Reg. No.	R	A	2	0	1	1	0	0	4	0	1	0	0	5	1

B.Tech. DEGREE EXAMINATION, JULY 2022

Third and Fourth Semester

18BTB101T - BIOLOGY

(For the candidates admitted from the academic year 2020 – 2021 and 2021 – 2022)

Note:

(i) **Part - A** should be answered in OMR sheet within first 40 minutes and OMR sheet should be handed over to hall invigilator at the end of 40th minute.

(ii) **Part - B** should be answered in answer booklet.

Time: 2½ Hours | Max. Marks: 75

PART – A (25 × 1 = 25 Marks)

Answer **ALL** Questions

	Marks	BL	CO	PO
1. Which of the following is related to ribosome synthesis? (A) Lysosome (B) Nucleolus (C) Plasma membrane (D) Chloroplast	1	1	1	1
2. Which of the following is related to DNA? (A) Nucleotides (B) Amino acids (C) Fatty acids (D) Polysaccharides	1	1	1	1
3. The term "power house" is associated with (A) Nucleus (B) Chloroplast (C) Mitochondria (D) Endoplasmic reticulum	1	1	1	1
4. The example of eukaryotic unicellular organism is (A) Fungi (B) Yeast (C) Cow (D) Bacteria	1	1	1	1
5. Bacteria is associated with _____kingdom. (A) Plantae (B) Monera (C) Protista (D) Fungi	1	1	1	1
6. The sickle cell anemia is associated with _____. (A) Gelatin (B) Steroids (C) Glucose (D) Hemoglobin	1	1	2	2
7. _____vitamin deficiency leads to rickets. (A) A (B) B (C) C (D) D	1	1	2	2
8. The glucose molecule is related to (A) Polysaccharides (B) Monosaccharides (C) Disaccharides (D) Oligosaccharides	1	1	2	2
9. Which statement is NOT related to lipid molecule? (A) Insulate the body (B) Protect the organs (C) It act as a energy reservoir (D) Involves in gene transfer	1	1	2	2

10. _____nitrogenous bases are absent in DNA. 1 1 2 2
(A) Guanine (B) Cytosine
(C) Uracil (D) Adenine

11. Which is NOT an example of enzyme? 1 1 3 2
(A) Pepsin (B) Trypsin
(C) Ghrelin (D) Papain

12. Which of the following is an example of cofactor? 1 1 3 2
(A) Biotin (B) NAD
(C) FAD (D) Copper

13. Which is related to the enzyme metalloprotease? 1 1 3 2
(A) Thermolysin (B) Papain
(C) Thrombin (D) Chymotrypsin

14. _____is the inhibitor of serine protease enzyme. 1 1 3 2
(A) Salicylic acid (B) Fluorophosphates
(C) Polymer (D) O-phenanthroline

15. The hill reaction occurs is _____in the plants. 1 1 3 2
(A) Cytoplasm (B) Matrix
(C) Stroma (D) Thylakoid membrane

16. The flagellar motor is associated with 1 1 4 3
(A) C-ring (B) Hook
(C) W-ring (D) MS-ring

17. The actin filament is a composition of 1 1 4 3
(A) Plasma membrane (B) Nuclear membrane
(C) Cytoskeleton (D) Lysosome

18. Identify the anaerobic bacteria from the following 1 1 4 3
(A) Rhodococcus (B) Alcaligenes
(C) Actinomyces (D) Pseudomonas

19. The *ex-situ* bioremediation is associated with 1 1 4 3
(A) Biosparging (B) Biopiles
(C) Biostimulation (D) Bioventing

20. _____hormone is detected in the urine sample for pregnancy test. 1 1 4 3
(A) FGH (B) Insulin
(C) HCG (D) FSH

21. Which cells involve in insulation of axon in the PNS? 1 1 5 2
(A) Schwann cells (B) Oligodendrocytes
(C) Astrocytes (D) Microglia

22. Select the neurotransmitter from the following. 1 1 5 2
(A) Creatinine (B) Glucagon
(C) Saponin (D) Acetylcholine

23.	Which lobe in the brain is associated with vision? (A) Parietal (B) Occipital (C) Temporal (D) Frontal	1	1	5	2
24.	Which cell is involved in immunological surveillance? (A) Rod cells (B) NK cells (C) Bone cells (D) RBC cells	1	1	5	2
25.	Immunoglobins (or) antibodies are produced from (A) T cell (B) Activated T cell (C) B cell (D) Activated B cell	1	1	5	2

PART – B (5 × 10 = 50 Marks)

Answer **ALL** Questions

		Marks	BL	CO	PO
26. a.	Outline in detail about structure and function of eukaryotic cell with neat sketch.	10	3	1	1
	(OR)				
b.	Define cell cycle. Explain about mitosis cell division with neat sketch.	10	3	1	1
27. a.	Explain structure and function of DNA with neat diagram.	10	3	2	2
	(OR)				
b.	Describe in detail about stem cells and its applications.	10	3	2	2
28. a.	Outline in detail about factors affecting enzyme activity.	10	3	3	2
	(OR)				
b.	Explain in detail about photosynthesis with neat sketch.	10	3	3	2
29. a.	Describe the structure and function of flagellar motor with neat diagram.	10	3	4	2
	(OR)				
b.	Explain about different types of bioremediation.	10	3	4	2
30. a.	Outline about structure and function of glial cells with neat sketch.	10	3	5	2
	(OR)				
b.	Describe in detail about immune response system with neat diagram.	10	3	5	2

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