

Total No. of Questions : 6]

SEAT No. :

**P3567**

**[4849]-1001**

[Total No. of Pages : 3

**First Year B.Pharm.  
PHARMACEUTICS-I  
(2015 Pattern) (Credit System) (Semester-I)**

*Time : 3 Hours]*

*[Max. Marks : 60*

*Instructions to the candidates:*

- 1) *All questions are compulsory.*
- 2) *Answers to the two sections should be written in separate books.*
- 3) *Neat diagrams must be drawn wherever necessary.*
- 4) *Figures to the right side indicate full marks*
- 5) *Assume suitable data, if necessary.*

**SECTION-I**

**Q1)** Attempt any one:

**[10]**

- a) What are Alternative systems of medicine ? Explain general principles of any two systems.

OR

- b) What is pharmacy, write about scope in pharmacy.

**Q2)** Attempt any four:

**[12]**

- a) Explain quality assurance
- b) Give an account of code of ethics
- c) Write about different sources of drugs with examples.
- d) Define drug and new drug as per regulatory aspects
- e) Write a note on routes of administration
- f) What are dosage forms
- g) Write about IP

***P.T.O.***

**Q3)** Write short notes on any two: **[8]**

- a) Classification of dosage forms
- b) Concept of quality control
- c) Career opportunities in pharmacy
- d) History of pharmacy

**SECTION-II**

**Q4)** Attempt any one: **[10]**

- a) Explain factors affecting rate of solution. Give manufacturing process for liquid orals

OR

- b) Explain in detail different excipients used in pharmaceuticals.

**Q5)** Attempt any four: **[12]**

- a) What are syrups. Explain why preservatives are not required in simple syrup IP
- b) Discuss formulation of linctuses.
- c) Enlist instruments used to measure viscosity. Discuss any one
- d) Discuss the methods used to improve solubility
- e) Write short note on aromatic waters
- f) Give account on ENT preparations
- g) Give comparison between syrup and Elixir

**Q6)** Solve any two:

**[8]**

- a) Discuss different formulation ingredients with examples
- b) Define preformulation & explain in short parameters used in preformulation.
- c) Give note on invert and artificial syrup
- d) Quality control tests for solutions.



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SEAT No. :

**P3568**

**[4849]-1002**

Total No. of Pages : 2]

**First Year B. Pharmacy**  
**MODERN DISPENSING PRACTICES**  
**(2015 Pattern Credit System) (Semester - I)**

*Time : [3 Hours]*

*[Max. Marks : 60*

**Instructions:**

- 1) *All questions are compulsory.*
- 2) *Answers to the two sections should be written in separate answer books.*
- 3) *Neat diagrams must be drawn wherever necessary.*
- 4) *Figures to the right indicate full marks.*

**SECTION-I**

**Q1)** Define compounding and dispensing of medication. Enlist steps involved in compounding. Add a note on storage and stability of medicines. **[10]**

OR

**Q1)** a) Describe in detail documentation for stock and purchase records. **[07]**  
b) How much of a 5% will be required to prepare 1000ml of a 1 in 500 solution. **[03]**

**Q2)** Attempt any four of the following **[12]**

- a) What do you understand by PMR? Explain.
- b) Define Prescription. What are its different parts? Give one example.
- c) Calculate the strength of 44.8% o/p (over proof) and 75% u/p (upper proof).
- d) Explain prescription filling.
- e) Write a note on labeling of dispensed product.
- f) In what proportions may a manufacturing pharmacist mix 20%,15%,5% and 3% zinc oxide ointments to produce 10% ointment.
- g) Discuss; Drug profile documentation.

**Q3)** Answer the following questions (Any2) **[08]**

- a) Give auxiliary labeling conditions for solutions, suspensions and emulsions.
- b) Write short note on: Responding to prescription.
- c) Explain: Containers and closures used for dispensed products.
- d) Discuss steps involved in dispensing.

**P.T.O.**

## SECTION-II

**Q4)** Explain physical incompatibility and methods to remove it using suitable examples. **[10]**

OR

Explain role of pharmacists in community healthcare and education with respect to HIV infection/AIDS. **[10]**

**Q5)** Solve any four out of seven

- a) Explain self-medication and its disadvantages. **[3]**
- b) Explain counseling to be given by a pharmacist to a patient suffering from asthma. **[3]**
- c) Give a brief introduction to pharmacovigilance. **[3]**
- d) Explain Idiosyncrasy. **[3]**
- e) Explain 3 formulae for calculation of doses for infants and children. **[3]**
- f) Write a note on community pharmacy. **[3]**
- g) What is the importance of patient counselling. **[3]**

**Q6)** Solve any two out of four

- a) Explain the legal requirements for establishment and maintenance of drug stores. **[4]**
- b) Explain therapeutic incompatibility. **[4]**
- c) Explain any 4 factors affecting dose of a drug. **[4]**
- d) Explain role of pharmacists in educating community about family planning. **[4]**

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Total No. of Questions : 6]

SEAT No. :

**P3569**

**[4849] -1003**

[Total No. of Pages : 2

**First Year B.Pharmacy**  
**PHARMACEUTICAL INORGANIC CHEMISTRY**  
**(Semester-I) (Theory) (2015 Credit Pattern)**

*Time : 3 Hours]*

*[Max. Marks : 60*

*Instructions to the candidates:*

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

**SECTION-I**

**Q1)** Attempt any one of the following.

**[10]**

- a) What are antacids? Describe mech. Of action, properties and uses of aluminium contain antacid. Give the assay of aluminium hydroxide gel.
- b) What is hardness of water? Discuss various methods used to remove temporary and permanent hardness of water.

**Q2)** Attempt any four of the following.

**[12]**

- a) Acidifying agent.
- b) Give role of lead acetate cotton plug in limit test of arsenic
- c) History of Indian Pharmacopeia.
- d) Short note on pectin.
- e) Discuss role of sodium and chloride in body.
- f) Write about monograph of I.P.
- g) Principle and reaction involved in Limit test of chloride I.P.

***P.T.O.***

**Q3)** Attempt any two of the following. [8]

- a) Discuss the official control test for water.
- b) Write a note on saline cathartics.
- c) Write a note on protective and adsorbents.
- d) Discuss absorption, distribution, physiological role and official compounds of Iron.

**SECTION-II**

**Q4)** Attempt any one of the following. [10]

- a) What are topical agents? Discuss mechanism action of antimicrobial agents. Discuss the properties, assay and uses of potassium permanganate.
- b) Give the composition of intra and extra cellular electrolyte. Discuss role of chloride and potassium in body.

**Q5)** Attempt any four of the following. [12]

- a) Fluoride used as an anticaries agent.
- b) Nitrogen used as an Inorganic gas.
- c) Write a short note on sodium thiosulphate.
- d) Describe the preparation, properties and uses of hydrogen peroxide.
- e) Discuss role of sodium and calcium in body.
- f) Zinc oxide as a topical protective
- g) Helium used as an Inorganic gas.

**Q6)** Attempt any two of the following. [8]

- a) Give an account on electrolyte used in combination therapy.
- b) Radioopaque medium
- c) What are antacids? Explain with any two official compounds as example.
- d) Dental products.



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SEAT No. :

P3570

[4849]-1004

[Total No. of Pages : 3

F.Y.B.Pharmacy

**PHARMACEUTICAL ORGANIC CHEMISTRY - I**  
**(2013 Pattern) (Semester - I) (Credit System)**

*Time : 3 Hours]*

*[Max. Marks : 60*

*Instructions to the candidates:*

- 1) *All questions are compulsory.*
- 2) *Figures to the right indicate full marks.*

**SECTION - I**

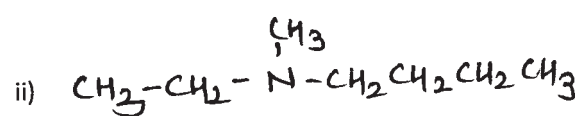
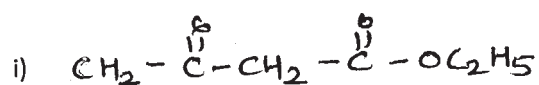
**Q1) a)** Explain mechanism of electrophilic substitution benzene. Give account on nitration of benzene. **[10]**

OR

b) What are elimination reactions. Explain mechanism, stereochemistry and factors affecting E1. **[10]**

**Q2) Answer the following. (Any four)** **[12]**

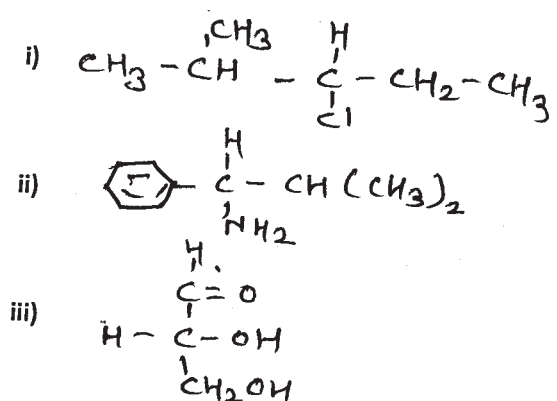
a) Write IUPAC names of following compounds.



**P.T.O.**



- b) Arrange following compounds in increasing order of acidity and justify the arrangement.
- Formic acid.
  - Acetic acid.
  - Chloroacetic acid.
- c) Define electrophile and nucleophile with examples.
- d) Write classification of organic compounds on basis of functional group and elemental composition.
- e) Give differentiation between pi bond and sigma bond.
- f) Why do geometrical isomerism exist? Explain
- g) Assign R & S of following.



**Q3)** Answer the following. (Any Two)

**[8]**

- Explain inductive effect with examples.
- Give account on hydrogen bonding force.
- Explain stability of carbocation.
- Write note on hybridization of carbon.

## SECTION - II

**Q4) a)** What are halogenation reactions ? Discuss mechanism and kinetics of halogenation reactions in brief. [10]

OR

b) Enlist various classes of organic reactions with suitable examples. Explain general organic reaction mechanism. [10]

**Q5)** Answer the following. (Any four) [12]

- a) What is Huckel's rule of aromaticity? Explain with suitable examples.
- b) Give reason why methylamine is stronger base than ammonia ?
- c) Draw structures of following.
  - i) 2-bromo-2-methylbutane
  - ii) 2-Ethoxy-5-methylhexane
  - iii) 3-Cyanobutanoic acid
  - iv) N-Methylethanamine
- d) What is saytzeff's rule of elimination ? Explain it with suitable examples.
- e) Draw resonating structures of phenol and aniline.
- f) Give any two methods of preparation of alkanes.
- g) Give brief account on intermolecular forces.

**Q6)** Answer the following. (Any two) [8]

- a) Explain friedel craft alkylation of benzene.
- b) Write in short about E1cb.
- c) Write note on Diels alder reaction.
- d) Explain steric effect.



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SEAT No. :

**P3571**

**[4849]-1005**

[Total No. of Pages :2

**F.Y. B.Pharmacy**

**1.1.5: HUMAN ANATOMY AND PHYSIOLOGY -I**

**(2015 Pattern) (Semester - I) (Credit System)**

*Time : 3 Hours]*

*[Max. Marks :60*

*Instructions to the candidates:*

- 1) Answers to the two sections should be written in separate books.*
- 2) Neat diagrams must be drawn wherever necessary.*
- 3) Figures to the right indicate full marks.*
- 4) All questions are compulsory.*

**SECTION-I**

**Q1)** Enlist the basic types of tissues with their characteristics. Describe structures location and function of various types of connective tissues. **[10]**

OR

Explain the structure of nucleus. Describe the sequence of events during protein synthesis.

**Q2)** Answer the following (Any 4): **[12]**

- a) Describe structure and function of mitochondria.
- b) Discuss passive transport mechanism.
- c) Give structure and functions of RBCs.
- d) What are functions of plasma membrane?
- e) Explain various stages of cell division.
- f) Define the term sickle cell disease and leukemia.
- g) Explain in short clotting factors.

**P.T.O.**

**Q3)** Write short note on (any 2): **[8]**

- a) Active transport across cell membrane.
- b) WBCs.
- c) Excitation and contraction of smooth muscle.
- d) Epithelial tissue.

### **SECTION-II**

**Q4)** Describe location and gross anatomy of heart . Discuss the events that occur during one heart beat. **[10]**

OR

Draw neat labeled diagram of digestive system. Explain location, anatomy, histology and functions of small intestine.

**Q5)** Answer the following (Any 4): **[12]**

- a) Discuss mechanical and chemical digestion.
- b) Define the term myocardial infraction, angina and congestive heart failure.
- c) Discuss the role of baroreceptors in regulation of blood pressure.
- d) Explain the structure of blood vessels.
- e) Enlist the elements of conduction system of heart. Add note on AV nodal delay.
- f) Explain Electrocardiogram in detail.
- g) Explain composition and functions of saliva.

**Q6)** Write short notes on (any 2): **[8]**

- a) Family planning.
- b) Renin-angiotensin - aldosterone system.
- c) Liver.
- d) Blood circulation.

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Total No. of Questions : 6]

SEAT No. :

**P3572**

**[4849] -1006**

[Total No. of Pages : 2

**F.Y.B.Pharmacy**

**1.1.6: COMMUNICATION AND SOFT SKILL DEVELOPMENT  
( 2015 Pattern Credit System) (Semester-I)**

*Time : 3 Hours]*

*[Max. Marks : 60*

*Instructions to the candidates:*

- 1) *All questions are compulsory.*
- 2) *Answers to the two sections should be written in separate answer books.*
- 3) *Neat diagrams must be drawn wherever necessary.*
- 4) *Figure to the right indicate full marks.*

**SECTION-I**

**Q1)** What is communication? Explain the process and types of communications.[10]

OR

Give an account of the salient features, scope and significance of technical communication.

**Q2)** Solve the following (any four). [12]

- a) State the objectives of communication.
- b) Explain various principals of developing effective messages.
- c) Explain the salient features of abstract writing.
- d) Describe various channels of communication.
- e) Explain the need and importance of communication.
- f) State importance of punctuation and spelling in communication.
- g) Explain the importance of brevity, clarity and appropriateness in communications.

**Q3)** Write short notes (any two). [8]

- a) Principles and essentials of good commercial correspondence.
- b) Report writing.
- c) Language as a tool of communication.
- d) Expository writing.

**P.T.O.**

## SECTION-II

**Q4)** What is group discussion? Explain its importance in corporate culture. [10]

OR

Give a concise account for the preparation of an interview.

**Q5)** Solve the following (any four). [12]

- a) Explain Intrapersonal skills.
- b) Describe Email etiquettes.
- c) State importance of Negotiation skills.
- d) Explain problem solving.
- e) Give the role of information technology.
- f) Explain soft skills.
- g) Describe in brief Empathy.

**Q6)** Write short notes on (any two). [8]

- a) Emotional intelligence.
- b) Video conferencing.
- c) Critical thinking.
- d) Phonetics.

