

**B.Sc. MICROBIOLOGY
SECOND SEMESTER
MICROBIAL DIAGNOSTICS
BMB-921 [IDMj]**

**SET
A**

[USE OMR SHEET FOR OBJECTIVE PART]

Duration: 1hr. 30 mins.

Full Marks: 35

Time: 15 mins.

Marks: 10

(Objective)

Choose the correct answer from the following:

1×10=10

1. RFLP involves.....
 - a. Restriction enzymes
 - b. Ligases
 - c. Polymerases
 - d. Nucleotides
2. Molecular marker relies on.....
 - a. DNA
 - b. RNA
 - c. Lipids
 - d. Vitamins
3. Idiotypic is the variation in..... region of antibody.
 - a. Hinge
 - b. Constant
 - c. Base
 - d. Variable
4. Disease detection is most authentic by.....
 - a. Biochemical markers
 - b. Physical markers
 - c. Cytological markers
 - d. Molecular markers
5. MIC is.....
 - a. Maximum Inhibitory Concentration
 - b. Minimum Inhibitory Concentration
 - c. Maximum/Maximum Inhibitory Concentration
 - d. All are correct
6. Which of the following immunoglobulins makes the largest percentage in breast milk?
 - a. IgM
 - b. IgD
 - c. IgG
 - d. IgA
7. Antibodies are:
 - a. Prostaglandins
 - b. Steroids
 - c. Lipoproteins
 - d. Glycoproteins
8. What is a restriction enzyme?
 - a. A small protein that digests DNA at specific DNA recognition sequences
 - b. A variation in DNA length
 - c. An enzyme that will not digest certain types of DNA
 - d. The process of creating DNA for one specific use
9. Which among the following helps us in getting a three-dimensional picture of the specimen?
 - a. Transmission Electron Microscope
 - b. Scanning Electron Microscope
 - c. Compound Microscope
 - d. Simple Microscope

10. Which of the following is not true about High pressure liquid chromatography (HPLC)?
- a. It requires high pressure for the separation of the species
 - b. There is no need to vaporise the samples
 - c. It is performed in columns
 - d. It has high sensitivity
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(Descriptive)

Time : 1 hr. 15 mins.

Marks : 25

[Answer question no.1 & any two (2) from the rest]

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|---|--------|
| 1. Write the difference between polyclonal and mono clonal antibodies. | 5 |
| 2. What is marker? Explain the reactions and role of PCR medical diagnosis. | 3+7=10 |
| 3. Write the difference between epitopes and idiotypes. | 3+7=10 |
| 4. Write short notes on:
a) Radio immune assay
b) Electron microscopy | 5+5=10 |
| 5. Describe in brief the procedure of HPLC. | 5+5=10 |

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