



PH-003-001648

Seat No. _____

Third Year B. Sc. (Sem. VI) (CBCS) Examination

July - 2018

**IC - 603 : Pharmaceuticals - II &
Fundamentals of Chemical Engineering - II**

Faculty Code : 003

Subject Code : 001648

Time : $2\frac{1}{2}$ Hours]

[Total Marks : 70

- Instructions :**
- (1) All the questions are compulsory.
 - (2) Figures to the right indicate maximum marks.
 - (3) Draw labelled diagrams wherever necessary.
 - (4) Assume suitable data.
 - (5) Question-1 each question carries 1 mark objective type question.
 - (6) Question-2 & 3 carries 25 marks each.

1 Answer the following : 20

- (1) Give full form of NIHL.
- (2) Define the term flash point.
- (3) What do you mean by the term safety?
- (4) Define the term Tele-metering.
- (5) What is meant by hunting?
- (6) Define the term steady state.
- (7) Define Elasticity.
- (8) Enlist any four technological properties.
- (9) What do you mean by wear resistance?
- (10) Give check list for Filtration equipment.
- (11) Therapeutic index is the ratio of _____.
- (12) $C_{25}H_{40}$ is the molecular formula for _____ terpenoid.
- (13) According to W.H.O. hypertension is a state where systolic pressure _____ mm of Hg and diastolic pressure _____ mm of Hg.

- (14) Give one examples of monocyclic terpenoid.
- (15) Chemical constituents of the plant which is medicinally active known as ?
- (16) Who was known as the father of modern chemotherapy ?
- (17) Give structural formula of isoprene.
- (18) The sugar residue in glycoside is known as _____
(Glycone/Aglycone)
- (19) Give one example of cardiovascular drug.
- (20) Polysaccharide yielding only one variety of monosaccharide is called ?

- 2 (A) Answer any **Three** : **6**
- (1) Define : (A) Resistance (B) Conductance.
 - (2) Define : (A) Capacity (B) Error.
 - (3) Write a note on fire triangle.
 - (4) Define : (i) Prosthetic group (ii) Fermentation.
 - (5) Give synthesis of : Aspirin.
 - (6) Define : (i) Alkaloid (ii) Bacteriostatic agent.
- (B) Answer any **Three** : **9**
- (1) Write a note on knowledge of materials for safety.
 - (2) Give advantages and disadvantage of automatic control system.
 - (3) Write notes on (a) Fixed bed reactor (b) Bubble phase reactor.
 - (4) Explain: Factors affecting enzyme substrate activity.
 - (5) Give synthesis of : Paracetamol.
 - (6) Give synthesis of: Barbitol.
- (C) Answer any **Two** : **10**
- (1) Write a detailed note on laboratory safety.
 - (2) Write a note on sources of information for a process research.
 - (3) Explain with neat diagram transportation lag.
Explain three reasons for transportation lag.
 - (4) Explain : Proteins in detail.
 - (5) Describe manufacturing of Penicillin G with diagram.

- 3 (A) Answer any **Three** : **6**
- (1) Draw a labelled diagram of a control valve.
 - (2) Write a note on time schedule in chemical industries.
 - (3) Write a short note on inert dust and harmful dust.
 - (4) Define : (i) Hypnotics (ii) Anti hypertensive agent.
 - (5) Explain : Flavonoid in brief.
 - (6) Define : (i) Chemotherapy (ii) Pseudo tannin.
- (B) Answer any **Three** : **9**
- (1) Write a note on utilities used in chemical industries.
 - (2) Enlist advantages and disadvantages of a manual control system.
 - (3) Write a note on color codes for safety.
 - (4) Describe : Oil, Fat and Wax.
 - (5) Give synthesis of Ephedrine.
 - (6) Give synthesis of Ibuprofen.
- (C) Answer any **Two** : **10**
- (1) Explain in detail components of a control system.
 - (2) Explain in detail storage, handling and transportation of chemicals in industries.
 - (3) Describe : Carbohydrates.
 - (4) Explain : Sulpha drugs in detail.
 - (5) Explain : Lactic acid production in detail.
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