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वलय - 005

S - 19

BP-301-T
Pharmaceutical Organic Chemistry-II
(723301)

P. Pages : 4

Time : Three Hours

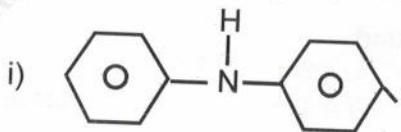
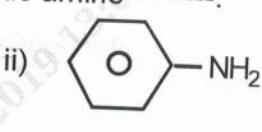
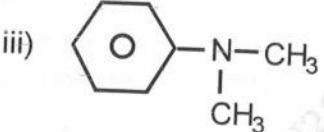
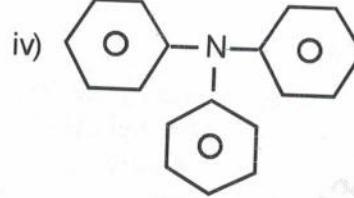
Max. Marks : 75

Instructions to Candidates :

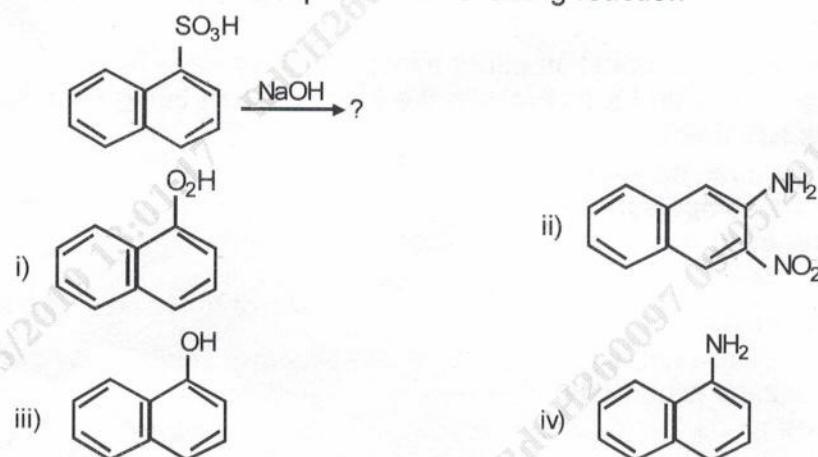
1. Do not write anything on question paper except Seat No.
2. Graph or diagram should be drawn with the black ink pen being used for writing paper or black HB pencil.
3. Students should note, no supplement will be provided.
4. All questions are compulsory.
5. Draw structure, diagram wherever necessary.

1. Multiple choice questions.

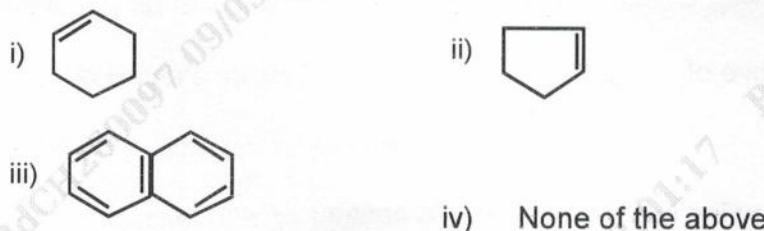
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- a) Nitration of benzene is carried out -----
- i) Conc. \cdot H₂SO₄
 - ii) Conc. \cdot HNO₃
 - iii) Mise of Conc. \cdot H₂SO₄ + Conc. \cdot HNO₃
 - iv) Conc. \cdot HCl
- b) Huckel Rule is also known as.
- | | |
|---------------------------|--------------------------|
| i) (4n+2) π rule | ii) (4n+1) π rule |
| iii) (4n+2) σ rule | iv) (4n+1) σ rule |
- c) Phenol is derivative of
- | | |
|--------------|-------------|
| i) Alkanes | ii) Alkynes |
| iii) Benzene | iv) Amine |
- d) Which of the following is primary aromatic amine -----.
- i) 
- ii) 
- iii) 
- iv) 

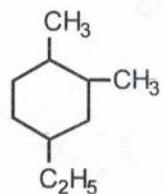
- e) Hofmann's degradation reaction is used for synthesis of -----.
- Secondary aromatic amine
 - Primary aromatic amine
 - Tertiary aromatic amine
 - None of the above
- f) Fats and oils are esters of -----.
- Acetic acid and alcohols
 - Fatty acid & alcohol
 - Carboxylic acid and alcohol
 - None of the above
- g) Naphthalene on oxidation with KMnO_4 in acidic medium gives -----.
- Phthaldehyde
 - Phthalic acid
 - Phthalic anhydride
 - Phthalonic acid
- h) What will be the main product of following reaction



- i) Which of the following cycloalkanes have highest ring strain.
- Cyclopropane
 - Cyclobutane
 - Cyclopentane
 - Cycloneptane

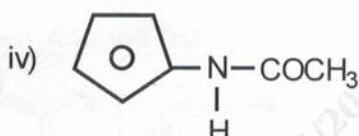
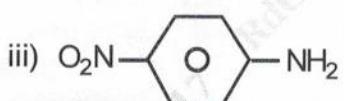
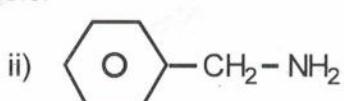
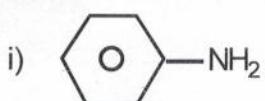


- k) Give the IUPAC Name of following compound



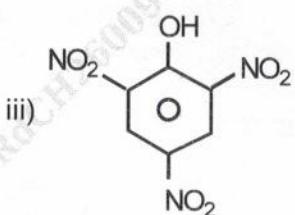
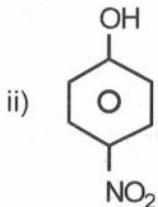
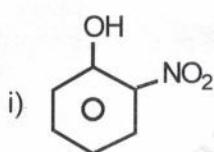
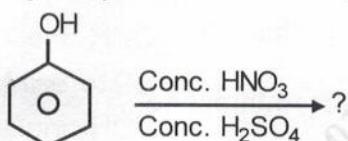
- 1-Ethyl -3, 4 dimethyl cyclohexane
- 4-Ethyl -1, 2 dimethyl cyclohexane
- 1, 2 dimethyl – 4 ethyl cyclohexane
- None of the above

- i) All the carbon atom in anthracene are -----.
- SP hybridized
 - SP² hybridized
 - SP³ hybridized
 - None of the above
- m) The specific gravity of lipids is
- 1.0
 - 0.86
 - 1.5
 - None of the above
- n) Which of the following is more basic.



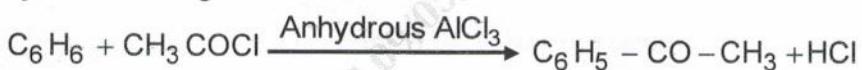
- o) The correct order of reactivity of halides with amine is
- RI > RBr > RCl
 - RI > RCl > RBr
 - RBr > RCl > RI
 - RCl > RBr > RI

- p) Identify the product of following reaction



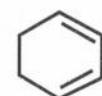
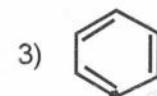
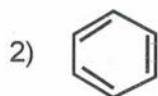
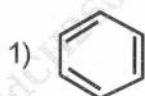
iv) i & ii

- q) Identify the following reaction.



- Halogenation
 - Friedel craft alkylation
 - Friedel craft acylation
 - Sulphonation
- r) The C – C bond length in benzene is
- 1.54A°
 - 1.34A°
 - 1.41A°
 - 1.39A°

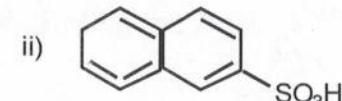
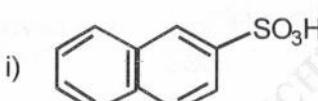
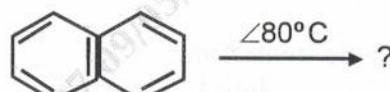
s) Which one not aromatic compound.



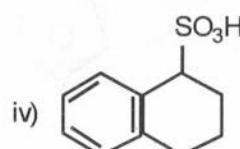
- i) 1 & 2
iii) 2 & 3

- ii) 1
iv) 4

t) Identify product in reaction



- iii) i & ii



2. Solve any two out of three.

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a) Explain in detail aromatic electrophilic substitution reaction of benzene.

b) i) Explain the concept of acidity of phenol.

ii) Write a note on oxidation reaction of Naphthalene

c) Give the methods of preparation & reaction of Anthracene.

3. Solve any seven out of nine.

35

a) How will you synthesize Naphthalene.

b) What happens when 1, 3 butadiene is react with ethene.

c) Explain Bayer's strain theory.

d) Explain the concept of basicity of aromatic amine.

e) Explain Huckel rule for aromaticity.

f) Write note on

i) Friedal craft alkylation ii) Friedal craft acylation

g) Write any two chemical properties of Phenol.

h) Why electron releasing groups increase the basicity of aromatic amines.

i) Write a note on

i) Acid value

ii) Saponification value.
