

DEPARTMENT OF BIOTECHNOLOGY
B.Sc.-M.Sc. INTEGRATED PROGRAMME
SEMESTER III SUPPLEMENTARY EXAMINATION, 2021
Paper Title : MOLECULAR DIAGNOSTICS
Paper Code - BBT-SEC01 TH

Time : 1 ½ Hours

Maximum Marks : 37

Attempt all questions. All parts of a question must be attempted in continuation. Start answer of a fresh question on a new page. Cite examples and draw labeled diagrams.

[3 x 3 = 9]

Question No. 1:

A. Write true or false

- i. DAPI is usually conjugated to an antibody.
- ii. Rosalyn Yalow got Nobel Prize for inventing radioimmunoassay.
- iii. Smaller/no 'zone of inhibition' in diffusion test describes pathogen resistance.

[3]

B. Fill in the blanks

- a. Genetic fingerprint uses _____ technique.
- b. A protein in mice elicits _____ antibodies due to multiple _____ of the protein.
- c. _____ and _____ are the 2 different electron microscopic images.
- d. PMT stands for _____.

[3]

C. Write briefly (in one or two line) to ANY THREE of the following:

[3]

- i. GLC
- ii. Sickle cell anemia
- iii. Macrodilution
- iv. Epitope
- v. Fluorochrome

Question No. 2:

Write about

[7]

- i. Preparation of polyclonal antibodies Or Enzyme immunoassay

Question No. 3:

Attempt ANY TWO

[3.5 x 2 = 7]

- i. Display how you will prepare a serial dilution from the 10M stock as 1×10^4 till 1×10^1 mM.
- ii. Drug sensitivity analysis.
- iii. RFLP
- iv. Southern blot analysis

Question No. 4:

Describe with appropriate figures

[7]

- i. Purification of antigens Or Molecular Mimicry

Question No. 5:

Elaborate

[7]

- i. Electron microscopy Or Cell sorting in flow cytometry
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