

Dhaka 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. ► Tuhin's weight is 70 kg, height 125 cm. He likes to take burger but not wants to do physical labour. Recently he becomes sick. Doctor advised him to change his habit.

- What is macronutrient? 1
- Which food element digest in buccal cavity? Explain. 2
- Calculate Tuhin's BMI. 3
- Evaluate doctor's advice in the stem on the basis of Tuhin's BMI value. 4

2. ★



- What is binomial nomenclature? 1
- What is meant by transmitted plastid? 2
- Which type of tissue of part 'A' in the stem? Explain with figure. 3

d. If 'Q' mention part is inactive, which method will be serviceably effective you think? Explain. 4

3. ► Salma has a fruit garden. She observed that different types of insects are flying in her garden. By seeing her curiosity her father told, for keeping environmental balance, interaction-reaction of different living beings are very essential.

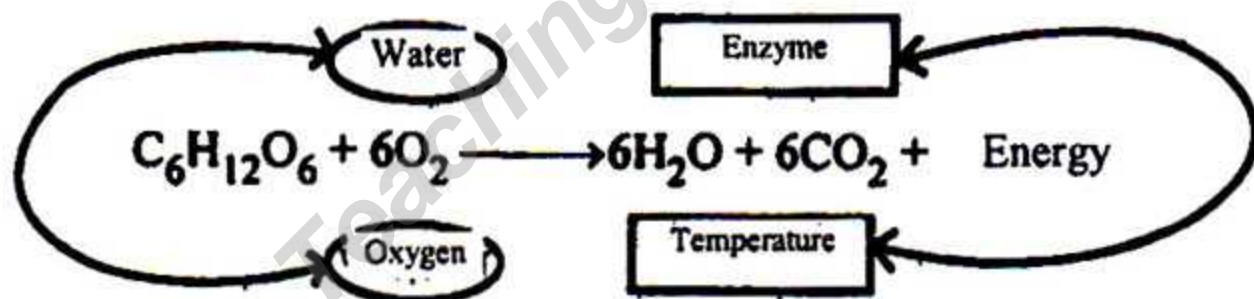
a. What is inflorescence? 1

b. What is meant by external-fertilization? 2

c. As per stem, what is the relation between garden plants with insect? Explain. 3

d. How reasonable the statement of Salma's father you think? 4

4. ►



a. What is interphase? 1

b. What is meant by cartilage? 2

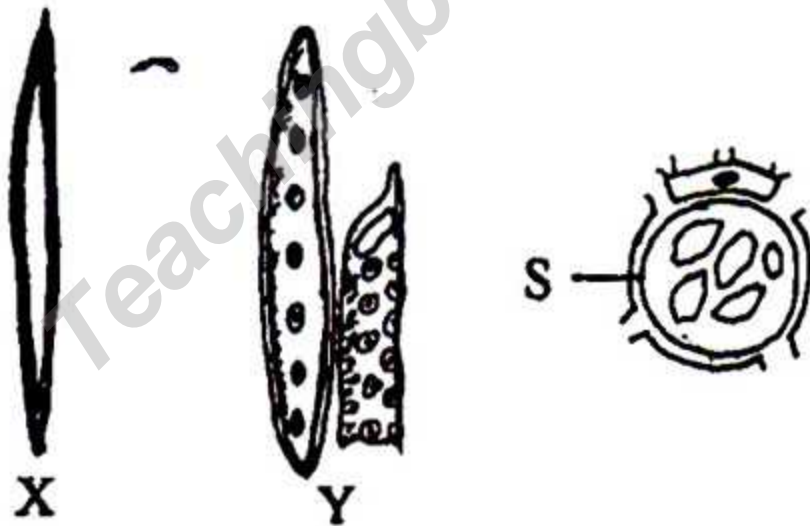
c. Energy will reduce in the process of stem. — Prove it with experiment. 3

d. For happening the reaction of the stem is there any influence of other elements except the equation? Give your opinion with logic. 4

5. ► Bangladesh agricultural scientist discovered a new variety of rice by crossing a Bangladeshi rice variety with an African rice variety which is high yielding and drought tolerance. Now a days this method is becoming popular in Bangladesh for the development of agriculture.

- What is dominant character? 1
- Survival of the fittest. — Explain the statement. 2
- Describe the stem's mentioned process by which living being of expectable characteristics will be obtained. 3
- Evaluate the possibilities of the mentioned method in case of Bangladesh. 4

6. ★

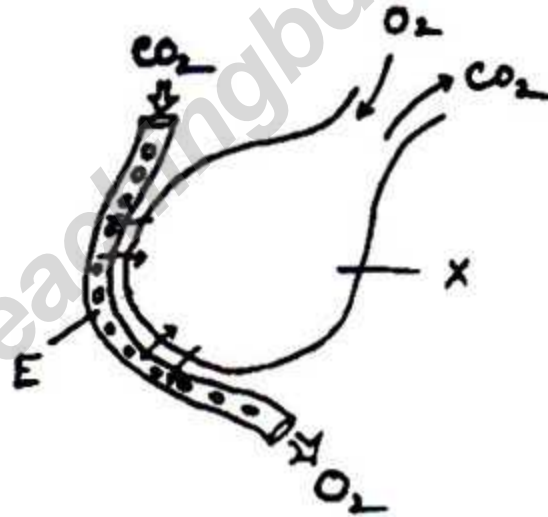


- What is lymph? 1
- Explain the photolysis process. 2
- What is 'S' marked part? Explain. 3
- Explain the structural and functional similarities and dissimilarities of 'X' and 'Y' of the stem. 4

7. ► Ten years old Rafi's mind become bad by watching the scenario of hunting a deer by a tiger in the geography channel. He wants to know his father, if the deer is hunted by this process, one day the forest become deerless. His father told him, this in the natural system to survive in the living-world.

- a. What is trophic level? 1
- b. What is meant by comenselism? 2
- c. What is indicated in the system of the stem? Explain. 3
- d. Is there any logical reason for becoming Rafi's mind bad? Explain with logic. 4

8. ★



- a. What is explant? 1
- b. What is the reason of color blind? Explain. 2
- c. Explain the functions of 'X' in the stem. 3
- d. What do you think about the effect of the functions of 'X' in the absence of 'E'. — Analyze with logic. 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. Nostoc belongs to which kingdom?

- (a) Monera (b) Protista
 (c) Fungi (d) Plantae

2. What is the name of V-shaped chromosome?

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

3. Which one is a short day plant?

- (a) Cucumber (b) Jhinga
 (c) Lettuce (d) Dahlia

Read the following stem and answer the questions 4 and 5 : —

Tahim's body weight is 60kg and height 140cm.

4. What is the BMI value of Tahim?

- (a) 25.4 (b) 28.5 (c) 30.6 (d) 32.7

5. Tahim's body —

- i. extra weight
 ii. 1st state for becoming fatty
 iii. take selective food and need to do exercise

Which one is correct?

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

6.



Which type of pollen grain is shown in the figure?

- (a) Diadelphous
 (b) Epipetalous
 (c) Polydelphous
 (d) Syngenesious

7. Which one is called 'Fluid of life'?

- (a) Water (b) Plasma
 (c) Blood corpuscle (d) Lymph

8. What is the name of the membrane

which covered lung?

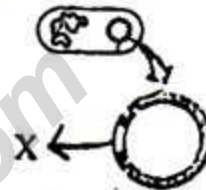
- (a) Pericardium (b) Pleura
 (c) Peritonium (d) Alveulus

9. Which hormone is used to control insect?

- (a) Feromen (b) Auxin
 (c) Cytokinin (d) Gibberellin

10. 1 molecule $FADH_2$ = how many ATP?

- (a) 2 (b) 4 (c) 6 (d) 8



11. Connection of 'X' happen by which enzyme in the figure?

- (a) Lypase (b) Amylase
 (c) Lygase (d) Moltase

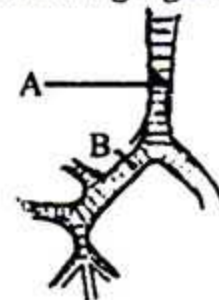
12. What is the length between two adjacent nucleotide for the formation of a DNA?

- (a) $2.4A^\circ$ (b) $3.4A^\circ$
 (c) $4.4A^\circ$ (d) $5.4A^\circ$

13. Weight of a matured frog is 200 gm. How much insect it will take daily?

- (a) 50 gm (b) 100 gm
 (c) 150 gm (d) 200 gm

Answer the questions no. 14 and 15 by observing the following figure : —



14. By which, internal wall of A marked part of the figure is formed?

- (a) Flagella (b) Cilia
 (c) Pseudopodia (d) Cuboidal

15. Applicable for B —

- i. divided in many branches and sub-branches
- ii. outer layer is covered by pleura
- iii. structure is as like as respiratory duct

Which one is correct?

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

16. ★ Who first introduced the word Biotechnology?

- (a) Charles Darwin
- (b) Robert Hook
- (c) Karl Ereky
- (d) Johan Mendel

17. Which one is a purine?

- (a) A and T
- (b) C and G
- (c) C and T
- (d) A and G

Read the following passage and answer question no. 18 and 19 : —

Mr. Rashid is 55 years old. Recently he is not get energy in his muscle as like as early stage and feel back pain when he is going to do work. Doctor advice him to take milk made food item and green vegetable when he goes to doctor.

18. Reason of Mr. Rashid's problem —

- i. for doing hard physical labour
- ii. deficiency of Ca
- iii. suffering from arthritis

Which one is correct?

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

19. Remedial way to overcome this problem —

- i. taking 1200 mg Ca daily
- ii. drink orange juice
- iii. do regular exercise

Which one is correct?

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

20. ★ How many types of primary xylem?

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

21. Urine colour becomes yellow in the presence of which materials mentioned below?

- (a) Urea
- (b) Uric acid
- (c) Creatinin
- (d) Urochrome

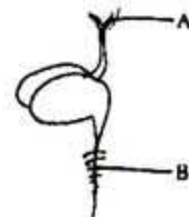
22. What is called bone cell?

- (a) Condrioblast
- (b) Fibroblast
- (c) Osteopath
- (d) Cholagenum

23. ★ Astral ray is radiated in which stage of mitosis?

- (a) Prophase
- (b) Prometaphase
- (c) Metaphase
- (d) Anaphase

Observe the given diagram and answer questions no. 24 and 25 :



24. ★ Which one is found in part B?

- (a) Cytokinin and Ethylene
- (b) Gibberellin and vernaline
- (c) Ethylene and Gibberelline
- (d) Floregen and Ethylene

25. ★ Working rate increase for the influence of the material present in part A —

- i. photosynthesis
- ii. respiration
- iii. osmosis

Which one is correct?

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

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