

Seat No. : _____

DA-124
December-2013
M.Sc. Sem.-III
CHE(O) 504 : Chemistry
(Industrial Chemistry)

Time : 3 Hours]

[Max. Marks : 70

1. (a) Give a brief note on fire and their safety. 7
OR
What is "Patent" ? Discuss the importance of Patents in R & D.
- (b) What is "GLP" ? Give a brief note on it. 7
OR
Discuss the difference between Batch versus Continuous Operation.
2. (a) What is Nitration ? Discuss the factors affecting on nitration reaction. 7
OR
Enlist various chlorinating agents and their use in functional group transformation to Chloro compounds.
- (b) Discuss amination by ammonolysis and reduction. 7
OR
Discuss industrial application of Sulphonation.
3. (a) Discuss the use of solvent and catalyst for Green Chemistry aspects. 7
OR
Discuss very briefly the principles of Green Chemistry.
- (b) Discuss Wurts and Witting-Hormer reaction on the basis of green chemistry. 7
OR
Write a note on Ionic Liquids.
4. (a) Write a note on plant nutrients and plant hormones. 7
OR
Write a note on Pesticides.
- (b) Write a note on various distillations. 7
OR
Write a note on various types of filtration.

5. Answer the followings :

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- (1) What is insecticide ?
 - (2) What is fungicide ?
 - (3) Define Catalyst.
 - (4) Define Reagent.
 - (5) Define Substrate.
 - (6) What is Oleum ?
 - (7) What is fuming nitric acid ?
 - (8) What is phase transfer catalyst ?
 - (9) Give reaction for O-alkylation.
 - (10) Give reaction for N-nitration.
 - (11) Define Green Chemistry.
 - (12) What is Hydrogenation ?
 - (13) What is Hydroxylation ?
 - (14) Define Amination.
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