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# SIXTH SEMESTER B.Sc. DEGREE EXAMINATION, MARCH/APRIL 2018

(CUCBCSS—UG)

## Biotechnology

## BTY 6B 17—MEDICAL BIOTECHNOLOGY

Time: Three Hours

Maximum: 80 Marks

### Section A

Answer any **two** out of four questions in about 1,500 words. Each question carries 10 marks.

- 1. Describe various fungal culture techniques and different types of fungal culture media.
- 2. Describe the domain structure of IgG molecule. Add a note on the functions of immunoglobulins
- 3. Write an essay on the laboratory methods for the diagnosis of Hepatitis C.
- 4. What are communicable diseases? Write about the prophylactic measures for any two diseases.

 $(2 \times 10 = 20 \text{ marks})$ 

#### Section B

Answer any **seven** out of fourteen questions in about 750 words. Each question carries 5 marks.

- 5. Give a detailed account on media selection for suitable microorganism development.
- 6. Explain the various methods of disinfections with suitable examples.
- 7. Give an account on the diagnostic procedure for superficial mycosis.
- 8. Write short notes on lymphoid lineage.
- 9. List-out and explain the structure and functions of different cells of immune system.
- 10. Explain the primary immune response.
- 11. Describe the virulence factors of Streptococcus pyogenes and its laboratory diagnosis.
- 12. Describe the etiology, pathogenesis, laboratory diagnosis and treatment of enteric fevers.
- 13. Classify Enterobacteriacea.
- 14. Describe the laboratory diagnosis of H5N1 infections.

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- 15. Write notes on laboratory diagnosis of HSV virus.
- 16. Describe the disease caused by pox virus.
- 17. Explain common nosocomial pathogens.
- 18. Describe the various non pathogenic microorganisms in human body.

 $(7 \times 5 = 35 \text{ marks})$ 

### Section C

Answer all questions in about 300 words. Each question carries 3 marks.

- 19. What are the different biological/physiological factors influencing the growth and survival of microorganisms?
- 20. Explain the mechanism involved in humoral immune response.
- 21. Describe the diseases caused by Rhabdo viruses.
- 22. Discuss about the life cycle, pathogenecity and diagnosis of *M.tb*.
- 23. Explain antimicrobial therapy with suitable examples.

 $(5 \times 3 = 15 \text{ marks})$ 

#### Section D

Answer all questions in about 200 words.

Each question carries 2 marks.

- 24. Comment on Bacterial Spore.
- 25. What is avidity?
- 26. Comment on Toxic shock syndrome.
- 27. What is a Virion?
- 28. Name any four Retroviruses.

 $(5 \times 2 = 10 \text{ marks})$