

1. ► Habib collected two flowerig plants. Leaf of the first plant is long and narrow, leaf base enclosed the stem, roots is advantitious. the second plant has solitary big flower with mucilage.

He wanted to know from his teacher how the families can be identified? Teacher said to him to observe the characteristics of leaf and different parts of the flowers.

- a. What is plant tissue? 1
- b. What is the floral formula of the 2nd flower? 2
- c. How do you differentiate the two plants morphologically? 3
- d. Both the families of the above plants provide food to man... explain? 4

2. ► On the skin of shohid body there are some ring shaped marks which are very itching and secret some fluid. With this problems he went to a doctor. Doctor told him about the disease in details and gave him required medicines. He also suggested to keep clean all the time.

- a. What is eukaryotic cell? 1
- b. What do you mean by symbiosis process? 2
- c. Discuss the symptoms of above disease which mentioned above the stem. 3
- d. Write the measures to keep free from the disease mentioned above the stem? 4

3. ► One sunny noon Mr. Karim, a biology teacher went to the pond side with his students and showing some bubbles on the algae, he wanted to know the reason of the creations of these bubbles. As most of the students could not give answer, they brought some algae to the laboratory and after experimenting the algae in the sufficient light, he (Teacher) explained the subject matter.

- a. What is Photosynthesis? 1
- b. What do you mean by non-cyclic photophosphorylation? 2
- c. Explain the reason behind creating bubbles from the algae? 3
- d. Explain the characteristics of the bubbles by experimenting in the laboratory in virtue of the living kingdom.? 4

4. ► Only the green plants can produce food from CO_2 and water. Chlorophyll of plant acts as receiver of sun light. This process is divided by two phase. The first phase occurs in day time, on the other hand second phase occurs 24 hours.

- a. What is transpiration? 1
- b. How the transpiration keeps the environment cool? 2
- c. Describe the above first phase occurs at day time. 3
- d. What will happen if the above process become stop? 4

5. ► =Plants needs to take CO_2 from the air or the process preparing of food. So a harmful gas of the animals is utilized. Beside plant released O_2 in the air.

- a. What is respiration? 1
- b. What do you mean by photolysis? 2
- c. Describe the process of plant where above gas in used? 3
- d. What is the sources of O_2 that is released by the process? Give your opinion? 4

6. ► For sick Hasan his brother sent two packets of medicine by post. The sweetness of the two things in those packets was respectively 73 & 140 and the are Isomer to each other.

- a. What is photosynthesis? 1
- b. What do you mean by bivalent? 2
- c. Describe the ring structure of object in packet. A as mentioned in the stem? 3
- d. Give your opinion on the basis of the difference between the packet A and B? 4

[N.B. Fill the circle of the correct answer with a black ball point pen. Each question bears 1 mark.]

1. NADP is a/an-
 (a) enzyme (b) co-enzyme
 (c) vitamin (d) phytohormons
2. Which compound being repeatedly produced keeps the Kreb's cycle continuous?
 (a) Oxaloacetic acid (b) Citric Acid
 (c) Succinic Acid (d) Malic Acid
3. The fruitbody of agaricus is called-
 (a) Mycelium (b) Basidiospore
 (c) Basidiocarp (d) Annulus
4. The time between Meiosis-I & Meiosis-II is called-
 (a) Cytokinesis (b) interkinesis
 (c) Diakinesis (d) Metakinesis

Lipids are important molecules found in the living organism. It is the constituent materials of many organelles of the cell. Triglyceride is one of lipid.
 Answer the question number 05 & 06 on the basis of above stem.

5. Triglycerides are composed of-
 (a) 3 glycerols_1 fatty acid
 (b) 1 glycerol+1 fatty acid
 (c) 3 glycerols+3 fatty acids
 (d) 1 glycerol+3 fatty acids
6. A bond between a glycerol molecule and a fatty acid molecule is-
 (a) A peptide bond (b) A glycoside bond
 (c) A ester bond (d) A hydrogen bond
7. Who introduced the term 'Biotechnology' at first?
 (a) Edward Jenner (b) Karl Ereky
 (c) Alexander Fleming (d) Gottlieb Habelandt
8. Which type of fusion is called cybrid?
 (a) nucleus with nucleus
 (b) cytoplasm with cytoplasm
 (c) cytoplasm with nucleus
 (d) nucleus with protoplast
9. Which one of the following is called biological coin?
 (a) ADP (b) GTP
 (c) ATP (d) CTP
10. Pyrenoid is found in which part of algae?
 (a) Chloroplast (b) Mitochondria
 (c) Golgi body (d) Cytoplasm
11. Which structure binds the two chromatids together?

- (a) Centriole (b) Centromere
 (c) Centrosome (d) Nucleolus
 12. In which stage does crossing over take place?
 (a) Pachytene (b) Zygotene
 (c) Diakinesis (d) Leptotene
 13. The motile spores having flagella called-
 (a) Oospore (b) Zoospore
 (c) Aplanospore (d) Hipnospore
- Answer the question number 14 and 15 on the basis of above figure.



14. What is the name of above figure?
 (a) HIV (b) TMV
 (c) PRSV (d) Hepatitis
15. What is the genetic material of above figure?
 (a) DNA (b) RNA
 (c) NAD (d) FAD
16. How many carbons are present in pyruvic acid?
 (a) Two (b) Three
 (c) Four (d) Five
17. The fungi are usually-
 i. Parasite
 ii. Saprophyte
 iii. Epiphyte
 Which one of the following is correct?
 (a) i & ii (b) ii & iii
 (c) i & iii (d) i, ii & iii

Read the stem and answer the questions number 18 & 19:

Mr. Sarkar said in a class, plant cell possesses a unique organelle. Inside the organelle different pigments are there. These pigments can receive sunlight to make food.

18. Mr. Sarkar discussed about which organelle?
 (a) Ribosome (b) Mitochondria
 (c) Chloroplast (d) Chromosome

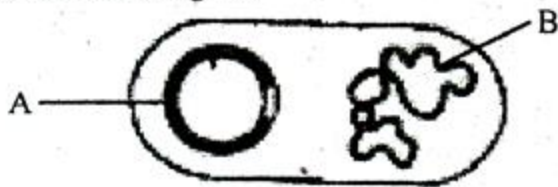
19. In the above process, solar energy is used to prepare—

- i. ATP
- ii. Glucose
- iii. NADPH₂

Which one of the following is correct?

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

Answer the question number 20 and 21 on the basis of above figure.



20. What is the name of 'A' marked part of above figure?

- (a) Prochromosome (b) Chromatin
(c) Nucleoid (d) Plasmid

21. The features of marked 'A' include—

- i. Circular
- ii. Self-replicating
- iii. Double stranded

Which one of the following is correct?

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

22. In which plant there is no vascular tissue?

- (a) *Pteris* (b) *Penicillium*
(c) *Cycas* (d) *Hibiscus*

Read the stem and answer the questions number 23 & 24

One day rana covered a plotted plant with polythene in Biology lab class. After a while he observed sweating was there is side the polythene bag.

23. What was the process which Rana observed in lab class?

- (a) Osmosis (b) Transpiration
(c) Plasmolysis (d) Photosynthesis

24. Which cell control the above process?

- (a) Nerve cell (b) Embryonic cell
(c) Guard cell (d) Companion cell

Answer the question number 25 and 26 on the basis of above figure"



25. What is name of above plant?

- (a) Moss (b) *Cycas*
(c) Fern (d) Coconut

26. Which one is not related with above plant?

- (a) Heterospory (b) Lack of ovary
(c) Naked seed (d) Double fertilization

Read the stem and answer the questions number 27 & 28.

David was doing an experiment with *Oryza sativa* flower in Biology laboratory.

27. What is the type of inflorescence of David's flower?

- (a) Raceme (b) Spike
(c) Umbel (d) Spikelet

28. The family of David's flower provides—

- i. Sugar
- ii. Fiber
- iii. Staple Food

Which one of the following is correct?

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

29. Hacrocentric vascular bundle found in—

- (a) Paddy (b) *Pteris*
(c) *Dracaena* (d) Gourd

30. Ions help in photolysis of water—

- i. Mn⁺⁺
- ii. Mg⁺⁺
- iii. Cl

Which one of the following is correct?

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

31. Which stage of plasmodium attack human liver cell?

- (a) Cryptomerozoite (b) Cryptozoite
(c) Sporozoite (d) Trophozoite

32. Which ions are rapidly absorbed by plants?

- (a) k⁺ & SO₄²⁻ (b) Ca²⁺ & NO₃⁻
(c) Ca²⁺ & SO₄²⁻ (d) K⁺ & NO₃⁻

33. Which one is start codon?

- (a) AGU (b) AUG
(c) UAG (d) UGA

34. Which enzyme helps to convert 3PGA into 1,3 BPGA?

- (a) Aldolase (b) isomerase
(c) Phosphatase (d) Kinase

35. Which type of leucoplast reserve proteins?

- (a) Amyloplast (b) Aleuroplast
(c) Elaioplast (d) None

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