

M. SC. (Microbiology) SEM-II (C.B.C.S.) (2012 COURSE) : WINTER
2018

SUBJECT: ANALYTICAL TECHNIQUES

Day: - Wednesday
Date: 10/10/2018

Time: 03.00 PM TO 06.00 PM
Max. Marks: 60

W-2018-1025

N.B:

- 1) All questions are compulsory.
 - 2) Figures to the right indicate full marks.
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Q.1 Explain the various methods of chromatography used for separation of biomolecules. (15)

OR

Describe the types of centrifugation techniques and their uses in biomolecular separation.

Q.2 a) Explain SDS-PAGE in study of proteins. (08)

b) Give the design and use of monochromators. (07)

Q.3 Attempt ANY THREE of the following: (15)

a) Give the role of following in electrophoresis

i) Buffer, ii) EtBr iii) AgNO₃

b) Give the schematic representation of instrumentation for atomic absorption spectroscope.

c) Give the composition and use of scintillation cocktail used in study of radioactivity.

d) Compare native PAGE and SDS-PAGE

e) Write note on support matrices used in electrophoresis.

Q.4 Attempt ANY THREE of the following: (15)

a) Write note on FID.

b) Give the principle and working of affinity chromatography.

c) Write note on 'Rotar design'

d) Summarize Autoradiography technique.

e) Give use of beta emitters in radiobiology

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