



SB-2717

**M. Sc. In Microbiology (Sem. II)
(Part - I) Examination**

March / April – 2011

**MB-202 : Advances in Recombinant DNA
Technology**

Time : 3 Hours]

[Total Marks : 70

Instructions :

(1)

नीचे दृष्टावेक निशानीवाणी विगतो उत्तरवही पर अवश्य लभवी. Fillup strictly the details of signs on your answer book.	Seat No. :
Name of the Examination :	<input type="text"/>
<input type="checkbox"/> M. Sc. In Microbiology (Sem. 2) (Part-1)	<input type="text"/>
Name of the Subject :	<input type="text"/>
<input type="checkbox"/> MB-202 : Advances in Recombinant DNA Technology	<input type="text"/>
Subject Code No. : <input type="text" value="2"/> <input type="text" value="7"/> <input type="text" value="1"/> <input type="text" value="7"/>	<input type="text"/>
Section No. (1, 2,.....) : <input type="text" value="Nil"/>	
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 THREE) 18
- (1) Explain the principle and applications of Southern blotting.
 - (2) Discuss in detail about *Saccharomyces cerevisiae* as a eukaryotic expression system.
 - (3) Give an account of immunological screening.
 - (4) Explain about manipulation of gene expression in plants.
- 2 Answer the following : (any THREE) 18
- (1) Give an account of DNA fingerprinting.
 - (2) Explain gene augmentation.
 - (3) Explain the regulation of gene action by siRNA and miRNA.
 - (4) Discuss about use of plants as bioreactors.

- 3** Answer the following : (any THREE) **18**
- (1) Explain the use of retroviral vector method for transgenesis.
 - (2) Explain in detail about engineered embryonic stem cell method.
 - (3) Discuss the uses of transgenic birds and fishes.
 - (4) Explain Cre-loxP recombination system.
- 4** Answer the following : (any TWO) **16**
- (1) Elaborate your view on the recombinant DNA dispute.
 - (2) Give an account or regulatory procedures in India.
 - (3) Discuss about the legalities and law-suits filed for open field trials of ice-minus *P. syringae*.