

# BOARD OF INTERMEDIATE EDUCATION, KARACHI

## H.S.C. Annual Examinations 2021

### (MODEL QUESTION PAPER)

#### ZOOLOGY PAPER-I (Science Pre-Medical Group)

Total Duration: 01 Hour 30 minutes

Max Marks: 40

Time Allowed: 30 Minutes

SECTION "A" (M.C.Qs)

20

NOTE: Attempt all multiple-choice questions. All carry equal marks.

- i. Life emerges on the level of**  
\* Atoms                      \* Molecules                      \* Cell                      \* Element
- ii. Polypeptide chain having 3-Dimensional sequence of amino acid is called \_\_\_ structure**  
\* Tertiary                      \* secondary                      \* Primary                      \* Quaternary
- iii. Maltose, Sucrose & Lactose are Examples of**  
\* Monosaccharide                      \* Di Saccharide                      \* Tri saccharide                      \* Polysaccharides
- iv. In holoenzyme the non-proteinous part is called.**  
\* Simple enzyme                      \* Holo factor                      \* Prosthetic group                      \* None
- v. The cells which form epidermis of sponge called**  
\* Pinacocytes                      \* Choanocytes                      \* Amoebocytes                      \* Porocytes.
- vi. Gastrozooids helps in**  
\* Nutrition                      \* Tactile                      \* Reproduction                      \* Floating.
- vii. The free-swimming larva of polychaeta is**  
\* Chocophore                      \* Trochophore                      \* Glochidium                      \* Amphiblastula
- viii. The members of echinoderms live in**  
\* Marine environment                      \* Fresh water                      \* Rivers                      \* Estuaries
- ix. Structure of Birds, which prevent the loss of heat are**  
\* Beak                      \* Legs                      \* Lungs                      \* Feathers
- x. The rythemic movement of GIT is called**  
\* Peristalsis                      \* Glycolysis                      \* Cyclosis                      \* Hydrolysis.
- xi. Pancreas secrets three types of**  
\* Enzyme                      \* Hormones                      \* Mucus                      \* Chyme
- xii. Bile juice act on fat for it**  
\* Electrification                      \* Neutralization                      \* Emulsification                      \* Digestion
- xiii. Glucose in liver is store in the form of**  
\* Starch                      \* Cellulose                      \* Lactose                      \* Glycogen
- xiv. Lungs enclosed in**  
\* Thoracic Cavity                      \* Pericardial Cavity                      \* Pleural Sacs                      \* Coelom
- xv. During expiration diaphragm assumed**  
\* Flattened Shaped                      \* Circular shape                      \* Dome Shaped                      \* Oval Shaped
- xvi. In earth worm moisture is absorbed by mucous secreted from the**  
\* Skin                      \* Goblet Gland                      \* Sweat Gland                      \* Sebaceous Gland
- xvii. All arteries carry pure blood away from heart except**  
\* Pulmonary Pulmonary                      \* Subclavian                      \* Carotid                      \* Systemic.
- xviii. Pacemaker is a common name of**  
\* atrio-ventricular node                      \* Sino-atrial Node                      \* Lymph Node                      \* Internodes
- xix. Cell mediated immunity is contributed by the second family of lymphocytes called**  
\*  $\beta$  cells                      \* T cells                      \* monocytes                      \* Basophils
- xx. The hormones of the immune system called**  
\* Hormonal immunity                      \* Cell mediated immunity                      \* Cytokines                      \* Phagocytes

**Time: 01 hour**

**SECTION B**

**20**

**NOTE: Attempt any THREE questions from Reasoning questions and THREE from Non-reasoning questions. All questions carry equal marks.**

**12**

**(a) Reasoning Questions :**

- i. Why fats are solid and oils are liquid at room temperature? **OR** Why monosaccharides are sweet whereas polysaccharides are not?
- ii. Why are amphibians considered as unsuccessful land vertebrates? **OR** Why reptiles are considered as successful land vertebrates?
- iii. Why are sponges considered as Parazoa? **OR** Why do we feel burning sensation of the tentacles of Jelly fish when it touches our skin?
- iv. Why are butterfly placed in class insecta whereas scorpions are placed in class arachnida? **OR** Why honeybees and termites are regarded as social insects.
- v. Why in hydra the digestion is termed as mixed digestion?
- vi. Why the fishes exhibit single circuit circulation? **OR** Why marsupials are born in immature state?

**(b) Non-Reasoning Questions:**

- i. Differentiate between cartilaginous and bony fishes. **OR** Describe briefly levels of biological organization.
- ii. Describe briefly factors affecting enzyme activity. (any two) **OR** Describe characteristics of class Sarcodina.
- iii. Define Metamorphosis. Differentiate between complete and incomplete Metamorphosis. **OR** Write note on Pearl formation.
- iv. Write parasitic adaptations of flat worms. **OR** Write the examples of each of the following classes: \*Hydrozoa \*Trematoda \*Bivalvia \*Polychaeta
- v. Write a short note on the functions of Liver. **OR** Differentiate between inspiration and expiration.
- vi. Differentiate between arteries, veins, and capillaries. **OR** Define Lymphatic system. Write its functions.

**SECTION C**

**(08)**

**DESCRIPTIVE QUESTIONS**

**NOTE: Attempt any ONE question. All questions carry equal marks. Attempt all parts of a question. Draw labelled diagram where necessary.**

**Q3.** (a) Describe salient features of Phylum Annelida **OR** Arthropoda **OR** Mollusca. Classify the given phylum with characteristic and examples of any three classes. (5)

(b) Describe the characteristics of class Aves **OR** Mammalia. Mention the names and examples of their sub-classes. (3)

**Q4.** (a) Define digestion. Describe the digestive system of man with its mechanism. (5)

(b) Draw labelled diagram of digestive system of man. (3)

**Q5.** (a) What is Cardiac cycle. Describe structure and function of human heart. (5)

(b) Draw labelled diagram of internal structure of human heart. (3)

**Q6.**(a) Define immunity. Describe innate immune system in detail. **OR** Define organic molecules. Describe types of carbohydrates with their function.

(b) Differentiate between DNA and RNA.