DF-1509
M. Sc. (Sem. III) Examination
March/April – 2016
MB-301 : Microbiology
(Fermentation Technology)
(New Course)

Time : 3 Hours] [Total Marks : 70

Instructions :
(1) Fillup strictly the details of signs on your answer book.

Name of the Examination : M. Sc. (Sem. 3)
Name of the Subject : MB-301: MICROBIOLOGY (NEW)
Subject Code No. : 1509

(2) Figures to the right indicate full marks of the question.
(3) Draw neat and labelled diagrams wherever necessary.

1 Answer the following : (any two) 18

(a) Explain with example the major groups of commercially important fermentation process.

(b) Discuss strain improvement is an important step in fermentation process.

(c) Explain importance of metagenomic in screening.

2 Answer the following : (any two) 18

(a) Discuss formulation of media for cell culture.

(b) Discuss sterilization by filtration of fermentation media and air.

(c) Discuss important characteristics and components of media for industrial fermentation.

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3 Answer the following : (any two) 18
   (a) Control of fermentation process by computer.
   (b) Write on continuous fermentation process.
   (c) Discuss the factors of fermentation kinetics.

4 Write short notes on : (any two) 16
   (a) Mechanical methods for cell disruption.
   (b) Basic objectives of fermentation economics.
   (c) Inoculum development for bacterial processes.