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MCH-019

**MASTER OF SCIENCE
(CHEMISTRY) / MASTER OF
SCIENCE (ANALYTICAL
CHEMISTRY) (MSCCHEM /
MSCANCHEM)**

Term-End Examination

June, 2026

MCH-019 : GREEN CHEMISTRY

Time : 1 Hours

Maximum Marks : 25

Note : (i) Answer either question no. 1 or question 2.

(ii) Answer any **five** questions from question no. 3 to question no. 8.

Note : Answer any **one** of the following questions.

1. Explain the principle of 'reducing unnecessary derivatisation' of green chemistry. Discuss the purposes of derivative formation in the chemistry laboratories. Describe the implications of derivative formation. 5

Or

2. What are VOCs ? Give *two* examples. List *three* advantages of VOCs. Also give their harmful effects. 5

Note : Answer any **five** questions from the following.

3. What aspects should be kept in mind while we choose a reagent for a particular

synthesis ? How would you compare the available reagents from green chemistry point of view ? 4

4. Which type of reaction from the following will you prefer for synthesizing a particular compound ? 4

- (i) Elimination reaction.
- (ii) Addition reaction.
- (iii) Oxidation-reduction reaction.

Give reasons in support of your answer.

5. Explain stratospheric ozone depletion. Also discuss its harmful effects. 4

6. What is fouling ? Discuss its harmful effects. 4

7. What were the problems associated with the use of pentane as a blowing agent in manufacture of EPS ? What was the solution proposed for resolving this issue ? 4

8. How is the mixture of DMT and ethylene glycol, obtained in the Petretec process separated ? Briefly explain the steps involved. 4

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