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SET A



**INDIAN SCHOOL MUSCAT
FIRST TERM EXAMINATION
BIOLOGY**

CLASS: XI
30.09.2018

Sub. Code: 044

Time Allotted: 3 Hrs
Max. Marks: 70

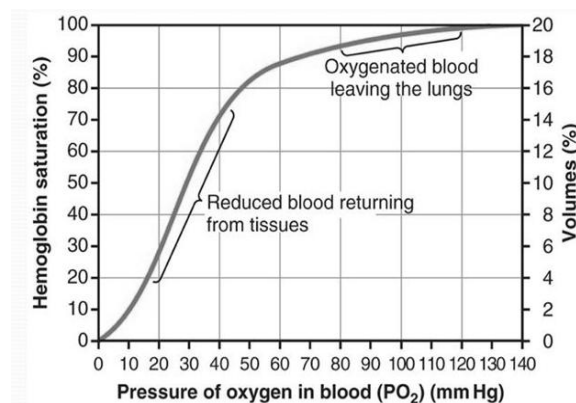
General Instructions:

- i) All questions are compulsory.
 - ii) The question paper consists of 5 questions of one mark each, 7 questions of two marks each, 12 questions of three marks each, 3 questions of five marks each.
 - iii) Internal Choice: There is no overall choice in the paper. However, there is an internal choice in 1 question of two marks weightage, 1 question of three marks weightage and all 3 questions of five marks weightage.
 - iv) Wherever necessary, the diagrams drawn should be neat and properly labelled.
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1. Name the enzyme of gastric juice released as proenzyme in the human alimentary canal. 1
 2. Name the first vertebra which articulates with the occipital condyles. 1
 3. Some of the muscle fibres are red in colour. Why? 1
 4. Mention the name of the hormone which inhibits the release of growth hormone from the Pituitary gland? 1
 5. The embryo of monocotyledonous seed consists of one large, shield shaped cotyledon. What is it known as? 1
 6. List two differences between Vital Capacity and Total Lung Capacity. 2
 7. Define Cardiac Output, give its relationship with Stroke Volume. 2
 8. Categorize nephrons into its two types and differentiate them with one valid point. 2
 9. Draw a well labelled diagram of a sarcomere. 2

OR

- i) Differentiate Bone and Cartilage on the basis of the matrix present in these connective tissues.
- ii) Each coxal bone is formed by the fusion of three bones. Two of them are Ilium and Ischium. Name the third bone and the cavity formed at the point of the fusion of the above three bones.

10. Enumerate the specific function of the Ear ossicles and the Eustachian tube. 2
11. Anjum a nine year old girl frequently suffered from cold, cough and fever, she had a nutritious diet and maintained a hygienic life. She was told by her doctor that one of her endocrine glands was underdeveloped and non functional which automatically degenerates in old individuals. 2
 i) Identify the gland and the hormone secreted by it.
 ii) Give one reason for her frequent illness.
12. Write the technical terms for: 2
 i) The sterile stamens
 ii) When stamens are attached to the petals
13. i) Why are intestinal proteases normally secreted in an inactive form? 3
 ii) What is the term given to the connective tissue that covers the hepatic lobules?
 iii) Goblet cells of mucosal epithelium secrete mucus. List its function.
14. Observe the graph showing oxygen haemoglobin dissociation curve: 3
 i) What is the nature (shape) of the curve?
 ii) Find out the pressure at which haemoglobin is 50% saturated with oxygen?
 iii) Binding of oxygen with haemoglobin is primarily related to partial pressure of O_2 . List the other three factors which can interfere with this binding.
 iv) O_2 gets bound to haemoglobin in the lung surface. Where will it get dissociated?



OR

- i) The left and the right cerebral hemispheres are connected by a tract of nerve fibres. Give the term for this structure.
- ii) Give two functions undertaken by the limbic system along with the hypothalamus.
- iii) What are the three layers of Cranial Meninges.

19. i) Vasopressin is called as anti-diuretic hormone(ADH). Give reason. 3
 ii) The 24hour diurnal rhythm of our body is controlled by a hormone secreted by a small endocrine gland. Name the hormone and the gland.
 iii) Give the names of specific hormone secreted by Leydig cells and Corpus luteum.
20. i) Name the disorder caused due to prolonged hyperglycemia ,which is associated with loss of glucose through urine and formation of ketone bodies. 3
 ii) Hypothyroidism during pregnancy causes some defects in growing babies. State any two of them.
 iii) Give the full form of CCK and GIP.
21. i) Differentiate between cymose and racemose inflorescence. 3
 ii) Define phyllotaxy. Give one example each of alternate and opposite phyllotaxy.
22. Explain any three types of aestivation. 3
23. i) Draw the structure of a monocotyledonous seed. 3
 ii) Name the two layers which form the seed coat in dicot.
24. i) Mango and coconut are ‘drupe’ type of fruits. How do they develop? Give one basic difference between the mesocarp of mango and the mesocarp of coconut. 3
 ii) Define parthenocarpic fruit.
25. Give a brief account on the disorders of digestive system. 5

OR

Explain the pathway of heart beat conduction.

26. i) What is glomerulonephritis and renal calculi? 5
 ii) State two points to support that counter current mechanism helps human kidneys to produce urine nearly four times concentrated than the initial filtrate formed.
 iii) Name the excretory products eliminated by sebaceous glands.

OR

Briefly explain the generation and conduction of nerve impulse.

27. i) According to the position of floral parts on the thalamus, flowers are placed under three types. Explain. 5
 ii) Write the floral formula of a actinomorphic, bisexual, hypogynous flower with five united sepals, five free petals, five free stamens and two united carpels with superior ovary.

OR

Briefly enumerate, the five types of placentation.

End of the Question Paper