

PREVIEW QUESTION BANK

Module Name : Fish Genetics and Breeding-ENG
Exam Date : 09-Jul-2023 Batch : 14:30-16:30

Sr. No.	Client Question ID	Question Body and Alternatives	Marks	Negative Marks
Objective Question				
1	2001	Which one of the following is not one of the features of parliamentary form of government? 1. Majority party rule 2. Collective Responsibility 3. Integrated and Independent Judiciary 4. Dissolution of the lower house A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
2	2002	Which of the following term implies that 'India is a neither a dependency nor a dominion of any other nation'? 1. Socialist 2. Sovereign 3. Secular 4. Democratic A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
3	2003	Which of the following form the maximum water composition on the earth's surface? 1. Oceans 2. Ice caps 3. Glaciers 4. Lakes A1 : 1 A2 : 2	4.0	1.00

		A3 : 3		
		A4 : 4		
Objective Question				
4	2004	Which one of the following does not fall under the category of 'biomes? 1. Forest 2. Sky 3. Desert 4. Grassland A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
5	2005	IUCN publishes information about which of the following species as Red List of threatened species? 1. Endangered Species 2. Vulnerable Species 3. Extinct Species 4. Rare Species A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
6	2006	Who was the first Indian to win an individual medal in Olympics? 1. Milkha Singh 2. Karnam Malleshwari 3. P. T. Usha 4. K. D. Jadhav A1 : 1 A2 : 2 A3 : 3	4.0	1.00

		A4 : 4		
Objective Question				
7	2007	Who among the following reformers founded "Arya Samaj"? 1. Raja Ram Mohan Roy 2. Swami Dayananda Saraswati 3. Atmaram Pandurang 4. Ishwarchandra Vidyasagar A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
8	2008	What does "Triratna" mean in Buddhism? 1. Tripitaka 2. Buddha, Dhamma (dharma), Sangha 3. Satya, Ahimsa, Karuna 4. Sheel, Samadhi, Sangha A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
9	2009	Who started the Indian Reforms Association? 1. Narayan Guru 2. Swami Vivekananda 3. Krishna swami Aiyar 4. Keshav Chandra Sen A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				

10	2010	Consider the following statements (A). UN General Assembly has declared 2023 as the international year of millets (B). Odisha govt. ropes in FICCI to promote millets globally (C). Odisha Millets Mission is a flagship programme of the Odisha government to revive millets in farms and on plates Choose the correct answer from the options given below: 1. (A) and (B) only. 2. (B) and (C) only. 3. (A) and (C) only. 4. (A), (B) and (C). A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

11	2011	Phomopsis blight occurs in which of the following crops? 1. Brinjal 2. Bajra 3. Sugarcane 4. Potato A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

12	2012	Endemic pests can be described as? 1. Pest occurs in a few specific area. 2. Pest occurs in same area, year after year. 3. Pest occurs frequently in current season in abundance. 4. Pest occurs in severe form. A1 : 1 A2 : 2 A3 : 3	4.0	1.00
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A4 : 4

Objective Question

13	2013	Which country is the largest producer of raw silk? 1. Japan 2. India 3. China 4. South Korea A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

14	2014	Transfer of Ownership is the example of which utility..... 1. Time utility 2. Place utility 3. Possession utility 4. Form utility A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

15	2015	What happens to the total number of chromosomes during mitotic cell division? 1. gets doubled 2. gets halved 3. remains the same 4. divides into four A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

16	2016	What is the minimum forest cover to be maintained as per the National Forest Policy, 1988? 1. One-half 2. One-third 3. One-fourth 4. Two-third A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

17	2017	Who among the following is known as the "Father of Agronomy"? 1. Stephen Hales 2. Gregor Johann Mendel 3. Peter Decresenzi 4. D N Walia A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

18	2018	Which of the following plant hormones helps in shoot elongation? 1. Auxin 2. Gibberellic acid 3. Absciscic acid 4. Cytokinin A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

19	2019		4.0	1.00
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Select from the following the chemical property of soil.....

1. Colour
2. pH
3. Texture
4. Structure

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

20	2020	The process of separating quality grains from chaff is called as..... 1. Winnowing 2. Threshing 3. Harvesting 4. Tilling A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

21	141001	For a particular trait, the phenotypic variance is 20, and genetic variance is 4. The broad sense heritability is 1. 80 2. 5 3. 0.2 4. 24 A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

22	141002		4.0	1.00
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The phenotypic variance for a particular trait is 20 and the environmental deviation is 4. The genotypic variance is

1. 5
2. 16
3. 24
4. 80

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

23	141003	The additive genetic value for a trait is 4, dominance deviation is 8 and genotypic value is 20. The interaction deviation is 1. 32 2. 52 3. 8 4. 10 A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

24	141004	The heritability for a particular trait is 0.4 and the phenotypic variance is 10. The additive genetic variance is 1. 4 2. 10.4 3. 9.6 4. 10.16 A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

25	141005		4.0	1.00
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		In a hatchery, the effective population size of Rohu population is 25. The likely rate of inbreeding is 0.01 0.02 0.1 0.04 A1 : 1 A2 : 2 A3 : 3 A4 : 4		
Objective Question				
26	141006	The Amur carp, popular in India is a fast-growing strain of - Rohu - Catla - Silver carp - Common carp A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
27	141007	The zebrafish research centre developed at ICAR-CIFE is called as - ZIRC - EZRC - CZRC - CZeBraG A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
28	141008		4.0	1.00

		ICAR-CIBA is conducting the genetic improvement program of which shrimp species? 1. <i>Penaeus indicus</i> 2. <i>Penaeus monodon</i> 3. <i>Penaeus merguensis</i> 4. <i>Penaeus vannamei</i> A1 : 1 A2 : 2 A3 : 3 A4 : 4		
Objective Question				
29	141009	The genetic improvement program in India to develop a suitable saline-tolerant species for inland saline states of India is targeted towards which species? 1. Common carp 2. Grass carp 3. Silver carp 4. Rohu A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
30	141010	The catfish species wherein the genetic improvement program being conducted for harvest bodyweight in India is 1. <i>Clarias gariepinus</i> 2. <i>Clarias magur</i> 3. <i>Clarias batrachus</i> 4. <i>Channa striata</i> A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
31	141011		4.0	1.00

		The genetic improvement program of freshwater prawn <i>Macrobrachium rosenbergii</i> is conducted at 1. ICAR-CIFA 2. ICAR-CIFE 3. ICAR-NBFGR 4. ICAR-CIBA A1 : 1 A2 : 2 A3 : 3 A4 : 4		
Objective Question				
32	141012	GMT strain stands for 1. Genetically Modified Tilapia 2. Genetically Male Tilapia 3. Genetically Mature Tilapia 4. Georgia Male Tilapia A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
33	141013	Aqua Advantage Salmon is a 1. Selectively bred strain of salmon 2. Monosex strain of salmon 3. All female strain of salmon 4. Genetically modified salmon A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
34	141014		4.0	1.00

		Cross-breeding of two divergent strain may result in 1. Inbreeding depression 2. Hybrid vigour 3. Sterile progeny 4. Triploid progeny A1 : 1 A2 : 2 A3 : 3 A4 : 4		
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Objective Question

35	141015	The sex determination system in Indian major carps is 1. ZZ-ZW 2. XX-XY 3. ZZ-ZO 4. XX-XO A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

36	141016	The following is true with respect to quantitative traits 1. Non normal distribution 2. Monogenic traits 3. Exhibit discrete classes 4. Display continuous variation A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

37	141017		4.0	1.00
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For a population to be in Hardy Weinberg Equilibrium, the following is not an assumption

1. Absence of mutation
2. Absence of migration
3. Absence of genetic selection
4. Absence of random mating

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

38	141018	The following trait usually exhibits high heritability 1. Survival 2. Fecundity 3. Growth 4. Age at maturity A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

39	141019	The following marker exhibits higher rate of polymorphism 1. SNP 2. RAPD 3. CytB 4. Microsatellite A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

40	141020		4.0	1.00
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The following is known as Father of Animal Breeding

1. Ronald Fisher
2. Gregor Mendel
3. Charles Darwin
4. Jay Lush

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

41	141021	Which of the following is NOT a type of point mutation?	4.0	1.00
		1. Silent mutation 2. Missense mutation 3. Nonsense mutation 4. Frameshift mutation		
		A1 : 1		
		A2 : 2		
		A3 : 3		
		A4 : 4		

Objective Question

42	141022	What is the ideal A_{260}/A_{280} ratio for pure RNA?	4.0	1.00
		1. 1.0 2. 1.5 3. 1.8 4. 2.0		
		A1 : 1		
		A2 : 2		
		A3 : 3		
		A4 : 4		

Objective Question

43	141023		4.0	1.00
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		What is the function of isoamyl alcohol in DNA isolation? 1. To denature proteins 2. To extract hydrophobic lipids 3. To prevent foaming during extraction 4. To dissolve DNA A1 : 1 A2 : 2 A3 : 3 A4 : 4		
Objective Question				
44	141024	Which statements about the leading and lagging strands during DNA replication are correct? 1. Both strands are synthesized in the same direction. 2. The leading strand is synthesized in the 3' to 5' direction. 3. The lagging strand is synthesized in the 5' to 3' direction. 4. Both strands are synthesized continuously. A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
45	141025	Which of the following is not a component of a eukaryotic gene? 1. Operon 2. Exon 3. Intron 4. Promoter A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
46	141026		4.0	1.00

What type of bond connects nucleotides together to form a DNA strand?

1. Hydrogen bond
2. Ionic bond
3. Phosphodiester bond
4. Covalent bond

A1 : 1

A2 : 2

A3 : 3

A4 : 4

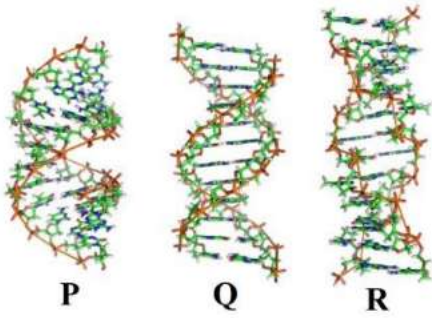
Objective Question

47	141027	Which of the following is NOT a step in the PCR process?	4.0	1.00
1. Denaturation 2. Annealing 3. Ligation 4. Extension				
A1 : 1				
A2 : 2				
A3 : 3				
A4 : 4				

Objective Question

48	141028	Given below are two statements, one is labelled as Assertion (A) and other one labelled as Reason (R). Assertion (A) : Fermentation can be considered as biotechnology. Reason (R): Biotechnology is defined as the application of biological entities to produce products and services. 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.	4.0	1.00
A1 : 1				
A2 : 2				
A3 : 3				
A4 : 4				

Objective Question			
49	141029	Which of the following organelles is responsible for detoxifying harmful substances in a eukaryotic cell? 1. Lysosome 2. Golgi apparatus 3. Endoplasmic reticulum 4. Peroxisome A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0 1.00
Objective Question			
50	141030	Given below are two statements: Statement (I): Ribosomes are not cell organelles Statement (II): Ribosomes don't have a membrane 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 true. 2. Both Statement (I) and Statement (II) are false. 3. Statement (I) is true but Statement (II) is false. 4. Statement (I) is false but Statement (II) is true. A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0 1.00
Objective Question			
51	141031		4.0 1.00



In the above image, P, Q, R represents

1. P: Z-DNA; Q: A-DNA; R: B-DNA
2. P: A-DNA; Q: Z-DNA; R: B-DNA
3. P: A-DNA; Q: B-DNA; R: Z-DNA
4. P: Z-DNA; Q: B-DNA; R: A-DNA

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

52	141032	Which of the following macromolecule has peptidyl transferase activity during translation?	4.0	1.00
1. tRNA synthetase 2. Ribosomal RNA 3. Elongation factor Tu 4. Elongation factor G				
A1 : 1				
A2 : 2				
A3 : 3				
A4 : 4				

Objective Question

53	141033	What is the function of primase in DNA replication?	4.0	1.00
1. Primase synthesizes RNA primers that serve as starting points for DNA synthesis. 2. Primase adds nucleotides to the growing DNA strand. 3. Primase unwinds the double helix of DNA. 4. Primase proofreads the newly synthesized DNA strand.				
A1 : 1				

		A2 : 2		
		A3 : 3		
		A4 : 4		
Objective Question				
54	141034	In eukaryotic cells, transcription occurs in 1. The cytoplasm 2. The nucleus 3. The mitochondria 4. Both the nucleus and cytoplasm. A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
55	141035	Most living organisms have DNA as their genetic material. Why is RNA not selected as the genetic material for life on Earth? 1. RNA is double-stranded and less chemically stable than DNA 2. RNA contains the unstable base thymine instead of uracil found in DNA 3. RNA is more prone to spontaneous hydrolysis than DNA 4. RNA is a catalytic molecule that is not suited for storage of genetic information A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
56	141036	Which is the final donor of methyl group in biological system? 1. Methyl cobalamine 2. S-adenosyl Methionine 3. Lecithin 4. Choline A1 : 1 A2 : 2 A3 : 3	4.0	1.00

		A4 : 4		
Objective Question				
57	141037	Most widely used masculinising agent for fishes 1. 11-keto testosterone 2. 17 α-methyl testosterone 3. Dihydroxyprogesterone 4. Corticosterone A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
58	141038	Which of the following are the position of double bonds in arachidonic acid? 1. 2,5,8,11 2. 3,6,9,12 3. 4,7,10,13 4. 5,8,11,14 A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
59	141039	Which of the following is a potent vasodilator? 1. Nitric oxide 2. Endothelin 3. Angiotensin 2 4. Vasotocin A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00

Objective Question

60	141040	Which of the following is an epigenetic mechanism by which gene expression can be downregulated?	4.0	1.00
		1. Phosphorylation 2. Acidification 3. Methylation 4. Acetylation		
		A1 : 1		
		A2 : 2		
		A3 : 3		
		A4 : 4		

Objective Question

61	141041	Which statement is true about MPC (mitochondrial pyruvate carrier)?	4.0	1.00
		1. MPC is responsible for the conversion of pyruvate to acetyl-CoA. 2. MPC is located in the cytoplasm of cells. 3. MPC consists of three subunits: MPC1, MPC2, and MPC3. 4. MPC facilitates the transport of pyruvate across the mitochondrial membrane.		
		A1 : 1		
		A2 : 2		
		A3 : 3		
		A4 : 4		

Objective Question

62	141042	Which enzyme is the most important ion transport enzyme in crustaceans that maintains and regulates haemolymph osmotic pressure?	4.0	1.00
		1. Na⁺/K⁺-ATPase pump 2. Protein kinase A 3. Ca Mg ATPase 4. FXD2 phosphorylase		
		A1 : 1		
		A2 : 2		
		A3 : 3		
		A4 : 4		

Objective Question

63	141043	Given below are two statements: Statement (I): Iodine number is used as a measure of unsaturation of oils. Statement (II): Acid number values are similar to the free fatty acid value. In light of the above statements, choose the <i>most appropriate</i> answer from the options given below. - Both Statement (I) and Statement (II) are correct. - Both Statement (I) and Statement (II) are incorrect. - Statement (I) is correct but Statement (II) is incorrect. - 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

64	141044	Which of the following wave of ECG represent ventricular repolarisation? - P wave - QRS wave - AV wave - T wave A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

65	141045	Anodic, but temperature-insensitive haemoglobin is present in - Salmon - Tuna - Carp - Tench A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

66	141046	Which of the following has a transmembrane receptor? 1. Testosterone 2. Cortisol 3. Thyroid-stimulating hormone 4. Thyroxine A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

67	141047	Which of the following enzyme is involved in the conversion of EPA to DHA? 1. Δ -4 desaturase 2. Δ -5 desaturase 3. Δ -6 desaturase 4. Δ -9 desaturase A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

68	141048	Which is the vitamin involved in the synthesis of corticosteroid hormone? 1. A 2. C 3. E 4. K A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

69	141049		4.0	1.00
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		The main chemical messenger secreted by neuroepithelial (NEC) of teleosts 1. Serotonin 2. Acetyl choline 3. GABA 4. Epinephrine A1 : 1 A2 : 2 A3 : 3 A4 : 4		
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Objective Question

70	141050	Which of the following vitellogenin lack phosvitin? 1. VtgA 2. VtgB 3. VtgC 4. VtgD A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

71	1002851	The branch of genetics that deals with the gene and the cellular processes by which genetic information is transferred and expressed is 1. Transmission Genetics 2. Population Genetics 3. Molecular Genetics 4. Cytogenetics A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

72	1002852		4.0	1.00
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The following is not a population geneticist

1. Sewal Wright
2. R. A. Fisher
3. J. B. S. Haldane
4. Walter Sutton

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

73	1002853	The method for sequencing DNA was developed by 1. Frederick Sanger 2. Francis Crick 3. Kary Mullis 4. James Watson A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

74	1002854	Given below are two statements: Statement (I): Many genes encode traits by specifying the structure of proteins. Statement (II): Genetic information is first transcribed from DNA into RNA, and then RNA is translated into the amino acid sequence of a protein. 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 true. 2. Both Statement (I) and Statement (II) are false. 3. Statement (I) is true but Statement (II) is false. 4. Statement (I) is false but Statement (II) is true. A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

75	1002855	Given below are two statements: Statement (I):Meiosis (usually) produces four haploid cells that are genetically identical. Statement (II):The two processes responsible for genetic variation are crossing over and the random distribution of maternal and paternal chromosomes. In light of the above statements,choose the <i>most appropriate</i> answer from the options given below. - Both Statement (I) and Statement (II) are true. - Both Statement (I) and Statement (II) are false. - Statement (I) is true but Statement (II) is false. - Statement (I) is false but Statement (II) is true. A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

76	1002856	The phase wherein cells enter a nondividing state is called - G₀ - G₁ - G₂ - S A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

77	1002857	Given below are two statements: Statement (I):The principle of segregation states that each individual organism possesses two alleles coding for a characteristic. These alleles segregate when gametes are formed, and one allele goes into each gamete. Statement (II):The concept of dominance states that, when dominant and recessive alleles are present together, only the trait of the dominant allele is observed. In light of the above statements,choose the <i>most appropriate</i> answer from the options given below. - Both Statement (I) and Statement (II) are true. - Both Statement (I) and Statement (II) are false. - Statement (I) is true but Statement (II) is false. - Statement (I) is false but Statement (II) is true.	4.0	1.00
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		A1 : 1		
		A2 : 2		
		A3 : 3		
		A4 : 4		

Objective Question

78	1002858	Given below are two statements: Statement (I): In ZZ-ZW sex determination, the male is ZW and the female is ZZ; in this system the male is the heterogametic sex. Statement (II): In XX-XY sex determination, the male is XY and the female is XX; in this system the male is heterogametic In light of the above statements, choose the <i>most appropriate</i> answer from the options given below. - Both Statement (I) and Statement (II) are true. - Both Statement (I) and Statement (II) are false. - Statement (I) is true but Statement (II) is false. - Statement (I) is false but Statement (II) is true. A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

79	1002859	Phenotype of the heterozygote is intermediate (falls within the range) between the phenotypes of the two homozygotes, known to exhibit - Dominance - Incomplete dominance - Codominance - Recessive A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

80	1002860		4.0	1.00
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In a dihybrid cross, the phenotypic ratios due to recessive epistasis is

1. 9:3:3:1
2. 9:3:4
3. 9:7
4. 15:1

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

81	1002861	Given below are two statements: Statement (I): In genomic imprinting, the expression of a gene is not influenced by the sex of the parent who transmits the gene to the offspring. Statement (II): Characteristics exhibiting cytoplasmic inheritance are encoded by genes in the cytoplasm and are usually inherited from both parent. 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 true. 2. Both Statement (I) and Statement (II) are false. 3. Statement (I) is true but Statement (II) is false. 4. Statement (I) is false but Statement (II) is true. A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

82	1002862	Given below are two statements: Statement (I): When two wild-type alleles are on one homologous chromosome and two mutant alleles are on the other, they are in the repulsion configuration Statement (II): When each chromosome contains one wild-type allele and one mutant allele, the alleles are in coupling. 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 true. 2. Both Statement (I) and Statement (II) are false. 3. Statement (I) is true but Statement (II) is false. 4. Statement (I) is false but Statement (II) is true. A1 : 1	4.0	1.00
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		A2 : 2		
		A3 : 3		
		A4 : 4		

Objective Question

83	1002863	The type of aneuploidy that results in gain of one chromosome, resulting in three homologous chromosomes is 1. Nullisomy 2. Monosomy 3. Trisomy 4. Tetrasomy A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

84	1002864	The average base pairs per turn in Z DNA is 1. 11 2. 10 3. 12 4. 9 A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

85	1002865	Given below are two statements: Statement (I):Mitochondria is eukaryotic organelle that possess their own DNA. Statement (II):Traits encoded by mtDNA exhibit cytoplasmic inheritance and usually are inherited from a single parent, most often the mother. 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 true. 2. Both Statement (I) and Statement (II) are false. 3. Statement (I) is true but Statement (II) is false. 4. Statement (I) is false but Statement (II) is true.	4.0	1.00
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		A1 : 1		
		A2 : 2		
		A3 : 3		
		A4 : 4		
Objective Question				
86	1002866	The development of the theory of animal breeding was pioneered by 1. Ronald Fisher 2. Jay L. Lush 3. Charles Darwin 4. Henderson A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
87	1002867	Given below are two statements: Statement (I): Individual selection can generally be performed without special technical investments and can be handled by each hatchery/farm. Statement (II): The biggest problem with applying individual selection is avoiding inbreeding. 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 true. 2. Both Statement (I) and Statement (II) are false. 3. Statement (I) is true but Statement (II) is false. 4. Statement (I) is false but Statement (II) is true. A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
88	1002868		4.0	1.00

Given below are two statements:

Statement (I): The base population for GIFT was formed by crossing eight strains; four wild strains from Africa and four farmed strains from the Philippines

Statement (II): The five cycles of selection in GIFT demonstrated an average response of 17% per generation

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 true but Statement (II) is false.
4. Statement (I) is false but Statement (II) is true.

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

89	1002869	Given below are two statements: Statement (I): The phenotypic and genetic variation in economically important traits is much lesser in aquatic animals compared with terrestrial livestock. Statement (II): Standard deviations for body weight are two to three times higher in fish and shellfish compared to livestock species. 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 true. 2. Both Statement (I) and Statement (II) are false. 3. Statement (I) is true but Statement (II) is false. 4. Statement (I) is false but Statement (II) is true. A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

90	1002870	The non-additive genetic variance refers to 1. Variance of breeding values 2. Dominance deviation 3. Interaction deviation 4. Dominance and Interaction deviation A1 : 1	4.0	1.00
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		A2 : 2		
		A3 : 3		
		A4 : 4		

Objective Question

91	1002871	For a population the $V_A=2$, $V_G=4$ and $V_E = 6$. The heritability estimated by regression of offspring on single parent is 1. 0.5 2. 0.2 3. 0.1 4. 0.33 A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

92	1002872	For a population the $V_A=10$, $V_G=20$ and $V_E = 10$. The heritability estimated by regression of offspring on mid parent is 1. 0.66 2. 0.33 3. 0.25 4. 0.5 A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

93	1002873	The heritability of trait is 0.15 and the selection differential is 2. The response to selection is 1. 0.07 2. 0.225 3. 0.30 4. 0.60 A1 : 1 A2 : 2	4.0	1.00
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		A3 : 3		
		A4 : 4		

Objective Question

94	1002874	The average inbreeding level in a population is 0.4, and it was 0.2 in the previous generation, then the rate of inbreeding is 0.25 0.08 2 0.5 A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

95	1002875	The average fish in population weighs 3.0 kg. The heritability for this trait in this population is 0.2. What will be the EBV of fish that weighs 3.3 kg? 0.06 9.3 6.0 0.6 A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

96	1002876	The $cov(y,y)$ is $var(y^2)$ $var(2y)$ 0 $var(y)$ A1 : 1 A2 : 2 A3 : 3	4.0	1.00
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		A4 : 4		
Objective Question				
97	1002877	The $\text{var}(3y)$ is 1. $9\text{var}(y)$ 2. $3\text{var}(y)$ 3. $9\text{cov}(y)$ 4. $3\text{cov}(y)$ A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
98	1002878	The linear regression is said to exhibit heteroscedasticity if $\text{cov}(x,e)$ is 1. Equal to zero 2. Not equal to zero 3. Equal to one 4. Not equal to one A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
99	1002879	Given below are two statements: Statement (I): The correlation x,y is not the same as y,x. Statement (II): The regression of y on x and x on y are different. 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 true. 2. Both Statement (I) and Statement (II) are false. 3. Statement (I) is true but Statement (II) is false. 4. Statement (I) is false but Statement (II) is true. A1 : 1 A2 : 2	4.0	1.00

		A3 : 3		
		A4 : 4		

Objective Question

100	1002880	For a locus in H-W equilibrium, the frequency of A1 allele is 0.2 and the frequency of A2 allele is 0.4. The expected heterozygote frequency of genotype A1A2 is 1. 0.4 2. 0.08 3. 0.16 4. 0.04 A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

101	1002881	The following is a Type II DNA marker 1. Allozyme 2. EST 3. Mitochondrial DNA 4. AFLP A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

102	1002882	The following DNA marker exhibits codominant mode of inheritance 1. EST 2. RAPD 3. AP-PCR 4. AFLP A1 : 1 A2 : 2 A3 : 3	4.0	1.00
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		A4 : 4		
Objective Question				
103	1002883	The following marker is likely to have multiple number of alleles 1. SNP 2. RFLP 3. Microsatellite 4. Indels A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
104	1002884	The following marker is used for paternity analysis 1. RFLP 2. SSR 3. SNP 4. EST A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
105	1002885	The following is a recommended marker system for strain identification 1. AFLP 2. Isozymes 3. RFLP 4. SNP A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				

106	1002886	The following is not a type of BLAST search 1. TBLASTNX 2. TBLASTN 3. TBLASTX 4. BLASTN A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

107	1002887	The gene submission to GenBank is done using following tool 1. Bankt 2. BankIt 3. Seqt 4. Sequin A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

108	1002888	The following is not a protein sequence database 1. PIR 2. PSD 3. SWISS PROT 4. EMBL A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

109	1002889		4.0	1.00
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The following is a sequence alignment tool

1. PIR
2. PRINT
3. PROSITE
4. BLAST

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

110 1002890

4.0 1.00

CLUSTAL W is a

1. Protein secondary structure prediction tool
2. Data mining tool
3. Nucleic acid sequence analysis tool
4. Multiple sequence alignment tool

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

111 1002891

4.0 1.00

The following tag is not used in tagging finfish

1. Floy tag
2. Carlin tag
3. VIE tag
4. PIT tag

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

112 1002892

4.0 1.00

In ocean pout, the spermatozoa remain active in seminal fluid or special diluent for

1. 30 min
2. upto 5 days
3. 30 sec
4. 5 min

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

113	1002893	Given below are two statements: Statement (I): SYBR can penetrate the cell membrane of the sperm head and stain the nucleic acids of dead cells. Statement (II): Propidium is not able to pass through the membrane of living cells but is able to penetrate and stain the nuclear DNA of degenerated or dead sperm. 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 true. 2. Both Statement (I) and Statement (II) are false. 3. Statement (I) is true but Statement (II) is false. 4. Statement (I) is false but Statement (II) is true. A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

114	1002894	Given below are two statements: Statement (I): In general the spermatozoa of fish with external fertilisation have a simple flagellum. Statement (II): Some internally fertilizing fish like the ocean pout have biflagellate spermatozoa. 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 true. 2. Both Statement (I) and Statement (II) are false. 3. Statement (I) is true but Statement (II) is false. 4. Statement (I) is false but Statement (II) is true. A1 : 1	4.0	1.00
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A2 : 2

A3 : 3

A4 : 4

Objective Question

115 1002895

4.0 1.00

Given below are two statements:

Statement (I): The GloFish is a patented brand of genetically modified (GM) fluorescent medaka with bright red, green, and orange fluorescent color.

Statement (II): The GloFish is first genetically modified animal to become publicly available as a pet when it was introduced for sale in 2003

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 true but Statement (II) is false.
4. Statement (I) is false but Statement (II) is true.

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

116 1002896

4.0 1.00

Given below are two statements:

Statement (I): The stabilizing selection is practiced by selecting phenotypes around the extremes.

Statement (II): The aim of stabilizing selection is to standardize the population around an average.

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 true but Statement (II) is false.
4. Statement (I) is false but Statement (II) is true.

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

117 1002897

4.0 1.00

Given below are two statements:

Statement (I): The most common form of selection applied in agriculture and aquaculture breeding programs is directional selection.

Statement (II): Assuming no change in environmental conditions the average phenotypic value of progenies of selected parents is increased during directional selection.

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 true but Statement (II) is false.
4. Statement (I) is false but Statement (II) is true.

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

118	1002898	Given below are two statements: Statement (I): The response to selection R is the within-generation change in the mean. Statement (II): The selection differential S measures the between-generation change in the mean. 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 true. 2. Both Statement (I) and Statement (II) are false. 3. Statement (I) is true but Statement (II) is false. 4. Statement (I) is false but Statement (II) is true. A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

119	1002899	The following is not an aid to selection 1. Individual selection 2. Between family selection 3. Combined selection 4. Tandem selection A1 : 1	4.0	1.00
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		A2 : 2		
		A3 : 3		
		A4 : 4		
Objective Question				
120	1002900	The heritability for a trait is less than 0.15, and V_E affects individual more than family, the type of selection best suited is 1. Between family selection 2. Within family selection 3. Individual selection 4. Tandem selection A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00