

E-446 (H/E)

BIOLOGY 2016

Time : 3 Hours]

Class : 12th

[M. M. : 75

Instructions-

- (i) All questions are compulsory.**
- (ii) There are two section in question paper: Section 'A' and section 'B'.**
- (iii) In section-A Q.Nos. 1 to 4 are objective type question which contain-Fill in the blanks, Multiple choice, One word/one sentence and match the column. Each question carries 5 marks.**

- (iv) In section-B there are question nos. 5 to 18 Internal options are given in each question.
- (v) Q.Nos. 5 to 8 are very short answer type question. Each carries 2 marks. Write answer of these question approximately in 30 words each.
- (vi) Q.Nos. 9 to 13 are short answer type questions. Each carries 4 marks. Write answer of these questions approximately in 75 words each.
- (vii) Q.Nos. 14 to 16 are long answer type question. Each carries 5 marks. Write answer of these question approximately in 120 words each.
- (viii) Q.Nos. 17 and 18 are long answer type question. Each carries 6 marks. Write answer of these question approximately in 150 words each.
- (ix) Start answering the objective type question from first page of the answer sheet
- (x) Draw neat and labelled diagram wherever necessary.

Section-A (Objective type Questions)

- Q. 1. Fill in the blanks: 5
- (1) Ethyl alcohol is the end product of Respiration.
 - (2) The name of largest endocrine gland of our body is
 - (3) The main source of energy in ecosystem is
 - (4) The population as a result of immigration.
 - (5) The study of physical abnormalities of embryo is called
- Q.2. Choose the correct answer: 5
1. The rate of photosynthesis is maximum in which colour of light:

(a) In green light	(b) In red light
(c) In yellow light	(d) In purple light
 2. Hormone which helps in the closing of stomata is:

(a) Auxin	(b) Ethylene
(c) Cytokinin	(d) Abscisic acid.
 3. The maturation of T-Lymphocytes occur in:

(a) bone marrow	(b) spleen
(c) kidney	(d) Thymus
 4. Which one is the most suitable soil for the growth of plants:

(a) Sandy soil	(b) Loamy Soil
(c) Silty soil	(d) Clayey soil.

5. Percentage ratio of natality over mortality is:

- (a) Vital Index (b) Population dynamics
(c) Population density (d) Total count.

- Q. 3. Write the answer in one word/sentence: 5
1. What is the process of conversion of free nitrogen to nitrogenous compound called?
 2. Name the eye disease related with deficiency of vitamin-A.
 3. Name the fluid present in the cavities of brain and spinal cord.
 4. Name the protein which play an important role in ageing.
 5. Which hormone used for lactation in sterile cow?

- Q. 4. Match the Column: 5
- | | |
|-----------------|-------------------------------|
| (a) Rhodopsin | (i) Amphibious |
| (b) Lead | (ii) Steward |
| (c) Ranunculus | (iii) Biodegradable pollutant |
| (d) Totipotency | (iv) Ratanjot |
| (e) Biodiesel | (v) Rod cell |
| | (vi) Cone cell |
| | (vii) Mangrove plant |

Section-B (Very Short answer type question)

- Q. 5. Why does muscle fatigue occur? 2
(OR) Define ureotelic organism with example.
- Q. 6. Write the definition and any one significance of Parthenogenesis. 2
(OR) Write the any two causes of Dormancy in seed.
- Q. 7. Why testis are found outside the abdominal cavity in males. 2
(OR) Write the difference between clinical death and Biological death.
- Q. 8. Write the name of four types of species. 2
(OR) Write the functions of decomposer.

(Short answer type questions)

- Q. 9. Which node of heart does the work of pacemaker. Explain why it is called as life saving apparatus? 4
(OR) How does the transportation of oxygen occur through blood?
- Q. 10. Write names of different components present in gastric juice and write the functions of any two components. 4
(OR) What are sex hormones? Describe any one male and one female sex hormones.
- Q. 11. Explain the process of spermatogenesis in humans with the help of ray diagram. 4
(OR) Explain the development of female gametophyte in angiosperm by well labelled diagram only.

- Q. 12. Describe the different types of pollution occurring due to fire work. 4
(OR) Explain the 10% law of Lindman.
- Q. 13. Write any four importance of tissue culture. 4
(OR) Write the name of any four sex related diseases and write any one symptom of each of them.

(Long answer type question)

- Q. 14. Explain the process of guttation with diagram. 5
(OR) Explain the nutrition in pitcher plant with diagram.
- Q. 15. Write the name and function of any five cranial nerves. 5
(OR) Explain any five movable joint with example.
- Q. 16. Explain the process of pearl formation and write the name of any four types of pearls. 5
(OR) Explain any five stages of Hydrosere.

(Long Answer type question)

- Q. 17. Write any six difference between cyclic and non cyclic photophosphorylation. 6
(OR) Write any six difference between Glycolysis and Krebs's cycle.
- Q. 18. Write any three application of biotechnology in the field of agriculture. 6
(OR) What do you mean by Biopatent? Write its uses and abuses.