

# National Testing Agency

<b>Question Paper Name :</b>	Animal Genetics and Breeding 23rd Sep 2020 Shift 2 Set 2
<b>Subject Name :</b>	Animal Genetics and Breeding
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<b>Share Answer Key With Delivery Engine :</b>	Yes
<b>Actual Answer Key :</b>	Yes

## Animal Genetics and Breeding

<b>Group Number :</b>	1
<b>Group Id :</b>	71087019
<b>Group Maximum Duration :</b>	0
<b>Group Minimum Duration :</b>	120
<b>Show Attended Group? :</b>	No
<b>Edit Attended Group? :</b>	No
<b>Break time :</b>	0
<b>Group Marks :</b>	480
<b>Is this Group for Examiner? :</b>	No

## Part A General Knowledge

<b>Section Id :</b>	71087055
<b>Section Number :</b>	1
<b>Section type :</b>	Online
<b>Mandatory or Optional :</b>	Mandatory
<b>Number of Questions :</b>	20

<b>Number of Questions to be attempted :</b>	20
<b>Section Marks :</b>	80
<b>Display Number Panel :</b>	Yes
<b>Group All Questions :</b>	Yes
<b>Mark As Answered Required? :</b>	Yes
<b>Sub-Section Number :</b>	1
<b>Sub-Section Id :</b>	71087055
<b>Question Shuffling Allowed :</b>	Yes

**Question Number : 1 Question Id : 7108702221 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

Which one of the following crops is a commercial crop in Punjab and Haryana but is a subsistence crop in Orissa?

1. Tea
2. Cotton
3. Rubber
4. Rice

**Options :**

- 7108708881. 1
- 7108708882. 2
- 7108708883. 3
- 7108708884. 4

**Question Number : 2 Question Id : 7108702222 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

Which of the following are the two most important wheat-growing zones of the country?

- A. Ganga-Satluj plains in the north-west
- B. Deltaic regions
- C. Black soil region of the Deccan
- D. Plains of north-east

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

- 1. Only A and B
- 2. Only B and C
- 3. Only C and D
- 4. Only A and C

**Options :**

- 7108708885. 1
- 7108708886. 2
- 7108708887. 3
- 7108708888. 4

**Question Number : 3 Question Id : 7108702223 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Indian agriculture is typically characterized as

- 1. Land surplus, labour scarce economy
- 2. Land surplus, labour surplus economy
- 3. Land scarce, labour surplus economy
- 4. Land scarce, labour scarce economy

**Options :**

- 7108708889. 1



7108708890. 2

7108708891. 3

7108708892. 4

**Question Number : 4 Question Id : 7108702224 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

Which one of the following countries is the main rival of India in tea export?

1. China
2. Japan
3. Germany
4. Sri Lanka

**Options :**

7108708893. 1

7108708894. 2

7108708895. 3

7108708896. 4

**Question Number : 5 Question Id : 7108702225 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**



Given below are two statements

**Statement A:** MSP is declared by the government every year to provide incentives to the farmers for raising the production of crops.

**Statement B:** Buffer stock is created to distribute food grains in the deficit areas and among the poorer strata of the society at the lower price than the market price.

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

1. Both Statement A and Statement B are correct
2. Both Statement A and Statement B are incorrect
3. Statement A is correct but Statement B is incorrect
4. Statement A is incorrect but Statement B is correct

**Options :**

- 7108708897. 1
- 7108708898. 2
- 7108708899. 3
- 7108708900. 4

**Question Number : 6 Question Id : 7108702226 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

Which one of the following is a global association of nations of the world to help cooperation in international law, security, economic development and social equity?

1. United Nations Organization
2. International Monetary Fund
3. World Bank
4. World Health Organization

**Options :**

- 7108708901. 1
- 7108708902. 2
- 7108708903. 3
- 7108708904. 4

**Question Number : 7 Question Id : 7108702227 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Under the Ganga Action Plan Phase II, pollution abatement works are being taken up in how many towns?

- 1. 57
- 2. 65
- 3. 52
- 4. 69

**Options :**

- 7108708905. 1
- 7108708906. 2
- 7108708907. 3
- 7108708908. 4

**Question Number : 8 Question Id : 7108702228 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Which one of the following statements is **incorrect**?

- 1. The highest number of pigs in the world are found in India
- 2. Utter Pradesh provides largest amount of pork
- 3. Assam has the largest number of pork producing pigs
- 4. Pork constitutes about 7.6% of the total meat produced in India

**Options :**

7108708909. 1

7108708910. 2

7108708911. 3

7108708912. 4

**Question Number : 9 Question Id : 7108702229 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Which type of N-fertilizer is suitable for water-logged soils?

1. Zinc Phosphate
2. Ammonium Sulphate
3. Calcium
4. Potassium Nitrate

**Options :**

7108708913. 1

7108708914. 2

7108708915. 3

7108708916. 4

**Question Number : 10 Question Id : 7108702230 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

The famous Bailadila range of hills in the Bastar district of Chhattisgarh is famous for its

1. Bauxite deposits
2. Manganese deposits
3. Copper deposits
4. High-grade haematite deposits

**Options :**

7108708917. 1



7108708918. 2

7108708919. 3

7108708920. 4

**Question Number : 11 Question Id : 7108702231 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

A farmer wishes to start a 100 sq. m rectangular vegetable garden. Since he has only 30m barbed wire, he fences three sides of the garden letting his house compound wall act as the fourth side fencing. What is the dimension of the garden?

1. 15 m x 6.67m
2. 20 m x 5 m
3. 30 m x 3.33 m
4. 40 m x 2.5 m

**Options :**

7108708921. 1

7108708922. 2

7108708923. 3

7108708924. 4

**Question Number : 12 Question Id : 7108702232 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

In which one of the following industries, the consumption of natural rubber is the largest?

1. Auto tyres and tubes
2. Footwear
3. Dipped goods
4. Latex foam

**Options :**

7108708925. 1  
7108708926. 2  
7108708927. 3  
7108708928. 4

**Question Number : 13 Question Id : 7108702233 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

Which one of the following countries was the partner country of 34<sup>th</sup> Surajkund International Crafts Fair held in Haryana?

1. China
2. Nepal
3. Bhutan
4. Uzbekistan

**Options :**

7108708929. 1  
7108708930. 2  
7108708931. 3  
7108708932. 4

**Question Number : 14 Question Id : 7108702234 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

Nobel laureate Abhijit Vinayak Banerjee was conferred the honorary Doctor of Letters (D. Litt.) by which University?

1. University of Delhi
2. University of Kolkata
3. University of Mumbai
4. University of Hyderabad

**Options :**

- 7108708933. 1
- 7108708934. 2
- 7108708935. 3
- 7108708936. 4

**Question Number : 15 Question Id : 7108702235 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

Where is the headquarters of European Union?

- 1. Geneva, Switzerland
- 2. Washington D.C., USA
- 3. New York, US
- 4. Brussels, Belgium

**Options :**

- 7108708937. 1
- 7108708938. 2
- 7108708939. 3
- 7108708940. 4

**Question Number : 16 Question Id : 7108702236 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

Which of the following would be deficient if one finds high somatic cell count in the cow's milk?

- 1. Butterfat
- 2. Whey protein
- 3. Casein
- 4. Trace minerals



**Options :**

- 7108708941. 1
- 7108708942. 2
- 7108708943. 3
- 7108708944. 4

**Question Number : 17 Question Id : 7108702237 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

Who was the first administrator-statesman to attempt planning as a means for economic development?

- 1. C. Rajagopalachari
- 2. V. T. Krishnamachari
- 3. M. Viswesvarayya
- 4. Sir C. P. Ramaswami Aiyar

**Options :**

- 7108708945. 1
- 7108708946. 2
- 7108708947. 3
- 7108708948. 4

**Question Number : 18 Question Id : 7108702238 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

Amazon rainforest span over nine countries. In August 2019, in which country did a deadly fire broke out in the Amazon forest?

- 1. Brazil
- 2. Venezuela
- 3. Colombia
- 4. Argentina

**Options :**

- 7108708949. 1
- 7108708950. 2
- 7108708951. 3
- 7108708952. 4

**Question Number : 19 Question Id : 7108702239 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

Economic liberalization in India started with

- 1. Sustainable changes in industrial licensing policy
- 2. The convertibility of the Indian Rupee
- 3. Significant reduction of tax rates
- 4. Changes in procedural formalities for FDI

**Options :**

- 7108708953. 1
- 7108708954. 2
- 7108708955. 3
- 7108708956. 4

**Question Number : 20 Question Id : 7108702240 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

The term 'Delimitation' which was in news recently is associated with which process?

- 1. Fixing the limit of Income tax
- 2. Fixing limits of Affordable housing
- 3. Fixing limits of Territorial constituencies
- 4. Fixing limits of Chairpersons salary

**Options :**

- 7108708957. 1

7108708958. 2

7108708959. 3

7108708960. 4

## Part B Core Veterinary and Animal Sciences I

<b>Section Id :</b>	71087056
<b>Section Number :</b>	2
<b>Section type :</b>	Online
<b>Mandatory or Optional :</b>	Mandatory
<b>Number of Questions :</b>	50
<b>Number of Questions to be attempted :</b>	50
<b>Section Marks :</b>	200
<b>Display Number Panel :</b>	Yes
<b>Group All Questions :</b>	Yes
<b>Mark As Answered Required? :</b>	Yes
<b>Sub-Section Number :</b>	1
<b>Sub-Section Id :</b>	71087056
<b>Question Shuffling Allowed :</b>	Yes

**Question Number : 21 Question Id : 7108702241 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

The term Genetics was given by

1. Gregor Johann Mendel
2. William Batesan
3. Johannsen
4. Thomas Hunt Morgan

**Options :**

7108708961. 1

7108708962. 2



7108708963. 3

7108708964. 4

**Question Number : 22 Question Id : 7108702242 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Match the **List I** with **List II**

List I	List II
A. Incomplete Dominance	I. Sickle cell anaemia
B. Overdominance	II. Plumage Colour in chicken
C. Epistasis	III. Coat colour of a mouse
D. Lethal genes	IV. Blue Andalusian fowl

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

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

**Options :**

7108708965. 1

7108708966. 2

7108708967. 3

7108708968. 4

**Question Number : 23 Question Id : 7108702243 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Knowledge of which type of inheritance is used for the sexing of day-old chick?

1. Sex linked inheritance
2. Sex limited inheritance
3. Sex influenced inheritance
4. Autosomal inheritance

**Options :**

- 7108708969. 1
- 7108708970. 2
- 7108708971. 3
- 7108708972. 4

**Question Number : 24 Question Id : 7108702244 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

The inheritance pattern in which the expression of the nuclear gene is altered without altering its sequence

1. Epigenetics
2. Maternal
3. Gene imprinting
4. Somatic mutation

**Options :**

- 7108708973. 1
- 7108708974. 2
- 7108708975. 3
- 7108708976. 4

**Question Number : 25 Question Id : 7108702245 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

The technical synonym of random mating is

1. Dysmixia
2. Synmixia
3. Panmixia
4. Ranmixia

**Options :**

7108708977. 1  
7108708978. 2  
7108708979. 3  
7108708980. 4

**Question Number : 26 Question Id : 7108702246 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

The value observed or recorded for an individual for a quantitative trait is referred to as

1. Phenotypic value
2. Genotypic value
3. Environmental variation
4. Genotype-environment interaction

**Options :**

7108708981. 1  
7108708982. 2  
7108708983. 3  
7108708984. 4

**Question Number : 27 Question Id : 7108702247 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**



The breeding value mainly depends upon

1. Additive genetic variance
2. Dominance deviation variance
3. Epistatic variance
4. Environmental variance

**Options :**

- 7108708985. 1
- 7108708986. 2
- 7108708987. 3
- 7108708988. 4

**Question Number : 28 Question Id : 7108702248 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Which of the following heritability estimation method is most frequently used and is easy in terms of data availability?

1. Twin analysis
2. Offspring-parent
3. Half sibs
4. Full sibs

**Options :**

- 7108708989. 1
- 7108708990. 2
- 7108708991. 3
- 7108708992. 4

**Question Number : 29 Question Id : 7108702249 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

The genetic gain per year in a population undergoing selection does NOT depend upon

1. Heritability
2. Selection differential
3. Generation interval
4. Phenocopy

**Options :**

- 7108708993. 1
- 7108708994. 2
- 7108708995. 3
- 7108708996. 4

**Question Number : 30 Question Id : 7108702250 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Mass selection is also known as

1. Individual selection
2. Family selection
3. Pedigree selection
4. Combined selection

**Options :**

- 7108708997. 1
- 7108708998. 2
- 7108708999. 3
- 7108709000. 4

**Question Number : 31 Question Id : 7108702251 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Which one of the following gases has a green house effect?

1. Oxygen
2. Nitrogen
3. Carbon dioxide
4. Hydrogen

**Options :**

7108709001. 1  
7108709002. 2  
7108709003. 3  
7108709004. 4

**Question Number : 32 Question Id : 7108702252 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Which vitamin is mostly affected and increased during haymaking?

1. Vitamin A
2. Vitamin D
3. Vitamin E
4. Vitamin K

**Options :**

7108709005. 1  
7108709006. 2  
7108709007. 3  
7108709008. 4

**Question Number : 33 Question Id : 7108702253 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**



Phytin phosphorus is best utilized in which one of the following animals?

1. Poultry
2. Pig
3. Horse
4. Buffalo

**Options :**

- 7108709009. 1
- 7108709010. 2
- 7108709011. 3
- 7108709012. 4

**Question Number : 34 Question Id : 7108702254 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Which one of the following vitamins has a greater chance of toxicity?

1. Vitamin A
2. Vitamin C
3. Vitamin B1
4. Vitamin B12

**Options :**

- 7108709013. 1
- 7108709014. 2
- 7108709015. 3
- 7108709016. 4

**Question Number : 35 Question Id : 7108702255 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

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

List I	List II
A. Niacin	I. Cocarboxylase
B. Thiamin	II. NADP
C. Riboflavin	III. Coenzyme A
D. Pantothenic acid	IV. FAD

Choose the correct answer from the options given below

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

**Options :**

- 7108709017. 1
- 7108709018. 2
- 7108709019. 3
- 7108709020. 4

**Question Number : 36 Question Id : 7108702256 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

In preparation of artificial colostrum, which oil is used to promote the laxative action?

1. Mustard oil
2. Castor oil
3. Olive oil
4. Soyabean oil

**Options :**

- 7108709021. 1

7108709022. 2

7108709023. 3

7108709024. 4

**Question Number : 37 Question Id : 7108702257 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

Given below are two statements

**Statement I:** The net ATP production from butyric acid is 25 per mole.

**Statement II:** Butyric acid is absorbed as a ketone body.

In light of the above statements, choose the **most appropriate** 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

**Options :**

7108709025. 1

7108709026. 2

7108709027. 3

7108709028. 4

**Question Number : 38 Question Id : 7108702258 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**



Which of the following scientists analysed the body composition of farm animals?

1. Sen and Ray
2. Ray and Ranjhan
3. Watson and Krick
4. Lawes and Gilbert

**Options :**

- 7108709029. 1
- 7108709030. 2
- 7108709031. 3
- 7108709032. 4

**Question Number : 39 Question Id : 7108702259 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

The most preferred ratio of nitrogen to sulphur in ruminants diet is:

1. 1:10
2. 10:1
3. 20:1
4. 5:1

**Options :**

- 7108709033. 1
- 7108709034. 2
- 7108709035. 3
- 7108709036. 4

**Question Number : 40 Question Id : 7108702260 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Ascorbic acid is a dietary essential for:

1. Rat
2. Guinea pig
3. Mice
4. Pig

**Options :**

- 7108709037. 1
- 7108709038. 2
- 7108709039. 3
- 7108709040. 4

**Question Number : 41 Question Id : 7108702261 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Cattle population is highest in which one of the following countries?

1. India
2. Brazil
3. China
4. United States of America

**Options :**

- 7108709041. 1
- 7108709042. 2
- 7108709043. 3
- 7108709044. 4

**Question Number : 42 Question Id : 7108702262 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Which one of the following is an essential nutrient for man, and is exclusively supplied by animal products?

1. Riboflavin and Vitamin B<sub>12</sub>
2. Vitamin B<sub>12</sub> and Niacin
3. Vitamin B<sub>12</sub>
4. Thiamin

**Options :**

- 7108709045. 1
- 7108709046. 2
- 7108709047. 3
- 7108709048. 4

**Question Number : 43 Question Id : 7108702263 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Given below are two statements

**Statement I:** Zinc is essential for dairy cattle and it reduces the ovarian production in female

**Statement II:** Zinc is essential for male as its deficiency may reduce spermatozoa production in male

In light of the above statements, choose the **most appropriate** 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

**Options :**

- 7108709049. 1



7108709050. 2

7108709051. 3

7108709052. 4

**Question Number : 44 Question Id : 7108702264 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

Which of the following pairs are correctly matched?

- A. Jaffarabadi - Gujarat
- B. Nili-Ravi - Odisha
- C. Bhadawari - Uttar Pradesh
- D. Toda - Odisha

Choose the correct answer from the options given below

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

**Options :**

7108709053. 1

7108709054. 2

7108709055. 3

7108709056. 4

**Question Number : 45 Question Id : 7108702265 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

The standard slope/gradient provided in dairy cattle sheds for the maintenance of the cleanliness is

1. 1:20
2. 1:40
3. 1:60
4. 1:80

**Options :**

- 7108709057. 1
- 7108709058. 2
- 7108709059. 3
- 7108709060. 4

**Question Number : 46 Question Id : 7108702266 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Current feeding standards for Indian animals have been developed by which agency?

1. Indian Veterinary Research Institute, Izatnagar
2. National Dairy Research Institute, Karnal
3. Indian Council of Agricultural Research, New Delhi
4. Bureau of Indian Standards, New Delhi

**Options :**

- 7108709061. 1
- 7108709062. 2
- 7108709063. 3
- 7108709064. 4

**Question Number : 47 Question Id : 7108702267 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Given below are two statements

**Statement I:** Green fodder, pastures and straws are available in sufficient quantities in India but protein concentrates supply is lacking

**Statement II:** Energy sources supply in India for feeding animals in India is lacking but the supply of green fodder is adequate

In light of the above statements, choose the **most appropriate** 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

**Options :**

7108709065. 1

7108709066. 2

7108709067. 3

7108709068. 4

**Question Number : 48 Question Id : 7108702268 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**



Given below are two statements

**Statement I:** Legumes are a good source of proteins, minerals and vitamins

**Statement II:** Grasses are better sources of energy and minerals than legume fodders

In light of the above statements, choose the **most appropriate** 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

**Options :**

- 7108709069. 1
- 7108709070. 2
- 7108709071. 3
- 7108709072. 4

**Question Number : 49 Question Id : 7108702269 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Which one of the following is the desired body condition score in 6-point score programme for heifers up to breeding age?

1. 1.0-1.5
2. 2.0-2.5
3. 3.5-4.0
4. 4.5-5.0

**Options :**

- 7108709073. 1
- 7108709074. 2
- 7108709075. 3

7108709076. 4

**Question Number : 50 Question Id : 7108702270 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

What quantity of colostrum in terms of per cent of its body weight should be fed to a calf?

1. <5.0%
2. 10%
3. 20%
4. 40%

**Options :**

- 7108709077. 1
- 7108709078. 2
- 7108709079. 3
- 7108709080. 4

**Question Number : 51 Question Id : 7108702271 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

Which one of the following is an emulsion based meat product?

1. Chicken Tikka
2. Tandoori chicken
3. Chicken sausages
4. Curry chicken

**Options :**

- 7108709081. 1
- 7108709082. 2
- 7108709083. 3
- 7108709084. 4

**Question Number : 52 Question Id : 7108702272 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

Name the milk product which is prepared from khoa

1. Rasgulla
2. Pontilla
3. Rabri
4. Gulabjamun

**Options :**

- 7108709085. 1
- 7108709086. 2
- 7108709087. 3
- 7108709088. 4

**Question Number : 53 Question Id : 7108702273 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

Which of the following is/are voluntary standard(s) for the food industry?

1. BIS only
2. FSSAI only
3. AGMARK only
4. BIS and FSSAI both

**Options :**

- 7108709089. 1
- 7108709090. 2
- 7108709091. 3
- 7108709092. 4

**Question Number : 54 Question Id : 7108702274 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**



Which one of the following is the objective method of assessment of the organoleptic quality of meat?

1. Paired Difference Test
2. Hedonic Scale
3. Shear Press Method
4. Duo-trio-test

**Options :**

- 7108709093. 1
- 7108709094. 2
- 7108709095. 3
- 7108709096. 4

**Question Number : 55 Question Id : 7108702275 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Central Cleaning system (CCS) requires a minimum pressure of

1. 10-20 kgf/cm<sup>2</sup>
2. 20-30 kgf/cm<sup>2</sup>
3. 30-50 kgf/cm<sup>2</sup>
4. 50-70 kgf/cm<sup>2</sup>

**Options :**

- 7108709097. 1
- 7108709098. 2
- 7108709099. 3
- 7108709100. 4

**Question Number : 56 Question Id : 7108702276 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Higher ultimate pH in animals transported for long-distance leads to

1. Soft, Exudative Meat
2. Dark, Firm Meat
3. White and Black Meat
4. Hot and Red Meat

**Options :**

- 7108709101. 1
- 7108709102. 2
- 7108709103. 3
- 7108709104. 4

**Question Number : 57 Question Id : 7108702277 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

The best quality gulab jamuns can be prepared from which of the following types of khoa?

1. Pindi
2. Dhap
3. Danedar
4. Any type of Khoa

**Options :**

- 7108709105. 1
- 7108709106. 2
- 7108709107. 3
- 7108709108. 4

**Question Number : 58 Question Id : 7108702278 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

The green colour of whey is attributed to

1. Vitamin C
2. Riboflavin
3. Vitamin D
4. Iron

**Options :**

7108709109. 1  
7108709110. 2  
7108709111. 3  
7108709112. 4

**Question Number : 59 Question Id : 7108702279 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Which country is the biggest producer and importer of pork?

1. India
2. Iran
3. China
4. Australia

**Options :**

7108709113. 1  
7108709114. 2  
7108709115. 3  
7108709116. 4

**Question Number : 60 Question Id : 7108702280 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**



Which of the following is a method of preservation of shell eggs?

1. Irradiation
2. Thermostabilization
3. Freezing
4. Canning

**Options :**

- 7108709117. 1
- 7108709118. 2
- 7108709119. 3
- 7108709120. 4

**Question Number : 61 Question Id : 7108702281 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Which of the following species of poultry has a helmet and a protuberance on the head?

1. Ostrich
2. Emu
3. Goose
4. Guinea fowl

**Options :**

- 7108709121. 1
- 7108709122. 2
- 7108709123. 3
- 7108709124. 4

**Question Number : 62 Question Id : 7108702282 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Bourbon red is a variety of

1. Turkey
2. Guinea fowl
3. Japanese Quail
4. Goose

**Options :**

- 7108709125. 1
- 7108709126. 2
- 7108709127. 3
- 7108709128. 4

**Question Number : 63 Question Id : 7108702283 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Skin colour of chicken is inherited by

1. Complete dominance
2. Incomplete dominance
3. Sex-linked inheritance
4. Epistasis

**Options :**

- 7108709129. 1
- 7108709130. 2
- 7108709131. 3
- 7108709132. 4

**Question Number : 64 Question Id : 7108702284 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Which one of the following is a highly inheritable trait?

1. Age at sexual maturity
2. Body weight
3. Egg quality
4. Egg number

**Options :**

- 7108709133. 1
- 7108709134. 2
- 7108709135. 3
- 7108709136. 4

**Question Number : 65 Question Id : 7108702285 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

The correct descending order of feed ingredients for their Metabolizable Energy (ME) content is

1. Yellow maize > sorghum > wheat bran > rice polish
2. Sorghum > yellow maize > wheat bran > rice polish
3. Yellow maize > sorghum > rice polish > wheat bran
4. Rice polish > yellow maize > sorghum > wheat bran

**Options :**

- 7108709137. 1
- 7108709138. 2
- 7108709139. 3
- 7108709140. 4

**Question Number : 66 Question Id : 7108702286 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**



Which one of the following feeds contains more crude protein as per BIS (2007) compared to the others?

1. Layer phase –I
2. Grower mash
3. Broiler starter
4. Broiler finisher

**Options :**

- 7108709141. 1
- 7108709142. 2
- 7108709143. 3
- 7108709144. 4

**Question Number : 67 Question Id : 7108702287 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Anti-nutritional factor present in fish meal is

1. Gossypol
2. Trypsin inhibitor
3. Tannins
4. Gizzerosine

**Options :**

- 7108709145. 1
- 7108709146. 2
- 7108709147. 3
- 7108709148. 4

**Question Number : 68 Question Id : 7108702288 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

The enzyme present in the salivary secretion

1. Ptyalin
2. Pepsin
3. Carboxy peptidase
4. Lipase

**Options :**

- 7108709149. 1
- 7108709150. 2
- 7108709151. 3
- 7108709152. 4

**Question Number : 69 Question Id : 7108702289 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

The only gland present in the skin of the chicken is

1. Sweat gland
2. Sebaceous gland
3. Preen gland
4. Foam gland

**Options :**

- 7108709153. 1
- 7108709154. 2
- 7108709155. 3
- 7108709156. 4

**Question Number : 70 Question Id : 7108702290 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

The protein that binds with two atoms of Fe molecule is

1. Ovomuroid
2. Ovoglobulin
3. Ovo flavoprotein
4. Conalbumin

**Options :**

7108709157. 1  
7108709158. 2  
7108709159. 3  
7108709160. 4

## Part C Animal Genetics and Breeding

<b>Section Id :</b>	71087057
<b>Section Number :</b>	3
<b>Section type :</b>	Online
<b>Mandatory or Optional :</b>	Mandatory
<b>Number of Questions :</b>	50
<b>Number of Questions to be attempted :</b>	50
<b>Section Marks :</b>	200
<b>Display Number Panel :</b>	Yes
<b>Group All Questions :</b>	Yes
<b>Mark As Answered Required? :</b>	Yes
<b>Sub-Section Number :</b>	1
<b>Sub-Section Id :</b>	71087057
<b>Question Shuffling Allowed :</b>	Yes

**Question Number : 71 Question Id : 7108702291 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is  
Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical  
Correct Marks : 4 Wrong Marks : 1**



Which of the following enzymes aid in the conversion of Glucose + ATP into Glucose 6 Phosphate + ADP during glycolytic pathway?

1. Deoxyribose
2. Phosphoglucose
3. Fructose
4. Hexokinase

**Options :**

- 7108709161. 1
- 7108709162. 2
- 7108709163. 3
- 7108709164. 4

**Question Number : 72 Question Id : 7108702292 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Possible number of phenotypes in the progeny resulting from the crossing of parents having 'n' number of independently segregating gene pairs obeying complete dominance for all genes is given by

1.  $2^n$
2.  $3^n$
3.  $4^n$
4.  $(1/4)^n$

**Options :**

- 7108709165. 1
- 7108709166. 2
- 7108709167. 3
- 7108709168. 4

**Question Number : 73 Question Id : 7108702293 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is**

**Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical  
Correct Marks : 4 Wrong Marks : 1**

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

List I	List II
A. Goat ( <i>Capra hircus</i> )	I. 'n' number of chromosomes (27)
B. Sheep ( <i>Ovis aries</i> )	II. 2n number of chromosomes (60)
C. Domestic pig ( <i>Sus scrofa domesticus</i> )	III. 'n' number of chromosomes (19)
D. Horse ( <i>Equus caballus</i> )	IV. 2n number of chromosomes (64)

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

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

**Options :**

- 7108709169. 1
- 7108709170. 2
- 7108709171. 3
- 7108709172. 4

**Question Number : 74 Question Id : 7108702294 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is  
Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical  
Correct Marks : 4 Wrong Marks : 1**

A number of methods for chromosomal banding have been developed, the most common being G, R, C, T and Q banding. Which of the following are the salient features of this banding method?

- A. Darkly stained Adenine - Thymine rich regions in G banding
- B. Darkly stained Adenine - Thymine rich regions in R banding
- C. C banding stains permanently heterochromatic regions of chromosomes
- D. T banding stains centromeric and Telomeric regions of chromosomes
- E. Q banding results in higher fluorescence in Guanine-cytosine rich regions

Choose the correct answer from the options given below

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

**Options :**

- 7108709173. 1
- 7108709174. 2
- 7108709175. 3
- 7108709176. 4

**Question Number : 75 Question Id : 7108702295 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**



Given below are two statements

**Statement I:** The arrangement of the paired chromosomes at meiotic metaphase I with respect to the two poles as well as with respect to other pair of chromosomes is random

**Statement II:** The place of crossing over for a particular pair of chromosome in different cells undergoing meiosis is random

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

1. Both Statement I and Statement II are true
2. Both Statement I and Statement II are false
3. Statement I is correct but Statement II is false
4. Statement I is incorrect but Statement II is true

**Options :**

7108709177. 1

7108709178. 2

7108709179. 3

7108709180. 4

**Question Number : 76 Question Id : 7108702296 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

Given below are two statements

**Statement I:** In case of incomplete penetrance of a gene, its expression may be present in some individuals while absent in others

**Statement II:** A gene that expresses with a variable degree of phenotypic expressions in some individuals while its expression is absent in others is said to have variable expressivity

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

1. Both Statement I and statement II are true
2. Both Statement I and Statement II are false
3. Statement I is correct but Statement II is false
4. Statement I is incorrect but Statement II is true

**Options :**

7108709181. 1

7108709182. 2

7108709183. 3

7108709184. 4

**Question Number : 77 Question Id : 7108702297 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is**

**Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Given below are two statements, one is labelled as **Assertion A** and the other is labelled as **Reason R**

**Assertion A:** Genetic maps, as prepared from linkage analysis assign genes to specific chromosomes.

**Reason R:** Linkage maps merely display the distance between different loci in relation to each other. It is, however, not known where actually the genes are physically located on a chromosome

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

**Options :**

- 7108709185. 1
- 7108709186. 2
- 7108709187. 3
- 7108709188. 4

**Question Number : 78 Question Id : 7108702298 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**



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

<b>List I</b>	<b>List II</b>
A. XY sex-determination system	I. Many Insects
B. ZW sex-determination system	II. Fruit fly intersex
C. XO sex-determination system	III. Many mammals
D. X: A Genic balance theory	IV. Birds

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

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

**Options :**

7108709189. 1  
7108709190. 2  
7108709191. 3  
7108709192. 4

**Question Number : 79 Question Id : 7108702299 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Given below are two statements

**Statement I:** X- linkage refers specifically to the genes located only on the homologous region of sex chromosome

**Statement II:** Y linkage refers specifically to the genes located only on the non-homologous regions of the Y chromosome

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

1. Both Statement I and Statement II are true
2. Both Statement I and Statement II are false
3. Statement I is correct but Statement II is false
4. Statement I is incorrect but Statement II is true

**Options :**

7108709193. 1

7108709194. 2

7108709195. 3

7108709196. 4

**Question Number : 80 Question Id : 7108702300 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

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

<b>List I</b>	<b>List II</b>
A. Sex chromosome monosomy in horse	I. Inter sexually
B. Sex chromosome trisomy in a male dog	II. Ovarian hypoplasia
C. Sex chromosome tetrasomy in horse	III. Testicular hypoplasia
D. Sex chromosome monosomy in a human female	IV. Webbed neck

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

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

**Options :**

- 7108709197. 1
- 7108709198. 2
- 7108709199. 3
- 7108709200. 4

**Question Number : 81 Question Id : 7108702301 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**



Given below are two statements

**Statement I:** Mosaic is an individual with cells of two or more than two, karyotypes resulting from the fusion of two or more than two zygotes

**Statement II:** Chimera is an individual with all cells having similar karyotype but resulting from the fusion of two or more than two zygotes

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

1. Both Statement I and Statement II are true
2. Both Statement I and Statement II are false
3. Statement I is correct but Statement II is false
4. Statement I is incorrect but Statement II is true

**Options :**

7108709201. 1

7108709202. 2

7108709203. 3

7108709204. 4

**Question Number : 82 Question Id : 7108702302 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

Given below are two statements

**Statement I:** The response to selection is the difference of mean phenotypic value between the offspring of the selected parents and whole of the parental generation before selection

**Statement II:** The measure of the selection applied is the average superiority of the selected parents, which is called the selection differential

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

1. Both Statement I and Statement II are true
2. Both Statement I and Statement II are false
3. Statement I is correct but Statement II is false
4. Statement I is incorrect but Statement II is true

**Options :**

7108709205. 1

7108709206. 2

7108709207. 3

7108709208. 4

**Question Number : 83 Question Id : 7108702303 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

Derivation of Hardy Weinberg Law requires which of the following assumptions?

- A. Large Population
- B. Random mating
- C. No selection, mutation, migration
- D. Random drift
- E. Parent population in Hardy Weinberg equilibrium

Choose the correct answer from the options given below

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

**Options :**

- 7108709209. 1
- 7108709210. 2
- 7108709211. 3
- 7108709212. 4

**Question Number : 84 Question Id : 7108702304 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**



Given below are two statements

**Statement I:** A population in which allelic frequencies differ between two sexes are sometimes found to be in Hardy-Weinberg equilibrium

**Statement II:** In case of sex-linked genes, Hardy Weinberg equilibrium is attained slowly with the difference in allele frequency being halved in every generation of random mating

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

1. Both Statement I and Statement II are true
2. Both Statement I and Statement II are false
3. Statement I is correct but Statement II is false
4. Statement I is incorrect but Statement II is true

**Options :**

7108709213. 1

7108709214. 2

7108709215. 3

7108709216. 4

**Question Number : 85 Question Id : 7108702305 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is**

**Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Given below are two statements

**Statement I:** During the period of a bottleneck, the surviving members may have allelic frequencies that differ from those of the original population simply due to chance elimination

**Statement II:** The allelic frequencies during the period of the bottleneck are expected to drift substantially

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

1. Both Statement I and Statement II are true
2. Both Statement I and Statement II are false
3. Statement I is correct but Statement II is false
4. Statement I is incorrect but Statement II is true

**Options :**

7108709217. 1

7108709218. 2

7108709219. 3

7108709220. 4

**Question Number : 86 Question Id : 7108702306 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

Which of the following are simplifying conditions specified in order for an idealized population?

- A. Mating is restricted to members of the same line
- B. The generations are distinct and do not overlap
- C. The number of breeding individuals in each line is the same for all lines and all generations
- D. Within each line, mating is random, including self-fertilization in a random amount
- E. There is no selection at any stage

Choose the correct answer from the options given below

- 1. B, C, D, E, A
- 2. C, D, E, A, B
- 3. A, B, C, D, E
- 4. D, E, A, B, C

**Options :**

- 7108709221. 1
- 7108709222. 2
- 7108709223. 3
- 7108709224. 4

**Question Number : 87 Question Id : 7108702307 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**



Given below are two statements, one is labelled as **Assertion A** and the other is labelled as **Reason R**

**Assertion A:** Average effect of an allele is technically defined as the mean deviation from the population mean of the individuals who received that allele from one parent and the other allele coming randomly from the population

**Reason R:** Average effect reflects the value of each allele dependent on the effects of the other alleles

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

**Options :**

- 7108709225. 1
- 7108709226. 2
- 7108709227. 3
- 7108709228. 4

**Question Number : 88 Question Id : 7108702308 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

Who among the following scientists initiated Herd-mate method of sire evaluation?

1. Hazel
2. Henderson
3. Dickerson
4. Harvey

**Options :**

- 7108709229. 1
- 7108709230. 2
- 7108709231. 3
- 7108709232. 4

**Question Number : 89 Question Id : 7108702309 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

Which of the following are features of a threshold trait?

- A. Controlled by a few genes
- B. Possesses points on the liability scale around which phenotypic classes change
- C. Individuals exhibit categorical phenotypic classes with a discontinuous distribution
- D. The model for describing the phenotypic value of an individual is the same as that of a quantitative trait
- E. Influenced by environmental factors

Choose the correct answer from the options given below

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

**Options :**

- 7108709233. 1
- 7108709234. 2
- 7108709235. 3
- 7108709236. 4

**Question Number : 90 Question Id : 7108702310 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

The crossing of crossbred progeny having the same level of inheritance of two breeds like the crossing of F1 with F1 is known as

1. Inter se mating
2. Two breed crossed
3. Three way crosses
4. Four way crosses

**Options :**

7108709237. 1

7108709238. 2

7108709239. 3

7108709240. 4

**Question Number : 91 Question Id : 7108702311 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**



Which of the following are features of heritability?

- A. Heritability may vary from one trait to another in a population
- B. Heritability of a trait may also differ between populations
- C. Heritability of a trait may also change over time
- D. Heritability of a trait depends upon environment variance
- E. Heritability of a trait can be negative

Choose the correct answer from the options given below

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

**Options :**

- 7108709241. 1
- 7108709242. 2
- 7108709243. 3
- 7108709244. 4

**Question Number : 92 Question Id : 7108702312 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

Given below are two statements, one is labelled as **Assertion A** and the other is labelled as **Reason R**

**Assertion A:** Repeatability is defined as the ratio of genetic and permanent environmental variances to the total phenotypic variance of the trait

**Reason R:** Repeatability is the proportion of observed phenotypic variation that is caused by permanent differences among individuals in a population

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

**Options :**

7108709245. 1

7108709246. 2

7108709247. 3

7108709248. 4

**Question Number : 93 Question Id : 7108702313 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is**

**Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Given below are two statements

**Statement I:** Both genetic and environmental correlations contribute to the phenotypic correlation between the traits

**Statement II:** Phenotypic correlation between the traits is the average of the genetic and environmental correlation between the traits

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

1. Both Statement I and Statement II are true
2. Both Statement I and Statement II are false
3. Statement I is correct but Statement II is false
4. Statement I is incorrect but Statement II is true

**Options :**

7108709249. 1

7108709250. 2

7108709251. 3

7108709252. 4

**Question Number : 94 Question Id : 7108702314 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**



Given below are two statements

**Statement I:** Standard error in the estimation of genetic parameters are only dependent on the total number of animals available for analysis but not on the mating design

**Statement II:** Repeatability and heritability as compared to genetic correlations are less subject to sampling. That is, for a given flock/herd with the same number of animals, same mating structure, and standard error of repeatability and heritability will be lower than that of genetic correlations

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

1. Both Statement I and Statement II are true
2. Both Statement I and Statement II are false
3. Statement I is correct but Statement II is false
4. Statement I is incorrect but Statement II is true

**Options :**

- 7108709253. 1
- 7108709254. 2
- 7108709255. 3
- 7108709256. 4

**Question Number : 95 Question Id : 7108702315 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Accuracy of selection can be increased by reducing variation caused by which of the following random sources?

- A. Use of repeated records
- B. Use of records of relatives
- C. Accurate measurement of trait
- D. Statistical adjustment of performance records
- E. Reducing environmental variation for known causes

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

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

**Options :**

- 7108709257. 1
- 7108709258. 2
- 7108709259. 3
- 7108709260. 4

**Question Number : 96 Question Id : 7108702316 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

Given below are two statements

**Statement I:** The change in performance from parent to progeny generation for the trait which is not being directly selected is referred to as correlated response

**Statement II:** The change in mean performance from parental to progeny generation brought about by selection is referred to as a response to selection

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

1. Both Statement I and Statement II are true
2. Both Statement I and Statement II are false
3. Statement I is correct but Statement II is false
4. Statement I is incorrect but Statement II is true

**Options :**

7108709261. 1

7108709262. 2

7108709263. 3

7108709264. 4

**Question Number : 97 Question Id : 7108702317 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**



Individual selection has certain limitations which include which of the following?

- A. Sex limited traits
- B. Slaughter or carcass traits
- C. Late expressed traits
- D. High heritability traits
- E. High repeatability traits

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

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

**Options :**

- 7108709265. 1
- 7108709266. 2
- 7108709267. 3
- 7108709268. 4

**Question Number : 98 Question Id : 7108702318 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

Which one of the following is NOT a sire evaluation method?

1. Equiparent Index
2. Herd mate comparison
3. Best Linear unbiased prediction
4. Grading up

**Options :**

7108709269. 1

7108709270. 2

7108709271. 3

7108709272. 4

**Question Number : 99 Question Id : 7108702319 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

Given below are two statements, one is labelled as **Assertion A** and the other is labelled as **Reason R**

**Assertion A:** The information on the breeding value based on several offsprings is more reliable than the performance of a parent

**Reason R:** The large number of progeny tends to nullify the effect of Mendelian sampling and random environmental effects

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

**Options :**

7108709273. 1

7108709274. 2

7108709275. 3

7108709276. 4

**Question Number : 100 Question Id : 7108702320 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

Given below are two statements

**Statement I:** The most important factor limiting the usefulness of the inbreeding in livestock is the decline in the vigour

**Statement II:** Once inbred lines are formed, mating must continue to be made within the inbred line to keep it pure

In light of the above statements, choose the **most appropriate** 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

**Options :**

7108709277. 1

7108709278. 2

7108709279. 3

7108709280. 4

**Question Number : 101 Question Id : 7108702321 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**



Which of the following are consequences of inbreeding?

- A. Uncovering of recessive genes leading to the appearance of hereditary defects
- B. Prepotency
- C. Hybrid vigour
- D. Increased genetic variability
- E. Overdominance

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

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

**Options :**

- 7108709281. 1
- 7108709282. 2
- 7108709283. 3
- 7108709284. 4

**Question Number : 102 Question Id : 7108702322 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

Given below are two statements

**Statement I:** General combining ability is caused by both additive and non-additive gene effect while specific combining ability is caused by non-additive gene effect only

**Statement II:** A comparison of the variances caused by general and specific combining ability for a trait indicates the relative influence of additive and non-additive genetic variances thus helps in the choice of the selection procedure

In light of the above statements, choose the **most appropriate** 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

**Options :**

- 7108709285. 1
- 7108709286. 2
- 7108709287. 3
- 7108709288. 4

**Question Number : 103 Question Id : 7108702323 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

Given below are two statements

**Statement I:** Recurrent selection utilizes both specific and general combining ability

**Statement II:** Reciprocal recurrent selection utilizes specific combining ability only

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

1. Both Statement I and Statement II are true
2. Both Statement I and Statement II are false
3. Statement I is correct but Statement II is false
4. Statement I is incorrect but Statement II is true

**Options :**

7108709289. 1

7108709290. 2

7108709291. 3

7108709292. 4

**Question Number : 104 Question Id : 7108702324 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is**

**Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**



Given below are two statements

**Statement I:** The concept of combining desirable traits of different breeds to maximize the genetic merit of crossbred offspring for total productivity is called breed complementarity

**Statement II:** The process of introduction of a major gene into an existing population (breed/strain) which involves repeated backcrossing is referred to as gene introgression

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

1. Both Statement I and Statement II are true
2. Both Statement I and Statement II are false
3. Statement I is correct but Statement II is false
4. Statement I is incorrect but Statement II is true

**Options :**

7108709293. 1

7108709294. 2

7108709295. 3

7108709296. 4

**Question Number : 105 Question Id : 7108702325 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

Arrange in sequence the following steps in the development of a breeding program

- A. Defining breeding goals and trait measurement
- B. Choice of foundation stock
- C. Monitoring and evaluation of Breeding Program
- D. Genetic parameter estimation
- E. Dissemination of genetic improvement

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

- 1. B → A → E → D → C
- 2. B → D → A → E → C
- 3. B → A → D → E → C
- 4. B → D → E → A → C

**Options :**

- 7108709297. 1
- 7108709298. 2
- 7108709299. 3
- 7108709300. 4

**Question Number : 106 Question Id : 7108702326 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

When total number of breeding females of a breed is less than or equal to 100 or the total number of breeding males is less than or equal to five, the status of breed as per FAO is

1. Extinct
2. Critical
3. Endangered
4. Vulnerable

**Options :**

- 7108709301. 1
- 7108709302. 2
- 7108709303. 3
- 7108709304. 4

**Question Number : 107 Question Id : 7108702327 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Farm animal genetic resources including animal species, breeds and strains and their wild relatives that are of economic, scientific and cultural interest to human kind in terms of food and agriculture for the present or in future.

1. Biodiversity
2. Domestic animal diversity
3. Animal Genetic resources
4. Gene Pool

**Options :**

- 7108709305. 1
- 7108709306. 2
- 7108709307. 3
- 7108709308. 4

**Question Number : 108 Question Id : 7108702328 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**



**Correct Marks : 4 Wrong Marks : 1**

Microsatellite and RFLP's marker are

1. Dominant
2. Pseudodominant
3. Codominant
4. Sex linked

**Options :**

- 7108709309. 1
- 7108709310. 2
- 7108709311. 3
- 7108709312. 4

**Question Number : 109 Question Id : 7108702329 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

An animal produced by physically inserting the DNA code for a specific gene(s) from another animal species into its own

1. Mosaic
2. Transgenic
3. Clone
4. Chimera

**Options :**

- 7108709313. 1
- 7108709314. 2
- 7108709315. 3
- 7108709316. 4

**Question Number : 110 Question Id : 7108702330 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Which one of the following DNA is left-handed in terms of its helix rotation?

1. A DNA
2. X DNA
3. Z DNA
4. B DNA

**Options :**

7108709317. 1  
7108709318. 2  
7108709319. 3  
7108709320. 4

**Question Number : 111 Question Id : 7108702331 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Which one of the following is NOT a step in the Polymerase Chain Reaction?

1. Denaturation
2. Annealing
3. Extension
4. Post transcriptional modifications

**Options :**

7108709321. 1  
7108709322. 2  
7108709323. 3  
7108709324. 4

**Question Number : 112 Question Id : 7108702332 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Satellite DNA is useful tool in

1. Genetic engineering
2. Forensic Science
3. Sex determination
4. Organ transplantation

**Options :**

- 7108709325. 1
- 7108709326. 2
- 7108709327. 3
- 7108709328. 4

**Question Number : 113 Question Id : 7108702333 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Which one of the following is a Class II transposon element?

1. Retroviruses
2. Replicative transposon
3. Retroposons
4. Endogenous retroviruses

**Options :**

- 7108709329. 1
- 7108709330. 2
- 7108709331. 3
- 7108709332. 4

**Question Number : 114 Question Id : 7108702334 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**



Which of the following is NOT a new strain(breed) of cattle synthesized from crossbreds?

1. Kenkatha
2. Taylor
3. Karan swiss
4. Sunandini

**Options :**

7108709333. 1  
7108709334. 2  
7108709335. 3  
7108709336. 4

**Question Number : 115 Question Id : 7108702335 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

What is the heritability in narrow sense, if total genetic variance for fat yield in a herd of dairy cattle is  $700\text{kg}^2$ ; environmental variance is  $800\text{kg}^2$  and variances due to dominance and epistatic effects are  $50\text{kg}^2$  each?

1. 0.2
2. 0.4
3. 0.3
4. 0.5

**Options :**

7108709337. 1  
7108709338. 2  
7108709339. 3  
7108709340. 4

**Question Number : 116 Question Id : 7108702336 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

Average annual egg production in a flock of White Leghorn was 280 eggs. The females (hens) selected on the basis of their own production had an average of 320 eggs. The cocks were randomly chosen to become parents.

What will be the average selection differential for two sexes?

1. 0 eggs
2. 20 eggs
3. 40 eggs
4. 80 eggs

**Options :**

7108709341. 1  
7108709342. 2  
7108709343. 3  
7108709344. 4

**Question Number : 117 Question Id : 7108702337 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

What will be the expected breeding value of a buffalo yielding 1500 kg milk in 305 days in a herd with standard lactation yield 1200 kg and with a heritability of 0.3?

1. 1590
2. 1350
3. 1290
4. 1450

**Options :**

7108709345. 1  
7108709346. 2  
7108709347. 3  
7108709348. 4

**Question Number : 118 Question Id : 7108702338 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

The total number of registered indigenous breeds of all species of livestock and poultry in the country is?

1. 175
2. 210
3. 197
4. 150

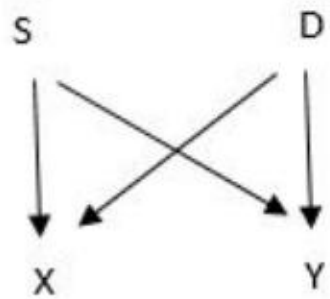
**Options :**

- 7108709349. 1
- 7108709350. 2
- 7108709351. 3
- 7108709352. 4

**Question Number : 119 Question Id : 7108702339 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

The relationship coefficient between individual X and Y for the pedigree given below will be



1. 0.125
2. 0.25
3. 0.50
4. 1.0



**Options :**

- 7108709353. 1
- 7108709354. 2
- 7108709355. 3
- 7108709356. 4

**Question Number : 120 Question Id : 7108702340 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

What will be the average performance of  $F_1$  offspring having 10% heterosis over the mid-parental value of 1500 kg standard lactation yield?

- 1. 1650 kg
- 2. 1750 kg
- 3. 1850 kg
- 4. 1950 kg

**Options :**

- 7108709357. 1
- 7108709358. 2
- 7108709359. 3
- 7108709360. 4