

FINAL NEETUG-2019 EXAMINATION

th

BIOLOGY
91. Which of the following statements is **incorrect** ?

- 1 Viroids lack a protein coat
- 2 Viruses are obligate parasites
- 3 Infective constituent in viruses is the protein coat
- 4 Prions consist of abnormally folded proteins

Ans. 3
92. Purines found both in DNA and RNA are :-

- 1 Adenine and thymine
- 2 Adenine and guanine
- 3 Guanine and cytosine
- 4 Cytosine and thymine

Ans. 2
93. Which of the following glucose transporters is insulin-dependent ?

- | | |
|------------|-----------|
| 1 GLUT I | 2 GLUT II |
| 3 GLUT III | 4 GLUT IV |

Ans. 4
94. Identify the cells whose secretion protects the lining of gastro-intestinal tract from various enzymes :-

- 1 Chief Cells
- 2 Goblet Cells
- 3 Oxyntic Cells
- 4 Duodenal Cells

Ans. 2
95. Which one of the following equipments is essentially required for growing microbes on a large scale, for industrial production of enzymes ?

- | | |
|-------------------|-------------------|
| 1 BOD incubator | 2 Sludge digester |
| 3 Industrial oven | 4 Bioreactor |

Ans. 4
96. Which of the following is **true** for Golden rice ?

- 1 It is Vitamin A enriched, with a gene from daffodil
- 2 It is pest resistant, with a gene from *Bacillus thuringiensis*
- 3 It is drought tolerant, developed using *Agrobacterium* vector
- 4 It has yellow grains, because of a gene introduced from a primitive variety of rice

Ans. 1
TEST PAPER WITH ANSWER
97. Which one of the following is **not** a method of *in situ* conservation of biodiversity ?

- 1 Biosphere Reserve
- 2 Wildlife Sanctuary
- 3 Botanical Garden
- 4 Sacred Grove

Ans. 3
98. Under which of the following conditions will there be no change in the reading frame of following mRNA ?

5'AACAGCGGUGCUAAU3'

- 1 Insertion of G at 5th position
- 2 Deletion of G from 5th position
- 3 Insertion of A at G at 4th and 5th positions respectively
- 4 Deletion of GGU from 7th, 8th and 9th positions

Ans. 4
99. Which of these following methods is the most suitable for disposal of nuclear waste ?

- 1 Shoot the waste into space
- 2 Bury the waste under Antarctic ice-cover
- 3 Dump the waste within rocks under deep ocean
- 4 Bury the waste within rocks deep below the Earth's surface

Ans. 4
100. Match the following organisms with the products they produce :-

- | | |
|-----------------------------------|-----------------|
| a <i>Lactobacillus</i> | i Cheese |
| b <i>Saccharomyces cerevisiae</i> | ii Curd |
| c <i>Aspergillus niger</i> | iii Citric Acid |
| d <i>Acetobacter aceti</i> | iv Bread |
| | v Acetic Acid |

 Select the **correct** option.

- | | a | b | c | d |
|---|-----|----|-----|-----|
| 1 | ii | iv | v | iii |
| 2 | ii | iv | iii | v |
| 3 | iii | iv | v | i |
| 4 | ii | i | iii | v |

Ans. 2

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- 101.** What map unit Centimorgan is adopted in the construction of genetic maps ?
- 1 A unit of distance between two expressed genes, representing 10% cross over
 - 2 A unit of distance between two expressed genes, representing 100% cross over
 - 3 A unit of distance between genes on chromosomes, representing 1% cross over
 - 4 A unit of distance between genes on chromosomes, representing 50% cross over

Ans. 3

- 102.** Select the hormone-releasing Intra-Uterine Devices?
- 1 Vaults, LNG-20
 - 2 Multiload 375, Progestasert
 - 3 Progestasert, LNG-20
 - 4 Lippes Loop, Multiload 375

Ans. 3

- 103.** Which of the following can be used as a biocontrol agent in the treatment of plant disease ?
- 1 *Trichoderma*
 - 2 *Chlorella*
 - 3 *Anabaena*
 - 4 *Lactobacillus*

Ans. 1

- 104.** Expressed Sequence Tapes ESTs refers to :-
- 1 Genes expressed as RNA
 - 2 Polypeptide expression
 - 3 DNA polymorphism
 - 4 Novel DNA sequences

Ans. 1

- 1.** Colostrum, the yellowish fluid, secreted by mother during the initial days of lactation is very essential to impart immunity to the newborn infants because it contains :-
- 1 Natural killer cells
 - 2 Monocytes
 - 3 Macrophages
 - 4 Immunoglobulin A

Ans. 4

- 106.** Select the **incorrect** statement :-
- 1 Inbreeding increases homozygosity
 - 2 Inbreeding is essential to evolve purelines in any animal
 - 3 Inbreeding selects harmful recessive genes that reduce fertility and productivity
 - 4 Inbreeding helps in accumulation of superior genes elimination of undesirable genes

Ans. 3

2

- 107.** Select the **correct** sequence of transport of sperm cells in male reproductive system :-

- 1 Testis — Epididymis — Vasa efferentia — Rete testis — Inguinal canal — Urethra
- 2 Seminiferous tubules — Rete testis — Vasa efferentia — Epididymis — Vas deferens — Ejaculatory duct — Urethra — Urethral meatus
- 3 Seminiferous tubules — Vasa efferentia — Epididymis — Inguinal canal — Urethra
- 4 Testis — Epididymis — Vasa efferentia — Vas deferens — Ejaculatory duct — Inguinal canal — Urethra — Urethral meatus

Ans. 2

- 108.** A gene locus has two alleles A, a. If the frequency of dominant allele A is 0.4 then what will be the frequency of homozygous dominant, heterozygous and homozygous recessive individuals in the population ?
- 1 0.36 AA; 0.48Aa; 0.16 aa
 - 2 0.16 AA; 0.24 Aa; 0.36 aa
 - 3 0.16 AA; 0.48 Aa; 0.36 aa
 - 4 0.16 AA; 0.36 Aa; 0.48 aa

Ans. 3

- 109.** Match the following organisms with their respective characteristics :-

- | | |
|------------------------|-----------------------|
| a <i>Pila</i> | i Flame cells |
| b <i>Bombyx</i> | ii Comb plates |
| c <i>Pleurobrachia</i> | iii Radula |
| d <i>Taenia</i> | iv Malpighian tubules |

Select the **correct** option from the following

- | | a | b | c | d |
|---|------|----|-----|----|
| 1 | iii | ii | i | iv |
| 2 | iii | iv | ii | i |
| 3 | ii | iv | iii | i |
| 4 | iiii | ii | iv | i |

Ans. 2

- 110.** The shorter and longer arms of a submetacentric chromosome are referred to as :-
- 1 s-arm and l-arm respectively
 - 2 p-arm and q-arm respectively
 - 3 q-arm and p-arm respectively
 - 4 m-arm and n-arm respectively

Ans. 2

- 111.** What is the site of perception of photoperiod necessary for induction of flowering in plants :-

- | | |
|----------------|------------|
| 1 Lateral buds | 2 Pulvinus |
| 3 Shoot apex | 4 Leaves |

Ans. 4

112. Which part of the brain is responsible for thermoregulation ?

- | | |
|-------------------|---------------------|
| 1 Cerebrum | 2 Hypothalamus |
| 3 Corpus callosum | 4 Medulla oblongata |

Ans. 2

113. Which of the following pair of organelles does not contain DNA :-

- 1 Mitochondria and Lysosomes
- 2 Chloroplast and Vacuoles
- 3 Lysosomes and Vacuoles
- 4 Nuclear envelope and Mitochondria

Ans. 3

114. What is the genetic disorder in which an individual has an overall masculine development, gynaecomastia, and is sterile ?

- 1 Turner's syndrome
- 2 Klinefelter's syndrome
- 3 Edward syndrome
- 4 Down's syndrome

Ans. 2

115. Xylem translocates :-

- 1 Water only
- 2 Water and mineral salts only
- 3 Water, mineral salts and some organic nitrogen only
- 4 Water, mineral salts, some organic nitrogen and hormones

Ans. 4

116. Which of the following pairs of gases is mainly responsible for green house effect?

- 1 Ozone and Ammonia
- 2 Oxygen and Nitrogen
- 3 Nitrogen and Sulphur dioxide
- 4 Carbon dioxide and Methane

Ans. 4

117. Which of the following protocols did aim for reducing emission of chloroflurocarbons into the atmosphere?

- 1 Montreal protocol
- 2 Kyoto protocol
- 3 Gothenburg Protocol
- 4 Geneva Protocol

Ans. 1

118. In some plants, the female gamete develops into embryo without fertilization. This phenomenon is known as :

- | | |
|------------|-------------------|
| 1 Autogamy | 2 Parthenocarpy |
| 3 Syngamy | 4 Parthenogenesis |

Ans. 4

119. Which of the following sexually transmitted diseases is **not** completely curable ?

- 1 Gonorrhoea
- 2 Genital warts
- 3 Genital herpes
- 4 Chlamydiasis

Ans. 3

120. Which of the following immune responses is responsible for rejection of kidney graft?

- 1 Auto- immune responses
- 2 Humoral immune response
- 3 Inflammatory immune response
- 4 Cell-mediated immune response

Ans. 4

121. Which of the following factors is responsible for the formation of concentrated urine?

- 1 Low levels of antidiuretic hormone.
- 2 Maintaining hyperosmolarity towards inner medullary interstitium in the kidneys.
- 3 Secretion of erythropoietin by juxtaglomerular complex.
- 4 Hydrostatic pressure during glomerular filtration.

Ans. 2

122. Which of the following features of genetic code does allow bacteria to produce human insulin by recombinant DNA technology?

- 1 Genetic code is not ambiguous
- 2 Genetic code is redundant
- 3 Genetic code is nearly universal
- 4 Genetic code is specific

Ans. 3

123. Which of the following statements is **not** correct?

- 1 Lysosomes have numerous hydrolytic enzymes.
- 2 The hydrolytic enzymes of lysosomes are active under acidic pH.
- 3 Lysosomes are membrane bound structures.
- 4 Lysosomes are formed by the process of packaging in the endoplasmic reticulum.

Ans. 4

124. The concept of "*Omnis cellula-e cellula*" regarding cell division was first proposed by:

- 1 Rudolf Virchow
- 2 Theodore Schwann
- 3 Schleiden
- 4 Aristotle

Ans. 1

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125. Use of an artificial kidney during hemodialysis may result in :

- a Nitrogenous waste build-up in the body
- b Non-elimination of excess potassium ions
- c Reduced absorption of calcium ions from gastro-intestinal tract
- d Reduced RBC production

Which of the following options is the most **appropriate**?

- 1 a and b are correct
- 2 b and c are correct
- 3 c and d are correct
- 4 a and d are correct

Ans. 3

126. What is the direction of movement of sugars in phloem?

- 1 Non-multidirectional
- 2 Upward
- 3 Downward
- 4 Bi-directional

Ans. 4

127. Which of the following muscular disorders is inherited ?

- 1 Tetany
- 2 Muscular dystrophy
- 3 Myasthenia gravis
- 4 Botulism

Ans. 2

128. Consider following features:

- a Organ system level of organisation
- b Bilateral symmetry
- c True coelomates with segmentation of body

Select the **correct** option of animal groups which possess all the above characteristics.

- 1 Annelida, Arthropoda and Chordata
- 2 Annelida, Arthropoda and Mollusca
- 3 Arthropoda, Mollusca and Chordata
- 4 Annelida, Mollusca and Chordata

Ans. 1

129. The frequency of recombination between gene pairs on the same chromosome as a measure of the distance between genes was explained by :

- 1 T.H. Morgan
- 2 Gregor J. Mendel
- 3 Alfred Sturtevant
- 4 Sutton Boveri

Ans. 3

130. Following statements describe the characteristics of the enzyme Restriction endonuclease. Identify the **incorrect** statement.

- 1 The enzyme cuts DNA molecule at identified position within the DNA
- 2 The enzyme binds DNA at specific sites and cuts only one of the two strands.
- 3 The enzyme cuts the sugar-phosphate backbone at specific sites on each strand.
- 4 The enzyme recognizes a specific palindromic nucleotide sequence in the DNA

Ans. 2

131. Which of the following statements is **incorrect**?

- 1 Morels and truffles are edible delicacies.
- 2 *Claviceps* is a source of many alkaloids and LSD.
- 3 Conidia are produced exogenously and ascospores endogenously.
- 4 Yeasts have filamentous bodies with long thread-like hyphae.

Ans. 4

132. Placentation, in which ovules develop on the inner wall of the ovary or in peripheral part, is :

- 1 Basal
- 2 Axile
- 3 Parietal
- 4 Free central

Ans. 3

133. Which of the following is the most important causes for animals and plants being driven to extinction?

- 1 Habitat loss and fragmentation
- 2 Drought and floods
- 3 Economic exploitation
- 4 Alien species invasion

Ans. 1

134. Variations caused by mutation, as proposed by Hugo de Vries, are

- 1 random and directional
- 2 random and directionless
- 3 small and directional
- 4 small and directionless

Ans. 2

135. Respiratory Quotient RQ value of tripalmitin is :

- | | |
|--------|--------|
| 1 0.9 | 2 0.7 |
| 3 0.07 | 4 0.09 |

Ans. 2

136. In *Antirrhinum* Snapdragon, a red flower was crossed with a white flower and in F_1 generation, pink flowers were obtained. When pink flowers were selfed, the F_2 generation showed white, red and pink flowers. Choose the incorrect statement from the following :

- 1 This experiment does not follow the Principle of Dominance
- 2 Pink colour in F_1 is due to incomplete dominance.
- 3 Ratio of F_2 is 4 Red : 2 Pink: 1 White
- 4 Law of Segregation does not apply in this experiment.

Ans. 4

137. Select the **incorrect** statement.

- 1 Male fruit fly is heterogametic.
- 2 In male grasshoppers, 50% of sperms have no sex-chromosome.
- 3 In domesticated fowls sex of progeny depends on the type of sperm rather than egg.
- 4 Human males have one of their sex-chromosome much shorter than the other.

Ans. 3

138. The **correct** sequence of phases of cell cycle is :

- 1 $M \rightarrow G_1 \rightarrow G_2 \rightarrow S$
- 2 $G_1 \rightarrow G_2 \rightarrow S \rightarrow M$
- 3 $S \rightarrow G_1 \rightarrow G_2 \rightarrow M$
- 4 $G_1 \rightarrow S \rightarrow G_2 \rightarrow M$

Ans. 4

139. *Thiobacillus* is a group of bacteria helpful in carrying out :

- 1 Nitrogen fixation
- 2 Chemoautotrophic fixation
- 3 Nitrification
- 4 Denitrification

Ans. 4

140. Polyblend, a fine powder of recycled modified plastic, has proved to be a good material for:

- 1 making plastic sacks
- 2 use as a fertilizer
- 3 construction of roads
- 4 making tubes and pipes

Ans. 3

141. From evolutionary point of view, retention of the female gametophyte with developing young embryo on the parent sporophyte for some time, is first observed in :

- | | |
|-----------------|---------------|
| 1 Liverworts | 2 Mosses |
| 3 Pteridophytes | 4 Gymnosperms |

Ans. 3

142. Select the **correct** option .

- 1 8th, 9th and 10th pairs of ribs articulate directly with the sternum.
- 2 11th and 12th pairs of ribs are connected to the sternum with the help of hyaline cartilage.
- 3 Each rib is a flat thin bone and all the ribs are connected dorsally to the thoracic vertebrae and ventrally to the sternum.
- 4 There are seven pairs of vertebrosteral, three pairs of vertebrochondral and two pairs of vertebral ribs.

Ans. 4

143. Concanavalin A is :

- | | |
|---------------|--------------------|
| 1 an alkaloid | 2 an essential oil |
| 3 a lectin | 4 a pigment |

Ans. 3

144. Extrusion of second polar body from egg nucleus occurs :

- 1 after entry of sperm but before fertilization
- 2 after fertilization
- 3 before entry of sperm into ovum
- 4 simultaneously with first cleavage

Ans. 1

145. Pinus seed **cannot** germinate and establish without fungal association. This is because :

- 1 its embryo is immature
- 2 it has obligate association with mycorrhizae.
- 3 it has very hard seed coat.
- 4 its seeds contain inhibitors that prevent germination .

Ans. 2

146. The Earth Summit held in Rio de Janeiro in 1992 was called :

- 1 to reduce CO₂ emissions and global warming.
- 2 for conservation of biodiversity and sustainable utilization of its benefits.
- 3 to assess threat posed to native species by invasive weed species.
- 4 for immediate steps to discontinue use of CFCs that were damaging the ozone layer.

Ans. 2

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147. DNA precipitation out of a mixture of biomolecules can be achieved by treatment with :

- 1 Isopropanol
- 2 Chilled ethanol
- 3 Methanol at room temperature
- 4 Chilled chloroform

Ans. 2

148. Grass leaves curl inwards during very dry weather. Select the most appropriate reason from the following :

- 1 Closure of stomata
- 2 Flaccidity of bulliform cells
- 3 Shrinkage of air spaces in spongy mesophyll
- 4 Tyloses in vessels

Ans. 2

149. Match the following structures with their respective location in organs :

- | | |
|------------------------|---------------------|
| a Crypts of Lieberkuhn | i Pancreas |
| b Glisson's Capsule | ii Duodenum |
| c Islets of Langerhans | iii Small intestine |
| d Brunner's Glands | iv Liver |

Select the **correct** option from the following :

- | | a | b | c | d |
|---|-----|----|----|-----|
| 1 | iii | i | ii | iv |
| 2 | ii | iv | i | iii |
| 3 | iii | iv | i | ii |
| 4 | iii | ii | i | iv |

Ans. 3

150. Match the following hormones with the respective disease :

- | | |
|------------------|-----------------------|
| a Insulin | i Addison's disease |
| b Thyroxin | ii Diabetes insipidus |
| c Corticoids | iii Arcomegaly |
| d Growth Hormone | iv Goitre |
| | v Diabetes mellitus |

Select the **correct** option.

- | | a | b | c | d |
|---|----|----|-----|-----|
| 1 | v | i | ii | iii |
| 2 | ii | iv | iii | i |
| 3 | v | iv | i | iii |
| 4 | ii | iv | i | iii |

Ans. 3

151. Which of the following contraceptive methods do involve a role of hormone ?

- 1 Lactational amenorrhea, Pills, Emergency contraceptives
- 2 Barrier method, Lactational amenorrhea, Pills
- 3 CuT, Pills, Emergency contraceptives
- 4 Pills, Emergency contraceptives, Barrier methods

Ans. 1

152. Drug called 'Heroin' is synthesized by :

- 1 methylation of morphine
- 2 acetylation of morphine
- 3 glycosylation of morphine
- 4 nitration of morphine

Ans. 2

153. In a species, the weight of newborn ranges from 2 to 5 kg. 97% of the newborn with an average weight between 3 to 3.3kg survive whereas 99% of the infants born with weights from 2 to 2.5 kg or 4.5 to 5 kg die. Which type of selection process is taking place ?

- 1 Directional Selection
- 2 Stabilizing Selection
- 3 Disruptive Selection
- 4 Cyclical Selection

Ans. 2

154. Conversion of glucose to glucose-6-phosphate, the first irreversible reaction of glycolysis, is catalyzed by :

- | | |
|------------|-----------------------|
| 1 Aldolase | 2 Hexokinase |
| 3 Enolase | 4 Phosphofructokinase |

Ans. 2

155. Which of the following statements is **correct** ?

- 1 Cornea is an external, transparent and protective proteinacious covering of the eye-ball.
- 2 Cornea consists of dense connective tissue of elastin and can repair itself.
- 3 Cornea is convex, transparent layer which is highly vascularised.
- 4 Cornea consists of dense matrix of collagen and is the most sensitive portion of the eye.

Ans. 1

156. Which of the following ecological pyramids is generally inverted ?

- 1 Pyramid of numbers in grassland
- 2 Pyramid of energy
- 3 Pyramid of biomass in a forest
- 4 Pyramid of biomass in a sea

Ans. 4

157. Consider the following statements :

- A Coenzyme or metal ion that is tightly bound to enzyme protein is called prosthetic group.
- B A complete catalytic active enzyme with its bound prosthetic group is called apoenzyme.

Select the **correct** option.

- 1 Both **A** and **B** are true.
- 2 **A** is true and **B** is false.
- 3 Both **A** and **B** are false.
- 4 **A** is false and **B** is true.

Ans. 3

158. Due to increasing air-borne allergens and pollutants, many people in urban areas are suffering from respiratory disorder causing wheezing due to :

- 1 benign growth on mucous lining of nasal cavity.
- 2 inflammation of bronchi and bronchioles.
- 3 proliferation of fibrous tissues and damage of the alveolar walls.
- 4 reduction in the secretion of surfactants by pneumocytes.

Ans. 2

159. Which one of the following statements regarding post-fertilization development in flowering plants is **incorrect** ?

- 1 Ovary develops into fruit
- 2 Zygote develops into embryo
- 3 Central cell develops into endosperm
- 4 Ovules develop into embryo sac

Ans. 4

160. Phloem in gymnosperms lacks :

- 1 Albuminous cells and sieve cells
- 2 Sieve tubes only
- 3 Companion cells only
- 4 Both sieve tubes and companion cells

Ans. 4

161. It takes very long time for pineapple plants to produce flowers. Which combination of hormones can be applied to artificially induce flowering in pineapple plants throughout the year to increase yield?

- 1 Auxin and Ethylene
- 2 Gibberellin and Cytokinin
- 3 Gibberellin and Absciscic acid
- 4 Cytokinin and Absciscic acid

Ans. 1

162. Persistent nucellus in the seed is known as :

- 1 Chalaza
- 2 Perisperm
- 3 Hilum
- 4 Tegmen

Ans. 2

163. Cells in G_0 phase:

- 1 exit the cell cycle
- 2 enter the cell cycle
- 3 suspend the cell cycle
- 4 terminate the cell cycle

Ans. 1

164. Match **Column - I** with **Column - II**.

Column - I	Column - II
a Saprophyte	i Symbiotic association of fungi with plant roots
b Parasite	ii Decomposition of dead organic materials
c Lichens	iii Living on living plants or animals
d Mycorrhiza	iv Symbiotic association of algae and fungi

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

a	b	c	d
1 i	ii	iii	iv
2 iii	ii	i	iv
3 ii	i	iii	iv
4 ii	iii	iv	i

Ans. 4

165. Which would be the heart rate of a person if the cardiac output is 5L, blood volume in the ventricles at the end of diastole is 100 mL and at the end of ventricular systole is 50 mL?

- 1 50 beats per minute
- 2 75 beats per minute
- 3 100 beats per minute
- 4 125 beats per minute

Ans. 3

166. What triggers activation of protoxin to active Bt toxin of *Bacillus thuringiensis* in boll worm?

- 1 Body temperature
- 2 Moist surface of midgut
- 3 Alkaline pH of gut
- 4 Acidic pH of stomach

Ans. 3

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167. The ciliated epithelial cells are required to move particles or mucus in a specific direction. In humans, these cells are mainly present in :

- 1 Bile duct and Bronchioles
- 2 Fallopian tubes and Pancreatic duct
- 3 Eustachian tube and Salivary duct
- 4 Bronchioles and Fallopian tubes

Ans. 4

168. Which of the statements given below is **not** true about formation of Annual Rings in trees?

- 1 Annual ring is a combination of spring wood and autumn wood produced in a year.
- 2 Differential activity of cambium causes light and dark bands of tissue - early and late wood respectively
- 3 Activity of cambium depends upon variation in climate.
- 4 Annual rings are not prominent in trees of temperate region.

Ans. 4

169. What is the fate of the male gametes discharged in the synergid?

- 1 One fuses with the egg, others degenerates in the synergid.
- 2 All fuse with the egg.
- 3 One fuses with the egg, others fuses with synergid nucleus.
- 4 One fuses with the egg and other fuses with central cell nuclei.

Ans. 4

170. Match the following genes of the Lac operon with their respective products.

- | | |
|----------|-------------------|
| a i gene | i -galactosidase |
| b z gene | ii Permease |
| c a gene | iii Repressor |
| d y gene | iv Transacetylase |

Select the **correct** option.

- | | a | b | c | d |
|---|-----|-----|----|----|
| 1 | i | iii | ii | iv |
| 2 | iii | i | ii | iv |
| 3 | iii | i | iv | ii |
| 4 | iii | iv | i | ii |

Ans. 3

171. Select the correct sequence of organs in the alimentary canal of cockroach starting from mouth:

- 1 Pharynx — Oesophagus — Crop — Gizzard — Ileum — Colon — Rectum
- 2 Pharynx — Oesophagus — Gizzard — Crop — Ileum — Colon — Rectum
- 3 Pharynx — Oesophagus — Gizzard — Ileum — Crop — Colon — Rectum
- 4 Pharynx — Oesophagus — Ileum — Crop — Gizzard — Colon — Rectum

Ans. 1

172. Match the hominids with their correct brain size :

- | | |
|--------------------------------|----------------|
| a <i>Homo habilis</i> | i 900 cc |
| b <i>Homo neanderthalensis</i> | ii 1350 cc |
| c <i>Homo erectus</i> | iii 650-800 cc |
| d <i>Homo sapiens</i> | iv 1400 cc |

Select the **correct** option.

- | | a | b | c | d |
|---|-----|-----|----|----|
| 1 | iii | i | iv | ii |
| 2 | iii | ii | i | iv |
| 3 | iii | iv | i | ii |
| 4 | iv | iii | i | ii |

Ans. 3

173. Identify the **correct** pair representing the causative agent of typhoid fever and the confirmatory test for typhoid.

- 1 *Plasmodium vivax*/UTI test.
- 2 *Streptococcus pneumoniae*/Widal test
- 3 *Salmonella typhi*/Anthrone test
- 4 *Salmonella typhi*/Widal test

Ans. 4

174. How does steroid hormone influence the cellular activities?

- 1 Changing the permeability of the cell membrane.
- 2 Binding to DNA and forming a gene-hormone complex.
- 3 Activating cyclic AMP located on the cell membrane.
- 4 Using aquaporin channels as second messenger.

Ans. 2

175. Tidal Volume and Expiratory Reserve Volume of an athlete is 500 mL and 1000 mL respectively. What will be his Expiratory Capacity if the Residual Volume is 1200 mL?

- | | |
|-----------|-----------|
| 1 1500 mL | 2 1700 mL |
| 3 2200 mL | 4 2700 mL |

Ans. 1

176. Which of the following is a commercial blood cholesterol lowering agent?

- | | |
|-----------------|-----------|
| 1 Cyclosporin A | 2 statin |
| 3 Streptokinase | 4 Lipases |

Ans. 2

177. Which of the following statements regarding mitochondria is **incorrect**?

- Outer membrane is permeable to monomers of carbohydrates fats and proteins.
- Enzymes of electron transport are embedded in outer membrane.
- Inner membrane is convoluted with infoldings.
- Mitochondrial matrix contains single circular DNA molecule and ribosomes.

Ans. 2

178. Match the **Column - I** with **Column -II**

- | Column - I | Column - II |
|-----------------------------------|---------------------------------|
| a P-wave | i Depolarisation of ventricles |
| b QRS complex | ii Repolarisation of ventricles |
| c T-wave | iii Coronary ischemia |
| d Reduction in the size of T-wave | iv Depolarisation of atria |
| | v Repolarisation of atria |

Select the **correct** option-

- | | a | b | c | d |
|---|----------|----------|----------|----------|
| 1 | iv | i | ii | iii |
| 2 | iv | i | ii | v |
| 3 | ii | i | v | iii |
| 4 | ii | iii | v | iv |

Ans. 1

179. Select the **correct** group of biocontrol agents.

- Bacillus thuringiensis*, Tobacco mosaic virus, Aphids
- Trichoderma*, *Baculovirus*, *Bacillus thuringiensis*
- Oscillatoria*, *Rhizobium*, *Trichoderma*
- Nostoc*, *Azospirillum*, *Nucleopolyhedrovirus*

Ans. 2

180. Select **correctly** written scientific name of Mango which was first described by Carolus Linnaeus:

- Mangifera indica* Car. Linn.
- Mangifera indica* Linn.
- Mangifera indica*
- Mangifera Indica*

Ans. 2