

BARKATULLAH UNIVERSITY BHOPAL

ASSIGNMENT –OPEN BOOK SYSTEM

DECEMBER -2020

M.Sc.III SEMESTER (ATKT)

PAPER- Application –of spectroscopy

PAPER CODE –MCH-501

NOTE:- All question are compulsory and carry equal marks . Max.M.-85

- Q. 1 Explain selection rule for d-d transition.
- Q.2 Explain the principle of NMR Spectroscopy.
- Q.3 Explain spin - spin interaction .
- Q.4 Describe Nuclear a over house effect.
- Q.5 Discuss application of Mossbauer Spectroscopy.

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M.Sc.III SEMESTER (ATKT)

PAPER- PHOTO CHEMISTRY -II

PAPER CODE –MCH-502

NOTE:- All question are compulsory and carry equal marks . Max.M.-85

- Q. 1 Define Actinometry and state the factors essential to determine quantum yield.
- Q.2 Discuss various types of photo chemical reactions with examples.
- Q.3 Discuss photochemistry of Butadiene.
- Q.4 Describe Norrish type I reaction .
- Q.5 Explain photochemical formation of smog..

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PAPER- POLYMERS -IV

PAPER CODE –MCH-505

NOTE:- All question are compulsory and carry equal marks . Max.M.-85

- Q. 1 Write a short note on importance of Polymer.
- Q.2 Explain polymerisation in Homogeneous system .
- Q.3 What are inorganic polymers? Write their structure, properties and uses.
- Q.4 Write any two spectroscopic method of polymer testing.
- Q.5 Differentiate between coordination and metal chelate polymer giving example.

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PAPER- ENVIRONMENTAL CHEMISTRY

PAPER CODE –MCH-503

NOTE:- All question are compulsory and carry equal marks . Max.M.-85

- Q. 1 Explain temperature inversion.
- Q.2 Give the account of biogeochemical cycle of phosphorous.
- Q.3 Write in detail on Global Warming .
- Q.4 Write techniques of purification and disinfection of water .
- Q.5 Describe soil pollution by fertilizers with suitable examples.

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PAPER- INDUSTRIAL CHEMISTRY

(HEAVY CHEMICAL & PETROLIAM)

PAPER CODE —MCH-508

NOTE:- All question are compulsory and carry equal marks . Max.M.-85

- Q. 1 Write note on pesticides and Industrial wastes.
- Q.2 Describe the Industrial production of Hydrogen .
- Q.3 Describe the manufacture and use of water gas.
- Q.4 Write the note on cracking and knocking.
- Q.5 Explain the manufacturing of vanaspati oil.