

Jashore Board 2017

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. ★

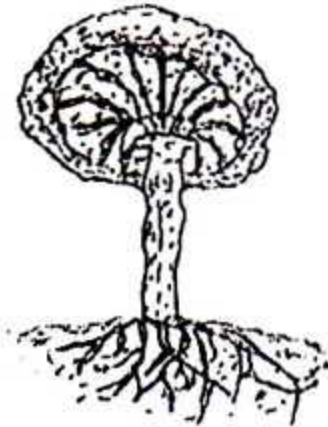


Fig-1



Fig-2

- Who is called the father of Biology? 1
- What do you understand by eukaryotic cells? 2
- Describe the process of nomenclature of the organisms mentioned in the figure 2 in accordance with the rules of ICBN. 3
- Explain the features of the organism which is advanced in between the two mentioned in the stem above. 4

2. ►

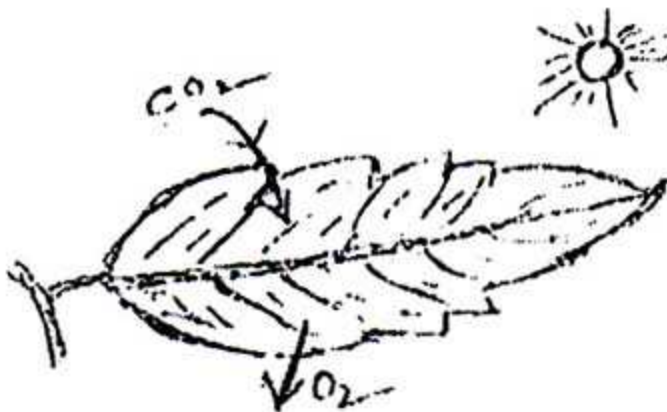


Fig : M

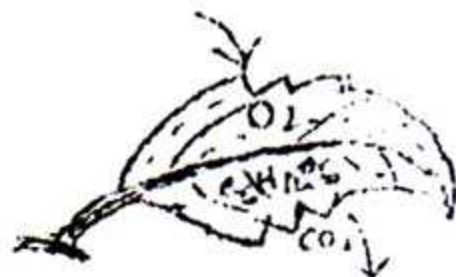


Fig : N

- a. What is photolysis? 1
- b. What do you understand by C_4 plants? 2
- c. Explain the first step of the process mentioned in figure N.3
- d. The processes M and N are interdependent. — Explain it. 4
3. ► The orphan Nabid is totally careless. He does not take much care about the purity of food and water he eats and drinks. Even he does not maintain the cleanliness of the utensils he uses. He has been suffering from peptic problems. When he met his doctor, the doctor said that in his case remedy is not the main concern but the prevention is.
- a. What is toxic goiter? 1
- b. What do you understand by balanced diet? 2
- c. Describe the symptoms of the disease Nabid is suffering from. 3
- d. Explain the appropriateness of the utterance made by the doctor. 4
4. ► Mr. Mamun, an agriculturist visiting an orchard found that the gardeners were preparing seedlings by cutting trees. On the other side seedlings were also being prepared from seeds. Mr. Mamun said the gardeners that they needed some internal growth components. At last, he also said that this type of substances play a very important role in the reproduction of humans.

- a. What is vernalization? 1
- b. What do you understand by automatic nervous system? 2
- c. Describe the growth substances that may help the gardeners in growing seedling well. 3
- d. Explain the last utterance of the agriculturist Mr. Mamun. 4
5. ★ Many lives are lost when the boiler of a Tampaco company bursts. As the dead bodies become ablazed, DNAs were collected for the identification of the persons demised.
- a. What is a locus? 1
- b. What do you understand by evolution? 2
- c. Describe the structure of the component being used to identify the dead persons. 3
- d. Besides identifying the dead persons, the component being used plays an important role in ensuring justice. — Explain it. 4

6. ►

Water	Snake	Grass	Bacteria	Humus	Oxygen
Mouse	Soil	fungi	Mour	Nitrogen	Sunlight

- a. What is an antibiosis? 1
- b. What do you understand by plankton? 2
- c. Which ecosystem are the components mentioned in the chart of the stem included in? 3
- d. The components of the ecosystem mentioned in the stem are mutually inter-related. Explain it. 4

7. ►

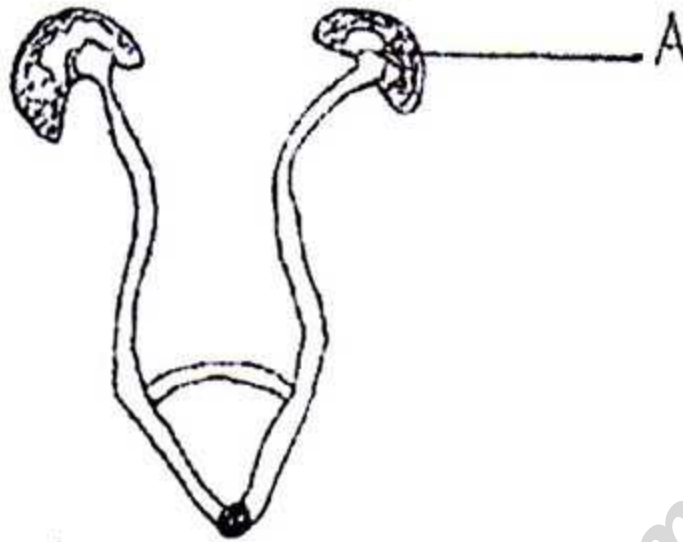


Fig : X

- a. What is a peltis? 1
- b. Write down the functions of a heart with a little description. 2
- c. Describe the functional unit of the structure 'A' mentioned in the stem above. 3
- d. The organ system mentioned in the figure 'X' plays a role in removing the excretory materials. — Explain it. 4

8. ★ Chinese Hibiscus
Datura (Bisexual)

(i) Cotton tree (Male Flower) (Shimul)
(ii) Polash (Female Flower)

- a. What is reproduction? 1
- b. What do you understand by fly-pollinated flowers? 2
- c. Describe the development of gametophyte of Q (i). 3
- d. Which type of pollination mentioned in the stem P and Q has more advantages? 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. ★ If the BMI of a person is 27.78 then what is his position in the BMI scales?

- (a) Ideal scale for good health
- (b) Over weight of body
- (c) First step of obesity
- (d) Second step of obesity

2. Chlorine is need for the growth of root and stem of which plant?

- (a) Tomato
- (b) Sunflower
- (c) Sugar bit
- (d) Potato

Look at the following chart and answer to the question no. 3 and 4 :—

P-Chlorophyll	R-Potassium
Q-Chloroform	S-Calcium

3. For the presence of which part of the above mentioned Element photosynthesis may be stopped?

- (a) P
- (b) Q
- (c) R
- (d) S

4. What can be occur by the excess presence of 'P' —

- i. lack of enzyme is seen
- ii. excess amount of enzyme is seen
- iii. photosynthesis rate decreases

Which one of the following is correct?

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

5. ★ The number of germ cell increases in which division?

- (a) Meiosis
- (b) Mitosis
- (c) Amitosis
- (d) Karyokinesis

6. What is called the 'J' shaped chromosome?

- (a) Metacentric
- (b) Acrocentric
- (c) Sub-metacentric
- (d) Telocentric

7. Which one is occurred in parenchyma tissue?

- (a) Food production
- (b) Give rigidity
- (c) Conduct water

(d) Conduct minerals

8. What kind of epithelial tissue is found in respiratory system?

- (a) Simple epithelial tissue
- (b) Stratified epithelial tissue
- (c) Squamous epithelial tissue
- (d) Pseudo stratified tissue

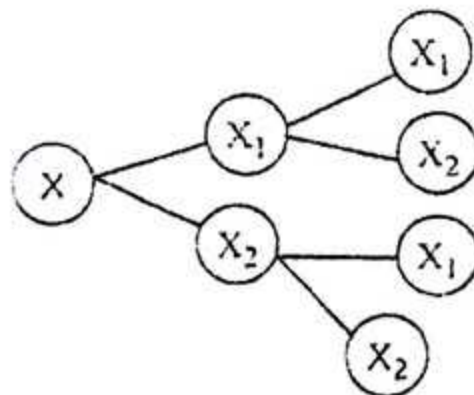
9. ★ Which one is called the stone cell?

- (a) Bast fiber
- (b) Surface fiber
- (c) Scleride
- (d) Wood fiber

10. Mrs. Salma's weight is 70 kg, height 135 cm and age 40 years. She does not like to work at all. So that what is her daily calorie demand?

- (a) 1382.2
- (b) 1658.4
- (c) 1682
- (d) 1682.4

11.



If the chromosome number of Figure-X is 16 and its complete division will occur for two time then what will be the number of chromosome in X_2 of the stem?

- (a) 16
- (b) 8
- (c) 4
- (d) 2

12. Which one of the following is archegoniates?

- (a) Agaricus
- (b) Artocarpus
- (c) Penicillium
- (d) Nostoc

13. Which branch is discussed about respiratory process?

- (a) Biochemistry
- (b) Physiology
- (c) Cytology
- (d) Histology

14. ★ The location of the organ that circulate the blood to whole body by the contraction and relaxation —
- middle of the thoracic cavity
 - below the liver
 - in between two lung

Which one of the following is correct?

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

15. Which one is the harmful insect resistant variety?

- (a) Florianda (b) IR-8
(c) Bt-corn (d) Ticho-1

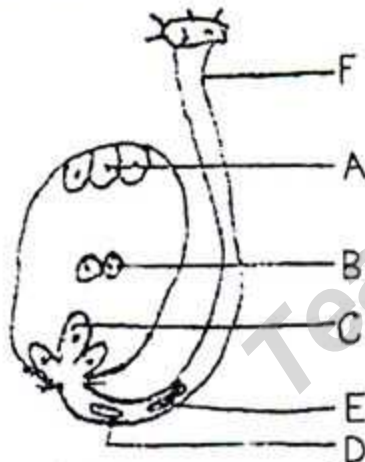
16. In which plant hosteria is found?

- (a) Betel leaf (b) Fungus
(c) Algae (d) Dodder

17. The characteristics of recessive gene express in one-fourth organism in which generation?

- (a) First (b) Second
(c) Third (d) Fourth

Look at the following stem and answer to the question no. 18 and 19 :



18. The participatory part of the stem in formation of true fruit is —

- B and E
- A and F
- D and C

Which one of the following is correct?

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

19. ★ After fertilization which part of the above mentioned stem transformed into endospermic cell?

- (a) A (b) B
(c) C (d) D

20. The part of hind brain of human is —
- Cortex
 - Cerebellum
 - Pons and Medulla oblongata

Which one of the following is correct?

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

21. Which one helps to relieve from mental pressure?

- (a) Prolactin
(b) Thyroxine
(c) Adrenaline
(d) Oestrogen

22. For the above 50 years old male and female person, how many milligrams of calcium daily need?

- (a) 1000 mg
(b) 1200 mg
(c) 2100 mg
(d) 2200 mg

23. Because of the bronchitis, the patients —

- lip becomes blue
- feels chest pain
- severe breathing distress

Which one of the following is correct?

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

24. Which internal organ discharges waste materials of blood?

- (a) Heart
(b) Lung
(c) Kidney
(d) Liver

25. ★ For balanced diet of an adult hard working woman need —

- 200 gm milk
- 150 gm leafy vegetables
- 25 gm protein

Which one of the following is correct?

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

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