

Vitthalbhai Patel & Rajratna P.T.Patel Science College, V.V.Nagar

Internal Test: 2018(Semester V)

Date: 01-10-2018

Sub: Microbiology (USO5C MIC-02)

Total Marks: -50

Time: 10-00 a.m. to 12-00 a.m.

Q-1 Attempt all following multiple choice question.

(08)

(1) Which of the following spectroscopic technique based on the principle of "Bond vibration"?

(a) U V visible (b) Atomic absorption (c) Infrared (d) Nephelometry

(2) Who introduced atomic absorption spectroscopy?

(a) Martin Syngde (b) L. L. Clark (c) Alan Walsh (d) M. Tswett

(3) Which of the following is the gravitational force of earth?

(a) 880 cm/sec² (b) 980 cm/sec² (c) 1200 cm/sec² (d) 1350 cm/sec²

(4) Which marker dye is used in electrophoresis technique?

(a) Gentian violet (b) Saffranin (c) Bromophenol blue (d) Nigrosine

(5) Cation ion exchanger exchange _____.

(a) Cation (b) Anion (c) Both (a) & (b) (d) None of these

(6) Which solvent is used in TLC for amino acid?

(a) Acetone (b) Alcohol (c) Chloroform (d) Butanol

(7) Which nucleus emits in Alpha decay from an atomic nucleus?

(a) Hydrogen (b) Helium (c) Nitrogen (d) None of these

(8) Application of Computational & Analytical Tools to Capture & Interpret biological data is known as _____.

(a) Biochemistry (b) Biotechnology (c) Biomagnification (d) Bioinformatics



Q-2 Attempt the following (any five)

(10)

(1) What is nephelometry?

(2) State Beer's law.

(3) Write application of ultracentrifugation.

(4) What is the role of riboflavin in polymerization of gel of Electrophoresis?

(5) Write difference between partition and adsorption chromatography.

(6) Explain the term HPLC.

(7) Define: Biological Database. Name any two popular databases.

(8) Write any two applications of Radioactivity in Biological Sciences.

Q-3 Explain principle, instrumentation, method and application of Infra Red spectroscopy. (08)

OR

Q-3 Discuss principle, instrumentation, method and application of atomic absorption spectroscopy. (08)

Q-4 (A) Explain principle and application of SDS-PAGE Electrophoresis. (04)

(B) Explain the basic principle of sedimentation. (04)

OR

Q-4 Explain principle and application of Iso Electric Focusing Electrophoresis. (08)

Q-5(A) Discuss the principle and application of Molecular sieve chromatography. (04)

(B) Discuss the principle and working of Ion exchange chromatography. (04)

OR

Q-5 Write a notes on:

(1) Thin Layer Chromatography (04)

(2) Affinity chromatography (04)

Q-6 Write a Note on Biosensor. (08)

OR

Q-6 Write a note on Radioactive Decay. (08)



*****End*****