Total No. of Questions : 8]

SEAT No : ____

P 1944

[Total No. of Pages :2

[5324]-103
M.Sc.
BIOCHEMISTRY
BCH- 172: Microbiology and Cell Biology
(2013 Pattern) (Semester - I) (Credit)

Time : 3 Hours] ***[Max. Marks : 50***

Instructions to the candidates:

1) ***Answer any two question from question No.1 - 3 and any two from question No. 5 - 7.***
2) ***Question No.4 and 8 are compulsory.***
3) ***Answer both the section on seperate answer sheets.***

SECTION - I
Microbiology

Q1) Answer the following :

a) Note on gram staining. **[2]**

b) Explain bacterial growth curve. **[4]**

c) Explain electron microscope and its limitation. **[4]**

Q2) Attempt the following :

a) Why penicillin is more effective against gram positive than gram negative bacteria. **[2]**

b) Write a note on exotoxin and endotoxins. **[4]**

c) How the host microbe inheraction taken place to cause on infection. Explain. **[4]**

Q3) Answer the following :

a) Classify plant and animal viruses. **[2]**

b) Give the method for industrial production of Vinegar. **[3]**

c) discuss in detail bright field and dark field microscopy with application. **[5]**

P.T.O.

Q4) Answer <u>any one</u> of the following :

a) Explain the replication of Herpes simplex virus. **[5]**

b) Explain the physical and chemical agents in control of micro-organism. **[5]**

SECTION - II

Cell Biology

Q5) Answer the following :

a) What are the different classes of Chromosomer. **[2]**

b) Write a note on structure and function of Cloroplast. **[3]**

c) Difference between mitosis and meiosis. **[4]**

Q6) Attempt the following :

a) Write a note on major groups of fungi. **[5]**

b) What is difference between prokaryotic and eukaryotic cell. **[3]**

c) Why mitochondria is termed as “Power House” of the cell. **[2]**

Q7) Answer the following :

a) What is stem cell and what are its types. **[3]**

b) Define the term fertilizaion what is the significance of fertilization. **[5]**

c) Differentiate between active and passive transport. **[2]**

Q8) Answer any one:

a) Write a note on density gradient centrifugation. **[5]**

b) Write a note on organogenesis. **[5]**

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