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Reg. No. :

**Code No. : 20297 E Sub. Code : JNCH 4 B/
SNCH 4 B**

U.G. (CBCS) DEGREE EXAMINATION, APRIL 2021.

Fourth Semester

Chemistry

Non-Major Elective — APPLIED CHEMISTRY

(For those who joined in July 2016 onwards)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer.

1. _____ salts are hard soaps.
(a) Potassium (b) Sodium
(c) Carbonate (d) Calcium

2. Substances which lower the surface tension of water are commonly known as _____ substances.
(a) Surface active (b) Surface inactive
(c) Cationic (d) None of these

3. Plants for their growth require _____ elements.
- (a) 15 (b) 14
(c) 16 (d) 20
4. _____ fertilizers are prepared by mixing approximate amounts of ammonium, superphosphate and potassium salts.
- (a) Mixed (b) Organic
(c) Micro (d) Inorganic
5. _____ is the richest source of cellulose.
- (a) Jute (b) Cotton
(c) Rayan (d) Nylon
6. An example of thermosetting resin is _____.
- (a) Styrene (b) Phenol
(c) Bakelite (d) Polyglycols
7. Penicillin is very effective against _____.
- (a) diphtheria (b) burns
(c) pneumonia (d) rickets

8. _____ is used as an analgesic.
- (a) Aspirin (b) Bigvanides
(c) Tolbutamide (d) Isophane
9. In the manufacture of shoe polishes _____ are the ingredients.
- (a) Cellulose (b) Waxes
(c) Graphite (d) Crayons
10. Inks without _____ are called semi-permanent inks.
- (a) oleic acid (b) stearic acid
(c) tannic acid (d) all the above

PART B — ($5 \times 5 = 25$ marks)

Answer ALL questions, choosing either (a) or (b).

Answer should not exceed 250 words.

11. (a) What are hard and soft soaps?

Or

- (b) What are the advantages of synthetic detergents?

12. (a) What are the characteristics of a good fertilizer?

Or

- (b) Explain biofertilizers.

13. (a) Mention the uses of terylene and nylon.

Or

- (b) Explain the thermosetting plastics.

14. (a) Define antiseptics. Write any two therapeutic uses of alum.

Or

- (b) What are antacids? Explain with an example.

15. (a) Write short notes on agarbattis.

Or

- (b) Explain gum paste.

PART C — ($5 \times 8 = 40$ marks)

Answer ALL questions, choosing either (a) or (b).

Answer should not exceed 600 words.

16. (a) Discuss about the raw materials used in the manufacture of soap.

Or

- (b) Give an account of cationic detergents.

17. (a) Explain the classification of fertilizers.

Or

- (b) Briefly explain the potash fertilizer.

18. (a) Write about the defects in natural rubber.

Or

- (b) Give the uses of the following terms :

(i) Glyptal (3)

(ii) Fevicol (3)

(iii) Quick Fix. (2)

19. (a) Define antibiotics. Give any three therapeutic uses of tetracyclines and penicillin.

Or

- (b) Explain the therapeutic uses of

(i) Aspirin (4)

(ii) Paracetamol. (4)

20. (a) Write short notes on :

(i) Tooth paste (4)

(ii) Chalk Crayons. (4)

Or

(b) Give an account of the precautions to be taken in the preparation of shoe polish.
