

U.G. 3rd Semester Examination-2025**CHEMISTRY****[Multidisciplinary Course (MDC)]****Course Code : CHEM-MDC-T-3****(Chemistry in Daily Life)****[NEP-2020]****Full Marks : 35****Time : 90 Minutes****Instructions to the Candidates:**

- Candidates will be provided with a question cum answer booklet.
- The booklet contain 40 multiple choice questions, each carrying 1 mark. Candidate will attempt 35 questions from the following (MCQ).
- Candidates must fill up his/her Registration Number, Year & Roll Number in the space provided.
- Do not make any rough work on the answer booklet.
- At the end of the examination please return the answer booklet to the invigilator.

Registration No.**Year****Roll Number****Signature of the Invigilator***[Turn Over]*

Answer any **thirty five** from the following questions. [Choose the correct option and put tick (✓) mark beside given box]: 1×35=35

1. Which of the following food additives is mainly used to prevent microbial spoilage of foods?
 a) Lecithin
 b) Sodium benzoate
 c) Saccharin
 d) Citric acid
2. Tartrazine is an example of which type of food additive?
 a) Preservative
 b) Artificial sweetener
 c) Synthetic food colour
 d) Emulsifier
3. Which of the following is commonly used as an artificial sweetener in diet beverages?
 a) Glucose
 b) Fructose
 c) Aspartame
 d) Sucrose
4. Citric acid added to soft drinks acts primarily as a:
 a) Preservative
 b) Colouring agent
 c) Acidulant
 d) Foaming agent
5. Vitamin A is mainly essential for:
 a) Blood clotting
 b) Vision and maintenance of epithelial tissues
 c) Calcium absorption
 d) Formation of red blood cells
6. Which vitamin plays an important role in blood clotting?
 a) Vitamin C
 b) Vitamin D
 c) Vitamin K
 d) Vitamin E

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7. Deficiency of Vitamin C causes which disease?
- a) Rickets
 - b) Scurvy
 - c) Night blindness
 - d) Pernicious anaemia
8. Vitamin B₁₂ is mainly required for:
- a) Bone growth
 - b) Antioxidant activity
 - c) Formation of red blood cells and nerve function
 - d) Blood coagulation
9. Paracetamol is mainly prescribed to reduce:
- a) Blood pressure
 - b) Fever and pain
 - c) Bacterial infection
 - d) Mental stress
10. Quinine and chloroquine are drugs used for the treatment of:
- a) Tuberculosis
 - b) Amoebiasis
 - c) Typhoid
 - d) Malaria
11. Metronidazole is commonly used to treat:
- a) Protozoal and anaerobic bacterial infections
 - b) Fungal infection
 - c) Viral fever
 - d) Hypertension
12. Natural fats are chemically:
- a) Esters of fatty acids with glycerol
 - b) Alcohols of long-chain hydrocarbons
 - c) Carbohydrates of plant origin
 - d) Proteins with high molecular weight
13. Which of the following is an edible oil of vegetable origin?
- a) Castor oil
 - b) Mustard oil
 - c) Neem oil
 - d) Linseed oil

14. Glycerides are formed by the esterification of:
- a) Fatty acids with glucose
 - b) Fatty acids with ethanol
 - c) Glycerol with alcohols
 - d) Fatty acids with glycerol
15. Vanaspati is produced by:
- a) Oxidation of saturated fats
 - b) Hydrogenation of vegetable oils
 - c) Hydrolysis of animal fats
 - d) Saponification of oils
16. The basic chemical process involved in the manufacture of soaps is called:
- a) Saponification
 - b) Neutralization
 - c) Oxidation
 - d) Polymerization
17. Which of the following enzymes is commonly used in enzyme-based detergents to remove protein stains?
- a) Amylase
 - b) Lipase
 - c) Cellulase
 - d) Protease
18. Liquid soaps are generally produced by using:
- a) Sodium hydroxide
 - b) Calcium hydroxide
 - c) Magnesium hydroxide
 - d) Potassium hydroxide
19. Gammaxane is chemically known as:
- a) Benzene hexachloride (γ -isomer)
 - b) Dichloro-diphenyl-trichloroethane
 - c) Organophosphate ester
 - d) Carbamate compound
20. Which pesticide is mainly used as a contact herbicide?
- a) Aldrin
 - b) Parathion
 - c) Paraquat
 - d) Malathion

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21. DDT is characterized by:

- a) Rapid biodegradability
- b) High residual toxicity and persistence
- c) Use only as fungicide
- d) Very low bioaccumulation

22. Parathion and malathion belong to which class of pesticides?

- a) Organochlorines
- b) Synthetic pyrethroids
- c) Carbamates
- d) Organophosphates

23. Which pesticide among the following is considered less toxic to mammals and hence safer to use?

- a) Malathion
- b) Aldrin
- c) DDT
- d) Gammaxane

24. Which substance is mainly responsible for producing green colour in coloured glass?

- a) Cobalt oxide
- b) Manganese dioxide
- c) Chromium oxide
- d) Lead oxide

25. Enamel is best described as:

- a) A thin layer of fused glass applied on metal or ceramic surface
- b) A metallic coating on ceramics
- c) A type of clay mineral
- d) A plastic protective layer

26. Which of the following is considered a medicine rather than a drug?

- a) Heroin
- b) Morphine
- c) Penicillin
- d) Codeine

27. Aspirin is chemically known as:

- a) Salicylic acid
- b) Acetyl salicylic acid
- c) Benzoic acid
- d) Phenacetin

28. Which of the following is a narcotic analgesic?
a) Paracetamol
b) Ibuprofen
c) Aspirin
d) Morphine
29. Dettol mainly acts as a:
a) Analgesic
b) Antiseptic
c) Antipyretic
d) Antibiotic
30. Which of the following is commonly used as an antacid?
a) Magnesium hydroxide
b) Sodium chloride
c) Aspirin
d) Ethanol
31. Adrenaline is classified as a:
a) Neurotransmitter
b) Hormone
c) Vitamin
d) Enzyme
32. Sodium benzoate is used in food as a:
a) Sweetener
b) Preservative
c) Colouring agent
d) Flavouring agent
33. Saccharin is preferred by diabetic patients because it is:
a) High calorie
b) Nutritive
c) Low calorie
d) Fat soluble
34. Cationic detergents are known for their:
a) Biodegradability
b) Foaming action
c) Germicidal property
d) Low solubility

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35. Soaps are ineffective in hard water due to formation of:
- a) Micelles
 - b) Lather
 - c) Scum
 - d) Emulsion
36. Which of the following is used as a food antioxidant?
- a) BHA
 - b) Glucose
 - c) Sodium chloride
 - d) Citric acid
37. Azo dyes contain which chromophoric group?
- a) $-\text{NO}_2$
 - b) $-\text{NH}_2$
 - c) $-\text{N}=\text{N}-$
 - d) $-\text{COOH}$
38. Which substance is added to detergents to enhance whiteness of clothes?
- a) Preservatives
 - b) Enzymes
 - c) Optical brighteners
 - d) Antiseptics
39. Ordinary glass is mainly composed of:
- a) Silica, soda, lime
 - b) Clay and feldspar
 - c) Alumina and iron oxide
 - d) Silica and borax
40. Vitrification in ceramics refers to:
- a) Drying of clay
 - b) Partial melting to form glassy mass
 - c) Glazing only
 - d) Grinding of materials