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PSG COLLEGE OF ARTS & SCIENCE (AUTONOMOUS)

BSc DEGREE EXAMINATION DECEMBER 2022

(Third Semester)

Branch - BIOCHEMISTRY

BIOCHEMICAL TECHNIQUES

SECTION-A (5 Marks) Answer ALL questions ALL questions carry EQUAL marks i) hydrogen, hydroxyl ii) magnesium, calcium iv) sodium 2		Time: Three Hours	Maximum: 50 Marks
Answer ALL questions ALL questions carry EQUAL marks 1		SECTION-A (5 Mar)	<u>ks)</u>
ALL questions carry EQUAL marks Buffers react with ions. i) hydrogen, hydroxyl ii) magnesium, calcium iii) potassium iv) sodium In photometers, the readings of the specimen are initially obtained in the form which of the following parameters? ii) Absorption iv) Volume Transmittance ii) Absorption iv) Volume Chromatography is a physical method that is used to separate and analyse ii) Simple mixtures iii) Complex mixtures iii) Viscous mixtures iv) Metals If proteins are separated according to their electrophoretic mobility then the tof electrophoresis is: i) SDS PAGE ii) Affinity Electrophoresis iv) Free flow electrophoresis iv) Free flow electrophoresis iv) Half the time taken for complete decay ii) half the time taken for half the decay iii) time taken for half the decay iv) time taken for half the decay		Answer ALL question	ns
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OR	7.	a. Explain the Beer lambert's law and its app	lications.
Name to the adventages of spectrophotometer.		OR	
h. Narrate the advantages of spectrophic		b. Narrate the advantages of spectrophotome	ter.
8. a. Outline the principle & applications of paper chromatography.	Q	Outline the principle & applications of par	per chromatography.
\mathbf{OR}	ο.	OR	
b. State the method of column chromatography.		b State the method of column chromatograp	hy.

Summarize the types of centrifuges. 9. a.

- Describe the various types of rotors. b.
- Bring out the radioactive decay. 10. a.

Narrate the applications of radio isotopes in biological sciences. b.

SECTION -C (30 Marks)

Answer ALL questions ALL questions carry EQUAL Marks

 $(5 \times 6 = 30)$

11. a. Discuss the buffer systems of blood.

- b. Highlight the silver/silver chloride electrode.
- 12. a. Outline the components of spectrophotometry.

- b. Describe the single cell photoelectric colorimeter.
- 13. a. Inter the principle and method of TLC.

- b. Summarize the principle and applications of GLC.
- 14. a. Discuss the principle and applications of SDS-PAGE.

- b. Highlight the principle and instrumentation of analytical centrifuge.
- 15. a. Explain the process of autoradiography.

b. Elucidate the detection and measurement of radioactivity by Geiger Muller counter.

Z-Z-Z

END