

PREVIEW QUESTION BANK

Module Name : Animal Genetics and Breeding - 17-ENG
Exam Date : 29-Jun-2024 Batch : 14:30-16:30

Sr. No.	Client Question ID	Question Body and Alternatives	Marks	Negative Marks
Objective Question				
1	201	Movement of DNA from one bacterium to another through a tubular bridge or pilus: 1. Conjugation 2. Transposition 3. Transfection 4. Transduction A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
2	202	Which of the following is responsible for eliminating toxic oxygen by-products from cells? 1. Mitochondria 2. Golgi complex 3. Peroxisomes 4. Chloroplasts A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
3	203	A form of multiple parasitism in which a parasite preferentially attacks a host that is already parasitized by another species is known as 1. Cleptoparasitism 2. Ectoparasitoid 3. Obligate parasitism 4. Superparasitism A1 : 1	4.0	1.00

		A2 : 2		
		A3 : 3		
		A4 : 4		
Objective Question				
4	204	For mass multiplication of DD-136 nematode, the common host used is 1. Silk moth 2. Fruit sucking moth 3. Codling moth 4. Lesser wax moth A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
5	205	Chlorpyrifos methyl is effective against stored product insects except 1. <i>Rhizopertha dominica</i> 2. <i>Tribolium castaneum</i> 3. <i>Caryedon serratus</i> 4. <i>Oryzaephilus surinamensis</i> A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
6	206	Which of the following insects often cause inhalational allergies in human following large emergence of adult insects 1. Stick insects 2. May flies 3. Ear wigs 4. Preying mantis A1 : 1 A2 : 2	4.0	1.00

A3 : 3

A4 : 4

Objective Question

7	207	Given below are two statements: Statement (I): Climate is a weather condition related to smaller areas at a given place and at a given time, Statement (II): Weather is a condition of atmosphere at a given place and at a given time In light of the above statements, choose the <i>most appropriate</i> answer from the options given below. 1. Both Statement (I) and Statement (II) are correct. 2. Both Statement (I) and Statement (II) are incorrect. 3. Statement (I) is correct but Statement (II) is incorrect. 4. Statement (I) is incorrect but Statement (II) is correct. A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

8	208	The local name of cyclone in Phillippines is 1. Hurricane 2. Cyclone 3. Baquio 4. Typhoon A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

9	209		4.0	1.00
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Which one of the following are secondary tillage implements?

- (A). Subsoiler
- (B). Cultivator
- (C). Disc harrow
- (D). Wetland plough

Choose the **correct** answer from the options given below:

- 1. (A), (B) and (D) only.
- 2. (B) and (C) only.
- 3. (B), (C) and (D).
- 4. (B) and (D) only.

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

10	210	_____ is the most suitable, drought resistant and persistent grass? 1. <i>Alyosia sp.</i> 2. <i>Cenchrus ciliaris</i> 3. <i>Stylosanthes hamata</i> 4. <i>Sorghum bicolor</i> A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

11	211	The rainfed area in India is approximately 1. 30 mha 2. 40 mha 3. 57 mha 4. 70 mha A1 : 1 A2 : 2	4.0	1.00
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A3 : 3

A4 : 4

Objective Question

12	212	Which nutrient is often a limiting factor in agricultural production? 1. Nitrogen 2. Carbon 3. Oxygen 4. Hydrogen A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

13	213	What is a potential disadvantage of agroforestry systems? 1. Increased soil erosion 2. Decreased carbon sequestration 3. Reduced biodiversity 4. Enhanced susceptibility to pests A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

14	214	Pungency in mustard oil is due to 1. Amino acid 2. Allyl isothiocyanate 3. Erusic acid 4. Oxalic acid A1 : 1 A2 : 2	4.0	1.00
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		A3 : 3		
		A4 : 4		
Objective Question				
15	215	Sesamum belongs to the family 1. Chenopodiaceae 2. Papilionaceae 3. Leguminosae 4. Pedaliaceae A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
16	216	Dark period is critical in which type of plant? 1. Short day plant 2. Long day plant 3. Day neutral plant 4. All the options A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
17	217	Which of the following is NOT a significant contributor to greenhouse gas emissions from livestock farming? 1. Carbon dioxide 2. Methane 3. Nitrous oxide 4. Ammonia A1 : 1 A2 : 2 A3 : 3	4.0	1.00

A4 : 4

Objective Question

18	218	Fe deficiency is mostly seen in crops growing on 1. Calcareous or alkaline soils 2. Salt affected soils 3. Acidic soils 4. Neutral soils A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

19	219	EDV (Essentially Derived Varieties) are those which are derived from: 1. crossing two commercially known varieties 2. hybrid introduced from other countries 3. existing variety through genetic engineering or mutation 4. crossing commercially known variety with its wild relative A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

20	220	What is the role of "companion planting" in agriculture? 1. Enhancing soil fertility through crop rotation 2. Growing different crop species together to deter pests 3. Cultivating plants in hydroponic system 4. Increasing soil compaction through cover cropping A1 : 1 A2 : 2 A3 : 3	4.0	1.00
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		A4 : 4		
Objective Question				
21	1501	Breeding value is 1. Sum of the average effect of alleles 2. Mean deviation of the progeny mean from the population mean 3. Twice the progeny mean 4. Mean deviation of the population from the progeny mean A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
22	1502	Bhimthadi belongs to 1. Gujrat 2. Rajasthan 3. Karnataka 4. Maharashtra A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
23	1503	Xena is a cloned 1. Sheep 2. Pig 3. Goat 4. Camel A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00

Objective Question				
24	1504	Phenocopy is 1. Variation in phenotype caused by environmental condition 2. Variation in genotype caused by environmental condition 3. Variation in phenotype caused by epistasis 4. Variation in phenotype due to genetic assimilation A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
25	1505	Which of the following enzyme degrades unincorporated nucleotides and excess ATP in pyrosequencing method 1. Polymerase 2. Sulfurylase 3. Luciferase 4. Apyrase A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
26	1506	Which sequence is required for Cas9 to act 1. CAS sequence 2. PAM sequence 3. FOKI 4. TALEN A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
27	1507		4.0	1.00

The difference between the frequencies in two sexes

1. is half the differences in the previous generation
2. is same as the differences in the previous generation
3. is double the differences in the previous generation
4. is half the differences in the previous generation, but in other direction

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

28 1508

The relationship coefficient between double first cousin is

1. 0.125
2. 0.5
3. 0.25
4. 0.0625

A1 : 1

A2 : 2

A3 : 3

A4 : 4

4.0 1.00

Objective Question

29 1509

Age at sexual maturity of mice is

1. 3-4 week
2. 6-8 week
3. 8-12 week
4. 8-9 week

A1 : 1

A2 : 2

A3 : 3

A4 : 4

4.0 1.00

Objective Question

30 1510

4.0 1.00

Heterosis in F1 is

1. $\frac{1}{2}dy^2$
2. dy^2
3. $-\frac{1}{2}dy$
4. $-\frac{1}{2}dy^2$

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

31	1511	The percent NDF in total ration is critical for maintenance of normal milk fat? 1. 66 % 2. 22 % 3. 36 % 4. 12 % A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

32	1512	Which of the following statement is not true? 1. Alkalotic state increases the sensitivity of bone to PTH. 2. Alkalotic state reduces the sensitivity of bone to PTH. 3. Acidotic state increases the sensitivity of bone to PTH. 4. Acidotic state increases the calcium supply. A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

33	1513		4.0	1.00
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Good quality silage is having all the characteristics except

1. pH = 3.8-4.2
2. fungal growth-negative
3. Butyric acid >0.5 %
4. Volatile-N (O total N) <10 %

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

34 1514

Purpose of adding magnesium oxide in the preparation of UMMB block is

1. to keep its shape intact
2. to supplement magnesium
3. to make it laxative
4. to increase hardness

A1 : 1

A2 : 2

A3 : 3

A4 : 4

4.0

1.00

Objective Question

35 1515

Mammalian cells are not capable of introducing double bonds beyond:

1. Carbon atom 9
2. Carbon atom 7
3. Carbon atom 11
4. Carbon atom 10

A1 : 1

A2 : 2

A3 : 3

A4 : 4

4.0

1.00

Objective Question

36 1516

4.0

1.00

Effective protein degradability is calculated as per the following formula (Where a = intercept on Y axis, b = difference between a and asymptote, c = rate of disappearance of potentially degradable fraction b and t = time of exposure)

1. $P = a + bc/c + r$
2. $P = a + c(1 - e^{-ct})$
3. $P = a + b(1 - e^{-ct})$
4. $P = a + b(1 - e^{ct})$

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

37	1517	In CNCPS system, the fraction B3 of proteins refers to 1. NDIP - NPN 2. ADIP - NDIP 3. NDIP - ADIN 4. NDIP - ADIP A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

38	1518	Which of the following statement is incorrect about hay preparation? 1. Hay should not have more than 12-4 % of moisture. 2. Hay is dried more rapidly in the windrow than swath. 3. Losses due to rain are known as leaching losses. 4. Hays are rich in Vitamin D than silage. A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

39	1519		4.0	1.00
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Which of the following are true for microbial protein?

- (A). Diet does not affect the amino acid composition of individual species of bacteria or protozoa per se.
- (B). Protein quality of protozoa and bacteria are quite similar.
- (C). True digestibility of protozoa is higher than bacteria.
- (D). Protozoa numbers are lower on high roughages diets than concentrate diet.
- (E). Microbial protein contains 20 % nucleic acid.

Choose the **correct** answer from the options given below:

- 1. (A), (B) and (D) only.
- 2. (A), (B) (C) and (E) only.
- 3. (A), (B), (D) and (E).
- 4. (B), (C) and (D) only.

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

40 1520

4.0 1.00

Which of the following are true for energy metabolism?

- (A). The burning of 1 g of hydrogen produces over 4 times as much heat as in case of carbon.
- (B). The large differences in the efficiency of utilization of ME are primarily due to wide variations in the energy losses as HI.
- (C). Net energy is easier and cheaper to obtain than metabolizable energy.
- (D). RQ below 0.7 have been observed in fasting.
- (E). Gross energy of methane is 9.45 kcal/L.

Choose the **correct** answer from the options given below:

- 1. (A), (B) (C) (D) and (E) only.
- 2. (A), (B) and (D) only.
- 3. (A), (B), (D) and (E).
- 4. (B), (C) and (D) only.

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

41 1521

4.0 1.00

Floor space requirements in dairy animals is approximately, Covered Space to Open Space is in a ratio of

1. 2:1
2. 1:2
3. 1:4
4. 4:1

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

42 1522

One of the following breed of cattle has a dropping ears.

1. Kankrej
2. Kangayam
3. Gir
4. Bargur

A1 : 1

A2 : 2

A3 : 3

A4 : 4

4.0 1.00

Objective Question

43 1523

Arrange the following Indian breeds of buffalo from West to East India

- (A). Chhatisgarhi
- (B). Chilika
- (C). Surti
- (D). Purnathadi

Choose the **correct** answer from the options given below:

1. (A), (D), (C), (B).
2. (D), (B), (A), (C).
3. (C), (D), (A), (B).
4. (C), (B), (D), (A).

A1 : 1

A2 : 2

4.0 1.00

A3 : 3

A4 : 4

Objective Question

44	1524	Which of the following advanced tools/technique used in animal identification in a farm (A). Artificial Intelligence (B). RFID (C). Branding (D). Tagging Choose the correct answer from the options given below: 1. (A), (B) and (D) only. 2. (D) only. 3. (A), (B), (C) and (D). 4. (A) only. A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

45	1525	How much of a concentrate is required per day for a breeding bull, in addition to 20-25 kg of green fodder 1. 1 kg 2. 2.5 kg 3. 0.5 kg 4. 5 kg A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

46	1526		4.0	1.00
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Himalayan 'Churpi' is a type of dairy product which is produced from Yak and is equivalent to the

1. Butter
2. Ghee
3. Yoghurt
4. Cheese

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

47 1527

Given below are two statements, one is labelled as Assertion (A) and other one labelled as Reason (R).

Assertion (A) : Size of the egg varies with the species and within the species.

Reason (R) : Generally the egg size in Indian ducks is smaller than Indian chickens.

In light of the above statements, choose the *correct* answer from the options given below.

1. Both (A) and (R) are true and (R) is the correct explanation of (A).
2. Both (A) and (R) are true but (R) is NOT the correct explanation of (A).
3. (A) is true but (R) is false.
4. (A) is false but (R) is true.

A1 : 1

A2 : 2

A3 : 3

A4 : 4

4.0 1.00

Objective Question

48 1528

In Buffaloes, the vaccination is usually done to prevent the occurrence of the diseases, except for

- (A). Theileriosis
- (B). Coccidiosis
- (C). IBR
- (D). Distemper

Choose the *correct* answer from the options given below:

1. (B) and (D) only.
2. (A) and (D) only.
3. (C) and (D) only
4. (D) only.

4.0 1.00

		A1 : 1		
		A2 : 2		
		A3 : 3		
		A4 : 4		
Objective Question				
49	1529	The factor accounting for most of the variation seen in calving interval of a cows within a breed 1. Gestation period. 2. Service period. 3. Dry period. 4. Transistion period. A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
50	1530	Name the breeds of cattle which are largely maintained on pastures and are migratory in nature..... (A). Kankrej (B). Belahi (C). Gojri (D). Sanchori Choose the correct answer from the options given below: 1. (A), (B) and (D) only. 2. (B), (C) and (D) only. 3. (A), (B), (C) and (D). 4. (A), (C) and (D) only. A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
51	1531		4.0	1.00

Milk is the only source of these nutrients or true constituents of milk are -

1. Lactose and Carotene
2. Lactose and Casein
3. Casein and Albumin
4. Fat and Minerals

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

52 1532

Standards for milk pasteurization are formulated on the basis of following criteria -

- (A). Complete destruction of pathogenic microbes
- (B). Reduction in the size of fat globules
- (C). Inactivation of alkaline phosphatase enzyme
- (D). Minimum damage to cream line.

Choose the **correct** answer from the options given below:

1. (A), (B) and (D) only.
2. (B), (C) and (D) only.
3. (A), (C) and (D) only
4. (A) and (C) only.

A1 : 1

A2 : 2

A3 : 3

A4 : 4

4.0 1.00

Objective Question

53 1533

Type of detergent most commonly used in dairy industry is -

1. Acidic
2. Neutral
3. Alkaline
4. PH independent

A1 : 1

A2 : 2

4.0 1.00

A3 : 3

A4 : 4

Objective Question

54	1534	Which amino acid is present in highest concentration in actin? 1. Proline 2. Hydroxy proline 3. Glycine 4. Desmosin A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

55	1535	Given below are two statements, one is labelled as Assertion (A) and other one labelled as Reason (R). Assertion (A) : Number of mitochondria in white muscle fibre are higher than red muscle fibre. Reason (R) : White muscle fibres are fast twitch fibre that are easily fatigued. In light of the above statements, choose the <i>correct</i> answer from the options given below. 1. Both (A) and (R) are true and (R) is the correct explanation of (A). 2. Both (A) and (R) are true but (R) is NOT the correct explanation of (A). 3. (A) is true but (R) is false. 4. (A) is false but (R) is true. A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

56	1536		4.0	1.00
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Given below are two statements, one is labelled as Assertion (A) and other one labelled as Reason (R).

Assertion (A) : Salt is very important ingredients for the preparation of meat batter.

Reason (R) : Salt help in the extraction of myofibrillar proteins during processing.

In light of the above statements, choose the *correct* answer from the options given below.

1. Both (A) and (R) are true and (R) is the correct explanation of (A).
2. Both (A) and (R) are true but (R) is NOT the correct explanation of (A).
3. (A) is true but (R) is false.
4. (A) is false but (R) is true.

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

57	1537	Egg white and egg yolk began to coagulate at the temperature of _____ and _____ respectively. 1. 52 °C and 55 °C 2. 62 °C and 65 °C 3. 72 °C and 75 °C 4. 82 °C and 85 °C A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

58	1538	Given below are two statements, one is labelled as Assertion (A) and other one labelled as Reason (R). Assertion (A) : Enrichment of the omega-3 fatty acid content of yolk using fish oils or fish meals has been investigated with success by researchers. Reason (R) : The fatty acid composition of yolk lipid is influenced by the type of fat in the diets of the hens. In light of the above statements, choose the <i>correct</i> answer from the options given below. 1. Both (A) and (R) are true and (R) is the correct explanation of (A). 2. Both (A) and (R) are true but (R) is NOT the correct explanation of (A). 3. (A) is true but (R) is false. 4. (A) is false but (R) is true. A1 : 1	4.0	1.00
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A2 : 2

A3 : 3

A4 : 4

Objective Question

59	1539	The short fibres that are separated from the long fibres during the combing operation of wool processing are known as - 1. Tops 2. Noils 3. Kemp 4. Heterotype A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

60	1540	The removal of vegetable matter from raw wool using chemical method is known as- 1. Carbonization 2. Scouring 3. Combing 4. Shearing A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

61	1541	Necrotic dermatitis of chicken feet is occurred due to deficiency of 1. Mn 2. F 3. Zn 4. Mg A1 : 1	4.0	1.00
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		A2 : 2		
		A3 : 3		
		A4 : 4		
Objective Question				
62	1542	The concentration of vitamin A in the ration of poultry should be highest for which class of birds 1. Laying hens 2. Breeding hens 3. Broiler starter 4. Broiler finisher A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
63	1543	Birds of which class lay larger no. of eggs 1. Mediterranean 2. Asiatic 3. American 4. English A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
64	1544	The period of the life of the layer which follows the brooding up to the sexual maturity is called as 1. Rearing 2. Molting 3. Laying 4. None A1 : 1 A2 : 2	4.0	1.00

		A3 : 3		
		A4 : 4		
Objective Question				
65	1545	Energy content of layer feed is 1. 2400 ME 2. 2600 ME 3. 2700 ME 4. 3000 ME A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
66	1546	The chicken has this number of air sacs 1. 4 2. 6 3. 9 4. 3 A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
67	1547	The physiological zero temperature for hatching eggs is 1. 20 °C 2. 15 °C 3. 24 °C 4. 18 °C A1 : 1 A2 : 2 A3 : 3	4.0	1.00

		A4 : 4		
Objective Question				
68	1548	Kashmir Anz is a 1. Duck 2. Geese 3. Chicken 4. Turkey A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
69	1549	Australorp belongs to _____ class 1. Mediterranean 2. Asiatic 3. English 4. American A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
70	1550	Hansli belongs to which state of India 1. Maharashtra 2. Jharkhand 3. Odisha 4. Chhatisgarh A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00

Objective Question				
71	1000901	Which of the following Dispersive force changes the gene frequency in a population (A). Selection (B). Mutation (C). Random Drift (D). Uniformity within sub populations Choose the correct answer from the options given below: 1. (A) and (B) only. 2. (A), (B) and (D) only. 3. (A), (B), (C) and (D). 4. (C) and (D) only. A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
72	1000902	The Hardy - Wienberg Law for a large randomly mating population was postulated/demostrated in the year 1. 1901 2. 1908 3. 1911 4. 1919 A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
73	1000903		4.0	1.00

Given below are two statements, one is labelled as Assertion (A) and other one labelled as Reason (R).

Assertion (A) : Effect of mutation rate on gene frequency, a point of equilibrium can be found by equating the change of frequency to Zero.

Reason (R) : The forward mutation in genes are less frequent than reverse mutations in a population

In light of the above statements, choose the *most appropriate* answer from the options given below .

1. Both (A) and (R) are correct and (R) is the correct explanation of (A).
2. Both (A) and (R) are correct but (R) is NOT the correct explanation of (A).
3. (A) is correct but (R) is not correct.
4. (A) is not correct but (R) is correct.

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

74 1000904

Given below are two statements, one is labelled as Assertion (A) and other one labelled as Reason (R).

Assertion (A) : In a crossbreeding experiment, the Hybrid vigour /heterosis is observed.

Reason (R) : The hetrosis is observed in first generation is subsequently halved in the second generation.

In light of the above statements, choose the *most appropriate* answer from the options given below .

1. Both (A) and (R) are correct and (R) is the correct explanation of (A).
2. Both (A) and (R) are correct but (R) is NOT the correct explanation of (A).
3. (A) is correct but (R) is not correct.
4. (A) is not correct but (R) is correct.

A1 : 1

A2 : 2

A3 : 3

A4 : 4

4.0 1.00

Objective Question

75 1000905

4.0 1.00

The effect of selection on gene frequency depends on

(A). Intensity of Selection

(B). Initial gene frequency

(C). Final gene frequency

(D). Mutation rate

Choose the **correct** answer from the options given below:

1. (A) and (B) only.
2. (A), (B) and (D) only.
3. (A), (B), (C) and (D).
4. (B), (C) and (D) only.

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

76	1000906	When a locus has allelic variants at frequencies too high to be accounted for by selection-mutation balance, the locus is said to be 1. Monomorphic 2. Biallelic 3. Polymorphic 4. Mutated A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

77	1000907	In population, the mating together of individuals that are related to each other by ancestry is known as 1. Pure breeding 2. Crossbreeding 3. Inbreeding 4. Outbreeding A1 : 1 A2 : 2	4.0	1.00
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A3 : 3

A4 : 4

Objective Question

78	1000908	In a breeding program, the best method of selection using phenotypic information is 1. Tandom 2. Independent Culling Level 3. Progeny based 4. Index based A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

79	1000909	Given below are two statements, one is labelled as Assertion (A) and other one labelled as Reason (R). Assertion (A) : The rate of inbreeding in a population, depends chiefly on the numbers of less numerous sex. Reason (R) : Effective population size depends on the number of less numerous sex. In light of the above statements, choose the <i>correct</i> answer from the options given below. 1. Both (A) and (R) are true and (R) is the correct explanation of (A). 2. Both (A) and (R) are true but (R) is NOT the correct explanation of (A). 3. (A) is true but (R) is false. 4. (A) is false but (R) is true. A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

80	1000910		4.0	1.00
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Which of the following breeds of cattle are popular for 'game' in Southern India

(A). Pullikulum

(B). Kankrej

(C). Kangayam

(D). Hallikar

Choose the **correct** answer from the options given below:

1. (A) and (C) only.
2. (A), (B) and (D) only.
3. (A), (B), (C) and (D).
4. (B), (C) and (D) only.

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

81	1000911	The ova are released by hormone induction and fertilization by artificial insemination and then embryo is stored at 4-degree Celsius for several years. This is the technique known as 1. Artificial Insemination 2. Embryo transplantation 3. Super ovulation 4. Preservation of embryo A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

82	1000912	The type of DNA amplification where the region of DNA amplified lies on either side of a known segment 1. Nested PCR 2. Inverse PCR 3. Anchored PCR 4. RT PCR A1 : 1	4.0	1.00
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A2 : 2

A3 : 3

A4 : 4

Objective Question

83	1000913	Which of the following functions is not performed by transposase..... 1. Restriction of the IS element 2. Integration of the transposon 3. Formation of the RNA intermediate 4. Restriction of the host genome A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

84	1000914	Which part of the ribosome identifies the Shine – Dalgarno sequence? 1. Protein 2. 16S rRNA 3. 23S rRNA 4. 5S rRNA A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

85	1000915	With respect to the importance of hydrogen bonding and DNA double helix stability, which of the following statements is false? 1. Favorable tautomeric form of nucleotide bases 2. Contributes to the thermodynamic stability 3. Decreases the entropy 4. Specificity of base pairing A1 : 1 A2 : 2	4.0	1.00
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A3 : 3

A4 : 4

Objective Question

86	1000916	Which type of DNA is connected by a holiday junction? 1. Homologous DNA duplex 2. Heteroduplex DNA 3. Mutated DNA 4. Asymmetric DNA A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

87	1000917	The Jacksons Laboratory is famous for one of the following reasons 1. It follows GLP and SOP 2. Inbred lab animals 3. Whole genome sequence 4. Largest laboratory A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

88	1000918	The genetic variants in genome-wide association studies can't fully explain the heritability of complex traits this is known as 1. Actual heritability 2. Realized heritability 3. Missing heritability 4. Negative heritability A1 : 1 A2 : 2 A3 : 3	4.0	1.00
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A4 : 4

Objective Question

89	1000919	Codons responsible for termination of a peptide during protein synthesis (A). UAG (B). UUU (C). GUG (D). UAA Choose the correct answer from the options given below: 1. (A), (B) and (D) only. 2. (B) and (D) only. 3. (A) and (D). 4. (A) and (C). A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

90	1000920	Identify the correct sequence of the following events in order of their discovery/ proposed theory (year wise) (A). Path coefficient analysis (B). Variance estimation by Henderson (C). Most probable producing ability (D). X-ray crystallography Choose the correct answer from the options given below: 1. (A), (B), (C), (D). 2. (A), (C), (B), (D). 3. (B), (A), (D), (C). 4. (C), (B), (D), (A). A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question				
91	1000921	Which of the following 'Breed Name' is common between breed of cattle as well as buffalo 1. Surti 2. Konkan 3. Bargur 4. Chhattisgarhi A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
92	1000922	Given below are two statements, one is labelled as Assertion (A) and other one labelled as Reason (R). Assertion (A) : Concept of Heritability is that it measures how much of the variation in a trait is attributed to its genetic factors in a population. Reason (R) : Heritability is specific to the population and the environment to in which it is analysed. In light of the above statements, choose the <i>most appropriate</i> answer from the options given below. 1. Both (A) and (R) are correct and (R) is the correct explanation of (A). 2. Both (A) and (R) are correct but (R) is NOT the correct explanation of (A). 3. (A) is correct but (R) is not correct. 4. (A) is not correct but (R) is correct. A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
93	1000923		4.0	1.00

In a program to amplify the target gene sequence in a laboratory, identify the correct sequence of a programme

- (A). Separating two strands of DNA
- (B). Primer synthesis
- (C). DNA Polymerase action
- (D). Annealing with template

Choose the **correct** answer from the options given below:

- 1. (A), (B), (C), (D).
- 2. (A), (D), (C), (B).
- 3. (B), (A), (D), (C).
- 4. (C), (B), (D), (A).

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

94	1000924	A quantitative genetics concept where sum total of genes present in a population is called as 1. Gene Pool 2. Phenotype 3. Breeding Value 4. Genotype A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

95	1000925		4.0	1.00
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Arrange the following in a sequential steps taken in synthesis of C-DNA library construction

- (A). Clone C-DNA
- (B). Action of reverse transcriptase
- (C). Incorporate C-DNA into Vector
- (D). Elution of mRNA

Choose the **correct** answer from the options given below:

1. (A), (B), (C), (D).
2. (D), (B), (C), (A).
3. (B), (A), (D), (C).
4. (C), (B), (D), (A).

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

96 1000926

4.0 1.00

Match **List-I** with **List-II**

List-I	List-II
Scientist Name	Contribution
(A). Sewall wright	(I). Variance estimation
(B). Hardy	(II). Path analysis method
(C). Henderson	(III). ANOVA
(D). RA Fisher	(IV). Gene frequency Equilibrium

Choose the **correct** answer from the options given below:

1. (A) - (II), (B) - (IV), (C) - (I), (D) - (III)
2. (A) - (II), (B) - (I), (C) - (III), (D) - (IV)
3. (A) - (IV), (B) - (II), (C) - (I), (D) - (III)
4. (A) - (IV), (B) - (II), (C) - (III), (D) - (I)

A1 : 1

A2 : 2

A3 : 3

		A4 : 4		
Objective Question				
97	1000927	Recombinant inbred lines can serve as a powerful tool used primarily for the estimation of in a population 1. Gene interaction 2. Genetic slippage 3. Gene mapping 4. Gene Linkage A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
98	1000928	In a single allele, bi-allelic system, which of the following is true about genotype frequency in a population (A). A1A1 (B). A2A2 (C). A1A2 and A1A1 are equal (D). A1A1 and A2A2 are equal Choose the correct answer from the options given below: 1. (A) only. 2. (B) and (D) only. 3. (D) only. 4. (B), (C) and (D) only. A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
99	1000929	Complete the following statement - transgenic animals are those animals which have 1. Foreign DNA in some of its cells 2. Foreign DNA in all its cells 3. Foreign DNA and RNA in some of its cells 4. Foreign DNA and RNA in all its cells	4.0	1.00

		A1 : 1		
		A2 : 2		
		A3 : 3		
		A4 : 4		

Objective Question

100	1000930	Which of the following statements is not true in context of Bos taurus 1. X & Y chromosomes Submetacentric 2. Chromosome number (2N) = 60 3. X & Y chromosomes Acrocentric 4. Total Autosomes = 58 A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

101	1000931	In RRS in poultry, one of the following is not related 1. GCA 2. Inbred line 3. SCA 4. Heterosyosity A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

102	1000932	Genetic progress using multi-trait Selection Index method in a herd, can be expected by maximizing 1. Correlation between true breeding value and Index developed 2. Correlation between true breeding value and accuracy of Index 3. Correlation between breeding value and Transmittance 4. Correlation between true breeding value and intensity of selection A1 : 1	4.0	1.00
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A2 : 2

A3 : 3

A4 : 4

Objective Question

103	1000933	To estimate the variance for a particular trait in a sample of balanced data set, following test is most often used 1. Students T-test 2. ANOVA 3. Z- test 4. Square of standard error A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

104	1000934	Phenotypic characterization of the Cattle populations of India in to different breeds can be done to a large extent by using the following most important biometric traits, which includes (A). Height and Chest Girth (B). Body length (C). Horn shape (D). Skin colour Choose the correct answer from the options given below: 1. (A) only. 2. (A) and (B) only. 3. (A), (C) and (D) only. 4. (B), (C) and (D) only. A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

105	1000935		4.0	1.00
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Next Generation Sequencing (NGS) technique consists of the following steps in sequence

1. Library construction, Amplification, Sequencing
2. Sequencing, Library construction, Amplification
3. Amplification, Sequencing and Library construction
4. Library construction, and Sequencing

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

106	1000936	Indigenously developed high throughput DNA chip(s) used to genotype the cattle genetic resource of the country (A). INDUSCHIP (B). BUFFCHIP (C). INDIGAU (D). Bovine Genotyping array 770K Choose the correct answer from the options given below: 1. (A), (B) and (D) only. 2. (A), (C) and (D) only. 3. (A), (B), (C) and (D). 4. (A) and (C) only. A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

107	1000937	In a cattle, when it fails to conceive from 3 or more regularly spaced services in the absence of detectable abnormalities, such a cattle is called 1. Infertile 2. Anoestrus 3. Repeat breeder 4. Down calver A1 : 1 A2 : 2	4.0	1.00
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A3 : 3

A4 : 4

Objective Question

108	1000938	Which of the following disorder is genetic and inherited from parents to their offspring 1. Mastitis 2. Downers Cow 3. Down Syndrome 4. Repeat breeding A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

109	1000939	Correlated response to selection will be observed more in case of 1. Negatively related traits 2. Positively related traits 3. Unrelated traits 4. High accuracy traits A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

110	1000940	In normal distribution theorm, the percentage of area that lies between $\pm 3\sigma$ is 1. 99.73% 2. 100% 3. 95.45% 4. 68.27% A1 : 1 A2 : 2	4.0	1.00
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		A3 : 3		
		A4 : 4		
Objective Question				
111	1000941	In which of the following file format, the ASCII coded quality of base call is present (NGS data) 1. FASTA 2. FAST Q 3. FAST QC 4. BAM A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
112	1000942	The complete sequence of Cattle genome was published in the Journal 'Science' in the year 1. 2001 2. 2016 3. 2004 4. 2009 A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
113	1000943	The Central Dogma model of molecular biology that explains the flow of genetic information, was proposed in 1958 by 1. JD Watson 2. Francis Crick 3. J Monad 4. HG Khurana A1 : 1 A2 : 2 A3 : 3	4.0	1.00

		A4 : 4		
Objective Question				
114	1000944	Which of the following type of DNA markers are recommended to assess the genetic diversity in domestic animals (A). RFLP (B). SNP (C). Microsatellite (D). Minisatellite Choose the correct answer from the options given below: 1. (B) and (C) only. 2. (A), (B) and (D) only. 3. (A), (C) and (D). 4. (B), (C) and (D) only. A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
115	1000945	Given below are two statements, one is labelled as Assertion (A) and other one labelled as Reason (R). Assertion (A) : Fst is a measure of genetic diversity based on F-statistic. Reason (R) : Fst is an indicator of variance between populations, with zero value indicating absence of diversity. In light of the above statements, choose the correct answer from the options given below. 1. Both (A) and (R) are true and (R) is the correct explanation of (A). 2. Both (A) and (R) are true but (R) is NOT the correct explanation of (A). 3. (A) is true but (R) is false. 4. (A) is false but (R) is true. A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
116	1000946		4.0	1.00

		Which type of distribution is used to model independent and rare events that occur in a fixed time, and characterized by equal mean & variance in a sample 1. Binomial distribution 2. Normal distribution 3. Poisson distribution 4. Marginal distribution. A1 : 1 A2 : 2 A3 : 3 A4 : 4		
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Objective Question

117	1000947	Array of genes and transcripts that are differentially expressed between samples can be easily identified using 1. GWAS 2. RNA seq 3. Whole genome sequencing 4. Metagenomics A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

118	1000948	The test cycle in a progeny testing program in Indian cattle and buffaloes is years 1. 3 to 5 2. 5 to 7 3. 1 to 1.5 4. 1.5 to 2 A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

119	1000949		4.0	1.00
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		An estimate of a dairy bulls potential to produce milk if it were a cow is known as 1. Sire potential 2. Expected Producing Ability 3. Sire Index 4. Expected predicted difference A1 : 1 A2 : 2 A3 : 3 A4 : 4		
Objective Question				
120	1000950	If the recombination frequency in a cross lies in between Zero and 0.5, then it is a case of 1. Complete linkage 2. Dominance 3. Incomplete linkage 4. No linkage A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00