

**PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)**

**BSc DEGREE EXAMINATION DECEMBER 2022
(Third Semester)**

Branch – **MICROBIOLOGY**

CHEMISTRY FOR MICROBIOLOGY

Time: Three Hours

Maximum: 50 Marks

SECTION-A (5 Marks)

Answer **ALL** questions

ALL questions carry **EQUAL** marks

(5 x 1 = 5)

1. How many numbers of mole of water is present in 180 g of water? (Atomic mass of H= 1.000 amu and O = 16.000 amu)
(i) 5 (ii) 10 (iii) 15 (iv) 20
2. The deficiency of vitamin E can cause
(i) color blindness (ii) nerve and muscle damage
(iii) internal and external bleeding (iv) rickets
3. An example for protoplasmic poison
(i) Arsenical compounds (ii) carbon monoxide
(iii) organophosphorus (iv) chlordane
4. One of the following is a thermosetting polymer
(i) polyethylene (ii) poly vinyl chloride
(iii) Nylon (iv) Teflon
5. One of the following is not a widely used tanning agents
(i)Vegetable tannin (ii) chromium sulphate
(iii) fish oil (iv) lipase

SECTION - B (15 Marks)

Answer **ALL** Questions

ALL Questions Carry **EQUAL** Marks

(5 x 3 = 15)

11. a How would you prepare 500 mL of 1M(molar) aqueous sodium hydroxide solution? (Molecular weight of sodium hydroxide = 40)
OR
b Explain any two applications of nano chemistry.
12. a Distinguish between analgesics and antibiotics.
OR
b Which conformation of ethane is stable and why?
13. a Explain natural inorganic fertilizer with examples.
OR
b Explain any two natural plant insecticide.
14. a Describe the preparation of vanilla essence.
OR
b Explain the classification of detergents.
15. a Describe the types of leather forms.
OR
b What are adhesives? Explain protein adhesives with examples.

Cont...

SECTION -C (30 Marks)

Answer **ALL** questions

ALL questions carry **EQUAL** Marks

(5 x 6 = 30)

16. a Explain the principle of steam distillation.
OR
b Discuss any one green synthetic chemical reaction in detail.
17. a Compare the structure and function of vitamins A and K.
OR
b Discuss the uses of antiseptic and anesthetic drugs.
18. a What are NPK fertilizers? Explain the manufacture of urea.
OR
b Explain the classification of insecticides based their mode of action and give the application of lead arsenate insecticide.
19. a Explain the composition and manufacture of essential oils.
OR
b Explain the preparation, properties and uses of Teflon.
20. a Describe the various steps involved in the manufacture of leather.
OR
b Compare the applications of rubber-based adhesives and silicate adhesives.

Z-Z-Z

END