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Reg. No. 7.0.0.2.1.0.12.859

Name.....*Govind*.....

**B.Sc. DEGREE (CBCS) EXAMINATION, JANUARY/FEBRUARY 2018**

**First Semester**

Complementary Course—Microbiology—FUNDAMENTALS OF MICROBIOLOGY—I

(For B.Sc. Biotechnology)

[2017 Admissions]

Time : Three Hours

Maximum Marks : 60

**Part A**

*Answer any ten questions.  
Each question carries 1 mark.*

- ✓ 1. Name the decolorizing agent in gram staining.
2. What is excited filter ?
- ✓ 3. What is annular stop ?
- ✓ 4. Who discovered rabies vaccine ?
5. Explain cephalotrichous flagella.
6. What is flagellin ?
7. What is the function of pili in bacteria ?
8. What is Braun's lipoprotein ?
- ✓ 9. Explain theory of abiogenesis.
- ✓ 10. Mention numerical aperture.
11. What is the function of mordant ?
- ✓ 12. Explain hanging drop method.

(10 × 1 = 10)

**Part B**

*Answer any six questions.  
Each question carries 5 marks.*

- ✓ 13. Mention the structure of bacterial flagella.
- ✓ 14. Describe the contributions of Robert Koch.
15. Describe bacterial endospore.
- ✓ 16. How a smear is prepared ?

Turn over

15

17. Write note on specimen preparation in electron microscopy.
- ✓ 18. Mention the role of micro-organisms in agriculture.
19. Give an account of dyes.
20. Explain gliding motility.
- ✓ 21. What is Dark-field microscopy?

(6 × 5 = 30)

### Part C

*Answer any two questions.  
Each question carries 10 marks.*

22. Explain principle and procedure of any *two* differential staining techniques.
23. Explain the similarities and differences between prokaryotic and eukaryotic cells.
24. Describe different types of microscopes.
25. Differentiate between archaeobacteria and Eubacteria.

(2 × 10 = 20)

17  
3