

**INDIAN SCHOOL SALALAH  
FINAL EXAMINATION (MARCH- 2019)**

**Class XI**

**BIOLOGY**

**Time-3hrs  
Marks-70**

**General Instructions :**

- (i) *There are 27 questions in all. All questions are compulsory.*  
 (ii) *This question paper has four sections : Section A, Section B, Section C, Section D.*  
 (iii) *Section A contains five questions of one mark each, Section B contains seven questions of two marks each, Section C contains twelve questions of three marks each, Section D contains three questions of five marks each.*  
 (iv) *There is no overall choice. However, an internal choice has been provided in one question of one mark, two questions of two marks and three questions of three marks and all the three questions of five marks weightage.*  
*You have to attempt only one of the choices in such questions.*

<b><u>SECTION A</u></b>		
1	Use the scientific term for the following: a) Presence of cambium in the bundle b) The shedding of skin in cockroach.  <b>OR</b> a) Xylem and phloem arranged in the same angle and plane b) The egg case in cockroach.	<b>1</b>
2	What are chromoplasts? How are they classified?	<b>1</b>
3	$2\text{H}_2\text{O} \text{ ----- } 2\text{H}^+ + \text{O}_2 + 4\text{e}^-.$ On the basis of the above equation answer the following: a) What is the above reaction called as? b) What is the significance of the electrons formed during the reaction?	<b>1</b>
4	Which hormonal deficiency is responsible for the following? a) Increase in blood calcium    b) Acromegaly	<b>1</b>
5	Comment on the type of leaf modification of the following: a) Acacia arabica                    b) Peas	<b>1</b>
<b><u>SECTION B</u></b>		
6	Give reason for the following: a) The life cycle of pteridophytes is called as haplo diplontic. b) Some primitive bacteria are called as chaemoautotrophs..	<b>2</b>

	<b>OR</b> Give a diagrammatic representation to show the diplontic life cycle in higher angiosperms.	
7	Differentiate: a) Dicot stem and Monocot stem. b) Elytra and Ctegmina in cockroach.	<b>2</b>
8	Mention the steps involved in the catalytic cycle of an enzyme action. What are the factors which can determine its rate of action.	<b>2</b>
9	Illustrate the Dark reaction in plants. Where does it occur?  <b>OR</b> What is facilitated diffusion? Explain how its brought about with neat figures:	<b>2</b>
10	How is oxygen and carbondioxide transported in human? Explain giving suitable equations.	<b>2</b>
11	When is a leaf said to be a simple and a compound leaf? What are the 2 types of compound leaves? Give examples.	<b>2</b>
12	Mention the salient features of DNA. State its role in living organisms.	<b>2</b>
	<b><u>SECTION C</u></b>	
13	Explain the male reproductive system of cockroach with a neat figure.	<b>3</b>
14	a) Why is meiosis called as reduction division? State its importance in living organisms. b) How does cytokinesis in plant cells differ from that in animal cells? c) The direction of movement in the phloem is said to be bidirectional- Why?  <b>OR</b> a) Certain acellular forms are not given any position in classification- Explain them giving examples. b) Identify plasmodium from Plasmodium:	<b>3</b>
15	a) Draw the section of a human eye and label its parts. b) Explain its role in the mechanism of vision.	<b>3</b>
16	Explain how the structure of a monocot seed is different from a dicot seed with neat figures.	<b>3</b>
	<b>OR</b> Give the floral diagram and formula of Family Solanaceae.	
17	Give a brief note on the following: a) Structure of cell membrane b) Types of lysosomes.	<b>3</b>

18	Explain the nitrogen cycle in nature. Add a note on the role of Sulphur and Phosphorous as micro nutrients in plants.	3
19	Explain the double circulation in human with a neat figure of a section of heart showing the direction of blood flow.  <b>OR</b> List out the various endocrine glands. Add a note on the secretions, functions and the disorders associated with any 2 endocrine glands:	3
20	Differentiate : a) Root hair and stem hair b) Aerenchyma and chlorenchyma c) Tetrarch and polyarch bundle.	3
21	a) Why is ABO blood grouping a case of multiple allelism? b) How is it also a case of codominance. Explain.	3
22	Comment on the following: a) Uremia      b) Renal calculi      c) Emphysema.	3
23	With neat figures explain briefly the process of impulse conduction through an axon.	3
24	Draw the T.S of a monocot root and label the following. Epidermis, cortex, pericycle, xylem, phloem and endodermis.	3
<b><u>SECTION D</u></b>		
25	What is called as the master gland? Explain giving a note to justify it as a master gland. <b>OR</b> What is ECG? What are the various waves identified? State their clinical importance with a suitable figure of a standard ECG.	5
26	What is photorespiration? Why is it considered to be a photorespiratory loss to plants? Give suitable illustration.  <b>OR</b> Explain respiration as an amphibolic pathway showing the interrelationship among the various pathways.	5
27	Classify the subphylum Vertebrata giving one example for each division.  <b>OR</b> Give a brief note on the following with figures. a) Phyllotaxy                      b) Inflorescence  -----	5