answer of each question should be in 2 to 3 lines. (10x2.0= 20)

3.1 Species

3.2 Preservation

3.3 Breeding efficiency

Please write your Roll Number above this line

3.4 Most probable producing ability

3.5 Sib selection

3.6 Corrected daughters average index

3.7 Inbreeding

3.8 Selection plateau

3.9 Cloning

Donot write across this line

3.10 livestock census

3.11 Pedigree sheet

3.12 Genetic marker

Q.4 Attempt any six out of the following eight questions. Answer of each question should be in 8 to 10 lines. (6 x 6.0 = 36)

4.1 Principles of conservation

Please write your Roll Number above this line

4.2 Methods of data correction

Handwritten answer for question 4.2, consisting of approximately 15 lines of text written in blue ink on a lined background.

4.3 Bidirectional selection

Handwritten answer for question 4.3, consisting of approximately 15 lines of text written in blue ink on a lined background.

Do not write across this line

4.4 Advantages of Individual selection

4.5 Independent culling level

Please write your Roll Number above this line

4.6 Merits and demerits of Pedigree selection

Handwritten answer for question 4.6, consisting of approximately 15 lines of text, mostly illegible due to blurring and a large diagonal scribble.

4.7 Captive breeding

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Donot write across this line

4.8 Closed nucleus breeding scheme

Q.5 Answer the following question in 1-2 pages (attempt any two).

(2x12.0 = 24)

- 5.1 What is response to selection and intensity of selection? Explain the various factors affecting both of them? (2+2+8)
- 5.2 What is genetic principle of progeny testing? Explain in detail the methodology and precautions in running a progeny testing programme. (2+6+4)
- 5.3 What is conservation? Explain the difference between conservation preservation. Enlist the various reproductive and biotechnological tool for genetic improvement in livestock and poultry along with one application for each. (1+2+4.5+4.5)