

2012  
B.A./B.Sc. (General) Fifth Semester  
Industrial Chemistry  
Paper - A

Time allowed: 3 Hours

Max. Marks: 75

**NOTE:** Attempt five questions in all, including Question No. IX (Unit-V) which is compulsory and selecting one question each from Unit I - IV.

x-x-x

**UNIT - I**

- I. a) Discuss various factors involved in project cost estimation.  
b) Explain the economics of selecting alternatives. (8,7)
- II. Write note on the following:-  
a) Capital formation  
b) Break-even point  
c) Time value of money equivalence (3x5)

**UNIT - II**

- III. a) Discuss functions of Human Resource Management in detail.  
b) Explain materials management. (9,6)
- IV. Write complete notes on the following:-  
a) Inventory control  
b) Welfare and safety (8,7)

**UNIT - III**

- V. Discuss in detail principle, instrumentation and complete working of HPLC. Also draw neat sketch. (15)
- VI. Explain the following:-  
a) Rheological properties of liquid plastics  
b) Particle size determination (8,7)

**UNIT - IV**

- VII. Discuss the following:-  
a) X-ray fluorescence.  
b) Atomic absorption (8,7)

P.T.O.

(2)

VIII. Explain the following:-

- a) Flame photometry
- b) Neutron diffraction

(7.8)

**UNIT – V**

IX. Attempt the following:-

- a) Production scheduling
- b) Selection incentives
- c) Sampling of bulk materials
- d) Ion chromatography

(4)

(3)

(3)

(5)

x-x-x