

Jashore Board 2016

Biology

Subject Code

1	3	8
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Times — 2 hours 10 minutes

Creative Essay Type

Full marks — 40

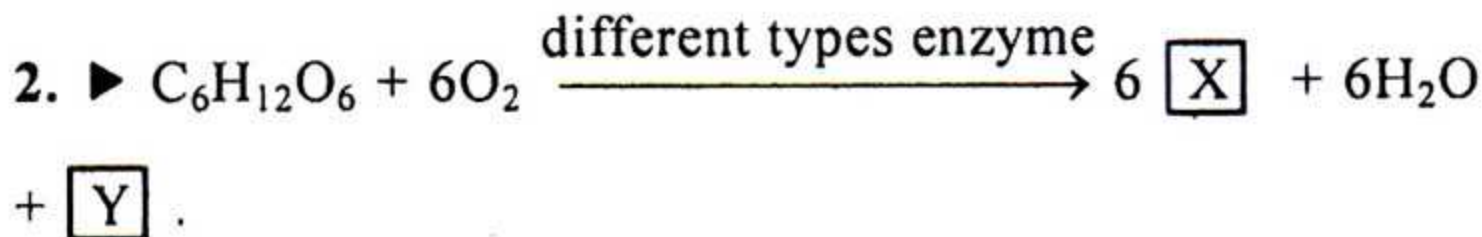
[N.B. — The figures in the right margin indicate full marks. Read the stems carefully and answer the associated questions. Answer any **four** questions.]

1. ★



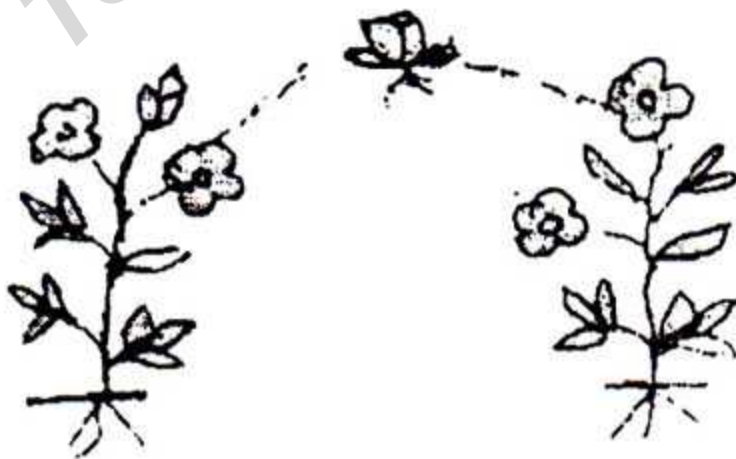
Fig-X

- What is cell? 1
- What do you mean by power house of cell? 2
- Why figure 'X' is called physical basis of heredity? Explain. 3
- How it is possible to find out any criminal correctly with the help of main component of figure "X"? 4



- a. What is the main source of energy? 1
 - b. Why breathing trouble show up if sleep under the big tree at night? 2
 - c. Where and how 'Y' is produced in plant body? Explain it. 3
 - d. Analyse the necessity of produced 'X' and 'Y' at the end of reaction 4
3. ► Suddenly Mr. Habib feel unberable pain in chest and sweat excessively. He feels that pain is spread at neck and left hand. Quickly he comes to doctor for shelter, then doctor give him necessary medicine and advise after doing ECG.
- a. What is blood pressure? 1
 - b. What do you mean by cholesterol? 2
 - c. What is the problem of Mr. Habib? Explain the reason of that. 3
 - d. Evaluate the advises which are given by doctor for keep the good health. 4

4. ►



- a. What is flower? 1
- b. What do you mean by inflorescence? 2

- c. What is called the process of figure? Explain it. 3
- d. What problems will be create in environment when mentioned process will not happen. Give your opinion. 4
5. ★

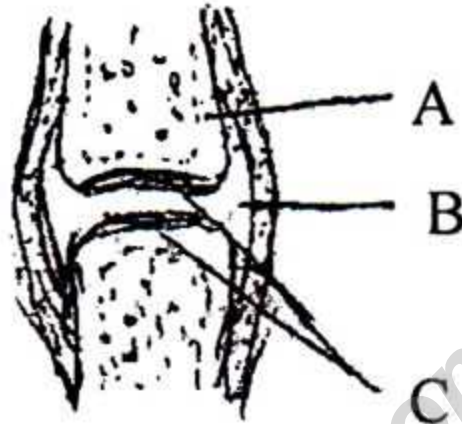


Fig-M

- a. What is Osteoblast? 1
- b. What do you mean by Osteoporosis? 2
- c. Mention the difference between labelled part A and C of figure. 3
- d. Which type problem will be create for the absence of figure "M" in the movement of bone of human body? Analyse it. 4
6. ► Razib was an unemployed young man. He takes a training how to improve quality of plant tissue from the nearest agriculture developing center. For this reason now he is an economically solvent and self-dependent young man.
- a. What is tissue? 1
- b. What do you mean by biotechnology? 2
- c. Explain the steps of the process of Razib's training. 3
- d. Mentioned process is very much useful to develop our country— Analyse it with logic. 4

[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. **★** From which hydrocarbon cholesterol is produced?

- (a) Ethanol
(b) Cholestane
(c) Fatty acid
(d) Formaldehyde

2. Where does larynx situated?

- (a) Nasal passage
(b) Below the pharynx
(c) Above the pharynx
(d) In front of oesophagus

3. What is the characteristics of dialysis tube?

- (a) Permeable
(b) Non-permeable
(c) Semi-permeable
(d) Partial semi-permeable

4. **★** Where does the ball and socket joint found?

- (a) In knee (b) In shoulder
(c) In finger (d) In elbow

5. In which animal internal fertilization occurs?

- (a) Rui (b) Shark
(c) Mrigel (d) Telapia

6. How many numbers of chromosome are there in a nucleus of endospermic cell?

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

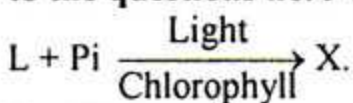
7. Where does the colour blindness gene located in human?

- (a) In autosome (b) In nucleus
(c) In mitochondria (d) In sex chromosome

8. Which bacterial genes are transferred to the genome of sheep for the increasement of amount and quality of sheep fur?

- (a) Cys B and Cys F
(b) Cys M and Cys E
(c) Cys A and Cys B
(d) Cys F and Cys A

Observe the following reaction and answer to the questions no. 9 and 10 :—



9. Which one is called the high energetic compound?

- (a) L (b) X
(c) Pi (d) Chlorophyll

10. In reaction—

- i. Occurs photophosphorilation
ii. Organic phosphate need for production of X
iii. X is called energy com

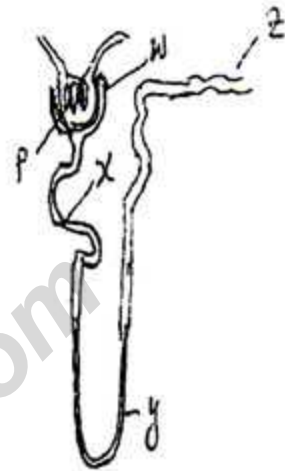
Which one is correct?

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

11. **★** Which hormone secrete from parathyroid gland?

- (a) Insulin
(b) Thymoxine
(c) Parathyroxine
(d) Adrenaline

Observe the following diagram and answer to the questions no. 12—14 :—



12. What is the name of P marked part of the diagram?

- (a) Proximal convoluted tubule
(b) Distal convoluted tubule
(c) Bowman's capsule
(d) Glomerulus

13. What is collectively called the P and W marked part of the diagram?

- (a) Bowman's capsule
(b) Renal corpuscle
(c) Collecting duct
(d) Afferent arteriole

14. What is called the X, Y and Z marked part collectively?

- (a) Renal tubule (b) Renal corpuscle
(c) Renal system (d) Renal capsule

15. **★** Which one is the negative interaction?

- i. Commensalism, Competition
ii. Exploitation, Competition
iii. Antibiosis, Mutualism

Which one is correct?

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

Observe the following diagram and answer to the questions no. 16—17 :—



Diagram-P

16. Diagram P indicates which organelle?

- (a) Ribosome (b) Lysosome
(c) Centrosome (d) Golgi body

17. What role play the diagram-P in animal cell?

- i. Hormone secretion
ii. Cell division
iii. Storage of protein

Which one is correct?

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

Observe the following diagram and answer to the questions no. 18—19 :—

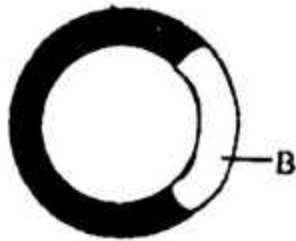


Figure-A

18. What is name of figure-A?

- (a) Recombinant DNA
(b) Recombinant RNA
(c) Interferon
(d) Explant

19. To attach the B segment needs—

- i. Restriction enzyme
ii. Ligase enzyme
iii. Amylase enzyme

Which one is correct?

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

20. ★ What is the scientific name of onion?

- (a) Apis indica (b) Oryza sativa
(c) Allium cepa (d) Allium sativum

21. Where does the pseudo stratified epithelial tissue found?

- (a) In excretory system
(b) In digestive system
(c) In nervous system
(d) In respiratory system

22. What is the shape of the acrocentric chromosome?

- (a) V (b) J
(c) L (d) I

23. In which temperature photosynthesis process remain closed?

- (a) 17°C (b) 25°C
(c) 30°C (d) 50°C

24. ★ How many times of calorie remain in fat

compare to carbohydrate and protein?

- (a) Two times (b) Three times
(c) Four times (d) Five times

25. How many layers consists of the wall of artery?

- (a) One (b) Two
(c) Three (d) Four

26. Air sac surrounded by which things?

- (a) Vein
(b) Numerous artery
(c) Capillaries
(d) Soft voluntary muscle

27. In which part of excretory system liquid substances are filtered?

- (a) In medulla (b) In pelvis
(c) In ureter (d) In glomerulus

28. ★ Which things consists of ligament fibres?

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

29. Which organ controls the balance of the body?

- (a) Pons
(b) Cerebrum
(c) Cerebellum
(d) Medulla oblongata

30. What is the name of the last stage of an embryo of cell division?

- (a) Placenta (b) Faetus
(c) Ovum (d) Blastocyst

31. Who wrote the theory of population?

- (a) William Harvey
(b) Robert Darwin
(c) Rusell Walles
(d) Thomas Malthus

32. ★ Which enzyme take part in carbohydrate digestion?

- (a) Ptyaline (b) Pepsin
(c) Lipase (d) Trypsin

33. The research is being carried out for the invention of which new variety by transferring late blight?

- (a) Rice (b) Carp
(c) Tomato (d) Round potato

34. Which tissue can protect the brain, lung and heart?

- (a) Skeletal (b) Fibrous
(c) Stratified (d) Cuboidal

35. How many Carbon consists of keto acid compound?

- (a) 2 (b) 3
(c) 4 (d) 6

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