

Dhaka Board 2016

Biology

Subject Code 138

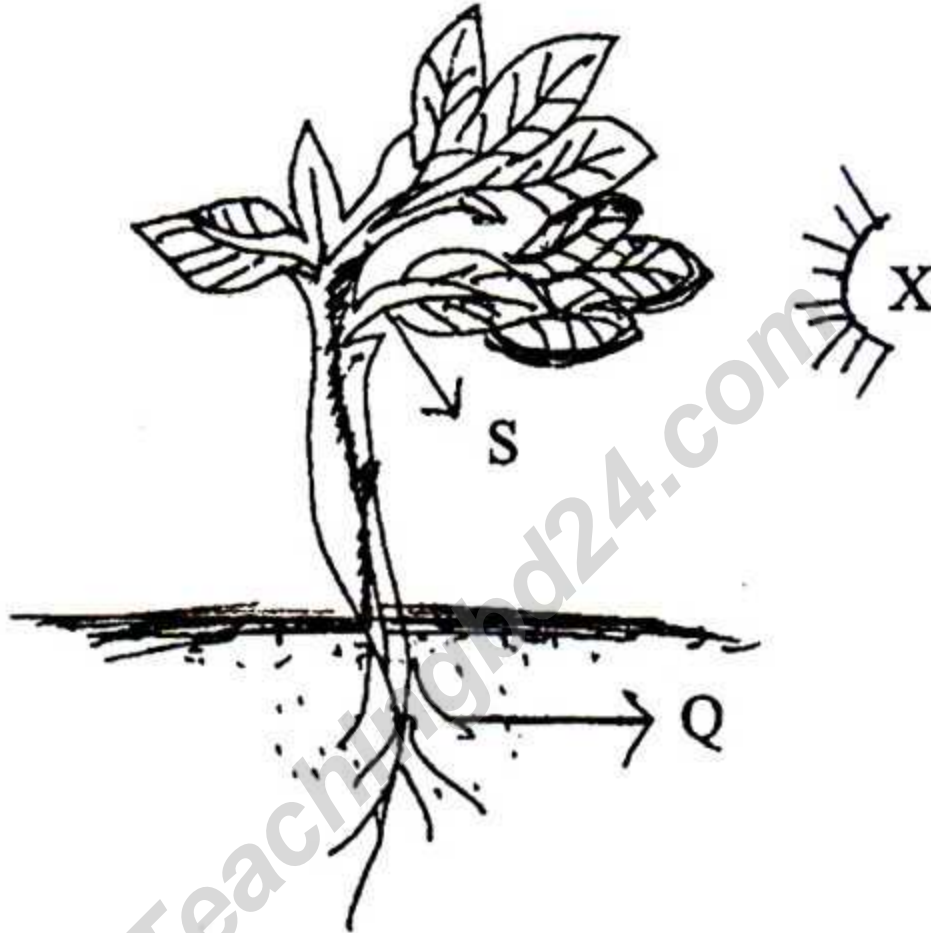
Times — 2 hours 10 minutes

Creative Essay Type

Full marks — 40

[N.B. — The figures in the right margin indicate full marks. Read the stems carefully and answer the associated questions. Answer any **four** questions.]

1. ★



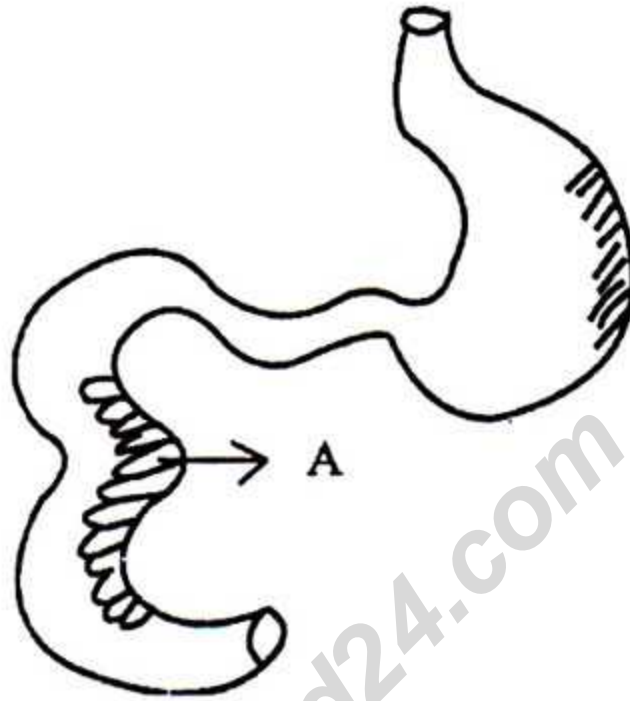
- What is axon? 1
- What do you mean by reflex arch? 2
- Which hormone is responsible for movement of "S" towards "X" in mentioned stem? Explain 3
- Why movement of "Q" opposite to "S" in the stem? Evaluate. 4

2. ► Robi want to know from Shafiq we receive that oxygen how it ventilation in to cell tissue. In respect of this Shafiq inform Robi some organ and system of body perform this function properly.

- Define imbibition. 1
- What do you mean by ductless gland? 2

- c. According to stem function of circulation occurs by which organ – explain. 3
- d. Subject matter discussed between Robi and Shafiq occurs by many vessel – Analyze it. 4

3. ★

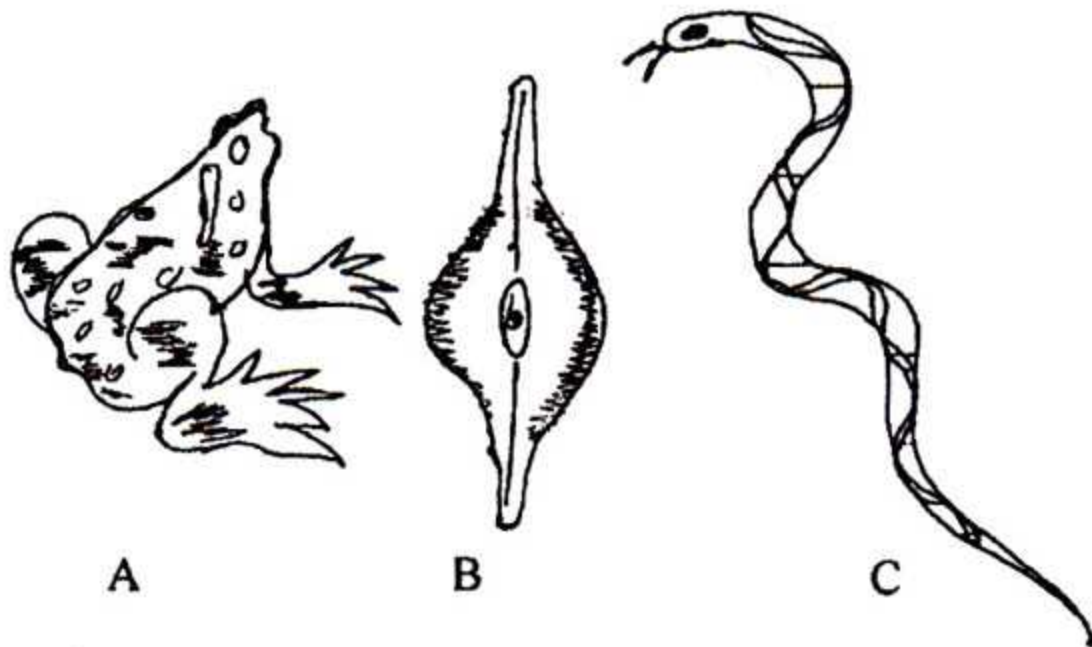


- a. What is BMI? 1
- b. What do you mean by Vitamin? 2
- c. How does "P" digest "X" mentioned in the stem – Explain. 3
- d. Analyze absorbing process of digested food in marked part "A" in the stem. 4

4. ► Rahima's have a rare species palm tree that is not produce flower and fruit now a days. After that growth of cows and goat reduced in her farm. One day she saw that in agriculture related T.V programme by changing hereditary material technology solving that problem.

- a. What is evolution? 1
- b. Explain natural selection. 2
- c. Explain which Biotechnology an possible to save Rahima's farm plant from extinct. 3
- d. To solve last problem of stem indicate which technology – Analyze it. 4

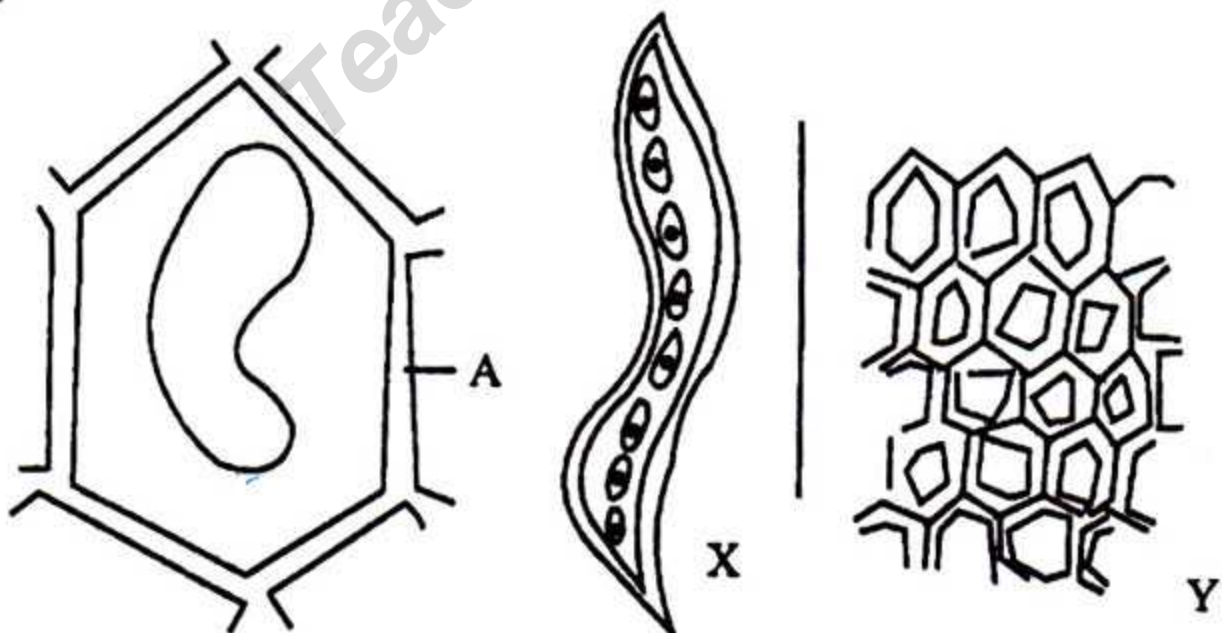
5. ► Teacher showed some figure in Biology class which are below :—



After that the inform to students all animals are dependent on each other of living world.

- What is plankton? 1
- What do you mean by commensalism? 2
- In the stem "B" marked organism belongs to which kingdom – explain. 3
- How much importance of ratio "A" and "C" for living world-evaluate this on the basis of last line of the stem. 4

6. ★



- What is true cell? 1
- Explain cardiac muscle. 2
- Explain structure of marked part "A".of stem. 3
- Analyze similarities and disimilarities of X and Y according to stem. 4

Time — 35 minutes

Creative Multiple Choice Questions

Full Marks — 35

[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. Following which one is the branch of Applied Biology?

- (a) Histology (b) Embryology
(c) Genetics (d) Marine Biology

2. Characteristics of protista kingdom—

- i. Well organised nucleus
ii. Sexual reproduction occurs by conjugation
iii. Cell wall made of chitin

Which one is correct?

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

3. Which one have no nucleus?

- (a) Cardiac muscle (b) Aerenchyma
(c) Sieve cell (d) Companion cell

4. What is called 'V' shaped chromosome?

- (a) Metacentric (b) Subcentric
(c) Aerocentric (d) Telocentric

5. In the following which makes the color of urine light yellow?

- (a) Urea (b) Creatinine
(c) Ammonia (d) Urochrome

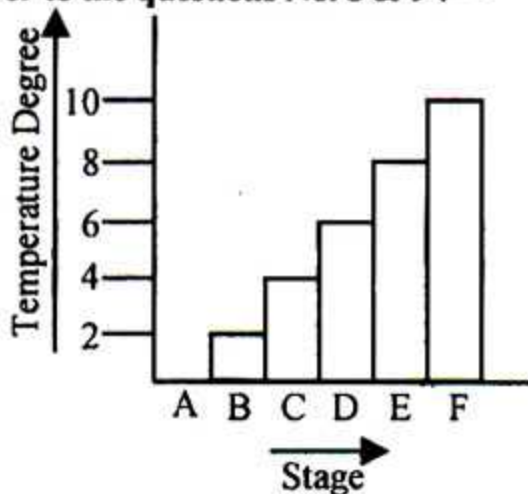
6. What is the name of membrane which covered lung?

- (a) Pleura (b) Villi
(c) Plasmalemma (d) Peritoneum

7. Feeling chest pain due to lack of blood circulation in heart is called—

- (a) Stroke (b) Angina
(c) Anaemia (d) Anthrascelerosis

Observe the following figure properly and answer to the questions No. 8 & 9 :—



8. In which stage of flow-chart flower initiate in germinated seed?

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

9. Which one is applicable for F initiating flower?

- i. Jhinga ii. Dahlia
iii. Chandromollika

Which one is correct?

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

10. $ADP + Pi \xrightarrow{\text{Plastid}} ATP$

Which one is following above mentioned process?

- (a) Photolysis (b) Photosynthesis
(c) Glycolysis (d) Photophosphorylation

11. Blood group "A" receive blood only from which group mentioned below?

- (a) B & O (b) Only A
(c) A & O (d) A & B

12. What is the name of tongue shaped covering located above the voice box?

- (a) Pharynx (b) Larynx
(c) Epiglottis (d) Trachea

13. Cartilage—

- i. Matrix made of chondrin
ii. Cell is known as osteoblast
iii. Covering is known as pericondrium

Which one is correct?

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

14. Which one is muscle band?

- (a) Tendon (b) Ligament
(c) Skeleton (d) Cartilage

15. Which one helps to remove severe mental pressure?

- (a) Prolactin (b) Tyroxin
(c) Adrenalin (d) Estrogen

16. Stroma is the part of—

- (a) Cellwall (b) Chloroplast
(c) Mitochondria (d) Ribosome

Answer to the questions No. 17 and 18 in accordance with the stem :—

The height of Labib is 150 cm and weight is 67.5 kg.

17. What is the BMI value of Labib?

- (a) 25 (b) 30
(c) 32 (d) 35

18. What Labib should do?

- (a) To increase weight
(b) To remain same weight
(c) Take selective food & new exercise
(d) To take fatty food

19. In the following which one occur cross pollination?

- (a) Mustard (b) Pumpkin
(c) Shimul (d) Datura

20. Who discovered chromosome?

- (a) Watson & Crick (b) Strach Berger
(c) Mendel (d) Robert Brown

21. Who introduced natural selection concept?

- (a) Darwin (b) Linnaeus
(c) Strach Berger (d) Mendel

22. Which one is the tertiary consumer of pond ecosystem?

- (a) Shol, Boal & Heron
(b) Shol, Frog & Vetki
(c) Vetki, Boal & Heron
(d) Prawn, Boal & Vetki

23. In the following which food chain comparatively large amount of energy misuse.

- (a) Man → Mosquito → Dengu virus
(b) Algae → Small fish → Hawk
(c) Algae → Small fish → Big fish → Hawk
(d) Algae → Zooplankton → Small fish → Big fish → Hawk

24. Who introduce the word "Biotechnology"?

- (a) Karl Ereky (b) Chrles Darwin
(c) John Mendel (d) Watson & Crick

25. How many saplings will get in a year from a vegetative part of a chandromollika through tissue culture?

- (a) 88 (b) 88 thousand
(c) 88 lac (d) 88 crore

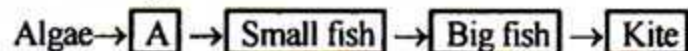
26. Ribosome—

- i. Obtained in both animal & plant cell
ii. Protect living cell from microorganism
iii. Helps in protein synthesis

Which one is correct?

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

Answer to the questions No. 27 and 28 following the flow-chart :—



27. In flow-chart which one is A marked part?

- i. Zooplankton
ii. Larva of mosquito
iii. Phytoplankton

Which one is correct?

- (a) i and ii (b) i and iii

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

28. Applicable for stem chain—

- i. Predator food chain
ii. Incomplete food chain
iii. Less energy based food chain

Which one is correct?

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

29. Suitable temperature for respiration—

- (a) 20°—25° (b) 25°—30°
(c) 30°—34° (d) 20°—45°

30. In which cytokinin hormone of plant is present?

- (a) Flower fruit and green coconut water
(b) Fruit, seed & green coconut water
(c) Fruit, chalaza & green coconut water
(d) Chalaza, seed & green coconut water

31. In the following which one is the formula of pyruvic acid?

- (a) $C_2H_4O_3$ (b) $C_3H_4O_2$
(c) $C_3H_2O_3$ (d) $C_3H_4O_3$

Read the following stem and answer questions No. 32 and 33 :—

In plant flower and fruit fallen off due to lack of "X" element, lateral buds become dead due to lack of "Y" element and dead region formed due to lack of both.

32. In the stem "X" element formed—

- i. Nucleic Acid
ii. NADP
iii. Lipid

Which one is correct?

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

33. Which one is used to overcome the problem of "Y"?

- i. TSP
ii. MOP
iii. Urea

Which one is correct?

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

34. Which scientific name is not written correctly?

- (a) Artocarpus heterophyllus
(b) Nymphaea nouchali
(c) Copysychus saularis
(d) Homo sapiens

35. In which one recombinant DNA replaced?

- (a) To extract oil from jojoba
(b) To develop Bt. rice
(c) To produce chandromollika sapling
(d) To prepare scented Atar from jui suspension

Ans.	1	(d)	2	(c)	3	(c)	4	(b)	5	(a)	6	(b)	7	(c)	8	(b)	9	(b)	10	(d)	11	(a)	12	(c)	13	(d)	14	(b)	15	(a)	16	(d)	17	(d)	18	(c)	19	(b)	20	(c)
	21	(c)	22	(a)	23	(b)	24	(a)	25	(b)	26	(b)	27	(d)	28	(b)	29	(d)	30	(d)	31	(b)	32	(b)	33	(a)	34	(d)	35	(a)										