

SARASWATHI VIDYA BHAVANS COLLEGE OF PHARMACY, DOMBIVLI -E

MODEL ANSWER QUESTION

THIRD YEAR B PHARM SEM V (CBGS SYLLABUS PATTERN)

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Q. Multiple choice question -select or tick the correct option

Q.1 Which of the following is heterocyclic compound is having greater aromatic nature

- A] Furan
- B] Thiophene
- C] Piperidine
- D] Pyrrole

Q.2 Select appropriate prefix for N atom

- A] Thiol
- B] Oxa
- C] Aza
- D] oxirane

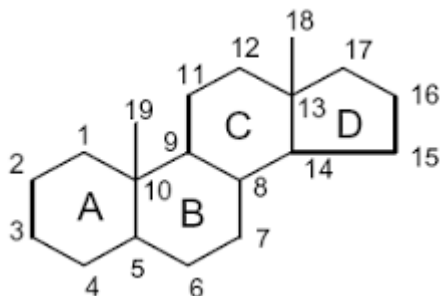
Q.3 Common name of aromatic, six member heterocyclic compound containing N atom is

- A] Pyrrole
- B] Piperidine
- C] Azine
- D] Pyridine

Q.4 What is the correct order of reactivity (most reactive first) of pyrrole, furan and thiophene towards electrophiles?

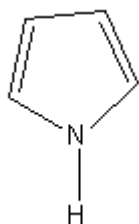
- A] pyrrole > furan > thiophene
- B] furan > thiophene > pyrrole
- C] thiophene > pyrrole > furan
- D] furan > pyrrole > thiophene

Q.5 Select correct name of the steroid nucleus shown below



- A] Cyclopentanoperhydrophenanthrene ring
- B] Cyclopentanoperhydroanthracene ring
- C] cyclobutylperhydrophenanthrene ring
- D] Cyclopentanoperhydronaphthalene ring

Q.6 Identify the following heterocyclic compound



- A] Piperidine
- B] Pyrrole
- C] Furan
- D] Thiophene

Q.7 Which of the following abbreviation is used to indicate absent carbon atom in steroid nomenclature

- A] DES
- B] NOR
- C] HOMO
- D] SECO

Q.8 What do all steroids have in common?

- A] They contain four rings of carbon atoms
- B] They contain at least one fatty acid group
- C] They are manufactured by the liver
- D] They contain three rings of carbon atom

Q.9 Select appropriate suffixes for fully saturated compounds six member heterocyclic compound containing S & O atoms

- A] irine
- B] in
- C] imine
- D] ane

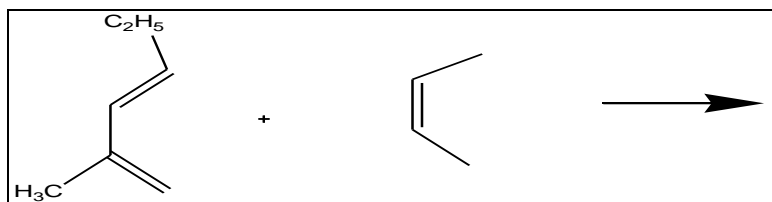
Q.10 What is Common name of 1, 3-diazine?

- A] pyrimidine
- B] pyrazine
- C] piperazine
- D] Pyrrole

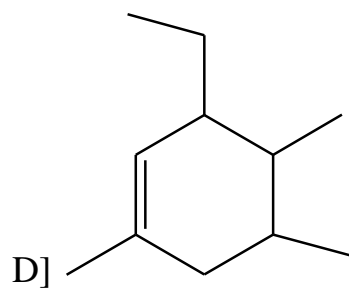
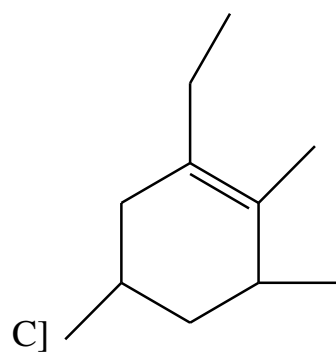
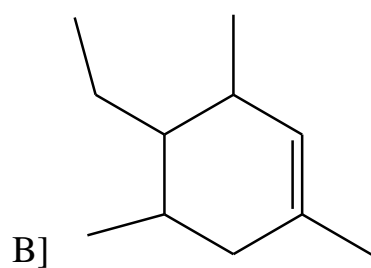
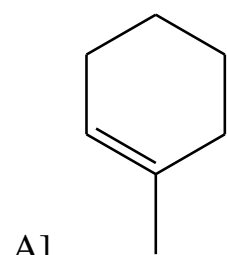
Q.11 Which of the following is used for nitration of furan

- A] Nitric acid
- B] Acetyl nitrate
- C] Sulphuric acid
- D] HNO<sub>3</sub> and Pyridine

Q.12 Identify the Diels alder product of following reaction



?



Q.13 Which of the following is set of rules used to rationalize or predict certain aspects of the stereochemistry and activation energy of pericyclic reactions.

- A] Huckles Rule
- B] Woodward -Fischer Rule
- C] Woodward–Hoffmann rules
- D] Nitrogen Rule

Q.14 Which of the following statements best describes a synthon?

- A] A synthetic reagent used in a reaction
- B] A key intermediate in a reaction sequence
- C] A transition state involved in a reaction mechanism
- D] A hypothetical structure that would result in a given reaction if it existed

Q. 15 1,3-disconnection approach is applicable to compound

- A] 1,3-difunctionalized compound
- B] 1,2 – difunctionalized compound
- C] 1,4- difunctionalized compound
- D] 2,3- difunctionalized compound

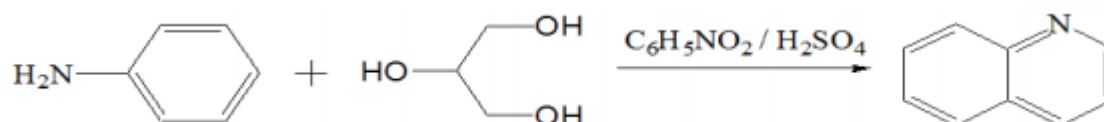
Q. 16 Which of the following heterocycle is bicyclic with one N heteroatom

- A] Imidazole
- B] Indole
- C] Pyrimidine
- D] pyrrole

Q.17 Electrophilic aromatic substitution in Quinoline takes place at which position

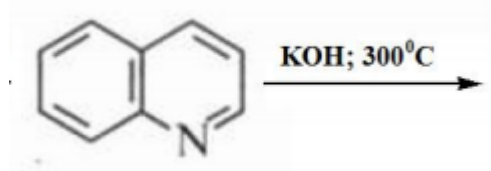
- A] position 5 and 8
- B] position 3 and 4
- C] position 2 and 5
- D] position 6 and 8

Q.18 Identify the synthetic method



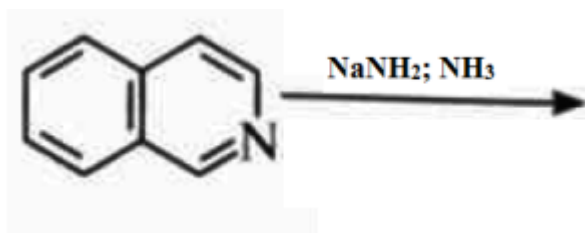
- A] Doebner-Miller synthesis
- B] Conrad-Limpach synthesis
- C] Hinsberg synthesis
- D] Skraup Synthesis

Q.19 Identify the product of the following reaction



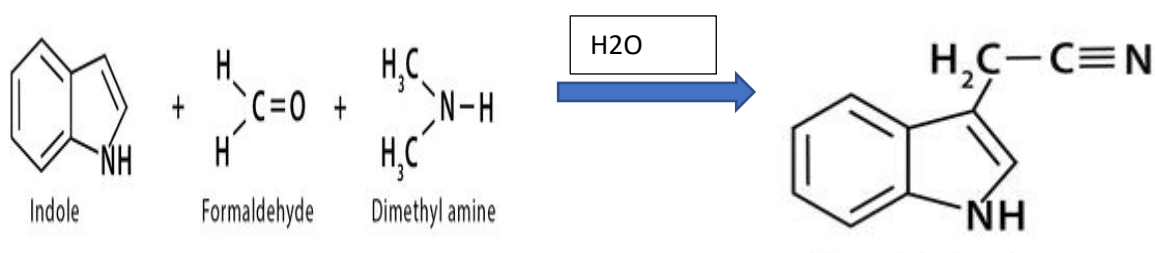
- A] 2-hydroxyquinoline
- B] N-hydroxyquinoline
- C] 3-hydroxyquinoline
- D] 4-hydroxyquinoline

Q.20 identify the product of the following



- A] 1-aminoisoquinoline
- B] N-aminoisoquinoline
- C] 3-aminoisoquinoline
- D] no reaction

Q.21 identify the reaction



- A] Mannich reaction
- B] Fischer indole synthesis
- C] Mandelung synthesis
- D] Reissert synthesis

Q.22 What is Beckmann rearrangement

- A] a rearrangement of an oxime functional group to substituted amides.
- B] a rearrangement of an oxirane functional group to substituted amines.
- C] a rearrangement of an amide functional group to oxime.
- D] a rearrangement of an carboxylic functional group to amides.

Q.23 Use of living systems or their parts to speed up chemical reactions is termed as

- A] Acid base catalysis
- B] Autocatalysis
- C] Biocatalysis
- D] catalytic hydrogenation

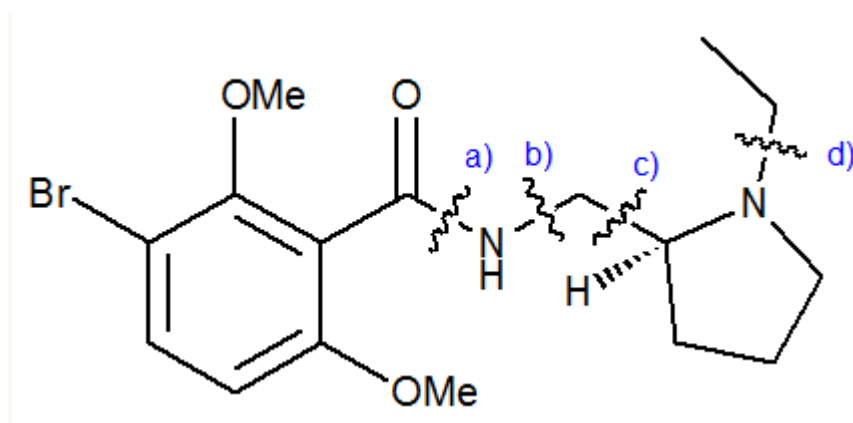
Q. 24 Which of the following is correct formula for E factor

- A] E-factor of a process is the ratio of the mass of waste per mass of product
- B] E-factor of a process is the ratio of the mass of product per mass of waste
- C] E-factor of a process is the ratio of the mass of catalysis per mass of product
- D] E-factor of a process is the percentage of the mass of waste per mass of product

Q.25 In 5 alpha steroids A and B ring fusion is

- A] Trans
- B] Cis
- C] Both cis and trans
- D] R and S

Q.26 For the following structure, which of the disconnections (A-D) is likely to be the best option?



- A] Disconnection A
- B] Disconnection B
- C] Disconnection C
- D] Disconnection D



Q.27 Which of the following heterocycle contains O as Heteroatom

- A] PYRROLE
- B] FURAN
- C] THIOPHENE
- D] IMIDAZOLE

Q.28 [3,3] sigmatropic rearrangement of 1,5-dienes or allyl vinyl ethers, known as

- A] Cope and Claisen rearrangement
- B] Wittig Rearrangement
- C] Hoffmann Rearrangement
- D] Woodward Hoffmann rearrangement

Q.29 which of the following is starting material used for Paal Knorr synthesis

- A] 1,4-diketones
- B] 2,3 Diketones
- C] 1,3 -diketones
- D] 2,4 -Diketones

Q.30 Use of strong acids in Nitration and sulphonation of pyrrole it produces

- A] 2-substituted pyrrole
- B] 3-substituted pyrrole
- C] 4,5-disubstituted pyrrole
- D] 2,3,4,5-polysubstituted pyrrole