

DEPARTMENT OF SCIENCES, IV SEMESTER M.Sc (Chemistry)

End Semester - 2020

SUBJECT: Open Elective
DYES AND PESTICIDES [CHM 5003]
(REVISED CREDIT SYSTEM-2017)

Time: 2h

Date: 17- 07-2020

MARKS: 25

Note: Answer all questions. Write reactions or structures wherever necessary.

1 A. Describe the Witt's theory of colour in detail.

B. Give the preparations of following dye;

i. Malachite green

ii. Congo red

[3+2]

2 A. Discuss the classification of dyes on the basis of their applications:

B. What are the requirements of a substance to act as a dye?

[3+2]

3A. Write the basic structure of Indigoid dye. Give the synthesis of Indigotin by starting from

i) Aniline

ii) Anthranilic acid

B. Explain the valence band theory of colour.

[3+2]

4A. What are the characteristics of organochlorenes pesticides? How do you synthesis the dichloro- diphenyl-trichloroethane?

B. Distinguish between the following:

i) Pyrethrins and pyrethroids

ii) Natural and synthetic insecticides

[3+2]

5A. Explain the different types of synthetic insecticides in detail. Write any two advantages and disadvantages.

B. What are the effects of Bhopal gas tragedy?

[3+2]
