



J-0857
Second Year B. Sc. Examination
March/April – 2013
Fundamentals of Microbiology & Microbial
Diversity : Paper - III
(Old Course)

Time : Hours]

[Total Marks : 70

Instructions :

(1)

<p>नीचे दृशविले निशानीवाणी विगतो उत्तरवडी पर अवश्य लभवी. Fillup strictly the details of signs on your answer book.</p> <p>Name of the Examination : Second Year B. Sc.</p> <p>Name of the Subject : Fundam. of Microbi. & Micro. Dive. : P. - 3 (Old)</p> <p>Subject Code No. : 0 8 5 7 Section No. (1, 2,...): NIL</p>	<p>Seat No. : <table border="1" style="width: 100%; height: 20px; border-collapse: collapse;"><tr><td style="width: 15%;"></td><td style="width: 15%;"></td><td style="width: 15%;"></td><td style="width: 15%;"></td><td style="width: 15%;"></td><td style="width: 15%;"></td></tr></table></p> <div style="border: 1px solid black; border-radius: 15px; padding: 10px; text-align: center; margin-top: 10px;">Student's Signature</div>						

- (2) Figures to the right indicates full marks of the question.
(3) Draw neat diagrams, wherever necessary.

- 1 Give specific answers : 16
- (a) What is Y-M shift ? Give one example of micro-organism showing it.
 - (b) What is prion ? Name 2 disease caused by it.
 - (c) Define dye. State the role of auxochrome and chromophore group in it.
 - (d) Give any two contribution of Louis Pasteur in microbiology.
 - (e) Give two differences between eucaryotes and procaryotes.
 - (f) Which organelle is known as power house of cell ? why ?
 - (g) Differentiate between Pilli and fimbriae.
 - (h) Give numerical apperture of low power and oil immersion objective.

- 2 Explain/Comment on any three of the following : 15
- (a) Vacuum creation is essential, while using electron microscopy.
 - (b) Procaryotic and encaryotic cell membrane is almost identical.
 - (c) Many factors are responsible for gram variability.

- (d) Protozoa possess many specialized organelles.
- (e) Viruses are known as obligate host parasite.

- 3** Attempt any **two** of the following : **12**
- (a) List the organelles only found present in eucaryotic cell. State their functions in detail.
 - (b) Where peptidoglycan molecules are found present ? Discuss its structure in detail.
 - (c) Discuss various experiments performed by scientists in favour of biogenesis.

- 4** Types and uses of dyes. **12**

OR

Polyphasic and numerical taxonomy.

- 5** Write short notes on any **three** of the following : **15**
- (a) Koch's postulate
 - (b) Dark field microscopy
 - (c) Lysogeny in viruses
 - (d) Acellular slime mold
 - (e) Structure of bacterial flagella.