



S-2618

M. Sc. (Part - I) (Microbiology) Examination
March / April – 2011
MB-103 : Microbial Physiology

Time : 3 Hours]

[Total Marks : 70

Instructions :

(1)

नीचे दशांशके निशानीवाणी विगतो उत्तरवही पर अवश्य लिखनी. Fillup strictly the details of signs on your answer book.	Seat No. :
Name of the Examination :	<input type="text"/>
← M. Sc. (PART - 1) (MICROBIOLOGY)	<input type="text"/>
Name of the Subject :	<input type="text"/>
← MB-103 : MICROBIAL PHYSIOLOGY	<input type="text"/>
← Subject Code No. : <input type="text"/> 2 <input type="text"/> 6 <input type="text"/> 1 <input type="text"/> 8 ← Section No. (1, 2,.....) : <input type="text"/> NIL	<input type="text"/>
	Student's Signature

- (2) Figures to the **right** indicate full marks of the question
(3) Draw neat and labeled diagrams whenever necessary

- 1 Describe in details : (any **two**) 18
(a) Symbiotic nitrogen fixation in Rhizobium.
(b) Process of methane production in methanogens.
(c) General reactions of amino acids in bacteria.
- 2 Elaborate on following : (any **two**) 18
(a) Structure and functional aspects of components of ETC.
(b) Assimilation and dissimilation of sulfate in bacteria.
(c) Catabolism of aliphatic hydrocarbons.
- 3 Explain in details : (any **two**) 18
(a) Mechanism of photophosphorylation
(b) Fixation of CO₂ in prokaryotes
(c) ATP synthase.
- 4 Write Notes on : (any **two**) 16
(a) Biosynthesis of lipopolysaccharide
(b) Efficiency of photosynthesis
(c) Biosynthesis of capsule in bacteria.