

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

Branch - MICROBIOLOGY

CHEMISTRY FOR MICROBIOLOGY

Time: Three Hours

Maximum: 75 Marks

SECTION-A (10 Marks!

Answer ALL questions

ALL questions carry EQUAL marks (10x1 = 10)

- 1 _____ is a measure of concentration equal to the gram equivalent weight per litre of solution.
- (i) Molarity (ii) Normality
(iii) Molality (iv) Mole fraction
- 2 Nano particle size between
- (i) 1-10nm (ii) 1-1000TM
(iii) 1-100_{nm} (iv) 1-1b000nm
- 3 Which one of the following is an example of antibiotic?
- (i) penicillin (ii) sulfonamide
(iii) Bactrim (iv) Eryzole
- 4 Scurvy is a disease resulting from a lack of
- (i) Vitamin D (ii) Vitamin C
(iii) Vitamin B (iv) Vitamin A
- 5 Molecular formula of ammonium nitrate fertilizer is
- (i) NH₃NO₃ (ii) NH₂NO₂
(iii) NH₄NO₂ (iv) NH₄NO₃
- 6 Which one of the following is insecticide?
- (i) Lead Arsenate (ii) Glyphosate
(iii) Deet (iv) Boric acid
- 7 Perfume flavor is
- (i) Benzene (ii) Naphthalene
(iii) Esters (iv) Acids
- 8 Polytetrafluoroethylene is
- (i) Terylene (ii) Teflon
(iii) Acrolein (iv) Bakelite
- 9 What is the best kind of leather?
- (i) Full grain leather (ii) Top grain leather
(iii) Corrected grain leather (iv) Bonded leather
- 10 Animal glue is
- (i) Abrasive (ii) perfume
(iii) fertilizer (iv) Adhesive

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SECTION - B (25 Marks)**Answer ALL questions****ALL questions carry EQUAL Marks****(5x5 = 25)****11 a Define and explain the terms - normality and Molality.****OR****b How organic compounds purified by crystallization method ? Explain****12 a Explain the types of anesthetics.****OR****b Discuss the conformational analysis of ethane.****13 a Describe the classification of fertilizers.****OR****b What are inorganic insecticides? Explain with examples.****14 a Distinguish between thermoplastics and thermosetting plastics.****OR****b Write short notes on detergents.****15 a Explain the enzymes involved in leather industry.****OR****b Give a brief note on protein adhesives.****SECTION -C (40 Marks)****Answer ALL questions****ALL questions carry EQUAL Marks****(5x8 = 40)****16 a Discuss the purification of solids by sublimation and fractional crystallization.****OR****b What is Green chemistry? Explain its elementary idea and green synthesis.****17 a What are vitamins ? Write their source, uses and deficiency diseases.****OR****b Enumerate the conformational analysis of cyclohexane****18 a Discuss the manufacture of ammonium nitrate, urea and triple super phosphate.****OR****b Define insecticides. Classify the insecticides according to, mode of action.****19 a How will you prepare Vanilla, Cocoa and monosodium glutamate?****OR****b Write the preparation, properties and biological applications of nitrocellulose, Teflon and polyurethane.****20 a Explain the preparation of hides, lining, bating fanning and finishing in leather industry.****OR****b Describe the different types of Adhesives.**