

# GSEB QUESTION PAPER BIOLOGY

**Time : 3 Hours]**

**[Maximum Marks : 100]**

### Instructions: :-

- 1. Attempt *all* questions.**
- 2. Follow the instructions.**
- 3. Begin new section on a new page.**

## Section - A

Question Nos. 1 to 16 are multiple choice questions, each carry **one** mark. Choose **16**  
the correct answer (a/ b/ c/ d) from the given alternative responses and write it.

1. Which type of parasite is plasmodium ?
  - a) Ectoparasite
  - b) Total parasite
  - c) Paratrical Parasite
  - d) Endoparasite
2. What is the effect of PIF on LTH ?
  - a) Because of PIF secretion of LTH increases.
  - b) No effect of PIF on LTH is observed.
  - c) PIF inhibits the effects of LTH.
  - d) PIF activates LTH more.
3. A fat soluble vitamin responsible for clotting of blood is .....
  - a) Vitamin - D
  - b) Vitamin - A
  - c) Vitamin - E
  - d) Vitamin - K

4. Which ion is needed for the activity of carboxylase type of enzymes and auxin synthesis ?
- a) Magnesium
  - b) Boron
  - c) Zinc
  - d) Copper
5. A defensive barrier which prevents entry of pathogens is .....
- a) skin
  - b) Mucus membrane
  - c) mucus secretion
  - d) cilia
6. The glands on lateral sides of urethra, below the prostate gland is .....
- a) Seminal vesicles
  - b) Prostate gland
  - c) Bulbo-urethral gland
  - d) Testis
7. A treatment used in breaking stone in kidneys is .....
- a) Sonography
  - b) MRI
  - c) CAT
  - d) Endoscopy
8. Which enzyme is present in gastric juice of children ?
- a) Trypsin
  - b) Cassein
  - c) Casseinogen
  - d) Renin
9. In plants it hinders seed germination and the development of excised embryo.
- a) Ethylene
  - b) Gibberrelins
  - c) Cytokinins
  - d) Absciscic Acid

10. In which of the following animal, is nephridia found ?
- a) Cockroach
  - b) Earthworms
  - c) Frog
  - d) Fish
11. Which of the following bacteria is symbiotic ?
- a) Azotobacter
  - b) Pseudomonas
  - c) Nitrobacter
  - d) Rhizobium
12. During the process of opening of stomata which ions are entering into guard cells ?
- a)  $H^+$  and  $Mg^{++}$
  - b)  $K^+$  and  $Cl^-$
  - c)  $K^+$  and  $Fe^{+++}$
  - d) Malate ion and  $Mg^{++}$
13. Which organ can be regenerated by birds ?
- a) Fractured bones
  - b) kidney
  - c) Beak
  - d) Liver
14. How many ATP are formed during dephosphorylation of glycolysis ?
- a) 3 ATP
  - b) 2 ATP
  - c) 4 ATP
  - d) 6 ATP
15. In human, which blood cells are without nucleus ?
- a) Lymphocytes
  - b) R.B.C.
  - c) W.B.C.
  - d) Neutrophils
16. The genetic complex of such organisms is the same yet fertilization does not occur, what's it called ?
- a) Parthenogenesis
  - b) Polyembryony
  - c) Incompatibility
  - d) Parthenocarpy

## **Section - B**

Question Nos. 17 to 32 are very short answer type questions, each question carry **16** **one** mark. Give answer in the limit of 1 to 10 words.

17. What is endosporic development ?
18. Give names of the drugs excreted in distal convoluted region of uriniferous tubule. (any two)
19. Which hormone has profound effects on efficiency of endocrine system ?
20. Write the function of neutrophils.
21. State the deficiency effects of chlorine.
22. Which process does not take place during cyclic photophosphorylation ?
23. What is egg-apparatus ?
24. What is lenticular transpiration ?
25. State the location and function of sertoli cells.
26. Define : Respiratory Quotient.
27. State the main goals of 'Conservation' in Biosphere reserves.  
(Any two)
28. What is 'Vertebro-chondrial ribs' ?
29. State the names of countries, which have 0.6 % natural growth rate. (Any two)
30. State the function of LH in women.
31. What is 'tillage' ?
32. Which stage succeeds floating stage ?

### **Section - C**

Question Nos. **33** to **44** are short answer type questions, each question carries **two** **24** marks. Give answers in the limit of 30 words.

- 33.** Explain : Antigen.
- 34.** Explain : Placenta.
- 35.** Describe the factors affecting the process of osmosis.
- 36.** State any four goals of animal breeding.
- 37.** State the disorders resulting due to deficiency of Riboflavin and Thiamine and write any two symptoms of each.
- 38.** Explain the synthesis of aminoacids.
- 39.** State the oxides of nitrogen and particulate matter as type of air pollutants.
- 40.** State the location : Caecum and vermiform appendix.
- 41.** Which type of asexual reproduction is observed in Amoeba and Paramecium ? Explain it.
- 42.** Write a short note on : Factors, affecting the Growth of plants.

**OR**

Write the factors responsible for seed dormancy. (any four)

- 43.** Explain chemosynthetic nutrition, with examples.
- 44.** Explain : the Theory of Error catastrophe and somatic mutation theory.

**OR**

What is nastic movement ? Explain nastic movement in plants.

### Section - D

Question Nos. 45 to 52 are short answer type questions, each question carries **24** **three** marks. Give answers in the limit of 50 words.

- 45. Explain bar diagrams of age and sex structure. (Bar graph necessary)
- 46. In which region of chloroplast the photo chemical phase takes place ?  
Explain photolysis of water.
- 47. What is the meaning of Harmful relationships ? Describe exploitation and predation.
- 48. On the basis of penetration of light, describe the various zones of lake.

**OR**

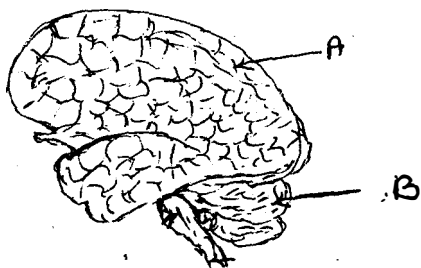
Explain : Soil profile.

- 49. Describe  $O_2$  transport through blood.
- 50. Describe : Hormones of adrenal cortex.

**OR**

Describe the effects of testosterone. (Any six points)

- 51. Explain Amoeboid movement and ciliary movement.
- 52. In the given diagram what does 'A' and 'B' represent ? Write their function.



**OR**

Describe the digestion of food in cockroach.

### **Section - E**

Question Nos. **53** to **57** are long answer type questions, each question carries **four** **20** marks. Give answers in the limit of 100 words.

**53.** Describe Anthropogenic Extinction.

**OR**

What is Endoscopy ? Describe methodology and usefulness of endoscopy.

**54.** Describe capsella type of embryo development with a diagram.

**OR**

Describe the types of regeneration.

**55.** Explain the professional Induced-lung diseases and protective measures against them.

**OR**

Draw the diagram showing blood circulation path in heart and describe blood circulation through heart.

**56.** Explain Anaerobic respiration in plant cell and animal cell.

**57.** Describe the process of decomposition.