National Testing Agency

Question Paper Name :	Fish Physiology and Biochemistry 23rd Sep 2020 Shift 2
Subject Name :	Fish Physiology and Biochemistry
Creation Date :	2020-09-23 19:33:45
Duration :	120
Total Marks :	480
Display Marks:	Yes
Share Answer Key With Delivery Engine :	Yes
Actual Answer Key :	Yes

Fish Physiology and Biochemistry

Group Number :	1
Group Id :	71087061
Group Maximum Duration :	0
Group Minimum Duration :	120
Show Attended Group? :	No
Edit Attended Group? :	No
Break time :	0
Group Marks :	480
Is this Group for Examiner? :	No

Part A General Knowledge

Section Id :	710870181
Section Number :	1
Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	20

Number of Questions to be attempted :	20
Section Marks :	80
Display Number Panel :	Yes
Group All Questions :	Yes
Mark As Answered Required? :	Yes
Sub-Section Number :	1
Sub-Section Id :	710870181
Question Shuffling Allowed :	Yes

Question Number : 1 Question Id : 7108707261 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 :
71087029041. 1
71087029042. 2
71087029043. 3
71087029044. 4

Question Number : 2 Question Id : 7108707262 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 :
71087029045. 1
71087029046. 2
71087029047. 3
71087029048. 4

Question Number : 3 Question Id : 7108707263 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 :
71087029049. 1

71087029050. 2
71087029051. 3
71087029052. 4

Question Number : 4 Question Id : 7108707264 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 :
71087029053. 1
71087029054. 2
71087029055. 3
71087029056. 4

Question Number : 5 Question Id : 7108707265 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 :
71087029057. 1
71087029058. 2
71087029059. 3
71087029060. 4

Question Number : 6 Question Id : 7108707266 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 :
71087029061. 1
71087029062. 2
71087029063. 3
71087029064. 4

Question Number : 7 Question Id : 7108707267 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 :
71087029065. 1
71087029066. 2
71087029067. 3
71087029068. 4

Question Number : 8 Question Id : 7108707268 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 :

71087029069. 1
71087029070. 2
71087029071. 3
71087029072. 4

Question Number : 9 Question Id : 7108707269 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 :
71087029073. 1
71087029074. 2
71087029075. 3
71087029076. 4

Question Number : 10 Question Id : 7108707270 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 :
71087029077. 1

71087029078. 2
71087029079. 3
71087029080. 4

Question Number : 11 Question Id : 7108707271 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 :
71087029081. 1
71087029082. 2
71087029083. 3
71087029084. 4

Question Number : 12 Question Id : 7108707272 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 :

71087029085. 1
71087029086. 2
71087029087. 3
71087029088. 4

Question Number : 13 Question Id : 7108707273 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 34th Surajkund International Crafts Fair held in Haryana?

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

Options :
71087029089. 1
71087029090. 2
71087029091. 3
71087029092. 4

Question Number : 14 Question Id : 7108707274 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 :
71087029093. 1
71087029094. 2
71087029095. 3
71087029096. 4

Question Number : 15 Question Id : 7108707275 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 :
71087029097. 1
71087029098. 2
71087029099. 3
71087029100. 4

Question Number : 16 Question Id : 7108707276 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 :
71087029101. 1
71087029102. 2
71087029103. 3
71087029104. 4

Question Number : 17 Question Id : 7108707277 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 Aiyyar

Options :
71087029105. 1
71087029106. 2
71087029107. 3
71087029108. 4

Question Number : 18 Question Id : 7108707278 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 :
71087029109. 1
71087029110. 2
71087029111. 3
71087029112. 4

Question Number : 19 Question Id : 7108707279 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 :
71087029113. 1
71087029114. 2
71087029115. 3
71087029116. 4

Question Number : 20 Question Id : 7108707280 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 :
71087029117. 1

71087029118. 2
71087029119. 3
71087029120. 4

Part B Core Fishery Science III

Section Id :	710870182
Section Number :	2
Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	50
Number of Questions to be attempted :	50
Section Marks :	200
Display Number Panel :	Yes
Group All Questions :	Yes
Mark As Answered Required? :	Yes
Sub-Section Number :	1
Sub-Section Id :	710870182
Question Shuffling Allowed :	Yes

Question Number : 21 Question Id : 7108707281 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 the following phases as per the eukaryotic cell cycle

A. Gap-1(G 1) phase

B. Gap-2 (G 2) phase

C. S Phase

D. M Phase

E. Gap-0 (G 0) phase

Select the correct answer from the options given below:

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

Options :

71087029121. 1

71087029122. 2

71087029123. 3

71087029124. 4

Question Number : 22 Question Id : 7108707282 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 fish has 15% thymine in its DNA. How much guanine does it have?

1. 15%
2. 85%
3. 35%
4. 70%

Options :

71087029125. 1

71087029126. 2
71087029127. 3
71087029128. 4

Question Number : 23 Question Id : 7108707283 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

Okazaki fragments are observed on

1. Leading strand
2. Lagging strand
3. RNA strand
4. None of the above

Options :

71087029129. 1
71087029130. 2
71087029131. 3
71087029132. 4

Question Number : 24 Question Id : 7108707284 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: Gene expression is regulated by DNA Methylation

Statement II: DNA methylation represses the gene expression

Select the correct answer from the following options

1. Statement I is wrong and Statement II is correct
2. Both Statement I and Statement II are wrong
3. Both the statement are correct
4. Statement I is correct but Statement II is wrong

Options :
71087029133. 1
71087029134. 2
71087029135. 3
71087029136. 4

Question Number : 25 Question Id : 7108707285 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 commonly used restriction enzymes are

1. Type I restriction enzymes
2. Type II restriction enzymes
3. Type III restriction enzymes
4. Both Type I and Type III

Options :
71087029137. 1
71087029138. 2
71087029139. 3

71087029140. 4

Question Number : 26 Question Id : 7108707286 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 Enzymes with their property / use

List I	**List II**
Enzyme	**Uses/Property**
A. *E. coli* Ligase	I. Template independent polymerase
B. Reverse transcriptase	II. 5'-phosphorylation of oligonucleotides
C. T4 polynucleotide kinase	III. ATP-dependent ligase
D. T4 Ligase	IV. RNA-dependent DNA polymerase
E. Terminal transferase	V. NAD + -dependent ligase

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

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

Options :
71087029141. 1
71087029142. 2
71087029143. 3
71087029144. 4

Question Number : 27 Question Id : 7108707287 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 of an A 260 /A 280 for pure ds DNA is

1. ~1.8
2. >1.8
3. <1.8
4. 0

Options :
71087029145. 1
71087029146. 2
71087029147. 3
71087029148. 4

Question Number : 28 Question Id : 7108707288 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

Read the following statements

Statement I: In SDS- PAGE, proteins are separated based on their mass/charge ratio

Statement II: In Native-PAGE, proteins are separated based on their mass

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

1. Statement I is wrong and Statement II is correct
2. Statement I is correct and Statement II is wrong
3. Both the statements are wrong
4. Both the statements are correct

Options :
71087029149. 1
71087029150. 2
71087029151. 3

71087029152. 4

Question Number : 29 Question Id : 7108707289 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 marker has low mutation rate?

1. Microsatellites
2. SNPs
3. RAPD
4. RFLP

Options :

71087029153. 1
71087029154. 2
71087029155. 3
71087029156. 4

Question Number : 30 Question Id : 7108707290 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 a population of 100 individuals, DNA marker 'A' showed three alleles A 1 , A 2 , and A 3 in 30, 40, and 30 individuals, respectively. What is the PIC value of marker A?

1. 0.66
2. 0.34
3. 0.56
4. 0.18

Options :

71087029157. 1
71087029158. 2

71087029159. 3
71087029160. 4

Question Number : 31 Question Id : 7108707291 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

DNA polymorphism is

1. Any change in the DNA sequence
2. DNA sequence variation present in more than 1% of the population
3. DNA sequences with modified nucleotides
4. A-, B- and Z forms of DNA

Options :
71087029161. 1
71087029162. 2
71087029163. 3
71087029164. 4

Question Number : 32 Question Id : 7108707292 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 single locus marker?

1. RAPD
2. AFLP
3. AP-PCR
4. Microsatellites

Options :
71087029165. 1
71087029166. 2
71087029167. 3
71087029168. 4

Question Number : 33 Question Id : 7108707293 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 fragment of DNA can be used as marker, if it has

1. Variable region only
2. Conserved region only
3. Both variable and conserved regions
4. Protein binding regions

Options :

71087029169. 1

71087029170. 2

71087029171. 3

71087029172. 4

Question Number : 34 Question Id : 7108707294 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 ICAR institute is designated for fish cell line repository?

1. CIFA
2. CIBA
3. CMFRI
4. NBFGR

Options :

71087029173. 1

71087029174. 2

71087029175. 3

71087029176. 4

Question Number : 35 Question Id : 7108707295 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 components of Ovaprim® are

1. sGnRHa+Dopamine antagonist
2. GtH+ Dopamine antagonist
3. HCG+ Dopamine antagonist
4. PCG

Options :
71087029177. 1
71087029178. 2
71087029179. 3
71087029180. 4

Question Number : 36 Question Id : 7108707296 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 nucleic acid amplification techniques does not need thermal cycler?

1. RT-PCR
2. AP-PCR
3. LAMP
4. RAPD

Options :
71087029181. 1
71087029182. 2
71087029183. 3
71087029184. 4

Question Number : 37 Question Id : 7108707297 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 neuro-peptide directly activates hypothalamic GnRH neurons?

1. Kisspeptin
2. Rhodopsin
3. Gonoleptin
4. Hypoleptin

Options :

71087029185. 1
71087029186. 2
71087029187. 3
71087029188. 4

Question Number : 38 Question Id : 7108707298 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

Gut microbiota is responsible for

1. Suppressing immune response
2. Stimulating pathogenic bacteria in gut
3. Production of beneficial bioactive substances
4. Suppressing gut enzymes

Options :

71087029189. 1
71087029190. 2
71087029191. 3
71087029192. 4

Question Number : 39 Question Id : 7108707299 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 majority of fish species the hemoglobin is

1. Monomeric
2. Dimeric
3. Tetrameric
4. Pentameric

Options :

71087029193. 1
71087029194. 2
71087029195. 3
71087029196. 4

Question Number : 40 Question Id : 7108707300 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 statements is correct in relation to haemoglobin oxygen affinity?

1. ATP increases O_2 affinity
2. Decreasing pH decreases Hb affinity for O_2
3. Urea suppresses O_2 affinity
4. Decrease in temperature depresses oxygen affinity

Options :

71087029197. 1
71087029198. 2
71087029199. 3
71087029200. 4

Question Number : 41 Question Id : 7108707301 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 fish species maintains the body temperature several degrees above the surrounding water

1. Hag fishes
2. Cods
3. Bill fishes
4. Herrings

Options :

71087029201. 1
71087029202. 2
71087029203. 3
71087029204. 4

Question Number : 42 Question Id : 7108707302 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 fish have sac like ventricle chamber?

1. Cod
2. Hake
3. Mackerel
4. Herring

Options :

71087029205. 1
71087029206. 2
71087029207. 3
71087029208. 4

Question Number : 43 Question Id : 7108707303 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 hormone does not take part in oogonial proliferation?

1. Estradiol-17 β
2. 17 α 20β dihydroxyprogeterone
3. 20-β- trihydroxyprogesterone
4. 11-keto testosterone

Options :
71087029209. 1
71087029210. 2
71087029211. 3
71087029212. 4

Question Number : 44 Question Id : 7108707304 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 gene is not involved in the process of puberty?

1. Estrogen receptor 1
2. Androgen receptor
3. Kisspeptin
4. Insulin growth factor 3

Options :
71087029213. 1
71087029214. 2
71087029215. 3
71087029216. 4

Question Number : 45 Question Id : 7108707305 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 naturally spawn in Spring and Autumn?

1. *Anabas testudineus*
2. *Cirrhinus mrigala*
3. *Tenualosa ilisha*
4. *Ompok pabda*

Options :

71087029217. 1
71087029218. 2
71087029219. 3
71087029220. 4

Question Number : 46 Question Id : 7108707306 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 main site of gluconeogenesis is

1. Brain
2. Muscle
3. Liver
4. Kidney

Options :

71087029221. 1
71087029222. 2
71087029223. 3
71087029224. 4

Question Number : 47 Question Id : 7108707307 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 structure of protein refers to the term 'fold' ?

1. Primary
2. Secondary
3. Tertiary
4. Quaternary

Options :

71087029225. 1
71087029226. 2
71087029227. 3
71087029228. 4

Question Number : 48 Question Id : 7108707308 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 alkaline phosphatase and horse radish peroxidase are two common enzymes used in ELISA, because these enzymes

1. Are coloured proteins
2. Bind to ELISA plate
3. Are very small
4. Have high turnover number

Options :

71087029229. 1
71087029230. 2
71087029231. 3
71087029232. 4

Question Number : 49 Question Id : 7108707309 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

As a feed additive, which of the following amino acids is used as flavour enhancer?

1. Valine
2. Tyrosine
3. Leucine
4. Glycine

Options :

71087029233. 1
71087029234. 2
71087029235. 3
71087029236. 4

Question Number : 50 Question Id : 7108707310 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 main amino acid residues involved in protein-DNA interactions are

1. Prolines
2. Positively charged
3. Valines
4. Negatively charged

Options :

71087029237. 1
71087029238. 2
71087029239. 3
71087029240. 4

Question Number : 51 Question Id : 7108707311 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 techniques is not used for protein quantification in proteomics?

1. Metabolic labeling
2. Chemical peptide labeling
3. Enzyme peptide labeling
4. Active site labelling

Options :

71087029241. 1
71087029242. 2
71087029243. 3
71087029244. 4

Question Number : 52 Question Id : 7108707312 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

Phenol: Chlorophorm: Isoamyl alcohol used for DNA extraction will have the following pH

1. Less than 7.0
2. Greater than 7.0
3. Neutral
4. Highly alkaline

Options :

71087029245. 1
71087029246. 2
71087029247. 3
71087029248. 4

Question Number : 53 Question Id : 7108707313 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 aerobic glycolysis generates substantially _____per mole of glucose oxidized compared to anaerobic glycolysis

1. Less ATP
2. Less ADP
3. More ADP
4. More ATP

Options :
71087029249. 1
71087029250. 2
71087029251. 3
71087029252. 4

Question Number : 54 Question Id : 7108707314 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

As per the latest FAO fish production data, what is the contribution from Asian continent in the total Aquaculture production of the world ?

1. 69%
2. 89%
3. 59%
4. 49%

Options :
71087029253. 1
71087029254. 2
71087029255. 3
71087029256. 4

Question Number : 55 Question Id : 7108707315 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 gene responsible for the trait is situated on the autosomes but the trait is expressed in only one sex, this trait is known as

1. Sex influenced trait
2. Sex linked trait
3. Sex limited trait
4. Sex monitored trait

Options :
71087029257. 1
71087029258. 2
71087029259. 3
71087029260. 4

Question Number : 56 Question Id : 7108707316 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

Highly inbred lines of fish can be produced by

1. Gynogenesis
2. Full-sib mating
3. Half-sib mating
4. Both 1 and 2

Options :
71087029261. 1
71087029262. 2
71087029263. 3
71087029264. 4

Question Number : 57 Question Id : 7108707317 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 fish with unknown genotype was crossed with double recessive homozygous fish. If the observed phenotypic ratio was 1:1: 1:1 then the genotype of the fish is

1. It is a heterozygote at one of the locus
2. It is a double heterozygote
3. It is double recessive homozygous
4. Insufficient information

Options :

71087029265. 1
71087029266. 2
71087029267. 3
71087029268. 4

Question Number : 58 Question Id : 7108707318 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

Two highly inbred, unrelated fish were mated to produce the full-sibs, what is the per-cent of inbreeding in the offspring?

1. 0.00
2. 12.50
3. 25.00
4. 50.00

Options :

71087029269. 1
71087029270. 2
71087029271. 3
71087029272. 4

Question Number : 59 Question Id : 7108707319 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 population is found to be in Hardy-Weinberg equilibrium for a locus with two alleles.
Identify whether the following statement hold True or False
i. The maximum per cent of heterozygote individuals can be 50%
ii. Rare alleles are found more in homozygous condition
iii. Maximum per cent of heterozygotes are found when allele frequencies are equal
iv. The sum of gene frequency will be equal to sum of genotype frequency

1. i=True, ii=True, iii=True and iv=True
2. i=True, ii=False, iii=False and iv=True
3. i=True, ii=False, iii=True and iv=True
4. i=False, ii=False, iii=True and iv=True

Options :
71087029273. 1
71087029274. 2
71087029275. 3
71087029276. 4

Question Number : 60 Question Id : 7108707320 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 property/properties of Breeding Value is/are

1. It is a property of an individual
2. It is a property of the population in which the individual is reared
3. It is a biological constant
4. Both 1 and 2

Options :
71087029277. 1
71087029278. 2
71087029279. 3
71087029280. 4

Question Number : 61 Question Id : 7108707321 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

Genetic death leads to

1. Death of population
2. Loss of some genes from a population
3. Death of selected stock
4. All of the above

Options :

71087029281. 1

71087029282. 2

71087029283. 3

71087029284. 4

Question Number : 62 Question Id : 7108707322 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

Sire variance component is _____ of the additive genetic variance

1. Full
2. Half
3. One Third
4. Quarter

Options :

71087029285. 1

71087029286. 2

71087029287. 3

71087029288. 4

Question Number : 63 Question Id : 7108707323 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

Among the following selection methods, which one is the the least accurate method of selection for aquatic species?

1. Individual selection
2. Progeny testing
3. Pedigree selection
4. Family selection

Options :

71087029289. 1
71087029290. 2
71087029291. 3
71087029292. 4

Question Number : 64 Question Id : 7108707324 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 case of full sibs the dominance deviation is

1. ½ Vd
2. ¼ Vd
3. 1 Vd
4. ¾ Vd

Options :

71087029293. 1
71087029294. 2
71087029295. 3
71087029296. 4

Question Number : 65 Question Id : 7108707325 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

GCA refers to

1. General Combining Ability
2. Genomic Combining Ability
3. Genetic Combining Ability
4. All

Options :

71087029297. 1
71087029298. 2
71087029299. 3
71087029300. 4

Question Number : 66 Question Id : 7108707326 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 permeating cryoprotectant?

1. Glycerol
2. Dimethyl sulphoxide (DMSO)
3. Methanol & ethylene glycol
4. All of the above

Options :

71087029301. 1
71087029302. 2
71087029303. 3
71087029304. 4

Question Number : 67 Question Id : 7108707327 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

With respect to the mRNA – ribosome complex for translation mechanism which of the following pair is wrong?

1. Small subunit – decoding center
2. A site – aminoacylated tRNA binding site
3. P site – peptidyl tRNA binding site
4. E site – polypeptide exit site

Options :

71087029305. 1
71087029306. 2
71087029307. 3
71087029308. 4

Question Number : 68 Question Id : 7108707328 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 molecular scissors used to cut DNA into specific genes of interest are called

1. Exonucleases
2. Restriction endonucleases
3. Ligases
4. Polymearses

Options :

71087029309. 1
71087029310. 2
71087029311. 3
71087029312. 4

Question Number : 69 Question Id : 7108707329 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

BIT score measures-

1. Expectation value
2. Sequence similarity
3. Randomness
4. Homology

Options :

71087029313. 1
71087029314. 2
71087029315. 3
71087029316. 4

Question Number : 70 Question Id : 7108707330 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

How is Z-value related to the score-

1. Lower the value more significant the score
2. Lower the value less significant the score
3. Z-value does not relate to significance of the score
4. Higher the value more significant the score

Options :

71087029317. 1
71087029318. 2
71087029319. 3
71087029320. 4

Part C Fish Physiology and Biochemistry

Section Id : 710870183

Section Number :	3
Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	50
Number of Questions to be attempted :	50
Section Marks :	200
Display Number Panel :	Yes
Group All Questions :	Yes
Mark As Answered Required? :	Yes
Sub-Section Number :	1
Sub-Section Id :	710870183
Question Shuffling Allowed :	Yes

Question Number : 71 Question Id : 7108707331 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

Methyl fursonate is involved in which one of the following functions?

1. Proliferation of primary oocytes
2. Vitellogenesis
3. Oocyte maturation
4. Ovulation

Options :

71087029321. 1

71087029322. 2

71087029323. 3

71087029324. 4

Question Number : 72 Question Id : 7108707332 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

Cytokines may be considered as

1. Endocrine hormones
2. Paracrine hormones
3. Autocrine hormones
4. Both Paracrine and Autocrine hormones

Options :
71087029325. 1
71087029326. 2
71087029327. 3
71087029328. 4

Question Number : 73 Question Id : 7108707333 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 hypothalamic hormones?

1. Bombesin
2. GnRH
3. GHRH
4. All the above

Options :
71087029329. 1
71087029330. 2
71087029331. 3
71087029332. 4

Question Number : 74 Question Id : 7108707334 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 hormone secreted from Pars Nervosa is

1. TSH
2. ACTH
3. MSH
4. GH

Options :

71087029333. 1
71087029334. 2
71087029335. 3
71087029336. 4

Question Number : 75 Question Id : 7108707335 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

Fish muscles contribute approximately what per cent of BMR?

1. 10-15 %
2. 20-30 %
3. 40-60 %
4. 5-10 %

Options :

71087029337. 1
71087029338. 2
71087029339. 3
71087029340. 4

Question Number : 76 Question Id : 7108707336 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

Type I heart does NOT comprise

1. Inner spongiosum
2. Outer compactum
3. Coronary vessels
4. All of the above

Options :

71087029341. 1
71087029342. 2
71087029343. 3
71087029344. 4

Question Number : 77 Question Id : 7108707337 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

C-reactive protein is an indicator of which one of the following?

1. Plasma membrane injury
2. Cytoplasmic disturbances
3. Extracellular ionic changes
4. Nuclear membrane depolarisation

Options :

71087029345. 1
71087029346. 2
71087029347. 3
71087029348. 4

Question Number : 78 Question Id : 7108707338 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

Teleost hemoglobin may have more than following number of components

1. 8
2. 6
3. 10
4. 4

Options :
71087029349. 1
71087029350. 2
71087029351. 3
71087029352. 4

Question Number : 79 Question Id : 7108707339 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

Blood oxygen affinity increases with

1. Decrease in blood pH
2. Increase in ATP
3. Increase in temperature
4. Increase in urea

Options :
71087029353. 1
71087029354. 2
71087029355. 3
71087029356. 4

Question Number : 80 Question Id : 7108707340 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

Tetrameric haemoglobin 9Hb's Hill Coefficient value is

1. n=1
2. n>1
3. n<1
4. n=0

Options :

71087029357. 1
71087029358. 2
71087029359. 3
71087029360. 4

Question Number : 81 Question Id : 7108707341 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

Ram ventilation in fish involves all the following parts of the body, except

1. Pharynx
2. Mouth
3. Skin
4. Operculum

Options :

71087029361. 1
71087029362. 2
71087029363. 3
71087029364. 4

Question Number : 82 Question Id : 7108707342 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

Based on heart rate, arrange the following fish in ascending order

1. Rainbow trout
2. Hagfish
3. Tuna
4. Icefishes

Options :

71087029365. 1
71087029366. 2
71087029367. 3
71087029368. 4

Question Number : 83 Question Id : 7108707343 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 an auxillary heart?

1. Haemal arch pump
2. Carotid heart pump
3. Portal heart
4. Caudal heart

Options :

71087029369. 1
71087029370. 2
71087029371. 3
71087029372. 4

Question Number : 84 Question Id : 7108707344 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

Fish generally overcome Bohr and Root effects by

1. Maintaining low hemoglobin-O_2 affinity
2. Decreasing blood pH
3. Decreasing NTP concentration
4. Maintaining stable hemoglobin structure

Options :
71087029373. 1
71087029374. 2
71087029375. 3
71087029376. 4

Question Number : 85 Question Id : 7108707345 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

Presence of chemoreceptors at the site of gaseous exchange is essential for

1. *Labeo rohita*
2. *Catla catla*
3. *Anabas testudineus*
4. *Puntius sarana*

Options :
71087029377. 1
71087029378. 2
71087029379. 3
71087029380. 4

Question Number : 86 Question Id : 7108707346 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

Circulatory adaptation in icefishes does NOT include

1. High cardiac rate
2. High blood pressure
3. Increased plasma volume
4. High blood flow

Options :

71087029381. 1
71087029382. 2
71087029383. 3
71087029384. 4

Question Number : 87 Question Id : 7108707347 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 hormones is NOT derived from amino acids?

1. Catecholamine
2. Thyroid hormones
3. Melatonin
4. Corticosteroids

Options :

71087029385. 1
71087029386. 2
71087029387. 3
71087029388. 4

Question Number : 88 Question Id : 7108707348 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

Pancreatic polypeptides (PYY)

1. Aid in nutrient uptake
2. Promote lipolysis
3. Promote glycogenolysis
4. Stimulate appetite and gastric emptying

Options :

71087029389. 1
71087029390. 2
71087029391. 3
71087029392. 4

Question Number : 89 Question Id : 7108707349 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

B.S.C. axis of stress response stands for

1. Brain-somatic-cell axis
2. Brain-sympathetic-chromaffin cells axis
3. Brain-spleen-chromaffin cells axis
4. Brain stem-cholinergic cells axis

Options :

71087029393. 1
71087029394. 2
71087029395. 3
71087029396. 4

Question Number : 90 Question Id : 7108707350 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 gasotransmitters functions as a neurotransmitter?

1. NO_2
2. CO_2
3. SO_2
4. H_2S

Options :

71087029397. 1
71087029398. 2
71087029399. 3
71087029400. 4

Question Number : 91 Question Id : 7108707351 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 correct?

1. Hypoxia increases erythropoeisis
2. Hypoxia reduces hematocrit value
3. Salinity changes do not influence hypoxic effects
4. Hypoxia does not make thermocompromise

Options :

71087029401. 1
71087029402. 2
71087029403. 3
71087029404. 4

Question Number : 92 Question Id : 7108707352 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

One of the common biomarkers for oxidative stress is

1. Nitric oxide
2. Heat shock proteins
3. Super Oxide Dismutase (SOD)
4. Cortisol

Options :
71087029405. 1
71087029406. 2
71087029407. 3
71087029408. 4

Question Number : 93 Question Id : 7108707353 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 component of the gill epithelium in teleost?

1. Pavement cells
2. Mitochondrial rich cells
3. Accessories cells
4. All of the above

Options :
71087029409. 1
71087029410. 2
71087029411. 3
71087029412. 4

Question Number : 94 Question Id : 7108707354 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 genes acts as a chemokine in germ cells?

1. DEAD
2. Sdf 1
3. Dazl
4. Nanos 1

Options :

71087029413. 1
71087029414. 2
71087029415. 3
71087029416. 4

Question Number : 95 Question Id : 7108707355 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

One of the useful field markers for assessing oocyte final maturation is

1. Hydration
2. Yolk platelet dissociation
3. Formation of monolayer cortical alveoli
4. GVBD

Options :

71087029417. 1
71087029418. 2
71087029419. 3
71087029420. 4

Question Number : 96 Question Id : 7108707356 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

Oocyte maturation competence can be assessed by

1. Plasma estradiol level
2. Plasma testosterone level
3. *In-vitro* challenge by maturation inducing steroids
4. GVBD counts

Options :

71087029421. 1
71087029422. 2
71087029423. 3
71087029424. 4

Question Number : 97 Question Id : 7108707357 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 paracrine hormone promotes vasodilation?

1. Nitrous oxide
2. Endothelin
3. Bradykinin
4. Prostaglandins

Options :

71087029425. 1
71087029426. 2
71087029427. 3
71087029428. 4

Question Number : 98 Question Id : 7108707358 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 ECG wave denotes ventricular depolarisation?

1. P wave
2. T wave
3. AV wave
4. B wave

Options :
71087029429. 1
71087029430. 2
71087029431. 3
71087029432. 4

Question Number : 99 Question Id : 7108707359 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

Secondary (2") circulation in fish involves

1. Dorsal aorta
2. Narrow bore arterioles
3. Ventral aorta
4. High RBC in blood

Options :
71087029433. 1
71087029434. 2
71087029435. 3
71087029436. 4

Question Number : 100 Question Id : 7108707360 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

Carbonic anhydrase activity is present in

1. Teleost RBC
2. Elasmobranch RBC
3. Teleost plasma
4. Elasmobranch plasma

Options :
71087029437. 1
71087029438. 2
71087029439. 3
71087029440. 4

Question Number : 101 Question Id : 7108707361 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

20 βHSD converts which one of the following precursor steroids to produce 17α20β-dihydroxy progesterone?

1. Pregnanolone
2. Testosterone
3. 17 α-hydroxyprogesterone
4. Progesterone

Options :
71087029441. 1
71087029442. 2
71087029443. 3
71087029444. 4

Question Number : 102 Question Id : 7108707362 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

Stannius corpuscles are present in

1. Cartilaginous fish
2. Lung fish
3. Sturgeons
4. Modern teleosts

Options :

71087029445. 1
71087029446. 2
71087029447. 3
71087029448. 4

Question Number : 103 Question Id : 7108707363 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 sex steroid is involved in spermatogonial renewal?

1. Testosterone
2. 17 α-hydroxyprogesterone
3. Estradiol 17β
4. Progesterone

Options :

71087029449. 1
71087029450. 2
71087029451. 3
71087029452. 4

Question Number : 104 Question Id : 7108707364 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

Low Km indicates

1. High affinity between substrate and enzyme
2. Low affinity between substrate and enzyme
3. No affinity between substrate and enzyme
4. None of the above

Options :
71087029453. 1
71087029454. 2
71087029455. 3
71087029456. 4

Question Number : 105 Question Id : 7108707365 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

Half life cycle of C-14 isotope is

1. 5730 years
2. 14.3 years
3. 3240 years
4. 12.32 years

Options :
71087029457. 1
71087029458. 2
71087029459. 3
71087029460. 4

Question Number : 106 Question Id : 7108707366 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 desaturase is NOT expressed in freshwater fish?

1. Delta 6 desaturase
2. Delta 9 desaturase
3. Delta 12 desaturase
4. None of the above

Options :
71087029461. 1
71087029462. 2
71087029463. 3
71087029464. 4

Question Number : 107 Question Id : 7108707367 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

Freshwater fishes and mammals do not have ability to introduce a double bond beyond the position of

1. Delta 12
2. Delta 15
3. Delta 9
4. Delta 6

Options :
71087029465. 1
71087029466. 2
71087029467. 3
71087029468. 4

Question Number : 108 Question Id : 7108707368 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

Inner mitochondrial membrane is impermeable to

1. H^+
2. K^+
3. OH^-
4. Na^+

Options :

71087029469. 1
71087029470. 2
71087029471. 3
71087029472. 4

Question Number : 109 Question Id : 7108707369 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 enzymes does NOT belong to Cytochrome group?

1. Cytochrome b
2. Cytochrome oxidase
3. Cytochrome C
4. Cytochrome C1

Options :

71087029473. 1
71087029474. 2
71087029475. 3
71087029476. 4

Question Number : 110 Question Id : 7108707370 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 endogenous lipoprotein pathway starts in liver with formation of which one of the following lipoproteins?

1. LDL
2. HDL
3. VLDL
4. IDL

Options :

71087029477. 1
71087029478. 2
71087029479. 3
71087029480. 4

Question Number : 111 Question Id : 7108707371 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 oxidative deamination, amino acid is transformed to imino acid with the help of

1. NAD
2. NADH
3. FAD
4. FADH2

Options :

71087029481. 1
71087029482. 2
71087029483. 3
71087029484. 4

Question Number : 112 Question Id : 7108707372 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

Type II fatty acid synthase is involved in

1. Fatty acid synthesis in cytoplasm
2. Fatty acid synthesis in mitochondria
3. Fatty acid elongation in E.R.
4. Fatty acid elongation in mitochondria

Options :

71087029485. 1
71087029486. 2
71087029487. 3
71087029488. 4

Question Number : 113 Question Id : 7108707373 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 involved in RNA processing?

1. SnoRNA
2. ScRNA
3. SN RNA
4. All of the above

Options :

71087029489. 1
71087029490. 2
71087029491. 3
71087029492. 4

Question Number : 114 Question Id : 7108707374 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

Disulfide bonds protect which one of the following proteins?

1. Intracellular proteins
2. Dimeric proteins
3. Extracellular proteins
4. Nuclear proteins

Options :
71087029493. 1
71087029494. 2
71087029495. 3
71087029496. 4

Question Number : 115 Question Id : 7108707375 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 amino acids has the highest molecular weight?

1. Alanine
2. Leucine
3. Glycine
4. Valine

Options :
71087029497. 1
71087029498. 2
71087029499. 3
71087029500. 4

Question Number : 116 Question Id : 7108707376 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 activity of HMG CoA reductase can be inhibited by which one of the following drugs?

1. Lovastatin
2. Rabprazol
3. Compactin
4. Heparin

Options :

71087029501. 1
71087029502. 2
71087029503. 3
71087029504. 4

Question Number : 117 Question Id : 7108707377 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

Rate of glucose turnover in fishes is lower compared to mammals owing to

1. Lack of an active Cori cycle
2. Very active Cori cycle
3. High rate of hepatic gluconeogenesis
4. Active alanine-glucose cycle

Options :

71087029505. 1
71087029506. 2
71087029507. 3
71087029508. 4

Question Number : 118 Question Id : 7108707378 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

Prostaglandin F differs from Prostaglandin E in the presence of α-OH functional group in PGF at carbon

1. 11
2. 14
3. 9
4. 15

Options :

71087029509. 1
71087029510. 2
71087029511. 3
71087029512. 4

Question Number : 119 Question Id : 7108707379 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: Arginine vasotocin influences reproductive behaviour

Reason R: Arginine immunoreactive cells increases in number in the preoptic area of nest guarding male fish

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

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

Options :
71087029513. 1
71087029514. 2
71087029515. 3
71087029516. 4

Question Number : 120 Question Id : 7108707380 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

One of the major functions of the glucocorticoids is to

1. Inhibit gluconeogenesis
2. Increase lipolysis
3. Increase insulin sensitivity of adipocytes
4. Stimulate the production of T cells

Options :

71087029517. 1

71087029518. 2

71087029519. 3

71087029520. 4