



**A-1341**

**M. Sc. (Microbiology) (Sem. I) Examination**

**March/April – 2015**

**MB 101 : Taxonomy, Virology & Cytology**

**(New Course)**

Time : 3 Hours]

[Total Marks : 70

**Instructions :**

(1)

नीचे दृष्टावेक निशानीवाणी विगतो उत्तरवही पर अवश्य कपवी. Fillup strictly the details of signs on your answer book.	Seat No. :
Name of the Examination :	<input type="text"/>
<input type="text" value="M. Sc. (Microbiology) (Sem. I)"/>	<input type="text"/>
Name of the Subject :	<input type="text"/>
<input type="text" value="MB 101 : Taxonomy, Virology &amp; Cytology (New)"/>	<input type="text"/>
Subject Code No. : <input type="text" value="1"/> <input type="text" value="3"/> <input type="text" value="4"/> <input type="text" value="1"/>	<input type="text"/>
Section No. (1, 2,.....): <input type="text" value="Nil"/>	<input type="text"/>
	Student's Signature

(2) Figures to the right indicate full marks of the question.

(3) Draw neat and labelled diagrams whenever necessary.

1 Answer the following : (Any two) 18

1. Explain various characteristics that differentiate prokaryotic domain from that of eukaryotic domain.
2. Polyphasic taxonomy approach is limited by taxonomic resolution.
3. Explain Baltimore classification of viruses is based on mRNA synthesis.

2 Explain the following : (Any two) 18

1. Replication cycle of RNA viruses
2. Molecular biology of Prion and its Replication
3. Factors responsible for evolution of new and emerging viruses.

**3** Answer the following : (Any two) **18**

1. Explain the structure and replication of Phage T4.
2. Discuss the role of Mu 1 phage as a model of transposon.
3. Explain evolution and natural biology of phage.

**4** Write short notes on the following : (any two) **16**

1. Explain the structure and function of Golgi apparatus in protein sorting.
  2. Explain Mitochondria as a Power House of cell.
  3. Describe the structure and function of plasma membrane in detail.
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