

April 2015

Seat Number

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खडक - 057

CHEMISTRY PAPER - II (NEW) : CH - 242
Organic Chemistry & Analytical Chemistry - II
(24136)

P. Pages : 3

Time : Two Hours

Max. Marks : 40

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. Figures to the right indicate full marks.
6. Use of log table or calculator is allowed.

1. A) Select the correct answer of the following.

4

i) EDTA is capable of forming ----- co-ordinate bonds.

- | | |
|------|------|
| a) 1 | b) 2 |
| c) 4 | d) 6 |

ii) Paper chromatography is example of ----- chromatography.

- | | |
|---------------|-----------------|
| a) Adsorption | b) Ion exchange |
| c) Partition | d) Gas liquid |

iii) Furan, pyrrole and thiophene undergo substitution at ----- position.

- | | |
|------|------|
| a) 1 | b) 2 |
| c) 3 | d) 4 |

iv) In organometallic compounds, carbon acts as -----

- | | |
|----------------|------------------------|
| a) Carbocation | b) Carbon free radical |
| c) Carbanion | d) Carbonium ion |

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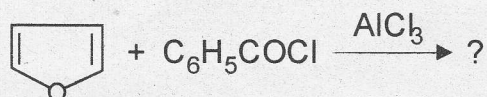
1

P.T.O

B) Attempt **any two** of the following.

4

- i) Define redox reaction.
- ii) What do you mean by stationary phase and mobile phase ?
- iii) What is active methylene group ?
- iv)



Identify the product.

2. Attempt **any two** of the following.

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- i) Explain the term ligand. Give different types of ligands with examples.
- ii) Distinguish between ascending and descending paper chromatography.
- iii) How will you bring following conversions ?
 - a) Aceto acetic ester to n-butyric acid.
 - b) Aceto acetic ester to ethyl methyl ketone.

3. A) Answer **any one**.

4

- i) Discuss titration of Ce^{+4} with Fe^{+2} .
- ii) How will you prepare primary and secondary alcohols using methyl lithium.

B) Attempt **any one**.

4

- i) Discuss about formation constant of a complex with suitable example.
- ii) How will you prepare pyrrole from
 - a) Acetylene.
 - b) Furan.

4. Answer **any two** of the following.

8

- i) What are iodimetric titrations ? Why iodimetric titrations should be performed in neutral, weakly acidic or weakly alkaline conditions ?
- ii) How will you convert malonic ester into
 - a) Succinic acid.
 - b) Cinnamic acid.
- iii) Give preparation of Grignard reagent. Give reaction of methyl magnesium iodide with acid chloride.

5. A) Answer **any one** of the following.

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- i) Discuss principle and technique of thin layer chromatography.
- ii) Discuss following reactions of Naphthalene.
 - a) Nitration.
 - b) Halogenation.
 - c) Sulphonation.

B) Define redox indicators.

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