BP-301T

Roll No. | | | | | | | | | | |

ODD SEMESTER EXAMINATION , 2022-23

COURSE NAME :- B.PHARM

SEMESTER- 3rd

SUBJECT :- ORGANIC CHEMISTRY -II

TIME: 3 HOURS MAX MARKS:75

NOTE: Attempt all parts. **(1x20)**

PART A

(ATTEMPT ALL QUESTION)

1. Fatty acids are –
   (a) Unsaturated dicarboxylic acids b) Long chain alkanoic acids c) Aromatic carboxylic acids (d) Aromatic dicarboxylic acids

2. Fats and oils are –
   (a) Monoesters of glycerol (b) Diesters of glycerol (c) Triesters of glycerol (d) Diesters glycol

3. Phenol is used
   (a) In alcoholic beverages (b) As anaesthetic (c) In antiseptics (d) As moth repellant.

4. Phenanthrene is a fused polycyclic compound contains –
   (a) Three benzene rings (b) Four benzene rings (c) Two benzene ring

5. Naphthalene on oxidation with $KMnO_4$ in acidic medium gives
   (a) Phthaldehyde (b)Phthalic anhydride (c) Phthalic acid (d) Phthalonic acid

6. The carbon atoms in a benzene ring are –
   (a) Sp hybridized (b) Sp^2 hybridized (c) Sp^3 hybridized (d)None of the above

7. Which of the following statement is false about primary amines?
   (a) They can be prepared by reduction of nitriles with $LiAlH_4$
   (b) They do not form salt with acids
   (c) They react with ice-cold nitrous acid to form nitrogen gas
   (d) They are basic and soluble in water.

8. Cyclo alkanes have the same molecular formula as –
   (a) Alkanes (b) Alkenes (c) Alkynes (d) None of these

9. Enzyme responsible for hydrolysis of fat is –
   (a) Reductase (b) Aconitase (c) Lipase (d) Kinase

10. Huckel's Rule is also known as –
   (a) $(4n + 2)\ \pi$ electron rule (b) $(4n + 1)\ \pi$ electron rule
   (b) $(4n + 2)\sigma$ electron rule (d) $(4n + 1)\ \sigma$ electron rule

11. The main source of poly nuclear hydrocarbons are –
   (a) Biogas & Petroleum (b) Natural gas (c) Petroleum (d) Coal Tar & Petroleum

12. Nitration of benzene is carried out in presence of
   (a) Concentrated Sulphuric acid (b)Concentrated Nitric acid
   (b) Mixture of concentrated H_2SO_4 & concentrated HNO_3 (d)Concentrated HCL

13. Fats and oils are ester of –
   (a) Acetic acid and alcohols (b)Fatty acid & alcohols (c)Carboxylic acid & alcohols (d) None of the above

14. Which of the following is important in testing the purity of butter and ghee-
   (a) RM Value (b)Acid Value (c)Iodine Value (d) Saponification Value

15. Phenol is –
   (a) Solid (b)Crystalline solid (c)Gas (d)Liquid

16. Electron releasing group on aromatic amines-

   (a)Decrease the basicity (b) Increase the basicity (c) Neutral the basicity (d) None of above

17. Aromatic acids when react with ammonia it forms-

   (a) Hydrocarbon (b) Acid chloride (c) Amide (d) Ketone

18. Iodine number is defined as the number of grams of iodine required for the iodination

   of……gm of fats or oils-

   (a) 1 (b) 5 (c) 100 (d) 1000

19. The reaction of aromatic acids with alcohol in presence of H_2SO_4 is called –

   (a) Esterification (b) Saponification (c) Hydrolysis (d) Neutralization

20. The number of OH group in fats can be expressed as-

   (a)Polenske number (b) RM Value (c) Acetyl Value (d) Iodine Value

PART B

(QUESTION No. 21 TO 233 ATTEMPT ANY 2) (2x10)

21. Interpret poly nuclear aromatic hydrocarbons with its classification?
22. Explain acid and Saponification value and demonstrate the physical and chemical properties of fats and oils?
23. Describe and explain the preparation of phenol with the effect of substituents on its acidity?

PART C

(QUESTION NO. 24 TO 32 ATTEMPT ANY 7) (7x5)

24. Explain structure and uses of DDT, BHC and Saccharin.
25. Give one preparation for each of the following –
    (a) Naphthalene
    (b) Anthraecene
    (c) Phenanthrene
26. Explain in detail about Baeyer Strain theory and also mention its limitations.
27. Integrate the mechanism involved in friedal craft alkylation and halogenations reaction of benzene.
28. Explain Resonance and Kekule's structure of benzene.
29. Explain effect of electron withdrawing groups on the basicity of aromatic amines.
30. Rewrite the synthesis with chemical reaction and uses of diphenyl methane and triphenyl methane.
31. Discus Sachse Mohr's theory of Strainless Ring in detail.
32. Summarize molecular orbital structure of benzene.