

H.P. BOSE
Sample Paper
Session-2021-22
Second Terminal Exam 2022

Biology
Class : XI
Section-A

Time:3 Hrs **M.M.: 50**

1. DNA synthesis on replication takes place in
 - a) G_1 phase
 - b) S phase
 - c) G_2 phase
 - d) G_0 phase
2. The chromosomes are arranged in the equatorial plate in
 - a) prophase
 - b) metaphase
 - c) Anaphase
 - d) telophase
3. No. of haploid cells formed after meiosis are
 - a) Two
 - b) Three
 - c) Four
 - d) Five
4. The law of limiting factor was given by
 - a) Calvin
 - b) Kreb
 - c) Blackman
 - d) Mendel
5. Which plant hormone is also known as stress hormone?
 - a) Auxin
 - b) Cytokinin's
 - c) Ethylene
 - d) Absicic Acid

6. Fruit ripening is promoted by
- a) Nitrogen b) CO_2
 - c) SO_2 d) Ethylene
7. In C_4 plants Calvin cycle occurs in
- a) Mesophyll Cells b) Epidermal Cells
 - c) Bundle-Sheath Cells d) None of the above
8. Election transport system is present in
- a) Outer mitochondrial membrane
 - b) Inner mitochondrial membrane
 - c) Matrix
 - d) Stroma
9. Lungs are covered by
- a) Pleural membrane b) Peritonium
 - c) Pericardium d) None of the above
10. The entry of food into respiratory passage is prevented by
- a) pharynx b) Larynx
 - c) glottis d) Epiglottis
11. The instrument used to measure volume of air involved in breathing movement is called
- a) Sphygmomanometer b) Stethoscope
 - c) Anemometer d) Spirometer

12. Volume of air inspired or expired during a normal respiration is
a) 500 ml b) 1000 ml
c) 1500 ml d) 1800 ml
13. Persons with AB blood group are called
a) Anemic b) Universal donor
c) Universal recipient d) None of the above
14. Flame cells are excretory structures in
a) Platyhelminthes b) Annelids
c) Arthropoda d) Mollusca
15. PH of human urine is
a) 6 b) 8
c) 10 d) 12
16. ADH or vasopressin is produced from gland
a) pituitary b) hypothalamus
c) kidney d) pancreas
17. Human is
a) Ammonotelic b) Ureotelic
c) Uricotelic d) Both a and b.
18. Troponin is a part of
a) Actin b) Myosin
c) Collagen d) None of the above

19. Chemicals released at the synaptic junction are
 a) hormones b) enzymes
 c) Neurotransmitters d) None of the above
20. Hormone responsible for sleep awake cycle is
 a) Epinephrine b) Gastrin
 c) Insulin d) Melatonin
21. Write four physiological effects of Auxins? 2
22. What is Oxidative phosphorylation? 2
23. What is oxygen dissociation curve? 2
24. Draw a well labelled diagram of human nephron? 2
25. What is muscle fatigue. 2

or

Write two differences between red muscle and white muscle fibres.

26. What are cranial meninges. Name them. 2
27. Match the following:
- | A | B |
|----------|--------------|
| a) T_4 | Hypothalamus |
| b) PTH | Thyroid |
| c) GnRH | pituitary |
| d) LH | Para thyroid |

or

What are neurotransmitters. Name any one.

28. Draw a well labelled diagram of citric acid cycle. 3
- or
- Write three differences between Aerobic respiration and fermentation.
29. Draw well labelled diagram of metaphase and Anaphase of mitosis in animal cell. 3
30. Draw a well labelled diagram of non-cyclic photophosphorylation. 5
- or
- a) Draw a well labelled diagram of chloroplast. 2
- b) C_4 plants have a special leaf anatomy name it? 1
- c) Differentiate between C_3 and C_4 plants. 2
31. a) What is double circulation? 3
- b) Draw a well labelled diagram of human heart. 2
- c) Name the instrument used to measure blood pressure. 1