

Total No. of Questions : 6]

SEAT No. :

P1377

[Total No. of Pages : 2

[5123]-104

M.Sc. - I (Semester - I)
ANALYTICAL CHEMISTRY

CHA - 190 : Safety in Chemical Laboratory & Good Laboratory Practices

(2013 Pattern) (Credit System) (5 Credit)

Time : 3 Hours]

[Max. Marks : 50

Instructions to the candidates:

- 1) *Answer to two sections should be written in separate answer books.*
- 2) *All questions are compulsory.*
- 3) *Neat diagrams must be drawn wherever necessary.*

SECTION - I

Q1) Attempt the following : **[10]**

- a) What is chemical safety?
- b) Explain in short "Biological hazards."
- c) How will you prepare a safety report to avoid chemical accidents while working in Laboratory?
- d) Give any two examples for corrosive & carcinogenic chemicals.
- e) How to avoid eye injury in Laboratory?

Q2) Answer any two of the following : **[10]**

- a) Write a note on PPE.
- b) What is chemical waste? Give classification of chemical waste.
- c) Write a note on storage condition.
- d) Explain different types of hazards in chemical laboratory.

P.T.O.

Q3) Answer any one of the following : [5]

- a) Give the history & importance of safety & health in laboratory.
- b) Write a note on need for Globally Harmonized system for SDS.

SECTION - II

Q4) Attempt the following : [10]

- a) Write any two Do's & Dont's in laboratory.
- b) What is ISO & NABL accreditation?
- c) Distinguish between dry & wet fire extinguishers.
- d) State the principle of GLP.
- e) What is OSHA Laboratory standard?

Q5) Answer any two of the following : [10]

- a) Write a note on action to be taken in case of chemical spills on clothes in laboratory.
- b) What are the different types of fire extinguishers? State their method of use.
- c) According to SOP's what precautions should be taken in the laboratory to avoid accidents?
- d) Explain in detail hazardous & non-hazardous waste.

Q6) Answer any one of the following : [5]

- a) Write a short note on - Disposal methods of hazardous chemicals.
- b) Define toxic, hazardous explosive flammable & harmful chemicals. Mention different symbols used on chemical containers.

