## ZOOLOGY

110. In Vorticella conjugation, the number of individuals formed in the 3rd of post conjugation fission is
(a) 8 (b) 7 (c) 4 (d) 6

111. Herbivorous insect with piercing and sucking type of mouth parts
(a) Cimex (b) Pediculus (c) Kerrica lacca (d) Bombyx mori

112. The spermatophores received during copulation are stored in this part in Pheretima
(a) Diverticulum of spermatheca (b) ampulla of spermatheca
(c) Septal pouches (d) Prostate glands

113. Choose correct combination
(A) Calcarea – Trichimella larva (B) Scyphozoa – Ephyra larva
(C) Turbellaria – Mullers larva (D) Siphonopoda – Trochophore larva
The correct combinations is
(a) A & D (b) B & C (c) B & D (d) A & C

114. Haploid motile stages of plasmodium that occur in its definite host are
(a) Male gametes, Ookinete (b) Sporozoites, Oocyst
(c) Male gamete, Sporozoite (d) Ookinete, Gametocyte

115. The response to external stimuli is quicker and more precise in this symmetry
(a) Radial (b) Biradial (c) Spherical (d) Bilateral

116. Match the following:

| | |
|---|---|
| (A) Acidophils | (I) Inflammation |
| (B) Basophils | (II) Blood clotting |
| (C) Neutrophils | (III) Antibodies |
| (D) Plasma cells | (IV) Eosinophilia |
| (E) Thromobocytes | (V) Phagocytes |

| | A | B | C | D | E | | A | B | C | D | E |
|---|---|---|---|---|---|---|---|---|---|---|---|
| (a) | IV | IV | II | III | | (b) | IV | III | II | I | V |
| (c) | IV | I | V | III | II | (d) | IV | V | III | II | I |

117. Blood from the septal nephridia of Pheretima is collected by
(a) Septo nephridial blood vessel (b) Commissural blood vessel
(c) Ventro tegumentary blood vessel (d) Sub neural blood vessel

118. Scolopidia are the units of
(a) Ommatidia (b) Chemoreceptors
(c) Mechanoreceptors (d) Thermoreceptors

119. In the development of Taenia solium micromeres form
(a) Embryophore (b) Shell layer
(c) Outer embryonic membrane (d) Morula

120. One horned Rhinoceros is protected at
(a) Kanha – National park – Madhya Pradesh
(b) Periyar – National park – Kerala
(c) Khaziranga – National park – Assam
(d) Nandadevi – National park – Uttarkhand

121. Sibling species are
(a) Morphologically similar and capable of interbreeding
(b) Geographically isolated but capable of interbreeding
(c) Reproductively isolated and morphologically similar
(d) Morphologically alike but not reproductively isolated

122. Assertion (A): In Pheretima, rapid conduction of impulses occur through out the whole length of the body.
Reason (R): Nervous system of pheretima has four giant axons along the ventral side of nerve cord.
(a) A and R are true and R is the correct explanation of A
(b) A and R are true and R is not the correct explanation of A
(c) A is true, R is false (d) A is false, R is true

123. In cockroach, flexibility of the arthrodial membrane is due to absence of
(a) Sclerotised chitinous layer (b) Chitinous cuticular layer
(c) Non-Chitinous layer (d) Cement layer

124. The bacteria responsible for the conversion of nitrites into nitrates is
(a) Pseudomonas (b) Closteridium (c) Nitrobacter (d) Nitrosomonas

125. Choose the correct combinations

| Animal | Character | Group |
|---|---|---|
| (A) Echinocardium | Aristotle's lantern | Echinoidea |
| (B) Pecten | Radula | Lamellibranchiata |
| (C) Aphrodite | Parapodia | Polychaeta |
| (D) Limulus | Book gills | Xiphosura |

(a) All are correct (b) All except B (c) All except C (d) C, D only

126. The site for ATpase activity in a cilium are
(a) Myosin heads (b) Dynein arms (c) Microtubules (d) Central Sheath

127. The character of annelids with fixed number of segments have
(a) Botryoidal tissue (b) Unisexual animals
(c) Trochophore larva (d) Gonoducts absent

128. Which of the following is related to secondary amoebiasis
(a) Amoebic dysentery (b) Amoebic hepatitis (c) Peritonitis (d) Appendicitis

129. Photochemical smog pollution does not contain
(a) Nitrogen dioxide (b) Ozone (c) Carbon dioxide (d) PAN

130. Assertion (A): Heart sound 'lubb' is caused during ventricular systole of cardiac cycle
Reason (R): Closure of Artrio ventricular valves occur, when ventricular pressure falls below the atrial pressure
(a) A and R are true and R is the correct explanation of A
(b) A and R are true and R is not the correct explanation of A
(c) A is true, R is false (d) A is false, R is true

131. The pathogen for chronic respiratory desease in poultry birds is
(a) Paramyxo virus (b) Oidium albicans
(c) Pasteurella avicida (d) Mycoplasma gallisepticum

132. During propagation of nerve impulse both $Na^+$ activation and inactivation gates are opened in
(a) Depolarising phase (b) Repolarising phase
(c) Hyperpolarising phase (d) Resting phase

133. The substance in primary urine which is not reabsorbed in any part of nephron
(a) Urea (b) Creatinine (c) Glucose (d) Uric acid

134. Arrange the following events that occur after copulation in sequence
(A) Delamination (B) Amphimixis (C) Compaction (D) Implantation
(E) Capacitation (F) Involution
(a) B, E, C, D, A, F (b) E, B, A, D, C, F (c) E, B, C, D, A, F (d) E, B, C, F, A, D

135. Match the following:
(A) Odontoid process (I) Dentary
(B) Mastoid process (II) Axis
(C) Coronoid process (III) Scapula
(D) Acromion process (IV) Periotic

| | A | B | C | D | | A | B | C | D |
|---|---|---|---|---|---|---|---|---|---|
| (a) | III | II | I | IV | (b) | IV | III | II | I |
| (c) | II | I | III | IV | (d) | II | IV | I | III |

136. Autosomal recessive haemophilia is due to deficiency
(a) Anti haemoglobin globin (b) Thrombokinase
(c) Plasma thromboplastin antecedent (d) Fibrinogen

137. Read the following
(A) Hexagonal vertebrals (B) Dorsal scales are keeled
(C) Arrow mark on head (D) Cuneate plate
(E) Single row of sub caudals
Identify the characters of Echis
(a) ACE (b) BCE (c) DCE (d) ABC

138. The excretory organs in Assymmetron
(a) Solenocytes (b) Podocytes (c) Flame cells (d) Kidney

139. Which of the following has three – lobed diphycercal tail and is considered as living fossil
(a) Protopterus (b) Climatius (c) Hippocampus (d) Latimeria

140. A population of 100 moths show genotypic frequencies of wing color AA = 0.16, aa = 0.36 and Aa = 0.48 what is the allelic frequency of alleles A and a respectively
(a) 0.4 and 0.6 (b) 0.6 and 0.4 (c) 0.3 and 0.7 (d) 0.7 and 0.3

141. In striated muscles T-tubules are present at A-I junctions in
(a) Reptiles (b) Aves (c) Amphibians (d) Mammals

142. Following are the parts of male reproductive system in Rabbit
(A) Seminal vesicle (B) Vas efferentia (C) Rete Testis (D) Epididymis
(E) Vas deferens (F) Seminiferous tubules
Arrange them in sequence based on movement of sperms
(a) F – C – B – E – D – A (b) F – C – B – D – E – A
(c) F – C – A – E – D – B (d) F – C – E – D – A – B

143. Study the following

| Harmone | Secreted by | Function |
|---|---|---|
| (A) Somatostatin | Hypothalamus | Inhibits secretion of insulin and glucagon |
| (B) Melatonin | Pineal gland | Regulate annual breeding cycles |
| (C) Cholecystokinin | Gall bladder | Secretion of pancreatic juice |
| (D) Calcitonin | Parathyroid | Inhibits bone resorption |

In the above the correct are
(a) A and D only (b) A and C only (c) B, D only (d) B only

144. If the heart valves of pig are transplanted to man, it can be classified under
(a) Autograft (b) Isograft (c) Xenograft (d) Allograft

145. Sickle cell haemoglobin is formed due to replacement of
(a) Glutamic acid by valine (b) Glutamic acid by lysine
(c) Valine by glutamic acid (d) Lysine by glutamic acid

146. Oxygen – haemoglobin dissociation curve shifts to the right under the condition
(a) Low PH(b) Low temperature (c) High PH (d) High $PO_2$

147. Malignant tumours of epithelial cells
(a) Sarcoma (b) Leukamia (c) Carcinoma (d) Lymphoma

148. The natural selective force that brings phenotypic stability for long period is
(a) Stabilising selection (b) Directional selection
(c) Disruptive selection (d) Natural selection

149. Read the following
(A) skin (B) Phagocytes (C) T cells
(D) Fever (E) NK cell (F) Saliva
Which of the above are second line defence
(a) B, D, E (b) A, B, F (c) B, C, F (d) A, C, F

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