

Model Question of SSC Examination 2021 for All Board

Biology

Subject Code

1	3	8
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Time — 2 hours 35 minutes

Creative Essay Type

Full marks — 50

[N.B. -The figures in the right margin indicate full marks. Read the stems attentively and answer any five of the following questions.]

1. ► Living cell contain two types of organic acid. One of them carries hereditary characters in a double helix condition, the other one is single helix and related with protein synthesis.

- a. What is Locus? 1
- b. Why Gene and DNA are same? 2
- c. Explain the structure of first mentioned organic acid in your body. 3
- d. Make a comparative discussion between the mentioned two types of acid. 4

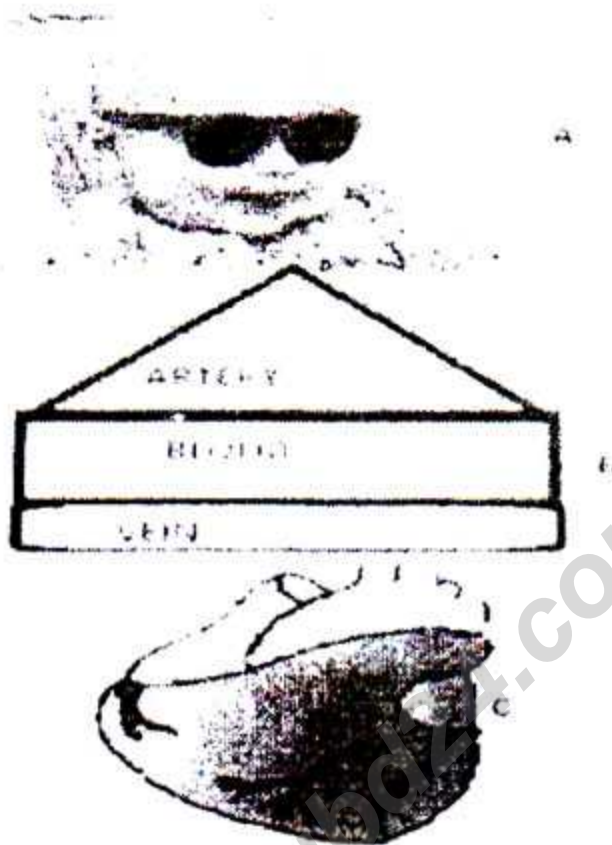
2. ★ In classroom Dr. Nahar said that embryonic membrane protect embryo though a particular organ built up from mother and fetal tissue for the development of embryo.

- a. What is Blastocyst? 1
- b. What do you mean by fetus? 2
- c. How that membrane works in human body. 3
- d. The tissue mentioned in the stem is important for that development. Give your logic on it. 4

3. ► During teaching the respiratory system, the teacher said that each cell needs one important gas for respiration. He also informed that bacterial infection of the inner lining of bronchial tubes creates problem for human body.

- a. What is diaphragm? 1
- b. What do you mean by Breathing? 2
- c. How that gas works in your body? 3
- d. Make a comparative discussion between ASTHMA and that disease which is mentioned in the stem. 4

4. ►



- a. What is sphignomanometer? 1
- b. Why hormonal gland is called endocrine gland? 2
- c. How B works inside your body? 3
- d. Circulatory process of C is not important for cellular metabolism give your logic on it. 4

5. ►



- a. What is cell membrane? 1
- b. What are the main functions of Plastid? 2
- c. Write down the function of labeled organs. 3
- d. Make some differences between prokaryotic and above cell. 4
6. ★ Plants performs a physiological process by which they are releasing water vapor to atomosphere. It occurs only at day time. The rate of this process depends on different surrounding factors. Sometimes t his procesws is harmful to the plant itself.
- a. What is resporation? 1
- b. What wil be the measures if crops leaves turn yellow? 2
- c. What are the environmental factors which influence the above process? 3
- d. What happen if the above process is stopped? Give your opinion. 4
7. ★ Jamal Mia observes that the leaves of the grass plants in his garden are becoming yellow and the leaves, flowers and buds of flowering polants are falling off plants. To solve the problems, he asks for help from a horticulturist and he suggests Jamal Mia to apply some essential nutrient in his garden.
- a. What is micronutrient? 1
- b. What are the essential elements for plants? Explain it. 2
- c. Explain the causes of problem found in the grass plants in Jamal's garden. 3

- d. Evaluate the suggestions given by the horticulturist in the stem mentioned above. 4
8. ► Observe the following figure and write the answer —



Figure-X

- a. What is GMO? 1
- b. How is culture medium prepared? 2
- c. Describe the above process with figure that indicated in figure-X. 3
- d. Figure "X" create a great revolution in human civilization –Analyze. 4

Time — 25 minutes

Creative Multiple Choice Questions

Full marks — 25

[NB. Answer all the questions. Each question carries one mark. Block fully, with a ball point pen, the circle of the letter that stands for the correct/best answer in the "Answer Sheet" for the Multiple Choice Questions Examination.]

1. ★ Which one is Applied branch?

- (a) Ecology
- (b) Embryology
- (c) Entomology
- (d) Evolution

2. Liver is the part of which system?

- (a) Respiratory system
- (b) Digestive system
- (c) Excretory system
- (d) Endocrine system

3. Which one is not the component of teeth?

- (a) Fluoride
- (b) Calcium phosphate
- (c) Calcium carbonate
- (d) Zinc oxide

4. Pepsin works on which one?

- (a) Protein
- (b) Carbohydrate
- (c) Fat
- (d) Mineral

5. ★ Dyspepsia is related with what disease?

- (a) Over eating
- (b) Constipation
- (c) Ulcer
- (d) Indigestion

6. What is myocardium?

- (a) Wall
- (b) Covering
- (c) Chamber
- (d) Valve

Read the stem and answer the following questions no 7.

A man who's daily calorie demand is 1000 (Kcal) kilocalorie.

7. Then he needs how many liter of water daily?

- (a) 1
- (b) 2
- (c) 3
- (d) 4

Look at the figure and answer the next four

questions.



8. Stem related tissue made by —

- i. potassium
- ii. Calcium
- iii. zinc

Which one is correct?

- (a) i
- (b) ii
- (c) i & ii
- (d) ii & iii

9. Which one is related for the joint of O?

- (a) Ball and socket
- (b) Hinge
- (c) Fixed
- (d) Slightly movable

10. Which one is related for the joint of Y?

- (a) Ball and socket
- (b) Hinge
- (c) Fixed
- (d) Slightly movable

11. Which one is slightly movable?

- (a) X
- (b) Y
- (c) Z
- (d) O

12. Nucleus is absent in —

- (a) RBC
- (b) WBC
- (c) Platelets
- (d) Smooth muscles cell

13. Centrioles are absent in —

- i. epithelial cell
- ii. nerve cell
- iii. connective cell

Which one is correct?

- (a) i
- (b) ii
- (c) iii
- (d) i, ii & iii

14. In which cell true nucleus is absent?

- (a) Reproductive cell
- (b) Somatic cell
- (c) Prokaryotic cell
- (d) Eucell

15. Which cells are reproductive cells?

- (a) Sperm and ovum
- (b) Body cell
- (c) Neuron cell
- (d) Blood cell

16. Which gene is transferred to increase protein in cow milk?

- (a) Protein-C
- (b) Protein-D
- (c) Protein-E
- (d) Protein-F

17. In which organ of a plant the leucoplast is present?

- (a) Flower
- (b) Stem
- (c) Root
- (d) Branch

Read the stem and answer the following questions no 18 and 19.



18. Where do we find the given area?

- (a) Plastid
- (b) Mitochondria
- (c) Golgi body
- (d) Ribosome

19. It helps to —

- i. hydrolysis some enzyme
- ii. respire
- iii. produce energy

Which one is correct?

- (a) i
- (b) i & ii

- (c) ii & iii
- (d) i, ii & iii

20. Which of the following controls transpiration?

- i. Stomata
- ii. Mesophyll tissue
- iii. Humidity

Which one is correct?

- (a) i & ii
- (b) i & iii
- (c) ii & iii
- (d) i, ii & iii

21. What is called the organism with the new character of genetic engineering?

- (a) GMO
- (b) GOM
- (c) GLO
- (d) GML

22. In which year Watson & Crick discovered double helix model of DNA?

- (a) 1919
- (b) 1951
- (c) 1953
- (d) 1963

23. Which machine is used for sterilization of cultural media?

- (a) Centrifugal
- (b) Thermo flask
- (c) laminar air flow
- (d) Autoclave

24. How many elements are essential for the normal growth of plant?

- (a) 6
- (b) 12
- (c) 16
- (d) 20

25. In the prokaryotic cell which of the following organelle is present?

- (a) Mitochondria
- (b) Lysosome
- (c) Ribosome
- (d) Plastid

Ans.	1	(c)	2	(b)	3	(d)	4	(a)	5	(d)	6	(a)	7	(a)	8	(c)	9	(b)	10	(a)	11	(c)	12	(a)	13	(b)
	14	(c)	15	(a)	16	(a)	17	(c)	18	(b)	19	(c)	20	(d)	21	(a)	22	(c)	23	(d)	24	(c)	25	(c)		