



## SURYA TRB COACHING CENTRE, MADURAI

(a place... You try to achieve)

Cell: 81246 02428, 94435 64713, 75983 02428

UG TRB EXAM 2024 - ZOOLOGY



### UGTRB FINAL EXAM QUESTION & TENTATIVE KEY (04.02.2024)

31. An example of **Ostracoderm**  
**B) Cephalaspis**
32. How many pairs of gills slits present *petromyzon*?  
**D) 7 Pairs**
33. **Mermaid's purses** are seen in \_\_\_\_\_  
**A) Scyllium**
34. **Foam nests** are produced by  
**B) Rhacophorus schlegelli**
35. The eggs are carried in **vocal sacs** by \_\_\_\_\_  
**C) Rhinoderma**
36. **Heart of Calotes** is divided into  
**D) Four**
37. The main substance of the lungs of *Columba livia* is formed by the network of  
**C) Air sacs**
38. The poison of *Naja naja* is  
**C) Neurotoxin**
39. **Membranes labyrinth** is seen in rabbit's which part  
**C) Inner Ear**
40. The example for the **egg laying mammals**  
**C) Ornithorhynchus**

41. The human infective stage of *Plasmodium vivax* is which one  
D) Sporozoite
42. The body cavity found in *Ascaris* \_\_\_\_\_  
D) Pseudocoel
43. Larva of *Unio* is \_\_\_\_\_  
B) Glochidium
44. **Bitting and chewing type of mouth parts** is found in  
A) Cockroach
45. **Intermediate host** of malarial parasite is \_\_\_\_\_  
A) Man
46. The excretory organ of *Peripatus* is \_\_\_\_\_  
C) Nephridia
47. The brown pigments of \_\_\_\_\_ molluscan animal is used for **ink preparation**.  
B) Cuttle Fish
48. Which is the **chemoreceptor organ of Pila?**  
A) Osphradium
49. *Paramecium* is covered by a thin elastic membrane called \_\_\_\_\_  
D) Pellicle
50. In earthworm, **a pair of genital papillae** are present in which segments?  
A) Between XVII and XIX segments
51. The soft membrane surrounding the mouth is **starfish** is called  
B) Peristome
52. The **nine small vesicle** in the water vascular system in *Echinoderm* is called  
A) Tiedemann's bodies
53. In *Leucosolenia* most common method of **Asexual reproduction** is \_\_\_\_\_  
D) Budding

54. *Fasciola hepatica* belongs to the class \_\_\_\_\_  
C) Trematoda
55. *Enterobius vermicularis* commonly known as \_\_\_\_\_  
B) Pin worm
56. Which of the following is **not** *Amniota*?  
A) Amphibia
57. **Post anal tail** is present in  
C) *Branchiostoma*
58. **Limbless amphibians**  
A) *Apoda*
59. Teeth occur at the **floor of frogs buccal cavity** is \_\_\_\_\_  
A) Vomerine
60. Sexually mature but morphologically immature larval stage of **salamander**  
B) Axolotl
61. In Cell cycle, **DNA synthesis** is takes place during which phase?  
C) S phase
62. **Tumour** made principally of connective tissue cells of **mesodermal origin** is known as what?  
D) Sarcoma
63. The **early embryonic stem cells** are \_\_\_\_\_  
A) Pluripotent
64. In Spermatozoa, **Centrioles give rise** to which part?  
C) Tail
65. **Schiff's Reagent** is used to determine  
D) Aldehyde group

66. Name two transmembrane glycoproteins present in **Rough Endoplasmic Reticulum**.  
B) Ribophorin I and Ribophorin II
67. The transport protein found in outer membrane of **Mitochondria** is known as what?  
C) Porin
68. Ion exchange between **two adjacent cell done** through \_\_\_\_\_.  
D) Gap junctions
69. **Sarcoplasmic reticulum** is found in which muscle?  
C) Striated muscle
70. Which one of the following is the specialized modification of plasma membrane?  
B) Desmosome
71. Which electron dense substance is used for **Negative staining**?  
B) Phosphotungstic acid
72. In SAT chromosomes, **SAT** stands for  
B) Sine Acid Thymonucleinico
73. Pairing of homologous chromosomes and formation of **synaptonemal complex** occur during \_\_\_\_\_ stage of **Meiosis**.  
C) Zygonema
74. **Astral Mitosis** occurs in  
A) Animals and Higher plants
75. **Phenylketonuria** is characterized by the accumulation of \_\_\_\_\_ in the blood?  
B) Phenylalanine
76. The **inheritance of eye colour in human beings** follow what **law of Mendel**?  
A) Law of segregation

77. In **Beta galactosidase synthesis** of RNA polymerase act as an  
B) Promotor
78. **Effect of UV radiation** on DNA is  
C) Thymine dimer
79. The **female** with 44 autosome and only one X chromosome exhibit \_\_\_\_\_  
syndrome.  
C) Turner's syndrome
80. The failure of separation of homologous chromosomes during cell division is known as  
D) Non - disjunction
81. How many grams of **Nitrogens** are excreted per day **through urine**?  
C) 10 gms
82. \_\_\_\_\_ is a short double standard DNA that has one blunt end and one cohesive end.  
C) Adaptor
83. **Somatomedin – A** is used to fix \_\_\_\_\_ element in the cartilages.  
B) Calcium
84. Connective tissue layer that surrounds the cortex in the **ovary** is known as \_\_\_\_\_  
A) Tunica albuginea
85. Which one of the following changes does **not** occur **during cleavage**?  
A) Increase in the total volume of the embryo
86. The **fate map of the embryo** is prepared in which stage?  
C) Gastrula
87. The cartilaginous rod **columella auris** originates from \_\_\_\_\_  
A) Ectoderm

88. This **type of induction** causes the embryo cells to undergo self-transformation or differentiation.  
C) Endogenous Induction
89. **Insemination in human** is performed within \_\_\_\_\_ of egg collection during invitro fertilization.  
D) 3 – 12 Hours
90. Which one the following hormone converts the ovarian follicle into corpus luteum and stimulates the secretion of **progesterone**?  
A) Lutenizing hormone
91. Which statements **is false** in accordance with **hyperthyroidism**?  
C) Reduced iodine intake
92. Which of the following is **not** used in **microphagic feeding mechanism**?  
B) Tentacles
93. The components involved in **reflex action**?  
A) Reflex Arc
94. The period when no response can be evoked by a stimulus in a neuron is called as  
C) Refractory period
95. The **main pacemaker of the heart** is  
A) Sinu Auricular node
96. The muscle protein which is chemically similar to **haemoglobin** is  
C) Myoglobin
97. The metallic atoms present in the **haemocyanin** is  
C) Copper
98. Bone present in the middle are of the **reptiles**  
A) Columella auris

99. Insufficient secretion of **adrenal cortex** causes  
B) Addison's syndrome
100. Which type of gene therapy is used for **liver transplantation**?  
D) Ex-vivo Gene therapy
101. Which one the following is a **VAM biofertilizer**?  
C) Nostoc
102. **Maltose** is composed of  
C) Two alpha – D glucose
103. From which bacteria the **Tag polymerase enzyme** is obtained?  
B) Thermus aquaticus
104. Amino acids can be reduced to the amino alcohols by \_\_\_\_\_  
B) Lithium aluminum hydride
105. **Small circular double standard extra chromosomal DNA** present in Bacteria is known as \_\_\_\_\_  
A) Plasmid
106. In **PCR**, primer annealing occurs at \_\_\_\_\_ temperature.  
A) 72<sup>0</sup> C
107. **Entrapping enzymes** in a semipermeable membrane is called as \_\_\_\_\_  
C) Enzyme entrapment
108. The use of living microbes to degrade environmental pollutants is known as \_\_\_\_\_  
B) Bioremediation
109. **HMP shunt** is also called as \_\_\_\_\_  
A) Pentose phosphate pathway
110. **Protease** is used to \_\_\_\_\_  
A) Improve texture and volume of the products

111. The increased transcriptional activity of chromosomes during **oogenesis** is called as \_\_\_\_\_  
B) Transcriptional amplification
112. **Epibolic morphogenetic movement** occurs only in which of the following?  
D) Ectodermal blastomeres
113. Which part of the developing embryo in chick form the **allantois**?  
B) Endoderm of hind gut
114. The process of lactation in milk ejection process is a \_\_\_\_\_ phenomenon.  
A) Neuro endocrine reflex
115. In **Grasshopper** the head of many sperms associated to form  
A) Sperm Boat
116. State **the vital stain** from the option given below?  
B) Eosin
117. The development of vegetal pole structure needs an environment where \_\_\_\_\_  
B) Oxidative phosphorylation occurs
118. **Soil humus** is composed of  
A) Carbon and Nitrogen
119. **Grunion Fish** is an example of  
A) Circadian Rhythm
120. The relationship between **Hermit crab and sea anemone** is  
C) Mutualism
121. The excess of salts in body fluids of **marine fishes** are eliminated by  
D) Chloride secretory cells
122. Which of the following is the **correct sequence** of vertical summer stratification of a **lake**?  
B) Epilimnion → Thermocline → Hypolimnion



123. The **marine animals** converts the  $\text{CO}_2$  into what?  
A) Calcium carbonate
124. The most important factor controlling the **primary productivity in ocean** is  
C) Depth of the ocean
125. When the ecosystem contains lesser number of producers and more number of consumers, that **pyramid** is referred as  
C) Inverted pyramid
126. The biomes which are characterized by the **absence of trees** are known to be  
C) Tundra Biomes
127. The ecosystem, which have intermediate rainfall between that of **desert and forest** is referred as  
B) Grassland ecosystem
128. **Genetic drift concept** was proposed by whom?  
C) Sewall Wright
129. Which one of the following is **not an example of Batesian mimicry**?  
A) Krait and Lycodon
130. Which among the following is **not an example of convergent evolution**?  
D) Horse and Antelope
131. Which is not required for **Polymerase Chain Reaction (PCR)**?  
B) Ligase
132. If DNA damage is **not repaired**, then it will lead to \_\_\_\_\_  
D) Mutation

133. **Transposons** are otherwise called as \_\_\_\_\_  
B) Jumping genes
134. **Erythroblastosis foetalis** in Rh<sup>+</sup> babies is due to \_\_\_\_\_  
B) Rh<sup>+</sup> Father and Rh<sup>-</sup> Mother
135. The hormone plays an important role in **heat production** for a prolonged duration  
B) Thyroxine
136. Example for the **amine neurotransmitter**  
C) Dopamine
137. **Low potassium ion concentration** in the body fluids sometimes leads to  
B) Muscle paralysis
138. The **serious eye disease**  
B) Glaucoma
139. Which one **regulates the dilution of urine?**  
A) ADH
140. **Thyrocalcitonin** is a  
B) Proteinous hormones
141. Which of the following is a **post zygotic type of reproductive isolation?**  
C) Hybrid breakdown isolation
142. Which among the following is **not a main factor influencing speciation?**  
D) Adaptation

143. \_\_\_\_\_ are pest of domestic animals such as **cattle, sheep and goats**.  
A) Horse flies
144. Which **insecticidal properties** were first described by **CIBA**?  
C) Dichlorvos
145. The number of **wax glands found in worker honeybees** is  
A) Four sets
146. The **most popular variety of silk in India** is  
B) Mulberry silk
147. The **main protein present in silk filament**  
B) Fibroin
148. Which one of the following is **Pulse Beetle**?  
C) *Callosobruchus maculatus*
149. Which part of the body of **Queen Honeybee** is **modified as a sting**?  
D) Ovi Positor
150. The '**White ear**' disease in Rice is caused by the **major insect pest**.  
A) *Scirphophaga incertulas*
151. The **bunchy top virus** is transmitted through an insect vector called **Banana Aphid** \_\_\_\_\_.  
A) *Pentalonia nigronervosa*
152. **Highly toxic insecticides** are identified by the \_\_\_\_\_ colour on the label of test animals.  
B) Bright yellow

153. **Vent sexing** is a method of **sexing in poultry** followed in  
B) Japan
154. **Addition of water and skim milk powder whole milk** refers to  
C) Toned milk
155. In **prawns**, the fertilized eggs hatch into a **larvae** called  
A) Naplius
156. The **hen's egg** contain very small amount of  
B) Carbohydrates
157. In **poultry**, the **tick fever** is caused by the tick known as  
B) *Spirochaetosis*
158. **Best nucleus** is formed by the shell of mollusks with heavy deposition of  
C) Calcarious substances
159. Which of the following female **fish guards the eggs by keeping them in the mouth?**  
C) *Tilapia nilotia*
160. Which one the following **animal exhibits a dual life?** the adult live in the **river**, and larvae and juveniles live in the **estuaries**  
C) *Salmo trutta fario*
161. The form of **immunoglobulin** produced by the genetically different individuals is called  
B) Idio type
162. During the blood transfusion the **isohaemoagglutins** of the recipient react with the donor's \_\_\_\_\_  
A) RBC

163. **Cultivation of bacteria in a liquid medium** is called \_\_\_\_ culture.  
B) Broth
164. **Diphtheria is a disease** caused by  
A) *Corynebacterium sp.*
165. \_\_\_\_\_ is a **viral** disease affecting **parotid glands** of children.  
C) Mumps
166. In leather processing \_\_\_\_\_ are used to remove **fat and flesh from the skin**  
D) Bacteria
167. For **mass sterilization** of prepacked items such as syringes \_\_\_\_\_ radiation is used  
D) Gamma rays
168. **Epstein - barr virus** is a  
B) Herpes virus
169. Which of the following virus is used as **biopesticide** ?  
D) *Baculo virus*
170. Based on the **five kingdom concept**, **salmonella** belongs to kingdom \_\_\_\_\_  
A) Monera
171. The **clarified butter** is  
D) Ghee
172. To **remove the toxic pollutants** the harvested biomass **spiruline** is washed with  
C) Alkaline water

173. **Female chick can be identified by seeing cloaca** is called as  
C) Vent sexing
174. **Paneer** is a \_\_\_\_\_ soft cheese  
D) Coagulated
175. **Seed for oyster culture** is  
C) Spat
176. The most common disease caused by a **filter passing virus** is  
B) Ranikhet disease
177. Which of the following is **not** involved in **antigen presentation**?  
D) Nature killer cells
178. In **birds** the B cell production and maturation take place in  
D) Bursa of Fabricious
179. In **ELISA** the enzyme specific to antigen is covalently linked to  
C) Anitibody
180. The large granulocytes produce cytotoxic reactions against malignant cells without surface marker for T Cell are  
B) Nature killer cells.

\*\*\*\*\* TENTATIVE ANSWER KEY\*\*\*\*\*