Roll Number		

SET C

INDIAN SCHOOL MUSCAT
HALF YEARLY EXAMINATION
BIOLOGY

CLASS: XI | Sub. Code: 044 | Time Allotted: 3 Hrs

24.09.2019 | Max. Marks: 70

General Instructions:

*(i) There are a total of **27** questions and four sections in the question paper. **All** questions are compulsory.*
*(ii) Section **A** contains questions number **1** to **5**, very short-answer type questions of **1** mark each.*
*(iii) Section **B** contains questions number **6** to **12**, short-answer type I questions of **2** marks each.*
*(iv) Section **C** contains questions number **13** to **24**, short-answer type II questions of **3** marks each.*
*(v) Section **D** contains questions number **25** to **27**, long-answer type questions of **5** marks each.*
*(vi) There is no overall choice in the question paper, however, an internal choice is provided in two questions of **1** mark, two questions of **2** marks, four questions of **3** marks and all the three questions of **5** marks. In these questions, an examinee is to attempt any one of the two given alternatives.*
(vii) Wherever necessary, the diagram drawn should be neat and properly labeled.

SECTION - A

1. Why are proteases generally released in inactive form? 1

2. What is the role of melanocyte stimulating hormone? 1

3. Give two examples of extra-cellular fluids. 1

OR

Name the instrument used for measuring blood pressure.

4. Give the name of first vertebra. 1

5. Besides water, name any two contents of human sweat. 1

OR

Name the excretory product of (i) reptiles (ii) Prawns

SECTION - B

6. Which structure is formed from ruptured follicle in females? What is its role? 2

7. State the role of calcium ions and ATP in muscle contraction. 2

8. Provide the scientific terms for the following : 2

(i) The leaf without a petiole (stalk).

(ii) The flat and expanded portion of a leaf.

(iii) Orderly arrangement of leaves on the node.

(iv) Lateral appendages on either side of the leaf.

9. On what basis xylem is classified into proto and metaxylem. How endarch is different from exarch? 2

10. Mark the odd ones is each of the following— 2
(a) Renal pelvis, medullary pyramid, renal cortex, ureter.
(b) Afferent arteriole, Henle's loop, vasa recta, efferent arteriole.
(c) Glomerular filtration, antidiuretic hormone, hypertonic urine, collecting duct.
(d) Proximal convoluted tubule, distal convolated tubule, Henle's loop renal corpuscle.

OR

Name two metabolic disorders which can be diagnosed by analysis of urine.

11. How is respiration different from breathing? 2

12. Explain when and how the two sounds of heart are produced. 2

OR

Why is the SA node called pacemaker of the heart? Write its full form.

SECTION - C

13. Write the names of major parts of stomach. Name the small projections, found on the upper surface of tongue and what do they consist of? 3

14. Explain the role of diaphragm, coastal muscles in breathing. Mention the role of epiglottis. 3

OR

Describe how CO_2 transport occurs in human.

15. Explain the role of neural system in regulation of respiration is human. 3

16. What is cardiac cycle? How systole and diastole differ? 3

OR

Where are synaptic vesicles found in human body? Name their chemical contents. What is the function of these chemicals?

17. State the function of albumin, renin and fibrinogen in human body. 3

18. Draw a diagram of nephron and label any four parts in it. 3

OR

Explain the mechanism of urine concentration in human body.

19. How does Renin-Angiotensin mechanism regulate kidney function? 3

20. What makes the synovial joints freely movable? List any four types of synovial joints. 3

21. What is a synapse? How does the nerve impulse cross the chemical synapse? 3

22. 3

Hormone		Function
(a) Glucagon	:	_____
(b) Thymosin	:	_____
(c) Parathyroid hormone	:	_____

OR

Name any three types of hormones with one example each.

23. If you are provided with microscopic preparation of transverse section of a meristemic tissue and permanent tissue, how would you distinguish them? 3

24. Explain types of vascular bundles in plants with example. 3

SECTION - D

27. What is placentation? Mention the types of placentation seen in Pea, tomato, Dianthus and sunflower. Draw the diagram of any two types of placentation. 5

OR

i) Define aestivation. Which type of aestivation is found in China rose, Calotropis Gulmohar and Pea?

ii) Describe the parts of a seed.

26 What is meant by reflex action? Name the components of a reflex arc in correct sequence from receptor up to effector. Support your answer by a diagram. 5

OR

a) Give the names of any one glucocorticoid and one mineralocorticoid.

b) What are the two modes through which the hypothalamus causes the release of hormones by pituitary gland?

c) Mr. Akshay notices that his shoe size has progressively increased. He also observes that shape of his face has gradually changing with protruding lower jaw. What can be the cause for all changes? Name the disorder.

25. i) In which part of the digestive system the absorption of following substances take place ? 5

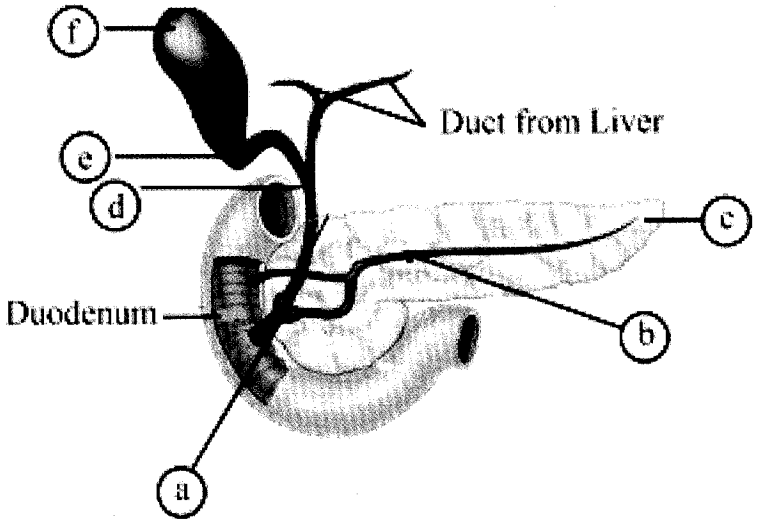
(a) Certain drugs

(b) Glucose, fructose and fatty acids

(c) Water, some minerals and drugs

(d) Simple sugar and alcohol

ii) In the following diagram of duct system of liver, gallbladder and pancreas, label a, b, c, d, e and f :



OR

Describe the different respiratory volumes and state what is meant by functional residual capacity.

End of the Question Paper