

**Section - I**

**Note : i) All Questions are compulsory**

**ii) Choose the most suitable answer from the given four alternatives and write the option code and the corresponding answer**

- 1) The integrated phage DNA is called  
(a) prophage (b) bacteriophage (c) cyanophage (d) mycophage
- 2) Water is essential for fertilization  
(a) Angiosperm (b) Bryophytes (c) Gymnosperms (d) Fungi
- 3) Buds arising at any part other than stem as known as  
(a) Apical bud (b) Axillary bud (c) Adventitious bud (d) Accessory bud
- 4) Flowers are zygomorphic in  
(a) Lilium (b) Solanum (c) Datura (d) Hibiscus
- 5) Ribosomes were first observed by  
(a) Christian de Duve (b) George Palade (c) A.Kolliker (d) A.F.U.Schimper
- 6) The function of sieve tubes are believed to be controlled by \_\_\_\_\_  
(a) Phloem parenchyma (b) sieve cells (c) Companion cells (d) Albuminous cells
- 7) Pulsation Theory was proposed by \_\_\_\_\_  
(a) J.B.Bose (b) Goldewski (c) Strasbuger (d) Stephen Hales
- 8) Exanthema in citrus caused by the deficiency of \_\_\_\_\_  
(a) Boran (b) Manganese (c) Iron (d) Copper
- 9) The beneficial bacterias are known as  
(a) pathogens (b) probiotic (c) cyanobacteria (d) plasmid
- 10) Find out the mismatched pair  
(a) Adhering junction - Keep neighbouring cells together (b) Tight junction - Leakage of cellular components  
(c) Synaptic junction - Junction between neurons (d) Gap junction - Connect cytoplasm

11) Match the following

A	B
1 Jaundice	i Cholesterol
2 Liver cirrhoes	ii Aspirin
3 Gall stone	iii Alcoholism
4 Peptic ulcer	iv Viruses

- (a) 1(iii) 2(iv) 3(i) 4(ii) (b) 1(iv) 2(ii) 3(iii) 4(i) (c) 1(iv) 2(iii) 3(i) 4(ii) (d) 1(i) 2(iii) 3(ii) 4(iv)

12) Find out the wrong statement:

- (a) Prothrombin is an inactive protein (b) Plasma with fibrinogen is called serum (c) Heparin is an anticoagulant  
(d) Thrombin convert fibrinogen into fibrin

13) Write the correct answer

Assertion: Thalamus is a white matter which act as relay centre

Reason: It coordinates sensory and motor signalling

- (a) Both Assertion and Reason is correct (b) Both Assertion and Reason is wrong (c) Assertion is correct but Reason is wrong  
(d) Assertion is wrong but Reason is correct

- 14) 1. The plasmamebrane of muscle cell is known as sarcolemma  
 2. Hydrostatic skeleton is stiff bony structure present in fishes  
 3. The Vertebral ribs are not connected to sternum  
 (a) 1 is correct, 2 and 3 are wrong (b) 1 and 2 are correct, 3 is wrong (c) 3 is correct, 1 and 2 are wrong  
 (d) 1 and 3 are correct, 2 is wrong
- 15) Choose the correct statement  
 If the vasopressin receptor of a man is defective. Then  
 (a) He suffer from low blood pressure and dehydration (b) Shows hyperglycemic condition  
 (c) Excessive thirst does not occurs (d) the urea level in the urine is higher than the normal
- 16) Which of the following hormone is not secreted under the influence of pituitary gland  
 (a) Thyroxin (b) Insulin (c) Oestrogen (d) Glucocorticoids

### Section - II

12 x 2 = 24

#### II. Answer any eight questions

- 17) Differentiate Homoiomerous and Heteromerous lichens  
 18) What is epipetalous stamens?  
 19) Write the properties of water.  
 20) Draw and label bicollateral vascular bundle.  
 21) Define ascent of Sap  
 22) What is Chlorosis?  
 23) What are methanogens?  
 24) What are adipocytes?  
 25) What is vermicompost?  
 26) Why more oxygen is transported by haemoglobin than in dissolved form  
 27) Draw and label reflex arc  
 28) Write down any two functions of melatonin

### Section - III

10 x 3 = 30

#### III. Answer any six questions

- 29) What is Velamen root? Give example  
 30) Draw and label the structure of chromosome.  
 31) What is Synapsis?  
 32) What is trichoplast?  
 33) Define respiratory quotient  
 34) The first child of Rh+ive father and Rh-ive mother is homozygous recessive condition. Is the next child affected by Erythroblastocis foetails? Give reason  
 35) Name the composition of "Sebum"  
 36) How is mean arterial pressure increases?  
 37) Write any three function of C.S.F  
 38) How is pelvic girdle is adapted for conception?

### Section - IV

8 x 5 = 40

#### IV. Answer All Questiouns:

- 39) Write the characteristic features of stem.  
 40) Describe special inflorescence with example  
 41) Draw and label the parts of T.S of Dicot leaf  
 42) Write the flow chart of Glycolysis  
 43) Explain the fundamental distinct features of chordates  
 44) Explain the digestion and absorption of proteins in human intestine.  
 45) What are the functions of skeletal system?  
 46) Explain the disorders due to hyper and hyposecretion of glucocorticoids

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