

Time: 2 Hour

Total Marks: 70

**Class : XI**  
**Subject : Biology**

**MCQ SINGLE CORRECT**

1. Deficiency symptoms of an element tend to appear first in young leaves. It indicates that the element is relatively immobile. Which one of the following elemental deficiency would- show such symptoms?  

(a) Sulphur	(b) Magnesium
(c) Nitrogen	(d) Potassium
2. Plastids differ from mitochondria on the basis of which of the following features?  

(a) Presence of two layers of membrane	(b) Presence of ribosome
(c) Presence of thylakoids	(d) Presence of DNA
3. In an inflorescence where flowers are borne laterally in an acropetal succession, the position of the youngest floral bud shall be  

(a) Proximal	(b) Distal
(c) Intercalary	(d) Anywhere
4. Taxonomic key is one of the taxonomic tools in the identification and classification of plants and animals. It is used in the preparation of  

(a) Monographs	(b) Flora
(c) Both a & b	(d) None of these
5. Water potential of pure water at standard temperature is equal to  

(a) 10	(b) 20
(c) Zero	(d) none of these

**TRUE/FALSE**

1. Gastrointestinal tract, kidney and heart also produce hormones.  

(a) True	(b) False
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2. Pars distalis produces six trophic hormones.  

(a) True	(b) False
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3. Insulin resistance results in a disease called diabetes mellitus.  

(a) True	(b) False
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All The Best!!!

4. B-lymphocytes provide cell-mediated immunity.  
(a) True (b) False
5. Every mineral element that is present in a cell is needed by the cell.  
(a) True (b) False

### **FILL IN THE BLANKS**

1. In cockroach blood vessels open into\_\_\_\_\_
2. Osmosis is a special kind of diffusion, in which water diffuses across the cell membrane. The rate and direction of osmosis depends upon both\_\_\_\_\_
3. Eosinophils are associated with \_\_\_\_\_ reactions.
4. In addition to auxin, a \_\_\_\_\_ must be supplied to culture medium to obtain a good callus in plant tissue culture.
5. Absorption of water from soil by dry seeds increases the \_\_\_\_\_ thus helping seedlings to come out of soil

### **VERY SHORT DESC**

1. The three tiny bones present in middle ear are called ear fossils. Write them in correct sequence beginning from ear drum.
2. What is a monograph?
3. Name the enzymes involved in the breakdown of nucleotides into sugars and bases.
4. A major percentage (97%) of O<sub>2</sub> is transported by RBCs in the blood. How is the remaining percentage (3%) of O<sub>2</sub> transported?
5. Most algal genera show haplontic life style. Name an alga which is
  - a. Haplo-diplontic
  - b. Diplontic

### **SHORT DESC - 25 WORDS**

1. What do you understand by splitting of water and its importance in photosynthesis?
2. What is the significance of splitting of water, during photosynthesis?
3. Write short notes on: Medicinal use of Algae
4. Write the name of five diseases caused by viruses.
5. Distinguish between: Simple epithelium and compound epithelium

### **MED DESC - 50 WORDS**

1. Give a brief explanation of the human skeletal system.
2. RuBisCO is an enzyme that acts both as a carboxylase and oxygenase. Why do you think RuBisCO carries out more carboxylation in C<sub>3</sub> plants?

- Give a comparative account of the classes of Kingdom Fungi under the following  
(i) Mode of Nutrition (ii) Mode of reproduction
- Describe passive transport, osmosis and active transport in plasma membrane.
- Give a brief account of light reaction.

### LONG DESC - 100 WORDS

- Find out how much cellulose is made by all the plants in the biosphere and compare it with how much of paper is manufactured by man and hence what is the consumption of plant material by man annually. What a loss of vegetation?
- Explain why xylem transport is unidirectional and phloem transport bi-directional?
- What are the factors which affect photosynthesis? Explain.
- Explain the alimentary canal of a pheretima with suitable diagram. Explain how the peculiar feeding habit of earthworm is helpful for humans?
- Compare  $C_3$  and  $C_4$  plants on various parameters.

### MATCH THE PAIRS

- Match the following:

A	IAA	(i)	Herring sperm DNA
B	ABA	(ii)	Bolting
C	Ethylene	(iii)	Stomatal closure
D	GA	(iv)	Weed-free lawns
E	Cytokinins	(v)	Ripening of fruits

(a) A-(iv), B-(iii), C-(v), D-(ii), E-(i)

(b) A-(v), B-(iii), C-(iv), D-(ii), E-(i)

(c) A-(iv), B-(i), C-(v), D-(iii), E-(ii)

(d) A-(v), B-(iii), C-(ii), D-(i), E-(iv)

- Match the following and choose the correct option from below.

A	Cuticle	(i)	Guard cells
B	Bulliform cells	(ii)	Single layer
C	Stomata	(iii)	Waxy layer
D	Epidermis	(iv)	Empty colourless cell

(a) A-(iii), B-(iv), C-(i), D-(ii)

(b) A-(i), B-(ii), C-(iii), D-(iv)

(c) A-(iii), B-(ii), C-(iv), D-(i)

(d) A-(iii), B-(ii), C-(i), D-(iv)

- Match the following and mark the correct options

	Animal		Respiratory Organ
A	Earthworm	(i)	Moist cuticle
B	Aquatic Arthropods	(ii)	Gills
C	Fishes	(iii)	Lungs

D	Birds/Reptiles	(iv)	Trachea
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(a) A-(ii), B-(i), C-(iv), D-(iii)

(b) A-(i), B-(iv), C-(ii), D-(iii)

(c) A-(i), B-(iii), C-(ii), D-(iv)

(d) None of these

4. Match of endocrine gland and their hormones among the options given below

A	Pineal	(i)	Epinephrine
B	Thyroid	(ii)	Melatonin
C	Ovary	(iii)	Estrogen
D	Adrenal medulla	(iv)	Tetraiodothyronine

(a) A-(iv), B-(ii), C-(iii), D-(i)

(b) A-(ii), B-(iv), C-(i), D-(iii)

(c) A-(iv), B-(ii), C-(i), D-(iii)

(d) A-(ii), B-(iv), C-(iii), D-(i)

5. Choose the correct option among the following:

	Column A		Column B
A	Epinephrine	(i)	Stimulates in muscle growth
B	Testosterone	(ii)	Decrease in blood pressure
C	Glucagon	(iii)	Decrease in liver glycogen content
D	Atrial natriuretic factor	(iv)	Increases heart beat

(a) A-(ii), B-(i), C-(iii), D-(iv)

(b) A-(iv), B-(i), C-(iii), D-(ii)

(c) A-(i), B-(ii), C-(iii), D-(iv)

(d) A-(i), B-(iv), C-(ii), D-(iii)