

BARKATULLAH UNIVERSITY BHOPAL

EXAMINATION Dec-2020

M.Sc. IInd semester (Atkt)

Paper - Organic chemistry II

Paper code – MCH -407

Maximum marks :-85

Note : Attempt all questions & carry equal marks

Q1.Explain the mechanism of nitration in aromatic compounds

. Q2. Give brief explanation on .

1} Auto oxidation

2} Sandmeyer reaction

Q3.Discuss the following .

1} Cope rearrangement

2} Diazonium coupling

Q4. Give the classification of pericyclic reactions with examples.

Q5.Discuss aromatic nucleophilic substitution reaction.

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EXAMINATION Dec-2020

M.SC.IInd semester (Atkt)

Paper –physical chemistry

Paper code MCH-408

Maximum marks :85

Note -: Attempt all questions & carry equal marks .

Q1. write a note on “activated complex theory”

Q2. Give classification of polymers.

Q3. Write note on following.

- 1) Electro kinetic phenomena.
- 2) Entropy production and entropy flow.

Q4. Describe B E T equation

Q5. Describe polarography theory and ilkovic equation in detail.

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EXAMINATION Dec-2020

M.Sc.IInd semester (Atkt)

Paper - spectroscopy iv

Paper code – MCH -409

Maximum marks :85

Note – Attempt all questions are compulsory & carry equal marks.

Q1.Explain zero field splitting.

Q2.Explain the NMR spectra of AB system.

Q3.Write the application of NQR spectroscopy.

Q4.Write applications of neutron Diffraction technique.

Q5.Give in details any method for study of crystal structure.

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EXAMINATION Dec-2020

M.Sc. II semester (Atkt)

Paper- INORGANIC CHEMISTRY II

Paper code- MCH-406

Maximum marks : 85

Note:- Attempt all questions & carry equal marks

Q 1. Write notes on ORD (optical Rotatory Dispersion) or circular Dichroism.

Q 2. Discuss spin multiplicity rule and its break - down in brief.

Q 3. Write note on importance of IR (infra red) spectrum in structural determination of metal carbonyls

Q 4. Explain Faraday and kerr effect

Q 5. What are metalloborane ? describe . structure and bonding with suitable examples

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EXAMINATION Dec-2020

M.Sc. IInd semester (Atkt)

Paper – computer for chemistry V

Paper code – MCH - 410

maximum marks -:85

Note -: Attempt All questions are compulsory & carry equal marks.

Q1. Describe input and output devices of computer in short.

Q2. What is the basis role of computer in chemistry .

Q3. Write short notes on the following.

A) Computer language.

B) Basic structure and functioning of computer.

Q4. Discuss few useful applications of computer in chemistry.

Q5. Write notes.

A) Web camera.

B) P D F.