

BIOLOGY

GROUP : FIRST

OBJECTIVE

TIME: 20 MINUTES

MARKS: 17

DGK-11-1-23

NOTE: You have four choices for each objective type question as A, B, C and D. The choice which you think is correct, fill that circle in front of that question number. Use marker or pen to fill the circles. Cutting or filling two or more circles will result in zero mark in that question.

QUESTION NO. 1

- 1 Which is a copper containing protein
(A) Cytochromes (B) Pq (C) Pc (D) Fd
- 2 The painful sensation in the chest is called
(A) Piles (B) Pyrosis (C) Antiperistalsis (D) Liver
- 3 The breakdown of Alveoli is called
(A) Tuberculosis (B) Asthma (C) Emphysema (D) Cancer
- 4 The normal pH of blood is
(A) 2.0 (B) 6.5 (C) 6.4 (D) 7.4
- 5 Which is not a lymphoid mass
(A) Spleen (B) Tonsils (C) Thymus (D) Liver
- 6 The tentative explanation of observation is
(A) Deduction (B) Law (C) Theory (D) Hypothesis
- 7 The % age of water in human brain cell is
(A) 65 % (B) 89 % (C) 85 % (D) 79 %
- 8 Which requires aqueous medium for its activity
(A) Proteins (B) Fats (C) Activators (D) Enzymes
- 9 Intermediate filaments play a role in the maintenance of
(A) Cell shape (B) Cell size (C) Cell turgor (D) Cell organization
- 10 The basic unit of classification is
(A) Genus (B) Phylum (C) Class (D) Species
- 11 Which is anaerobic bacterium?
(A) Spirochete (B) Pseudomonas (C) E. Coli (D) Campylobacter
- 12 Cell wall of oomycetes contain
(A) Cellulose (B) Chitin (C) Peptidoglycan (D) Glycogen
- 13 Citric acid is obtained from some species of fungi called
(A) Agaricus (B) Aspergillus (C) Yeast (D) Penicillium
- 14 Heterospory is present in
(A) Psilopsida (B) Selaginella (C) Lycopodium (D) Sphenopsida
- 15 Right Aortic arch present in
(A) Amphibians (B) Reptiles (C) Birds (D) Mammals
- 16 The colourless blood of Arthropods is called
(A) Haemocyanin (B) Haemolymph (C) Myoglobin (D) Tropomyosin
- 17 Light behaves as waves and as sort of
(A) Radiations (B) Particles (C) Electromagnetics (D) None of these

DAK-11-1-23

QUESTION NO. 2 Write short answers of any Eight (8) parts of the following

16

- | | |
|--------|--|
| (i) | Define Nucleic Acids , give example |
| (ii) | Differentiate between activator and prosthetic group |
| (iii) | What is Induce Fit Model of Enzyme ? |
| (iv) | Differentiate between competitive and non-competitive Inhibitors |
| (v) | Compare Fragmentation with budding |
| (vi) | What is Histoplasmosis ? |
| (vii) | Give two characters of cyclostomata |
| (viii) | What is metamorphosis ? |
| (ix) | How platyhelminthes have adopted themselves parasitic mode of life ? |
| (x) | What is ecdysis , how it is beneficial for arthropods ? |
| (xi) | Define chemiosmosis |
| (xii) | What is lactic acid fermentation ? |

QUESTION NO. 3 Write short answers of any Eight (8) parts of the following

16

- | | |
|--------|---|
| (i) | What is use of hydroponic culture technique ? |
| (ii) | Define bioelements , name six elements which form 99 % of total mass in human body |
| (iii) | Give the function of ribosomes |
| (iv) | Differentiate between cisternae and cristae |
| (v) | How algae differ from plants ? |
| (vi) | Which member of zooflagellates live in gut of termite for digestion of wood ? Discuss |
| (vii) | What do you know about giant Ameoba ? |
| (viii) | Give the role of foraminifera in formation of lime stone deposits |
| (ix) | Define Ovule |
| (x) | Describe female cone of pinus |
| (xi) | Differentiate between apoplast and symplast pathway |
| (xii) | What is imbibitions ? Give its role |

QUESTION NO. 4 Write short answers of any Six (6) parts of the following

12

- | | |
|--------|--|
| (i) | What are common names and their disadvantages ? |
| (ii) | What are amphitrichous bacteria ? |
| (iii) | Define nutrition |
| (iv) | How sundews show insectivorous activity ? |
| (v) | What is botulism ? Give its cause |
| (vi) | What are parabronchi ? |
| (vii) | What is the role of nasal cavity in breathing ? |
| (viii) | How air is better respiratory medium than water ? |
| (ix) | Where carbonic anhydrase enzyme is present ? Give its function |

SECTION-II

Note: Attempt any Three questions from this section

8 x 3 = 24

- | | |
|---------|--|
| Q.5 (A) | How vaccination , dry treatment and gene therapy helped in improving human health ? |
| (B) | Write a detailed account on immunity and its types |
| Q.6 (A) | Compare tertiary structure of proteins with quaternary structure |
| (B) | Describe Economic Losses due to fungi |
| Q.7 (A) | Describe different methods of nutrition in Bacteria |
| (B) | Describe life cycle of Angiosperms |
| Q.8 (A) | Explain the five kingdom system proposed by Robert Whittaker 1969 |
| (B) | Describe the Oxidative phosphorylation with the help of graphic representation |
| Q.9 (A) | Explain the structure and function of Endoplasmic reticulum |
| (B) | What do you know about the heterotrophic mode of Nutrition in plants give the example of all three |