

SAIL

Roll No. 11254 2019

Annual 2019

**Biology (New Scheme)****(INTERMEDIATE PART- I) (III)****Paper : I****Time: 20 Minutes****OBJECTIVE****Marks : 17****Code: 6465**

Note: You have four choices for each objective type question as A, B, C and D. The choice which you think is correct, fill that circle in front of that question number. Use marker or pen to fill the circles. Cutting or filling two or more circles will result in zero mark in that question.

- 1- 1. The rhizome in adiantum is protected by  
(A) ramenta (B) fronds (C) stipe (D) stomium
2. The largest invertebrate animal is  
(A) whale (B) squid (C) octopus (D) dragon fly
3. 80 % food of sponges consists of  
(A) detrital organic matter (B) algae (C) phytoplankton (D) zooplankton
4. Chlorophyll a is  
(A) red - green (B) yellow - green (C) orange - green (D) blue - green
5. Taste buds of tongue play important role in food :  
(A) digestion (B) selection (C) lubrication (D) mastication
6. When equal intensities of light are given more photosynthesis takes place in spectrum :  
(A) blue (B) orange (C) red (D) green
7. Of the total volume of leaf air spaces may comprises  
(A) 40 % (B) 20 % (C) 10 % (D) 30 %
8. A substance produced by basophils and inhabits blood clotting:  
(A) fibrinogen (B) histamine (C) interferon (D) heparin
9. Cavum venosum and cavum pulmonale are pockets present in heart of  
(A) birds (B) mammals (C) reptiles (D) fish
10. In human body percentage of nitrogen accounts for:  
(A) 2 % (B) 3 % (C) 1 % (D) 10 %
11. Which one serves to build macromolecules:  
(A) ATP (B) Starch (C) Glucose (D) Keratin
12. Optimum pH for catalase is:  
(A) 7.60 (B) 9.70 (C) 5.50 (D) 6.70
13. Integration of cellular compartments is a function of  
(A) intermediate filament (B) microfilament (C) microtubules (D) centrioles
14. Spirochete is a bacterium  
(A) Aerobic (B) Anaerobic (C) Facultative (D) Microaerophilic
15. Hepatitis C is caused by virus:  
(A) DNA- non enveloped (B) DNA enveloped (C) RNA non enveloped (D) RNA enveloped
16. Laminaria is an example of  
(A) Red algae (B) Diatoms (C) Green algae (D) Brown algae
17. Candida albicans is a  
(A) Smut (B) Rust (C) Yeast (D) Morel

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Time : 2 : 40 Hours

**SUBJECTIVE**

Note :- Section I is compulsory. Attempt any three (3) questions from Section II.

**( Section - I )****( 8 x 2 = 16 )****2. Write short answers to any Eight Parts.**

- i. What are terpenoids? Give examples.
- ii. What is the difference between prosthetic group and coenzyme?
- iii. Differentiate between binding site and catalytic site.
- iv. Give any four characteristics of enzymes.
- v. What are haustoria?
- vi. Define parasexuality.
- vii. What are pseudocoelomates.
- viii. Differentiate between budding and gemmules.
- ix. What is radula?
- x. Define mantle.
- xi. Differentiate between absorption spectrum and action spectrum.
- xii. What is porphyrin ring?

**( 8 x 2 = 16 )****3. Write short answers to any Eight parts.**

- i. What is integrated disease management.
- ii. Name the four geological eras of history of earth.
- iii. Differentiate between chromoplast and leucoplast.
- iv. Give role of mitochondria in the cell.
- v. What are choanoflagellates? To which cells of sponges they resemble?
- vi. Give four characteristics of dinoflagellates with examples.
- vii. What are apicomplexans? How do they move?
- viii. Describe evolutionary significance of englenoids.
- ix. Write names of two extinct and two living members of psilopsida.
- x. Differentiate between homosporous and heterosporous.
- xi. How guttation differs from transpiration?
- xii. Differentiate between systemic circulation and pulmonary circulation.

**( 6 x 2 = 12 )****4. Write short answers to any Six parts.**

- i. What are mumps and measles?
- ii. How respiration occurs in bacteria?
- iii. How selection of food takes place by oral cavity?
- iv. What are fluid feeders?
- v. Write down the role of secretin in digestion.
- vi. Define photorespiration and its consequences.

**(Turn Over)**



(2)

- vii. Give four (04) properties of respiratory surfaces in animals.
- viii. What is larynx or voice box?
- ix. What are the symptoms of Asthma?

**( Section – II )**

**Note:- Attempt any three (3) questions from Section II. ( 4+4 x 3 = 24 )**

- 5. (a) Describe organ and organ system level of biological organization.  
(b) Define cardiac cycle? Write its three phases.
- 6. (a) Write note on various types of RNAs.  
(b) Explain land adaptations in Fungi.
- 7. (a) Write down the characteristics and economic importance of cyanobacteria.  
(b) How Bryophytes have adapted themselves to land habitat.
- 8. (a) Explain five kingdom system of Robert Whittaker and its modification.  
(b) Draw and explain Calvin cycle.
- 9. (a) Describe structure and function of plasma membrane.  
(b) What are heterotrophs? Give methods of animal nutrition.

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