

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)
BSc DEGREE EXAMINATION MAY 2019
(Third Semester)

Branch - **MICROBIOLOGY**

CHEMISTRY FOR MICROBIOLOGY

Time : Three Hours

Maximum : 75 Marks

SECTION-A (20 Marks)

Answer **ALL** questions

ALL questions carry **EQUAL** marks (10x2 = 20)

- 1 What can be the major applications of nanochemistry?
- 2 Write any four organic compounds purified by sublimation method.
- 3 What are tranquillizers? Give any two examples. Mention its uses.
- 4 List out the uses of sulpha drugs.
- 5 Write any two inorganic insecticides.
- 6 What are the basic need for fertilizers?
- 7 How is Teflon prepared? Give its applications.
- 8 Write any two examples for perfumes and flavouring agents.
- 9 What do you mean by tanning of leather?
- 10 What are natural adhesives? Give any two examples.

SECTION - B (25 Marks)

Answer **ALL** Questions

ALL Questions Carry **EQUAL** Marks (5x5 = 25)

- 11 a How solids are purified by crystallization and sublimation methods? Explain detail.
OR
b What is Green chemistry? How does Green chemistry works Towards sustainability? Give Green synthesis method for Ibuprofen and Paracetamol.
- 12 a What are vitamins? How are they classified? Discuss about scuces, biological functions and deficiency diseases of vitamins A, B, C, D, E & K.
OR
b Define conformational analysis. Describe the conformational analysis of ethane.
- 13 a How potassium nitrate and urea are manufactures on large scale?
OR
b What are fertilizers? How are they classified? Give examples for each type. Explain the role of Nitrogen for a plant growth.
- (4 a Illustrate the composition and manufacturing process of essential oils.
OR
b How poly ethylene and polyurethane are prepared? Explain is properties and biological applications.
- 15 a Write a short note on preparation of hides, lining, bating,; tanning and finishing.
OR
b Discuss about rubber based adhesives and silicate adhesives.

SECTION - C (30 Marks)

Answer any **THREE** Questions

ALL Questions Carry **EQUAL** Marks (3 x 10 = 30)

- 16 a What is mean by mass percentage, normality, PPM and mole fraction of a solution? (6)
- b Describe the principle and method of distillation under reduced pressure. (4)
- 17 a What are analgesics, antibiotics, sulpha drugs, anesthetics and antiseptics? Give any two example for each type. Explain their biological role and uses. (7)
- b Explain the conformational analysis of cyclohexane. (3)
- 18 a Explain how ammonium nitrate and triple super phosphate fertilizers are manufactured on large scale. (6)
- b What are insecticides? How are they classified? Explain their role. Give suitable examples.
- 19 a How cocoa and vanilla are manufactured? (4)
- b Define polymerization. How is it classified? Explain addition and condensation polymerization with suitable examples. (6)
- 20 a Give a brief account on classification of adhesives and their applications. (4)
- b Describe the general manufacturing process of leather. (6)

Z-Z-Z

END