

Cantonment Public School and College, Saidpur

Special Test- 2020

Class- XI (EV)

Biology 1st and 2nd paper

Date: 21.4.2020

Time: 2 hour 30 minute

Full marks: 50

[Answer any five (5) including two from each part]

Part 1 (Botany)

1. Microbes 1: Ultramicroscopic, absence of somatic growth, and hereditary material is nucleic acid.

Microbes 2. Microscopic, prokaryotic, and presence of 70S ribosome.

- a. What is holocarpic fungi? 1
- b. Why do two hosts are essential to complete the life-cycle of malarial parasite? 2
- c. Draw and labeled diagram of Microbes 2 mentioned in the stem. 3
- d. 'Microbes 1. is depended on Microbes 2', analyze the statement with logic. 4

2.

Chlorophyll bearing organism

A

Chlorophyll less organism

B

- a. What is fairy ring? 1
- b. What do you mean by water bloom? 2
- c. Draw and label the diagram of transverse section of part-B which carries spore. 3
- d. Analyze the mutual dependency of symbiotic plant which is formed in association with 'A' and 'B' of stem. 4

3. During the study tour of class XI science students, they saw some rosette form thallus like plant on the damp soil of river bank Ramsagar. Besides this, they also saw a plant whose tender leaves remain coiled inwardly. By observing, teacher said, the second plant is more advanced of the two.

- a. What is protonemata? 1
- b. What do you mean by fruitbody? 2
- c. Describe the structure of thallus with labeled (transverse) diagram of first plant mentioned in the stem. 3
- d. Analyze the last speech of stem with logic. 4

4. The plant body increases in length and breadth by the division of some cells. These cells are compactly arranged and it has no intercellular space.

- a. What is emerging virus? 1
- b. What is meant by coenocytic mycelium? 2
- c. Classify the cell of stem on the basis of its position and origin. 3

- d. Analyze the structural differences between two types of cells with their tissue of the stem. 4

Part 2 (Zoology)

5. There was a man who is called the father of 'Classification'. Another was the father of 'Zoology'.
- a. What is capillary? 1
 - b. What do you mean by tagmatization? 2
 - c. Explain the steps of the first line of the stem. 3
 - d. Analyze the works done by the above scientists. 4
6. There is a special type of eye of insect having many units which create different vision mechanism.
- a. What is nematocyst? 1
 - b. What is the difference between exo- and endoskeleton? 2
 - c. Draw a labeled diagram of the above mentioned eye of the stem. 3
 - d. Explain the vision mechanism of the compound eye in the light of stem. 4
7. Labib said that I have a pumping organ which supplies one type of fluid throughout the body.
- a. What is coelom? 1
 - b. What do you mean by radula? 2
 - c. Draw a labeled diagram of the organ mentioned by Labib. 3
 - d. Explain the comparative differences between the major two blood vessels of the above pumping organ. 4
8. One type of cold-blooded animal is found whose heart has two chambers. They belong to cypriniformes order.
- a. What is streamlined body? 1
 - b. What do you mean by venous heart? 2
 - c. Describe the structure of the scales of the animal of the stem. 3
 - d. Explain the arteries which are originated from the heart of the animal of the stem. 4

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Date: 21.4.2020

Time: 25 minute

Full marks: 25

[Answer all of the questions; each of the questions carries 1 mark]

1. What is the name of tissue which forms the outer layer of plant body.

- a. Ground meristem b. Meristem
- c. Procambium d. Protoderm

2. Which one of the following will die by absorbing of pollutant when air pollution increases?

- a. Algae b. Fungi
- c. Lichen d. Fern

3. What is the example of secondary meristematic tissue?

- a. Meristem b. Cork cambium
- c. Phellogen d. Cortex

4. Which is undivisible in *Ulothrix*?

- a. Apical cell b. Applanospore
- c. Holdfast d. Akinete

5. What is the name of brown scale which covers the rhizome of first vascular plant?

- a. Frond b. Pinna
- c. Crozier d. Ramentum

6. Which one is responsible for blight disease of potato?

- a. *Penicillium* b. *Phytophthora*
- c. *Vibrio* d. *Pythium*

7. Bacteria attached itself with host by which of the following?

- a. Pilli b. Flagella
- c. Capsid d. Mesosome

Read the following stem and answer question number 8 and 9.

By observing a sample plant of chlorophyceae family in Biology practical class, students saw a long green filamentous and unbranched part. Its growth is unlimited and bears pyrenoid type chloroplast.

8. The sample plant of stem is-

- a. *Ulothrix* b. *Chlorococcus*
- c. *Oedogonium* d. *Mucor*

9. What are the features of above sample?

- i. Cells are spiral
- ii. Thin cell wall
- iii. Chloroplast present

Which is correct?

- a. i and ii b. i and iii
- c. ii and iii d. i, ii and iii

10. Which is the example of nitrogen fixing bacteria?

- i. Rhizobium
- ii. Azotobacter
- iii. Nostoc

Which is correct?

- a. i and ii b. i and iii
- c. ii and iii d. i, ii and iii

11. Which of the following is multinucleate phase?

- a. Sporozoite b. Schizont
- c. Trophozoite d. Signet ring

12. Elaboration of RBC is-

- a. Red Blood Cell b. Red Blue Cell
- c. Red Brown Corpuscle d. Red Blood Corpuscle

13. Which is the example of triploblastic animal?

- a. *Octopus vulgaris* b. *Taenia solium*
- c. *Obelia geniculata* d. *Panthera tigris*

14. Which animal is covered by ganoid scale?

- a. *Scoliodon* b. *Tenuialosa*
- c. *Haplobatrachus* d. *Neoceratodus*

15. Which cells are found numerous in *Hydra*?

- a. Musculo-epithelial b. Interstitial
- c. Sensory d. Cnidocyte

Observe the following stem and answer the questions 16 and 17:



16. The animals in the picture belong to-

- a. Platyhelminthes b. Cnidaria
- c. Arthropoda d. Nematoda

17. What is the excretory unit of the above animals of the stem?

- a. Nephron b. Nephridia
- c. Malpighian tubules d. Flame cell

18. Grasshopper supplies nutrients for the sperm from-

- i. seminal vesicle
- ii. spermatheca
- iii. ejaculatory duct

Which is correct?

- a. i
- b. ii
- c. iii
- d. i, ii and iii

19. Rohu fish is main carp fish of Bangladesh. It-

- i. belongs to cyprinidae family
- ii. found in fresh water
- iii. bony fish

Which is correct?

- a. i
- b. ii
- c. iii
- d. i, ii and iii

20. Which one shows contraction and expansion?

- a. Brain
- b. Kidney
- c. Blood
- d. Heart

21. The locomotion of WBC is called-

- a. gliding
- b. looping
- c. somersaulting
- d. amoeboid

22. Thorax and abdomen separating membrane is-

- a. pleura
- b. alveolous
- c. trachea
- d. diaphragm

23. Adult grasshopper is called-

- a. blastula
- b. imago
- c. nymph
- d. larva

24. Division of the zygote is called-

- a. embryo
- b. morulation
- c. cleavage
- d. oogenesis

25. Haemocoel is found in-

- a. earthworm
- b. grasshopper
- c. lion
- d. human