



**RN-3929-30**

**M. Sc. Int. Biotechnology (Sem. VIII) Examination**

**May / June – 2010**

**IBT 804 : Immunotechnology & Virology**

Time : 3 Hours]

[Total Marks : 70

**RN-3929**

**Instructions :**

(1)

नीचे दृष्टावेक निशानीवाणी विगतो उत्तरवडी पर अवश्य लपवी. Fillup strictly the details of signs on your answer book.	Seat No. :
Name of the Examination :	<input type="text"/>
<b>M. SC. IN. BIOTECHNOLOGY (SEM. 8)</b>	<input type="text"/>
Name of the Subject :	<input type="text"/>
<b>IBT 804 : Immunotechnology &amp; Virology</b>	<input type="text"/>
Subject Code No. : <input type="text" value="3"/> <input type="text" value="9"/> <input type="text" value="2"/> <input type="text" value="9"/>	Section No. (1, 2,.....) : <input type="text" value="1"/>
Student's Signature	

- (2) Figures to the right indicate full marks of the question.  
(3) Draw neat and labelled diagrams whenever necessary.  
(4) Both sections must be written in **separate** answer books.

- 1 Answer the following in brief : 10
- (a) Define and explain the term with suitable example :  
Capsomere.
- (b) What is importance of Temperate phages
- (c) Differentiate : Prions and Virion.
- (d) What is PFU ? Give its importance.
- (e) Give the role of p53 in cancer formation.

- 2 Explain Virus Classification and characteristics of viruses used in classification in detail 10

**OR**

- 2 Give the detailed classification of plant viruses. 10

- 3 Write short notes on any **three** of the following : 15

- (1) Serological method in virus research  
(2) Regulatory proteins of phage lambda  
(3) Virus titration  
(d) T-even coliphages  
(e) Adenoviruses.

## RN-3930

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(1)

नीचे दशांशों में निशानीवाणी विगतो उत्तरवही पर अवश्य लिखनी. Fillup strictly the details of signs on your answer book.	Seat No. : <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Name of the Examination : M. SC. IN. BIOTECHNOLOGY (SEM. 8)	Student's Signature
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Subject Code No. : <input type="text" value="3"/> <input type="text" value="9"/> <input type="text" value="3"/> <input type="text" value="0"/> Section No. (1, 2,.....) : <input type="text" value="2"/>	

- (2) Figures to the right indicate full marks of the question.  
(3) Draw neat and labelled diagrams whenever necessary.  
(4) Both sections must be written in **separate** answer books.

- 4 Answer the following in brief : 10
- (a) What are chimeric antibodies ?  
(b) What is phage display ?  
(c) Differentiate : Oncogenes and proto-oncogenes.  
(d) What is SCID mice ? Give the significance of SCID mice.  
(e) What is Benign tumor ?
- 5 Which selective pressure is used for hybridoma cells to grow in HAT medium ? Describe the screening methods for positive hybrids. 10

OR

- 5 Discuss in detail regarding antibody gene cloning and expression. Give applications of monoclonal antibodies. 10
- 6 Write short notes on any three of the following : 15
- (a) Bone marrow transplantation  
(b) Cell culture techniques  
(c) Malignant transformation of cells  
(d) Tumor antigens  
(e) Recombinant antibody.