

Answer any Five Questions. Q.No1 is Compulsory and Any Four, not more than any Two from Each UNIT.

- (1) Choose the correct Answer.
- (i) Resolving power of a microscope is a function of.
- Wave length of Light.
 - Numerical aperture of Lens System.
 - Refractive index.
 - Wave length of Light used and numerical aperture of Lens System.
- (ii) Which of the Following is not true about Absorption Spectroscopy.
- It involves transmission.
 - Scattering is kept minimum.
 - Reflection is kept Maximum.
 - Indication of Concentration.
- (iii) Electrophoresis cannot be used to separate.
- DNA.
 - RNA.
 - Amino Acid
 - Protein.
- (iv) In chromatography which of the Following Can be the mobile phase be made of.
- Solid or Liquid.
 - Liquid or gas
 - Gas only.
 - Liquid only.
- (v) In MRI Imaging matrix size determines.
- Field of View.
 - Resolution.
 - Bandwidth.
 - None.

vi) Analysis of Variance is also called.

- a) Fishers Extraction Test.
- b) Variance ratio test.
- c) ANOVA.

d) All of these.

(vii) If one regression coefficient is greater than one then other will be.

- a) More than one.
- b) Equal to one.
- c) Less than one.
- d) Equal to minus one.

(viii) t -test is a robust test which can be extended to hypothesis about.

- a) Means of two samples.
- b) Variance of two samples.
- c) Means of many samples.
- d) (a) and (b) only.

(ix) Analysis of Variance is a statistical method of comparing of the several populations.

- a) Means.
- b) Variance.
- c) standard deviation.
- d) None.

(x) Which of the following distributions is used to compare two variances.

- a) T -Distribution
- b) F -distribution
- c) Normal distribution
- d) Poisson distribution.

UNIT-I

2. What is Electrophoresis. Describe the Gel Electrophoretic technique to determine the molecular weight of a protein.
3. Give an account of the Principle, Sample preparation and application of Ion Exchange chromatography.
4. What is the Principle of Fluorescence Microscopy. Narrate the Design and Working mechanism of it.
5. Write short Notes on any three of the following.

a) MRI.

b) T.L.C. and GLC.

c) Radio Immune Assay.

d) Immuno-cytochemistry.

e) Autoradiography.

UNIT-II

6. Discuss the use of Mean, Median and Mode in Biostatistical Analysis.
7. Define standard deviation and add a note on its Merits and Demerits.
8. What is Correlation. Describe the different Types of Correlation and method of Calculation of Correlation Coefficient.
9. What is Normal distribution. How Can you test the Normality of a distribution.

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ANSWERS OF QUESTION I.
SEM III (108)

- (i) d.
- (ii) c.
- (iii) c.
- (iv) b.
- (v) b.
- (vi) d.
- (vii) c.
- (viii) d.
- (ix) a.
- (x) b.

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