2015
M.Sc.
3rd Semester Examination
MICROBIOLOGY
PAPER—MCB-302
Full Marks : 40
Time : 2 Hours

The figures in the right-hand margin indicate full marks.
Candidates are required to give their answers in their own words as far as practicable.
Illustrate the answers wherever necessary.

Group — A

[Marks : 20]

Answer any two questions.

1. (a) Briefly describe the γ-interferon release assays for detection of tuberculosis.
(b) What is Tuberculin Unit (TU)?
(c) How cord-formation in acid-fast bacilli is related to Virulence? Elucidate the basic structure of cord-factor?

2. Illustrate in detail the mode of action of Diptheria toxin. What are the drugs generally used to combat UTI? Name one drug along with its mode of action which can be used to treat Kala-azar?
3. (a) Define Virulence. Enumerate the Virulonic determinants of Microbes.

(b) What do you mean by paradoxical carrier?

(c) Describe the beneficial roles played by normal flora of human body.

4+1+5

Group — B

[Marks : 20]

Answer any two questions.

1. (a) What is Vaccine? Why it is so important in present day?

(b) Distinguish between attenuated and killed vaccines.

(c) What is anti-idiotypic vaccine and state its importance? (1+2)+2+(2+3)

2. (a) What are the key marker on HIV targeted towards its diagnosis?

(b) Discuss briefly about present status of vaccine development against HIV. 4+6

3. Write short notes on (any four): 4X2 1/2

(a) Complement fixation ;

(b) RIA ;

(c) Epitope designing ;

(d) Principle of FACs ;

(e) Application of monoclonal antibodies.