



SC-3558

M. Sc. (Part - II) (In Biosciences - Microbiology)
Examination
April / May - 2011
Paper : VIII - Industrial Microbiology &
Biotechnology

Time : 3 Hours]

[Total Marks :54

Instructions :

(1)

नीचे दृष्टावेक निशानीवाणी विगतो उत्तरवडी पर अवश्य लपवी.
Fillup strictly the details of signs on your answer book.

Name of the Examination :
M. Sc. (Part - 2) (In Biosciences - Microbiology)

Name of the Subject :
Paper : 8 - Industrial Microbiology & Biotechnology

Subject Code No. : 3 5 5 8 Section No. (1, 2,.....): Nil

Seat No. :

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) 14
(i) Contribution of molecular techniques in screening of microorganisms.
(ii) Role of rDNA technology in strain improvement.
(iii) Raw materials used as carbon sources in fermentation media.
- 2 Attempt : (any two) 14
(i) Designing of a sterilization cycle for liquid medium.
(ii) Rheological properties of liquid.
(iii) Factors affecting $K_L a$.
- 3 Answer the following (any two) 14
(i) Mechanism of citric acid accumulation by *A niger*.
(ii) Regulatory mechanisms of amino acid synthesis.
(iii) ME of *S.cerevisiae* for xylose utilization.
- 4 Write a note on : (any two) 12
(i) Surface method for citric acid production.
(ii) Impellers
(iii) Gel entrapment method for immobilization of cell.