



AC-1406
M. Sc. (Sem. II) (Microbiology) Examination
April / May – 2015
MB - 201 : Molecular Microbial Physiology &
Enzymology
(New Course)

Time : 3 Hours]

[Total Marks : 70

Instructions :

(1)

<p>नीचे दृशायेव निशानीवाणी विगतो उत्तरवही पर अवश्य लपवी. Fillup strictly the details of signs on your answer book.</p> <p>Name of the Examination : M. SC. (SEM. II) (MICROBIOLOGY)</p> <p>Name of the Subject : MB - 201 : MOLE. MICR. PHYS. & ENZY.</p> <p>Subject Code No. : 1 4 0 6 Section No. (1, 2,.....): Nil</p>	<p>Seat No. : <input type="text"/><input type="text"/><input type="text"/><input type="text"/><input type="text"/><input type="text"/></p> <div style="border: 1px solid black; border-radius: 15px; padding: 10px; text-align: center; margin-top: 10px;">Student's Signature</div>
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(2) Digits on right hand side indicate marks

- Q.1. Answer the following: (Any two) 18**
1. Explain southern blotting technique in detail.
 2. How reporter genes are important in study of microbial physiology?
 3. Elaborate your view on primer designing.

- Q.2. Describe the events leading to initiation of sporulation in *Bacillus subtilis*. 18**

OR

- Q.2. Describe physiological adaptations in extreme halophiles.**

- Q.3. Answer the following: (Any two) 18**
1. How N and C terminal amino acid of polypeptide chain is determined?
 2. Discuss in detail about metalloenzyme.
 3. Write a note on acid-base catalysis.

- Q.4. Write notes on the following: (Any two) 16**
1. Discuss status and significance of V_{max} and K_m in competitive, non competitive and uncompetitive inhibition of enzyme.
 2. Derive Michaelis – Menten equation.
 3. Write a note on reversible inhibition of enzyme.