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Answer & Solutions

for

NEET 2022 (Re-Exam)

Zoology

151. Which of the following animals has three chambered heart?

- (1) *Pteropus* (2) *Scoliodon*
(3) *Hippocampus* (4) *Chelone*

Answer (4)

152. Which of the following types of epithelium is present in the bronchioles and Fallopian tubes?

- (1) Stratified squamous epithelium
(2) Simple squamous epithelium
(3) Simple columnar epithelium
(4) Ciliated epithelium

Answer (4)

153. Which of the following is **not** an Intra Uterine Device?

- (1) Progestasert (2) Progestogens
(3) Multiload 375 (4) Lippes loop

Answer (2)

154. Match List - I with List - II :

- | List - I | List - II |
|--------------------------|----------------|
| (a) <i>Chlamydomonas</i> | (i) Conidia |
| (b) <i>Penicillium</i> | (ii) Zoospores |
| (c) <i>Hydra</i> | (iii) Gemmules |
| (d) Sponge | (iv) Buds |

Choose the correct answer from the options given below :

- (1) (a) - (iv), (b) - (iii), (c) - (ii), (d) - (i)
(2) (a) - (i), (b) - (iv), (c) - (iii), (d) - (ii)
(3) (a) - (ii), (b) - (i), (c) - (iv), (d) - (iii)
(4) (a) - (iii), (b) - (ii), (c) - (i), (d) - (iv)

Answer (3)

155. Which of the following reasons is mainly responsible for graft rejection in transplantation of organs?

- (1) Cell-mediated response
(2) Inability of recipient to differentiate between 'self' and 'non-self' tissues/cells
(3) Humoral immune response only
(4) Auto-immune response

Answer (1)

156. Bivalent or Tetrad formation is a characteristic feature observed during:

- (1) Chiasmata in zygotene stage
(2) Synaptonemal complex in zygotene stage
(3) Chiasmata in Diplotene stage
(4) Synaptonemal complex in Pachytene stage

Answer (2)

157. Given below are two statements: one is labelled as **Assertion (A)** and the other is labelled as **Reason (R)**.

Assertion (A):

FSH which interacts with membrane bound receptors does not enter the target cell.

Reason (R):

Binding of FSH to its receptors generates second messenger (cyclic AMP) for its biochemical and physiological responses.

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

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

Answer (3)

158. Choose the correct statement about a muscular tissue:

- (1) Smooth muscles are multinucleated and involuntary.
- (2) Skeletal muscle fibres are uninucleated and found in parallel bundles.
- (3) Intercalated discs allow the cardiac muscle cells to contract as a unit.
- (4) The walls of blood vessels are made up of columnar epithelium.

Answer (3)

159. Identify the region of human brain which has pneumotaxic centre that alters respiratory rate by reducing the duration of inspiration.

- (1) Cerebrum
- (2) Medulla
- (3) Pons
- (4) Thalamus

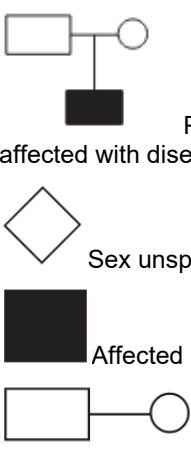
Answer (3)

160. The amount of biomass or organic matter produced per unit area over a time period by plants during photosynthesis is called:

- (1) Net primary production
- (2) Secondary production
- (3) Primary production
- (4) Gross primary production

Answer (3)

161. Select the incorrect match regarding the symbols used in Pedigree analysis

- 
- (1) Parent with male child affected with disease
 - (2) Sex unspecified
 - (3) Affected individual
 - (4) Consanguineous mating

Answer (4)

162. If the pH in lysosomes is increased to alkaline, what will be the outcome?

- (1) Lysosomal enzymes will be more active
- (2) Hydrolytic enzymes will function more efficiently
- (3) Hydrolytic enzymes will become inactive
- (4) Lysosomal enzymes will be released into the cytoplasm

Answer (3)

163. According to the sliding filament theory

- (1) The actin filaments slide away from A-band resulting in shortening of sarcomere.
- (2) Actin and myosin filaments slide over each other to increase the length of the sarcomere.
- (3) Length of A-band does not change.
- (4) I-band increases in length.

Answer (3)

164. Pathogenic bacteria gain resistance to antibiotics due to changes in their :

- (1) Nucleoid
- (2) Cosmids
- (3) Plasmids
- (4) Nucleus

Answer (3)

165. Panspermia, an idea that is still a favourite for some astronomers, means

- (1) Transfer of spores as unit of life from other planets to Earth
- (2) Creation of life from dead and decaying matter
- (3) Creation of life from chemicals
- (4) Origin of sperm in human testes

Answer (1)

166. Why CNG is considered better fuel than diesel?

- (a) It can not be adulterated.
- (b) It takes less time to fill the fuel tank.
- (c) It burns more efficiently.
- (d) It is cheaper.
- (e) It is less inflammable.

Choose the most appropriate answer from the options given below:

- (1) (c), (d), (e) only
- (2) (a), (b), (c), (e) only
- (3) (a), (c), (d) only
- (4) (a), (b), (d), (e) only

Answer (3)

167. Which of the following statements are correct with respect to vital capacity?

- (a) It includes ERV, TV and IRV.
 - (b) Total volume of air a person can inspire after a normal expiration.
 - (c) The maximum volume of air a person can breathe in after forced expiration.
 - (d) It includes ERV, RV and IRV.
 - (e) The maximum volume of air a person can breathe out after a forced inspiration.
- Choose the most appropriate answer from the options given below.

- (1) (a) and (e) (2) (b), (d) and (e)
 (3) (a), (c) and (d) (4) (a), (c) and (e)

Answer (4)

168. How many secondary spermatocytes are required to form 400 million spermatozoa?

- (1) 400 million (2) 50 million
 (3) 100 million (4) 200 million

Answer (4)

169. Mad cow disease in cattle and Cr Jacob disease in humans are due to infection by _____.

- (1) Prion (2) Bacterium
 (3) Virus (4) Viroid

Answer (1)

170. Arrange the components of mammary gland. (from proximal to distal).

- (a) Mammary duct (b) Lactiferous duct
 (c) Alveoli (d) Mammary ampulla
 (e) Mammary tubules

Choose the most appropriate answer from the options given below .

- (1) (e) → (c) → (d) → (b) → (a)
 (2) (c) → (a) → (d) → (e) → (b)
 (3) (b) → (c) → (e) → (d) → (a)
 (4) (c) → (e) → (a) → (d) → (b)

Answer (4)

171. Western Ghats have a large number of plants and animal species that are not found anywhere else. Which of the following term is used to notify such species?

- (1) Vulnerable species (2) Threatened species
 (3) Keystone species (4) Endemic species

Answer (4)

172. Match List - I with List - II regarding the organs of Cockroach :

- | List - I | List - II |
|------------------------|------------------------------------|
| (a) Crop | (i) grinding the food particles |
| (b) Proventriculus | (ii) secretion of digestive juice |
| (c) Hepatic caecae | (iii) removal of nitrogenous waste |
| (d) Malpighian tubules | (iv) storage of food |

Choose the correct answer from the options given below .

- (1) (a) - (i), (b) - (iv), (c) - (iii), (d) - (ii)
 (2) (a) - (iv), (b) - (i), (c) - (ii), (d) - (iii)
 (3) (a) - (iii), (b) - (ii), (c) - (i), (d) - (iv)
 (4) (a) - (ii), (b) - (iv), (c) - (i), (d) - (iii)

Answer (2)

173. Two butterfly species are competing for the same nectar of a flower in a garden. To survive and coexist together, they may avoid competition in the same garden by

- (1) predating on each other
 (2) feeding at the same time
 (3) choosing different foraging patterns
 (4) increasing time spent on attacking each other

Answer (3)

174. Role of enamel is to :

- (1) Give basic shape to the teeth
 (2) Connect crown of tooth with its root
 (3) Masticate the food
 (4) Form bolus

Answer (3)

175. Choose the incorrect enzymatic reaction.

- (1) Dipeptides $\xrightarrow{\text{Dipeptidases}}$ Amino acids
 (2) Maltose $\xrightarrow{\text{Maltase}}$ Glucose + Galactose
 (3) Sucrose $\xrightarrow{\text{Sucrase}}$ Glucose + Fructose
 (4) Lactase $\xrightarrow{\text{Lactase}}$ Glucose + Galactose

Answer (2)

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

Assertion (A) :

During pregnancy the level of thyroxine is increased in the maternal blood.

Reason (R) :

Pregnancy is characterised by metabolic changes in the mother.

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

- (1) (A) is not correct but (R) is correct
 (2) Both (A) and (R) are correct and (R) is the correct explanation of (A)

(3) Both (A) and (R) are correct but (R) is not the correct explanation of (A)

(4) (A) is correct but (R) is not correct

Answer (2)

177. Choose the correct statements :

- (a) Bones support and protect softer tissues and organs
- (b) Weight bearing function is served by limb bones
- (c) Ligament is the site of production of blood
- (d) Adipose tissue is specialised to store fats.
- (e) Tendons attach one bone to another. Choose the most appropriate answer from the options given below
- (1) (a), (b) and (e) only
- (2) (a), (b) and (d) only
- (3) (b), (c) and (e) only
- (4) (a), (c) and (d) only

Answer (2)

178. If DNA contained sulfur instead of phosphorus and proteins contained phosphorus instead of sulfur, what would have been the outcome of Hershey and Chase experiment?

- (1) Radioactive phosphorus in bacterial cells
- (2) No radioactive sulfur in bacterial cells
- (3) Both radioactive sulfur and phosphorus in bacterial cells
- (4) Radioactive sulfur in bacterial cells

Answer (4)

179. Select the incorrect statements with respect to Cyclostomes .

- (a) They lack scales and paired fins.
- (b) They have circular mouth with jaws.
- (c) They bear 6-15 pairs of gills.
- (d) They migrate to deep sea for spawning.

Choose the most appropriate answer from the options given below :

- (1) (a) and (d) only (2) (a) and (b) only
- (3) (b) and (c) only (4) (b) and (d) only

Answer (4)

180. A unique vascular connection between the digestive tract and liver is called

- (1) Hepato-cystic system
- (2) Hepato-pancreatic system
- (3) Hepatic portal system
- (4) Renal portal system

Answer (3)

181. Milk of transgenic 'Cow Rosie' was nutritionally more balanced product for human babies than natural cow milk because it contained :

- (1) Human enzyme Adenosine Deaminase (ADA)
- (2) Human protein α -1-antitrypsin
- (3) Human alpha-lactalbumin
- (4) Human insulin-like growth factor

Answer (3)

182. Gout is a type of disorder which leads to :

- (1) Weakening of bones due to low calcium level
- (2) Inflammation of joints due to accumulation of uric acid crystals
- (3) Weakening of bones due to decreased bone mass
- (4) Inflammation of joints due to cartilage degeneration

Answer (2)

183. Which of the following methods is not commonly used for introducing foreign DNA into the plant cell?

- (1) Bacteriophages
- (2) Agrobacterium mediated transformation
- (3) Gene gun
- (4) 'Disarmed pathogen' vectors

Answer (1)

184. Given below are two statements :

Statement I :

Amino acids have a property of ionizable nature of —NH_2 and —COOH groups, hence have different structures at different pH.

Statement II :

Amino acids can exist as Zwitterionic form at acidic and basic pH.

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

- (1) Statement I is incorrect but Statement II is correct
- (2) Both Statement I and Statement II are correct
- (3) Both Statement I and Statement II are incorrect
- (4) Statement I is correct but Statement II is incorrect

Answer (2)

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

Assertion (A) :

Spirulina is a microbe that can be used for reducing environmental pollution.

Reason (R) :

Spirulina is a rich source of protein, carbohydrates, fats, minerals and vitamins.

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

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

Answer (3)

186. With respect to metaphase, which of the following statements is incorrect?

- (1) Chromosomes lie at the equator of the cell
- (2) Complete disintegration of nuclear envelope takes place
- (3) Chromosomes are highly condensed
- (4) Metaphase chromosomes are made up of four sister chromatids held together by centromere

Answer (4)

187. Against the codon 5' UAC 3', what would be the sequence of anticodon on tRNA?

- (1) 5' GUA 3' (2) 5' AUG 3'
- (3) 5' ATG 3' (4) 5' GTA 3'

Answer (1)

188. Arrange the following formed elements in the decreasing order of their abundance in blood in humans :

- (a) Platelets (b) Neutrophils
- (c) Erythrocytes. (d) Eosinophils
- (e) Monocytes

Choose the most appropriate answer from the options given below :

- (1) (a), (c), (b), (d), (e)
- (2) (c), (a), (b), (e), (d)
- (3) (c), (b), (a), (e), (d)
- (4) (d), (e), (b), (a), (c)

Answer (2)

189. Which of the following are true about the taxonomical aid 'key'?

- (a) Keys are based on the similarities and dissimilarities.
- (b) Key is analytical in nature.
- (c) Keys are based on the contrasting characters in pair called Couplet.
- (d) Same key can be used for all taxonomic categories.
- (e) Each statement in the key is called Lead. Choose the most appropriate answer from the options given below :
- (1) (a), (c), (d) and (e) only
- (2) (a), (b) and (c) only
- (3) (b), (c) and (d) only
- (4) (a), (b), (c) and (e) only

Answer (4)

190. A normal girl, whose mother is haemophilic marries a male with no ancestral history of haemophilia. What will be the possible phenotypes of the offsprings?

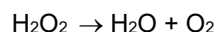
- (a) Haemophilic son and haemophilic daughter.
- (b) Haemophilic son and carrier daughter.
- (c) Normal daughter and normal son.
- (d) Normal son and haemophilic daughter.

Choose the most appropriate answer from the options given below :

- (1) (b) and (d) only
- (2) (a) and (b) only
- (3) (b) and (c) only
- (4) (a) and (d) only

Answer (3)

191. In the enzyme which catalyses the breakdown of:



the prosthetic group is:

- (1) Niacin
- (2) Nicotinamide adenine dinucleotide
- (3) Haem
- (4) Zinc

Answer (3)

192. Select the incorrect statement with respect to inbreeding of animals.

- (1) It exposes harmful recessive genes that are eliminated by selection.

- (2) It is used for evolving pure lines in cattle.
- (3) It helps in accumulation of superior genes and elimination of less desirable genes.
- (4) It decreases homozygosity.

Answer (4)

193. IUDs are small objects made up of plastic or copper that are inserted in the uterine cavity. Which of the following statements are correct about IUDs?

- (a) IUDs decrease phagocytosis of sperm within the uterus.
- (b) The released copper ions suppress the sperm motility.
- (c) IUDs do not make the cervix hostile to the sperm.
- (d) IUDs suppress the fertilization capacity of sperm.
- (e) The IUDs require surgical intervention for their insertion in the uterine cavity.

Choose the most appropriate answer from the options given below:

- (1) (d) only
- (2) (a), (d) and (e) only
- (3) (b) and (c) only
- (4) (b) and (d) only

Answer (4)

194. Select the correct statement regarding mutation theory of evolution.

- (1) Large differences due to mutations arise gradually in a population
- (2) This theory was proposed by Alfred Wallace
- (3) Variations are small directional changes
- (4) Single step large mutation is a cause of speciation

Answer (4)

195. Excretion in cockroach is performed by all, EXCEPT:

- (1) Hepatic caeca
- (2) Urecose glands
- (3) Malpighian tubules
- (4) Fat body

Answer (1)

196. Select the **correct** statements.

- (a) Angiotensin II activates the cortex of adrenal gland to release aldosterone.
- (b) Aldosterone leads to increase in blood pressure.
- (c) ANF acts as a check on renin-angiotensin mechanism.
- (d) ADH causes vasodilation.

- (e) Vasopressin is released from adenohypophysis.

Choose the **most appropriate** answer from the options given below:

- (1) (a), (b) and (c) only
- (2) (a), (b) and (e) only
- (3) (c), (d) and (e) only
- (4) (b), (c) and (d) only

Answer (1)

197. If A and C make 30% and 20% of DNA, respectively, what will be the percentage composition of T. and G ?

- (1) T : 20%, G : 20%
- (2) T : 20%, G : 30%
- (3) T : 30%, G : 20%
- (4) T : 30%, G : 30%

Answer (3)

198. Refer to the following statements for agarose-gel electrophoresis :

- (a) Agarose is a natural polymer obtained from sea-weed.
- (b) The separation of DNA molecules in agarose-gel electrophoresis depends on the size of DNA.
- (c) The DNA migrates from negatively-charged electrode to the positively-charged electrode
- (d) The DNA migrates from positively-charged electrode to the negatively-charged electrode.

Choose the **most appropriate** answer from the options given below

- (1) (b), (c) and (d) only
- (2) (a) and (b) only
- (3) (a), (b) and (c) only
- (4) (a), (b) and (d) only

Answer (3)

199. Match **List - I** with **List - II** :

- | List – I | List – II |
|------------------------------|---------------------------|
| (a) Multipolar neuron | (i) Somatic neural system |
| (b) Bipolar neuron | (ii) Cerebral cortex |
| (c) Myelinated nerve fibre | (iii) Retina of Eye |
| (d) Unmyelinated nerve fibre | (iv) Spinal nerves |

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

(1) (a) - (ii), (b) - (iii), (c) - (iv), (d) - (i)

(2) (a) - (iii), (b) - (i), (c) - (iv), (d) - (ii)

(3) (a) - (ii), (b) - (iv), (c) - (iii), (d) - (i)

(4) (a) - (ii), (b) - (iii), (c) - (i), (d) - (iv)

Answer (1)

200. Match List - I with List - II :

List - I

(a) Cellular barrier

(b) Cytokine barrier

List - II

(i) Interferons

(ii) Mucus

(c) Physical barrier (iii) Neutrophils

(d) Physiological barrier (iv) HCl in gastric juice

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

(1) (a) - (iii), (b) - (i), (c) - (ii), (d) - (iv)

(2) (a) - (ii), (b) - (iii), (c) - (iv), (d) - (i)

(3) (a) - (ii), (b) - (iii), (c) - (i), (d) - (iv)

(4) (a) - (iii), (b) - (iv), (c) - (ii), (d) - (i)

Answer (1)

