

19. What are anti-viral drugs? Add notes on their types and mode of action in living organisms.
20. Discuss in detail about the electron transport chain under aerobic conditions.

APRIL/MAY 2018

BMB21 — MICROBIAL PHYSIOLOGY

Time : Three hours

Maximum : 75 marks

SECTION A — (10 × 2 = 20 marks)

Answer ALL questions.

Each answer not to exceed 50 words.

Define/Short note of the following :

1. Photoautotrophs.
2. Facilitated diffusion.
3. Solidifying agents.
4. Streak plate method.
5. Generation time.
6. Membrane filtration technique.
7. Anthelmintic drugs.
8. Antibiotics.
9. Coenzymes.
10. Phosphorylation.

SECTION B — ($5 \times 5 = 25$ marks)

Answer ALL questions.

Each answer not to exceed 200 words.

11. (a) Discuss briefly about active transport mechanisms.

Or

- (b) Write a brief account of iron uptake mechanism in microorganisms.

12. (a) Define medium. Discuss in detail about their classification based on the consistency.

Or

- (b) What is pure culture? Add notes on the purification of fungi from mixed culture.

13. (a) What is exponential phase of a growth curve? Add notes on its significance.

Or

- (b) Define growth in microorganisms. Discuss briefly about the measurement of microbial growth by turbidity analysis.

14. (a) Give a detailed account on the mechanism of action of antibiotics by

(i) Inhibition of cell wall synthesis.

(ii) Inhibition of protein synthesis.

Or

- (b) What is antimicrobial resistance? Write a brief account on their significance.

15. (a) How anabolism and catabolism are organized in metabolism?

Or

- (b) What is enzyme? Add notes on the properties of important bacterial enzymes.

SECTION C — ($3 \times 10 = 30$ marks)

Answer any THREE questions.

Each answer not to exceed 500 words.

16. Define nutrition. Discuss in detail about the classification of microorganisms based on carbon source, electron donor and energy source.

17. Write an essay on the preservation of microorganisms for longer duration.

18. Discuss elaborately about the environmental factors affecting the growth of microorganisms.