<b>B.Pha</b>	<u>irm 1<sup>st</sup> Semester 2015-16</u>
I	PT/ BPUT/B.Pharm 1st semester/Class Test-I/ PH.1.7 Communicative English /FM-15/Time-1Hr./Dt.25.09.2015
	Answer any three questions including Q.No.1
Q1.	(a) Communication happens in the peer group is called [1]
	(b) Why context is important in communication? (Answer in a sentence or two) [1]
	(c) In the process of communication, mainly ideation, encoding, transmission, decoding & feedback play a major role.
	(Find out the statement whether <u>True</u> or <u>False</u> ) [1]
Q2.	What is the importance of communication through English at present time? [6]
Q3.	Explain the process of communication & factors that influence communication: Sender, receiver, channel, code, topic,
	message, context, feedback, filters & barriers. [6]
Q4.	What is the importance of Audience & purpose in communication? Explain it. [6]
IP	PT/ BPUT/B.Pharm 1st semester/Class Test-I/ PH.1.11 Remedial Mathematics /FM-15/Time-1Hr./Dt.26.09.2015
Q1.	Answer any three questions (1 x 3)
	(a) Form the quadrative equation whose roots are $1 + \sqrt{2}$ and $1 - \sqrt{2}$ .
	(b) For what value of K the system of equations $x + 5y - 7 = 0$ , $4x + 20y + k = 0$ have infinitely many solutions.
	(c) Express Sin 3333 <sup>0</sup> as trigonometric ratios of some acute angle.
	(d) Find the value of 2 Sin $105^{\circ}$ . Sin $15^{\circ}$
02	Answer any four questions (2 x 4)

Answer any four questions (3 x 4) (a) Solve  $(x^2 + \frac{1}{x^2}) + 4(x + \frac{1}{x}) + 6 = 0$  ( $x \neq 0$ ) (b) Solve, (x + 1)(x + 2)(x + 3)(x + 4) = 120

(c) Prove,

$$\begin{vmatrix} a & a^2 & a^3 \\ b & b^2 & b^3 \\ c & c^2 & c^3 \end{vmatrix} = abc (a-b)(b-c)(c-a)$$

(d) Solve the following equation by matrix method x + y + z = 3, x + 2y + 3z = 4, x + 4y + 9z = 6(e) Prove Cos 20<sup>°</sup>. Cos 40<sup>°</sup>. Cos 60<sup>°</sup>. Cos 80<sup>°</sup> =  $\frac{1}{16}$ 

(f) If A+B+C =  $\pi$ , then prove Sin 2A + Sin 2B – Sin 2C = 4 Cos A. Cos B. Sin C.

#### IPT/ BPUT/B.Pharm 1st semester/Class Test-I/ PH.1.9 Remedial Biology /FM-15/Time-1Hr./Dt.26.09.2015

Answer any three questions including Q.No.1

Q1. (a) Name different cells present in xylem and phloem tissue. [1]

(b) Write down the characteristics of sclerenchymatous cell [1]

(c) Distinguish between (i) open vascular bundle & close vascular bundle and(ii) Protoxylem & metaxylem. [0.5 + 0.5]

- Q2. Distinguish between (i) Dicot stem & monocot stem and (ii) Dicot stem & monocot stem. [3+3]
- Q3. Define tissue, classify it. Write notes on simple permanent tissue. [6]
- Q4. Write a notes on any two; (i) Trichome, (ii) Xylem, (iii) Stomata. [3+3]

## IPT/ BPUT/B.Pharm 1st semester/Class Test-I/ PH.1.5 HAP-I /FM-15/Time-1Hr./Dt.28.09.2015

Answer any three questions including Q.No.1

- (a) What is E.C.G.? Q1. [1]
- (b) Differentiate between arthero sclerosis & arterio sclerosis. [1]
- (c) Differentiate between thrombosis & embolism. [1]
- Q2. What is double circulation? With the help of a neat labeled diagram show various events. [6]
- Write a note on the layers of the heart. Write about its position. [6] Q3.
- Define cardiac cycle time. By graphical representation show the various events. [6] Q4.

## IPT/ BPUT/B.Pharm 1st semester/Class Test-I/ PH.1.3 Inorganic Pharm. Chemistry/FM-15/Time-1Hr./Dt.29.09.2015

Answer any three questions including Q.No.1

Q1. (a) Principle for limit test for chloride [1]

(b) Role of thioglycolic acid in limit test of iron. [1]

- (c) Why ammonia and potassium cyanide are used in the limit test for lead? [1]
- Q2. Describe briefly the limit test for arsenic with neat labeled diagram. [6]
- Explain (i) Application of buffers in pharmacy. (ii) Application of acids & bases in pharmacy. [3+3] Q3.
- What are the different sources of impurities in pharmaceuticals? [6] Q4.

#### IPT/ BPUT/B.Pharm 1st semester/Class Test-I/ PH.1.1 Pharmaceutics-I /FM-15/Time-1Hr./Dt.30.09.2015

- Answer any three questions including Q.No.1
- Q1. WRITE SHORT NOTES OF THE FOLLOWINGS. (1X3=3)
- (a) Suppositories, (b) USP-NF, (c) Capsule & Tablet
- Q2. Why we covert Drug into Dosage form? Classify Pharmaceutical Dosage forms. [6]
- Q3. Write in detail about Solids Dosage Forms. [6]
- Q4. Define Pharmacopoeia & write about I.P. [6]

#### IPT/ BPUT/B.Pharm 1st semester/Class Test-II/ PH.1.5 HAP-I /FM-15/Time-1Hr./Dt.23.11.2015

- Answer any three questions including Q.No.1
- Q1. a. What is sacromere? (1)
- b. Define joints. (1)
  - c. What is erythroblastosis foetalis. (1)
- Q2. Define joints. Classify joints with examples. (6)
- Q3. Define blood clotting. Mention in detail the intrinsic mechanism of blood clotting. (6)
- Q4. Write in detail the steps involved in skeletal muscle compaction. (6)

#### IPT/ BPUT/B.Pharm 1st semester/Class Test-II/ PH.1.1 Pharmaceutics-I /FM-15/Time-1Hr./Dt.26.11.2015

- Answer any three questions including Q.No.1
- Q1. Write short notes of the followings.

(1X3=3)

(a) Poultices, (b) Decoction & Digesion, (c) Tablet triturates Q2. Describe about parts of Prescription & its errors with an example of Prescription. (6)

- Q3. Write briefly about Emulsion & Suspension with examples. (6)
- Q4. What is Incompatibility? Classify. Write about Multiple maceration process.(6)

#### IPT/ BPUT/B.Pharm 1st semester/Class Test-II/ PH.1.7 Communicative English /FM-15/Time-1Hr./Dt.27.11.2015

- Answer any three questions including Q.No.1
- Q1. a). A \_\_\_\_\_\_ is a part of a word that contains one vowel. (fill in the blank using a suitable word) [1]
  - b). English is called a "stress-timed language" because each stressed syllable takes the same amount of time to speak. (the above statement whether it is true or false) [1]
- c). Which of the following word has a long vowel? Pill, Pull & Pool. [1]
- Q2. Show syllabic division and mark the consonant clusters on the words given below.
- Software, Programme, Technology, Instant, Artificial, language. [6]
- Q3. Write the following words in phonemic script using IPA symbols: Shirt, Horse, Bird, Cough, Meat, Bus. [6]
- Q4. Tense and time are apart from each other. Give some suitable examples. [6]

#### IPT/ BPUT/B.Pharm 1st semester/Class Test-II/ PH.1.11 Remedial Mathematics /FM-15/Time-1Hr./Dt.28.11.2015

- Q1. Answer any three questions (1 x 3)
  - (a) Find the equation of straight line for p=5,  $\alpha$ =60<sup>°</sup>.
    - (b) Evaluate  $\lim_{x \to 1} \frac{(Log_e x)}{(x-1)}$
    - (c) Find the derivative of  $e^{3 \log x}$  with respect to *x*.
    - (d) Integrate  $\int \frac{cosec^2 x}{1+\cot x} dx$
- Q2. Answer any four questions from the followings (3 x 4) (a) Find the area of a triangle whose vertices are A (6, 3), B (-3, 5) and C (4, -2).

(b) If sin(x + y) = y cos(x + y) then prove that  $\frac{dy}{dx} = -(\frac{1+y^2}{y^2})$ 

(c) Find 
$$\frac{dy}{dx}$$
 if  $x^y = y^x$ 

(d) Integrate  $\int \sin 3x \cdot \cos 2x \, dx$ 

(e) Integrate  $\int e^{2x} \sin x \, dx$ 

#### IPT/ BPUT/B.Pharm 1st semester/Class Test-II/ PH.1.9 Remedial Biology /FM-15/Time-1Hr./Dt.28.11.2015

Answer any three questions including Q.No.1

Q1. (a) Write down the functions of Golgi-complexes and lysosomes in the plant cells. [1]

(b) Define Berry and Drupes. [1]

(c) Write down the name of diseases spread by Mosquitoes. [1]

- Q2. Define vitamins, classify it, and write down the functions, daily requirements and deficiency of Vitamin B complex. [6]
- Q3. Write down the structure ad life cycle of Mosquitoes. [6]
- Q4. Define Phytohormones, classify it, and write notes on Auxin and Gibbberline. [6]

#### IPT/ BPUT/B.Pharm 1st semester/Class Test-II/ PH.1.3 Inorganic Pharm. Chemistry/FM-15/Time-1Hr./Dt.30.11.2015

Answer any three questions including Q.No.1

Q1. a). Define anti-oxidants. Give two examples. (1)

b). Write the composition of ORS. (1)

- c). What should be the value of 'Z' for a substance to act as a radioactive material? (1)
- Q2. Classify topical agents with suitable examples? Mention the mechanism of action of antimicrobial agents. Write the monograph of Silver nitrate & hydrogen peroxide. (6)
- Q3. Classify dental products with examples. Describe role of fluoride in dental care. Give the monograph of sodium fluoride. (6)
- Q4. Give the monograph: (i) Borics acid, (ii)Alum, (iii) Ferrous sulphate. (2+2+2)

## B.Pharm 2<sup>nd</sup> Semester 2015-16

#### IPT/ BPUT/B.Pharm 2<sup>nd</sup> semester/Class Test-I/ 15PH201 Pharm. Analysis – I /FM-15/Time-1Hr./Dt.22.02.2016

Answer any three questions including Q.No.1

Q1. a. Define accuracy & precision. (1)

b. Define Normality, Molarity with formulas. (1)

- c. Define and differentiate titrant and titrand. (1)
- Q2. Write down the significance of Qualitative & Quantitative analysis. (6)
- Q3. Write down the procedure for preparation of 1N Oxalic acid and standardization of 1N Sodium hydroxide solution. (6)
- Q4. Define & classify Error. Write the steps to minimize the errors. (6)

#### IPT/ BPUT/B.Pharm 2<sup>nd</sup> semester/Class Test-I/ 15PH209 Business Comm. English /FM-15/Time-1Hr./Dt. 23.02.2016

Answer any three questions including Q.No.1

Q1. (i) Sending performance appraisals of your floor staff to the deputy manager. (Write the pattern of communication) (1) (ii) We call a paragraph as cohesive if the sentences are \_\_\_\_\_. (Well knit / well calculated / well connected/ well fragmented) (1)

(iii) Re-write the following sentence so as to make the language bias-free. (1)

As the company needs skilled manpower urgently, the Chairman has decided to conduct training programmes for blind, deaf & mentally retarded school children. (1)

- Q2. Explain the idea of "Bias-free" language with suitable examples. [6]
- Q3. Write a paragraph on "Social networking is a better option than face to face interaction" OR "Importance of Mobile phones". Underline the coherent devices in your paragraph. [6]
- Q4. What is the difference between horizontal communication & grapevine? How can the organization use them for its own development? [6]

## IPT/ BPUT/B.Pharm 2<sup>nd</sup> semester/Class Test-I/ 15PH211 Hospital & Comm. Pharmacy /FM-15/Time-1Hr./Dt. 24.02.2016

- Answer any three questions including Q.No.1
- Q1. (a) Write about Medical Staff of Hospital. (1)
- (b) What are the objectives of Hospital Pharmacist? (1)
  - (c) What are the documents to be furnished by a retail drug store regarding sale of a drug? (1)
- Q2. What are the functions of Hospital Pharmacy? (6)
- Q3. Define and Classify Hospitals. (6)
- Q4. What are the legal requirements for establishment of a retail drug store? (6)

## IPT/ BPUT/B.Pharm 2<sup>nd</sup> semester/Class Test-I/ 15PH207 Organic Chemistry-II /FM-15/Time-1Hr./Dt. 25.02.2016

Answer any three questions including Q.No.1

- Q1. A) Why chloro acetic acid is more acidic than acetic acid? (1)
  - B) What is the significant difference between ionic and covalent bond? (1)
  - C) What do you mean by hemolytic and heterolytic bond fission? (1)
- Q2. Write a short note on Quantum number. [6]
- Q3. A) Describe free radical substitution reaction. [3]
- B) Write a brief note on Inductive effect. [3]
- Q4. Enumerate I.U.P.A.C rules of organic compounds with suitable examples. [6]

## IPT/ BPUT/B.Pharm 2<sup>nd</sup> semester/Class Test-I/ 15PH203 HAP-II /FM-15/Time-1Hr./Dt. 26.02.2016

- Q1. i. Define Hormones. How it differs from neurotransmitters. (1)
- ii. Name the hormones released from adrenal glands. (1)
  - iii. What is paracrine effect? (1)
- Q2. Mention the steps involved in thyroid hormone synthesis. Add a note on myxedema. (4+2)
- Q3. Define DM. Classify it. Add a note on Diabetic ketoacidosis & hyper osmolar coma. (1+1+2+2)

#### IPT/ BPUT/B.Pharm 2<sup>nd</sup> semester/Class Test-I/ 15PH205 Pharmacognosy-I /FM-15/Time-1Hr./Dt. 27.02.2016

Answer any three questions including Q.No.1

- Q1. a) Define pharmacognosy. (1)b) Write the marine source of drug. (1)
  - c) Write a Plant tissue cultural source as drug. (1)
- Q2. Write down different sources of crude drugs. Write the notes on crude drugs obtained from mineral source. (6)
- Q3. Write down the different factors affecting cultivation of medicinal plant. Explain any two factors. (6)
- Q4. Write down the names different types of classification. Explain chemical classification with its advantages and disadvantages. (6)
- Q5. Write short notes of the following (3 x 2)i) Write the difference between organised and unorganised drugs, ii) WHO guidelines for harvesting.

#### IPT/ BPUT/B.Pharm 2<sup>nd</sup> semester/Class Test-II/ 15PH201 Pharm. Analysis – I /FM-15/Time-1Hr./Dt.18.04.2016

Answer any three questions including Q.No.1

- Q1. a. Define solubility product. (1)
  - b. Define acid-base theory as per Bronsted-Lowry & Lewis. (1)
  - c. What are different types of solvents used in non-aqueous titration? (1)
- Q2. Write down the procedure for preparation and standardization of 0.1 N Perchloric acids. (6)
- Q3. Explain the principle of Mohr's method of precipitation titration. (6)
- Q4. Derive Law of mass action. How it is applicable for common ion effect? (6)

#### IPT/ BPUT/B.Pharm 2<sup>nd</sup> semester/Class Test-II/ 15PH209 BCE /FM-15/Time-1Hr./Dt. 19.04.2016

- Answer any three questions including Q.No.1
- Q1. a) Write the full-form of "P.P.P.P" in oral presentation. (1)
  - b) What is interview? (1)
  - c) Write the definition of 'Grapevine'. (1)
- Q2. How is the audience important while making a presentation? (6)
- Q3. How would you prepare for a job interview?
- Q4. Write a paragraph of about 150 words on "Cricket stars shine brighter than film stars".

#### IPT/ BPUT/B.Pharm 2<sup>nd</sup> semester/Class Test-II/ 15PH211 Hosp. & Comm. Pharmacy /FM-15/Time-1Hr./Dt.20.04.2016

- Answer any three questions including Q.No.1
- Q1. (a) Write short notes on buffer stock. (1)
- (b) Write short notes on cool temperature & cold temperature. (1)(c) Write short notes on emergency box. (1)
- Q2. Write down the first aid treatment for poison & burn. [6]
- Q3. Define Budget. How to prepare budget in hospital? [6]
- Q4. Write about various methods of inventory control. [6]

#### IPT/ BPUT/B.Pharm 2<sup>nd</sup> semester/Class Test-II/ 15PH207 Org. Chemistry-I /FM-15/Time-1Hr./Dt. 21.04.2016

- Answer any three questions including Q.No.1
- Q1. A) What is Methilated & Rectified Sprit? (1)
  - B) Why alpha ( $\alpha$ ) hydrogen of aldehyde is acidic in nature? (1)
  - C) What is the role BaSO4 in Rosenmund Reduction? (1)
- Q2. How you distinguish  $1^{\circ}$ ,  $2^{\circ}$  &  $3^{\circ}$  Alcohol ? (6)
- Q3. Write short note on: a) SN<sup>1</sup> Reaction .b) Canizaro Reaction. (6)
- Q4. Describe three method of preparation of Alkane . Explain Saytzeff's rule with suitable example? (6)

#### IPT/ BPUT/B.Pharm 2<sup>nd</sup> semester/Class Test-II/ 15PH203 HAP-II /FM-15/Time-1Hr./Dt. 22.04.2016

- Q1. a). What is GFR? (1)
  - b). Name the hormones involved in urine formation. (1)
  - c). What is glomerulonephritis? (1)
- Q2. Write down in detail about the mechanism of urine formation. (6)
- Q3. Define Reflex action & Reflex arc. Mention in detail about the types of reflex arc with suitable examples. (6)
- Q4. Discuss in brief about the external & internal anatomy of kidney. Enumerate about the function of urinary system. (6)

#### IPT/ BPUT/B.Pharm 2<sup>nd</sup> semester/Class Test-II/ 15PH205 Pharmacognosy-II /FM-15/Time-1Hr./Dt. 23.04.2016

Answer any three questions including Q.No.1

- Q1. a) Write down any two chemical tests for alkaloids. (1)
  b) Define with examples extractive value of crude drugs. (1)
  c) Define stomatal number and stomatal Index. (1)
- Q2. Define adulteration, classify it, write down different types of crude adulterations with examples (6)
- Q3. Define alkaloids, classify it, and write down the common isolation procedure for alkaloids (6)
- Q4. Write notes on: i) Lycopodium spore method, ii) Ash value of crude drugs

## B.Pharm 3<sup>rd</sup> Semester 2015-16

#### IPT/ BPUT/B.Pharm 3<sup>rd</sup> semester/Class Test-I/ PH.3.1. Pharmaceutics-II /FM-15/Time-1Hr./Dt. 24.08.2015

(3+3)

- Answer any three questions including Q.No.1
- Q1. Define the followings. (1 x 3)
  - a) Surface active agent, (b) Desorption, (c) Interfacial tension.
- Q2. Define spreading co-efficient. Write down its application in pharmacy. Briefly discuss about it . (6)
- Q3. Explain HLB scale. Write down its method of calculation & its disadvantage. (6)
- Q4. Define absorption isotherm. Briefly describe about Langmuir absorption isotherm. (6)

## IPT/ BPUT/B.Pharm 3<sup>rd</sup> semester/Class Test-I/ PH.3.5. Pharm. Chemistry-III /FM-15/Time-1Hr./Dt. 25.08.2015

Answer any three questions including Q.No.1

- Q1. a) Between formaldehyde, acetaldehyde & acetone which one is more reactive towards nucleophilic addition reaction and why? (1)
  - b) Describe how  $\alpha$ -hydrogen atoms of carbonyl compounds is acidic.(1)
    - c) Describe Hell- Volhard-Zelinsky reaction. (1)
- Q2. Describe any three methods of preparation of aldehyde and ketone. Write a short note on aldol condensation reaction. (6)
- Q3. Describe any three methods of preparation of carboxylic acid. Write a short note on Cannizaro reaction. (6)
- Q4. Why carboxylic acid is acidic? What are the effects of substituent on acidity of carboxylic acid? (6)

### IPT/ BPUT/B.Pharm 3<sup>rd</sup> semester/Class Test-I/ PH.3.9. Patho. of Common Diseases /FM-15/Time-1Hr./Dt. 26.08.2015

- Answer any three questions including Q.No.1
- Q1. Define a). Chemotaxis. b). Necrosis, c). Hyperplasia (1x3)
- Q2. Define cell injury. Write down the pathogenesis of Irreversible type of cell injury due to hypoxia & ischemia. (6)
- Q3. What are the symptoms of inflammation? Briefly describe about the cell derived mediators of inflammation. (6)
- Q4. Describe in detail about the vascular & cellular events of inflammation. (6)

#### IPT/ BPUT/B.Pharm 3<sup>rd</sup> semester/Class Test-I/ PH.3.7. Pharmacognosy-III /FM-15/Time-1Hr./Dt. 27.08.2015

Answer any three questions including Q.No.1

- Q1. a). Define glycoside. Write the chemicals test for cardenolide and bufadienolide. (1)
- b). Write the biological source and morphological character with its extra features of liquorice. (1)
- c). Write the chemical constituents and use of ginseng. (1)
- Q2. Give the detail pharmacognosy of digitalis including its microscopical characters. (6)
- Q3. Write the biogenesis of tropane alkaloid pathway. (6)
- Q4. Write the biogenesis mevalonic acetate pathway. (6)

#### IPT/ BPUT/B.Pharm 3<sup>rd</sup> semester/Class Test-I/ PH.3.3. Basic Engineering-I /FM-15/Time-1Hr./Dt. 28.08.2015

Answer any three questions including Q.No.1

- Q1. a). Define co-efficient of thermal conductivity. (1)
- b). Define Stefan-Boltzmann law. (1)
  - c). Write down the modes of stresses applied in size reduction. (1)
- Q2. With the help of neat diagram, explain the concept of film & overall heat transfer coefficient in forced convention. Deduce relevant mathematical equation. (6)
- Q3. Describe the principle, construction, working & application of fluid energy mill with neat diagram. (6)
- Q4. Explain the construction, working & application of floating head two pass header with neat diagram. (6)

#### IPT/ BPUT/B.Pharm 3<sup>rd</sup> semester/Class Test-I/ PH.3.10. Environmental Science /FM-15/Time-1Hr./Dt. 31.08.2015

- Q1. Short notes on: [1x3]
- a). Photosynthesis, b). Food chain, c). Ecosystem
- Q2. What are the biotic and abiotic components of an ecosystem? (6)
- Q3. Describe the energy flow of an Ecosystem. (6)
- Q4. Write short notes on carbon cycle or nitrogen cycle. (6)

#### IPT/ BPUT/B.Pharm 3<sup>rd</sup> semester/Class Test-II/ PH.3.3. Basic Engineering-I /FM-15/Time-1Hr./Dt. 30.10.2015

- Answer any three questions including Q.No.1
- Q1. a) Define Homogenization. [1]
- b) Differentiate between evaporation & distillation. [1] [1]
- c) Write application of Cottrell Precipitation.
- Describe the principle, construction, working and application of force circulation evaporator with neat diagram. Q2. [6]
- Q3. Describe the principle, construction, working & application of scrubber with neat diagram. [6]
- (a) Write the mechanism of solid solid mixer. Write down the factor affecting solid solid mixing. [3+3] Q4.

#### IPT/ BPUT/B.Pharm 3<sup>rd</sup> semester/Class Test-II/ PH.3.10. Environmental Science /FM-15/Time-1Hr./Dt. 31.10.2015

- Answer any three questions including Q.No.1
- Q1. Write notes on : [1 x 3]
- (a) Soil erosion. (b) B.O.D. (c) Recycling
- Write the aim & objective of Environmental Impact Assessment (EIA). [6] Q2.
- Q3. Discuss in detail about the causes & effects of noise pollution. [6]
- Q4. What is Aerobic digestion? Write any two process parameters of Aerobic digestion. [6]

#### IPT/ BPUT/B.Pharm 3<sup>rd</sup> semester/Class Test-II/ PH.3.1. Pharmaceutics-II /FM-15/Time-1Hr./Dt. 02.11.2015

- Answer any three questions including Q.No.1
- Q1. Short note on: a. Real solution, b. Conductance, c. Isotonic solution (1x3)
- Define Partition co-efficient. Explain it briefly. Write down its application in pharmaceutical dosage form. (6) Q2.
- Define Colligative properties. Briefly explain about lowering of vapour pressure and osmotic pressure. (6) Q3.
- Q4. Define buffer solution. Explain its mechanism. Write down the significance of buffer equation. (6)

### IPT/ BPUT/B.Pharm 3<sup>rd</sup> semester/Class Test-II/ PH.3.5. Pharm. Chemistry-III /FM-15/Time-1Hr./Dt. 03.11.2015

Answer any three questions including Q.No.1

- Q1. a) What is Huckle's rule? [1]
- b) Describe Walden inversion. [1] c) Keto-Enol tautomerism. [1]
- Q2. What is relative and absolute configuration? What is CIP rule? [2+4]
- Q3. Write different types of geometrical isomers with examples. Write a short note on stereo selective & stereo specific reaction. [2+4]
- Write short notes on Lithium aluminum hydride, NBS and Diazomethane. [2+2+2] Q4.

#### IPT/ BPUT/B.Pharm 3<sup>rd</sup> semester/Class Test-II/ PH.3.9. Patho. of Common Diseases /FM-15/Time-1Hr./Dt. 04.11.2015

[1]

- Answer any three questions including Q.No.1
- a) Define pulmonary & non-pulmonary tuberculosis. Q1. [1]
- b) What is IHD? Give the examples of IHD.
- c) Define rheumatoid arthritis & osteoarthritis.
- Describe in detail about the etiology, pathogenesis & symptoms of Rheumatoid arthritis. Q2. [6]
- Q3. Define IDDM & NIDDM. Briefly describe about the pathogenesis & symptoms of both the type of diabetes mellitus. [6]

[1]

Q4. What is primary & essential hypertension? Write down the pathogenesis of Hypertension in detail. [6]

## IPT/ BPUT/B.Pharm 3<sup>rd</sup> semester/Class Test-II/ PH.3.7. Pharmacognosy-III /FM-15/Time-1Hr./Dt. 05.11.2015

- Q1. Answer any three of the followings (1 x 3)
  - a) Write the definition of Tissue culture and totipotency
    - b) Write the all different types of micro and macronutrients required for tissue culture.
    - c) Write the biological source and chemical constituents of saffron.
    - d) Write the biological source and uses of psoralea.
  - e) Define proteolytic enzyme. Write their names and biological source.
- Q2. What is callus culture? Give the various stages of development of callus in callus culture with the technique for cell growth and its maintainance. (6)
- Q3. Write a detail note on enzyme papain. (6)
- Write the detail note on aloe. (6) Q4.

## **B.Pharm 4<sup>th</sup> Semester 2015-16**

#### IPT/ BPUT/B.Pharm 4<sup>th</sup> semester/Class Test-I/ PH.4.10. Pharm. Chemistry-IV /FM-15/Time-1Hr./Dt. 15.02.2016

- Answer any three questions including Q.No.1
- Q1. A) Is Pyrrole aromatic; justify! (1), B) Pyrrole on reduction gives what? (1)
- C) Pyrrole on reaction with chromium trioxide in acetic acid gives what? (1)
- Q2. In Pyrrole elrctrophilic substitution reaction takes place at C -2 position. Explain why? Give the electrophilic substitution reaction of Pyrrole with acetic anhydride (at 250C), chloroform and halogens. (3+3)
- Q3. Write any four methods of preparation of Pyrrole? (6)
- Q4. Give the structure and numbering of the following compounds (0.5×12= 6)
  - (i) Aziridine (ii) thiole (iii) azole (iv) oxirane (v) oxirene (vi) oxetane (vii) 1,3,5- triazine (viii) oxaziridine (ix) thiazole (x) 1,4 oxazine (xi) quinoline (xii) isoquinoline

#### IPT/ BPUT/B.Pharm 4<sup>th</sup> semester/Class Test-I/ PH.4.3. Basic Engineering-II /FM-15/Time-1Hr./Dt. 16.02.2016

Answer any three questions including Q.No.1

- Q1. a) Define centrifugation. (1)
  - b) Write down difference between filtration centrifuge & sedimentation centrifuge. (1)
  - c) Write down the application of super centrifuge. (1)
- Q2. Describe in detail about theory of centrifugation. (6)
- Q3. Describe the principle, construction, working & application of short cycle automatic batch centrifuge with neat diagram. (6)
- Q4. Define crystallization. Describe in detail about mechanism of crystallization. (1+5)

#### IPT/ BPUT/B.Pharm 4<sup>th</sup> semester/Class Test-I/ PH.4.5. Biochemistry /FM-15/Time-1Hr./Dt. 17.02.2016

- Q1. a. How many numbers of ATP are formed, when ATP undergo oxidative phosphorylation?[1]
  - b. Define Endocytosis. [1]
    - c. Write various phases of Meiosis. [1]
- Q2. a. Briefly discuss about ATP. [3]
  - b. An enzymatic hydrolysis of Fructose 1-P, Fructose-1-P +  $H_2O \rightarrow$  Fructose + Pi
  - Was allowed to proceed to equilibrium at 28°C. The original concentration of Fructose-1-P was only 6.52×10<sup>-5</sup>M. Calculate the equilibrium constant for this reaction. [3]
- Q3. Define and explain Transportation in detail. [6]
- Q4. Write down the morphological feature of cancer cell. Describe briefly about Metastasis. [6]

IP	IPT/ BPUT/B.Pharm 4 <sup>th</sup> semester/Class Test-I/ PH.4.7. Computer Applications /FM-15/Time-1Hr./Dt.18.02.2016			
	Answer any three questions including Q.No.1			
Q1.	Write full form of the following abbreviations ( <i>Any Six</i> ): [0.5 x 6 = 3]			
	(a) ALU (b) UPS (c) COBOL (d) USB (e) BIOS (f) RAM (g) DVD (h) VGA (i) TCP/IP			
Q2.	Classify computers according to generations pointing out the technology used, speed, storage and programming			
	languages used. [6]			
Q3.	Write note on the following(Any Two):[3 x 2 = 6]			
	(a) CPU (b) Storage devices (c) Printers (d) Network topologies			
Q4.	What do you mean by hardware and software? Describe Operating System with functions and example. What is a			
	compiler? [2 + 3 + 1]			
IPT/ BPUT/B.Pharm 4 <sup>th</sup> semester/Class Test-I/ PH.4.1. Pharmaceutics - III /FM-15/Time-1Hr./Dt. 19.02.2016				
	Answer any three questions including Q.No.1			

- Q1. Define: a) Kinematic Viscocity, b) Bulges, c) Dilatant flow. [1X3]
- Q2. Define thixotropy. Briefly explain it. Write down its measurement. (1+2+3)
- Q3. Define non-Newtonian flow. Briefly describe about plastic & pseudoplastic flow with example. (1+5)
- Q4. Classify viscometer. Briefly describe about Ostwald viscometer & cone & plate viscometer. (1+5)

IPT/ BPUT/B.Pharm 4 <sup>th</sup> semester/Class Test-I/ PH.4.9. Mathematics & Statistics /FM-15/Time-1Hr./Dt. 20.02.2016		
Q1.	Answer any three questions	[1 ×3
	a) Integrate, $\int x e^x dx$	
	b) Integrate, $\int e^x (sin x + cos x) dx$	
	c) Find the order and degree of the differential equation, $[5 + (\frac{dy}{dx})^2]^{5/3} = \frac{d^2y}{dx^2}$	
	d) Solve $\frac{dy}{dx} = (x + 1)(y + 1)$ .	
Q2.	Answer any four questions	[3 ×4
	a) Integrate $\int e^x \cos x  dx$	
	b) Solve the differential equation $(x^2 + y^2)dx - 2xy dy = 0$	
	c) Solve the differential equation $\frac{dy}{dx} + \frac{2x}{1+x^2}y = \frac{x^3}{1+x^2}$	
	d) Solve the differential equation $(x + y + 1)dx + (x - y^2 + 3)dy = 0$	
	e) Integrate $\int \frac{4x+5}{(x+2)(x-1)} dx$	

## IPT/ BPUT/B.Pharm 4<sup>th</sup> semester/Class Test-II/ PH.4.1. Pharmaceutics - III /FM-15/Time-1Hr./Dt. 08.04.2016

Answer any three questions including Q.No.1

- Q1. Short note on a. Contact angle b. Structured vehicle c. Multiple emulsion (1 x 3)
- Q2. Write down the different approaches involved in the formulation of flocculated & deflocculated suspension. Briefly describe about controlled flocculation. (2+4)
- Q3. Define suspension. Classify it. Write down different factors influencing stability of suspension. (1+2+3)
- Q4. Define emulsion. Classify it. Write down different identification test & thermodynamical consideration for emulsion. (1+1+4)

#### IPT/ BPUT/B.Pharm 4<sup>th</sup> semester/Class Test-II/ PH.4.10. Mathematics - III /FM-15/Time-1Hr./Dt. 09.04.2016 Answer any four questions including Q.No.1 a. Find the laplace transform of 3 sin $2t - 5 \cos t$ . (1) Q1. b. Find the laplace transform of $L\{e^tt^2\}$ . (1)c. Obtain the median from the following data: 91, 84, 95, 98, 94, 72. (1)Find the inverse Laplace transform of $\frac{2P+1}{P^2-4}$ Q2. (4) Construct a histogram for the following frequency distribution. (4) Q3. Variable 35-40 40-45 45-50 50-55 55-60 30 22 30 Frequency 12 28 Q4. Show the following data of expenditure of an average working class family by pie diagram. (4)Items of expenditure % of total expenditure Food 65 Clothing 10 Housing 12 5 **Fuel & Lighting** Miscellaneous 8 Q5. Calculate median from the data given below. (4)Marks 60-70 70-80 80-90 90-100 100-110 110-120 No. of students 5 15 20 30 20 8

#### IPT/ BPUT/B.Pharm 4<sup>th</sup> semester/Class Test-II/ PH.4.10. Pharm. Chemistry-IV /FM-15/Time-1Hr./Dt. 11.04.2016

Answer any three questions including Q.No.1

Q1. a). Difference between reducing and non-reducing sugars with examples? (1)

b). Define anomeric carbon with the aid of structure. (1)

c). Give two methods for preparation If pyridine. (1)

Q2. Describe the chemistry of glucose. (6)

Q3. What are carbohydrates? Classify with suitable examples. Explain mutarotation. (6)

Q4. Write the methods for preparation and reaction of quinoline & phenanthrene. (3x2)

#### IPT/ BPUT/B.Pharm 4<sup>th</sup> semester/Class Test-II/ PH.4.3. Basic Engineering-II /FM-15/Time-1Hr./Dt. 12.04.2016

Answer any three questions including Q.No.1

Q1. Write short notes on: (a) Bernoullis equation, (b) Application of Pneumatic conveyor, (c) Reynold's number. [1x3]

Q2. Deduce relevant equation for calculation of flow rate using orifice meter with neat sketch diagram. [6]

Q3. Give the neat sketch of simple manometer and explain its working principle. [6]

Q4. Write down the principle, construction, working and application of simplex-double coating stream driven peak valve piston pump with neat diagram. [6]

Q5. Write the principle, construction, working and application of pneumatic conveyor with neat diagram. [6]

## IPT/ BPUT/B.Pharm 4<sup>th</sup> semester/Class Test-II/ PH.4.5. Biochemistry /FM-15/Time-1Hr./Dt. 16.04.2016

Answer any three questions including Q.No.1

- Q1. a. Define a shunt. [1]
  - b. Define Pyruvate dehydrogenase complex. [1]
- c. Define gluconeogenesis. [1]
- Q2. Describe glycolysis in detail. [6]
- Q3. Describe TCA cycle in detail. [6]
- Q4. Write in detail about Rappaport- Leubering shunt. [6]

I	PT/ BPUT/B	.Pharm 4 <sup>th</sup> seme	ster/Class Test-I	I/ PH.4.7. Comp	uter Applicatio	ons /FM-15/Time-1Hr./ 18.04.20	16
	Answer an	y three questions	including Q.No.1				
Q1.	Answer any	y three:				[3 x 1 = 3]	
	(i) Give one	e example each of	internal and exte	ernal DOS comman	d.		
	(ii) Give exa	ample of one Pre-	processor directiv	ve used in C.			
	(iii) What is	debugging?					
	(iv) Find x <i>,</i>	if x = 32 - 9/3 + (3	*2-1).				
Q2.	What is Alg	orithm? Write sh	ort note on flow o	chart.		[1 + 5 = 6]	
Q3.	Write abou	it Any Three of the	e following DOS c	ommands with exa	ample:	[3 x 2 = 6]	
	a) DIR	b) CD	c) MD	d) COPY	e) DEL	f) REN	
Q4.	Do the follo	owing conversion	from Decimal to I	Binary, Octal and H	lexadecimal:	[3 x 2 = 6]	
	$[168.375]_{10} = [?]_2 = [?]_8 = [?]_{16}$						

## B.Pharm 5<sup>th</sup> Semester 2015-16

4.08.2015	
Answer any three questions including Q.No.1	
by Oxygen flask	
(b) Mention the chemical reactions involved in the estimation of nitrogen by Jeldahls method. (1)	
(c) Mention the cell representation in an electrochemical cell. (1)	
2. (a) Briefly describe the redox indictor theory and application in the pharmacy (3)	
(b) Mention the diazotization and coupling reaction in the quantitative analysis of drugs. (3)	
Briefly describes the Karl fischer titration including the Standardization of Karl fischer reagent. (6)	
lox titration with	
lox	

#### IPT/ BPUT/B.Pharm 5<sup>th</sup> semester/Class Test-I/ PH.5.5. Pharm. Chemistry-V /FM-15/Time-1Hr./Dt.25.08.2015

- Answer any three questions including Q.No.1
- Q1. a) Define receptor. (1)
- b) Define the terms agonists and antagonists. (1)
- c) How optical isomerism affect the biological activity of drug molecule? (1)
- Q2. Describe the transduction mechanism of G- protein coupled receptor. (6)
- Q3. Define QSAR, Derive Hansch Equation. (6)
- Q4. Write a short note on Bioisosterism. (6)

	IPT/ BPUT/B.Pharm 5 <sup>th</sup> semester/Class Test-I/ PH.5.7. Pharmacology-I /FM-15/Time	-1Hr./Dt.26.08.2015
	Answer any three questions including Q.No.1.	
Q1.	a. What are cholinesterase reactivators? Write one example.	(1)
	b. Define antagonist with one example.	(1)
	c. Define granular/vesicular uptake? Write one example of granular uptake blocker.	(1)
Q2.	Classify receptors. Explain about the G-Protein coupled receptors with suitable examples.	(6)
Q3.	Classify anti-cholinergic drugs. Briefly describe about the pharmacology of Atropine.	(6)
Q4.	Briefly enumerate the Phase-I metabolic reactions with suitable examples.	(6)

### IPT/ BPUT/B.Pharm 5<sup>th</sup> semester/Class Test-I/ PH.5.3. Applied Microbiology /FM-15/Time-1Hr./Dt.27.08.2015

Answer any three questions including Q.No.1

- Q1. a) What are the major ways in which Gram –Ve and Gram +Ve bacteria differ. (1)
- b) Write the function of mesosome in Gram +Ve bacteria. (1)
- c) Define psychrophilic bacteria. (1)
- Q2. Define growth. Describe in detail different phases of the bacteria growth by depicting a typical growth curve. (6)
- Q3. Mention the principle and theory involved in staining. What are different staining techniques used to identify microbes, Write about Ziehl- Neelsons staining technique. (6)
- Q4. Draw a neat labeled diagram of bacterial cell. Describe in detail about the construction of bacterial cell wall. (6)

#### IPT/ BPUT/B.Pharm 5<sup>th</sup> semester/Class Test-I/ PH.5.1. Pharmaceutics-IV/FM-15/Time-1Hr./Dt.28.08.2015

Answer any three questions including Q.No.1

- Q1. (a) Write about the various sweetening agents used in LDF with examples. (1)
- (b) What are the various preservatives used in LDF manufacturing? (1)
  - (c) What are the various types of tablets in Pharmaceuticals? (1)
- Q2. What are the excipients used in the formulation of tablet s with suitable example? (6)
- Q3. Describe about the manufacturing facility required for liquid formulation. (6)
- Q4. Write short notes on: complexing agent, partition coefficient, pH. (6)

## IPT/ BPUT/B.Pharm 5<sup>th</sup> semester/Class Test-I/ PH.5.11. CPHE /FM-15/Time-1Hr./Dt.31.08.2015

[1]

[6]

[6]

[4+1+1]

[6]

[6]

[6]

- Answer any three questions including Q.No.1 Q1. a) Name different types of drugs store? [1]
- b) Name the causative organisms of malaria. [1] c) Leprosy can be transmitted by how many ways?
- Q2. Explain the role of pharmacist in community health care & education. [6]
- Q3. Describe brief outline, causative organism(s), mode of transmission and prevention of following diseases. [2x3=6] a. Rabies b. Influenza
- Q4. Write short notes on a. AIDS b. Tetanus [2x3=6]

#### IPT/ BPUT/B.Pharm 5<sup>th</sup> semester/Class Test-II/ PH.5.1. Pharmaceutics-IV/FM-15/Time-1Hr./Dt. 30.10.2015

Answer any three questions including Q.No.1 Q1. Define these semisolid dosage forms with characteristics: [1 x 3]

a) Creams, b) Pastes, c) Gels

Q2. Write a short note on different Oleaginous bases used to prepare ointments.

- Q3. Briefly describe the water soluble ointment bases with their advantages and disadvantages.
- Q4. Describe the fusion method of ointment preparation.

#### IPT/ BPUT/B.Pharm 5<sup>th</sup> semester/Class Test-II/ PH.5.11. CPHE /FM-15/Time-1Hr./Dt. 31.10.2015

Answer any three questions including Q.No.1

- Q1. a) What is the deficiency disorders associated with vitamin A? [1]
- b) Define balanced diet. [1]
- c) Define family planning? [1]
- Q2. Write the function of water soluble vitamins. Add a note on their deficiency disorders and prevention.
- Q3. Classify contraceptive methods. Describe **barrier** and **hormonal** methods of contraception.
- Q4. Define first aid. Mention the content of first aid kit. Describe the first aid measures for Snake bite and Burns.

## IPT/ BPUT/B.Pharm 5<sup>th</sup> semester/Class Test-II/ PH.5.9. Pharm. Analysis-II /FM-15/Time-1Hr./Dt. 02.11.2015

	Answer any three questions including Q.No.1
Q1.	(a) What is Elkovic equation? [1]
	(b) What are the advantages of coulometric method of analysis? [1]
	(c) What are the advantages of amperometric titrations over polarography? [1]
Q2.	Briefly describe the gel electophoresis. [6]
Q3.	What are the various quantitative methods used in polarography? [6]
Q4.	What are the components of apparatus used in amperometric titration? Briefly describe the procedure of amperometric
	titration [6]

#### IPT/ BPUT/B.Pharm 5<sup>th</sup> semester/Class Test-II/ PH.5.5. Pharm. Chemistry-V /FM-15/Time-1Hr./Dt. 03.11.2015

Answer any three questions including Q.No.1

- Q1. Write down the structure, nomenclature & therapeutic application of followings (1X3)
- a. Neostigmine bromide b. Tropicamide c. Chlorpheniramine
- Q2. Define and classify cholinergic agonist. Write down the sysnthesis of Carbachol chloride and Methacholine chloride. (6)
- Define and classify anti-spasmotic anti ulcer agent. Write down the synthesis of Homatropine and Dicyclomine. (6) Q3.
- Define and classify anti-histamine. Write down the synthesis of Diphenhydramine and Promethazine. (6) Q4.

## IPT/ BPUT/B.Pharm 5<sup>th</sup> semester/Class Test-II/ PH.5.7. Pharmacology-I /FM-15/Time-1Hr./Dt. 04.11.2015

Answer any three questions including Q.No.1.

- Q1. a) Name two drugs for the treatment of myasthenia gravis. (1) b) Write any two antidotes used in the morphine poisoning. (1) c) Name any two examples anti-parkinsonism drugs. (1)
- Classify NSAIDS with suitable examples. Briefly explain about the pharmacology of Aspirin. Q2.
- (6) Q3. Define and classify sedative and hypnotics with suitable examples. Write about the mechanisms, adverse effects and uses of phenobarbitone. (6)
- Classify antiepileptic drugs. Write the mechanisms, adverse effects and uses of phenytoin. (6) Q4.

#### IPT/ BPUT/B.Pharm 5<sup>th</sup> semester/Class Test-II/ PH.5.3. Applied Microbiology /FM-15/Time-1Hr./Dt. 05.11.2015

Answer any three questions including Q.No.1

- Q1. Answer the following, [1.5X2=3] a. What is cold sterilization; write few application of cold sterilization. b. What are the control tests employed in test for sterility give their importance.
- Q2. Write the detail method for isolation of mutants. [6]
- What is the principle of sterility testing, describe about the general methods used for sterility testing of pharmaceuticals. [6] Q3.
- Q4. What are different methods of evaluation of disinfectant, describe in brief about Rideal walker test. [6]

## B.Pharm 6<sup>th</sup> Semester 2015-16

IPT/ BPUT/B.Pharm 6<sup>th</sup> semester/Class Test-I/ PH.6.1. Pharmaceutics - V /FM-15/Time-1Hr./Dt. 15.02.2016

- Answer any three questions including Q.No.1
- Q1. (a) Write about the advantages of parenteral dosage form. (1)

(b) What are the various parenteral routes? (1)

- (c) What are the types of preservatives used in parenteral preparation? (1)
- Q2. What are the facilities required for parenteral manufacturing? (6)
- Q3. Write about manufacturing requirements of parenteral preparation. (6)
- How to evaluate parenteral preparation? (6) Q4.

#### IPT/ BPUT/B.Pharm 6<sup>th</sup> semester/Class Test-I/ PH.6.9. Pharmacology-II /FM-15/Time-1Hr./Dt. 16.02.2016

Answer any three questions including Q.No.1

- Q1. a) What is laplace equation for determining wall tension of heart? (1)
- b) Write one direct rennin inhibitor used as a second line antihypertensive drug. (1)
- c) Name any two Class-I anti-arrhythmic drugs. (1)
- Q2. What are cardiac glycosides? Write the mechanism, adverse effect & uses of digitoxin.
- Q3. Classify antihypertensive drugs. Briefly discuss about the pharmacology of ACE inhibitors.
- Classify antianginal drugs. Write the mechanism, adverse effects & uses of Glyceryl trinitrate. Q4.

	IPT/ BPUT/B.Pharm 6 <sup>th</sup> semester/Class Test-I/ PH.6.7. Pharmacognosy-IV /FM-15/Time-1Hr./Dt. 17.02.2016
	Answer any three questions including Q.No.1
Q1.	a) Write the biological source chemical constituents and use of Vinica. (1)
	b) Write down the Specific chemical test and uses of cinchona. (1)
	c) Differentiate between Proto alkaloid and Pseudo alkaloid. (1)
Q2.	Define aklaloid; Give a detail note on the isolation of alkaloid from plant materials. (6)
0.2	$\mathbf{M}_{i}$

(1+5)

(2+4)

(2+4)

- Write the biological source, cultivation, chemical constituents, chemical test use and adulterants of Rauwolfia. (6) Q3. (3×2=6)
- Q4. Write a note on: i) chemical classification of alkaloids, ii). General phyto chemical test for Alkaloids.

#### IPT/ BPUT/B.Pharm 6<sup>th</sup> semester/Class Test-I/ PH.6.5. Phytochemistry /FM-15/Time-1Hr./Dt. 18.02.2016

Answer any three questions including Q.No.1

- Q1. a) Write the applications of IR, NMR & Mass spectroscopy in relation to structural elucidation of compounds. (1)b) What is paper chromatography, what for its used? (1)
- c) Define "acid value". What is its significance? (1)
- Q2. Write down the general method of extraction, fractionation, isolation and purification of natural products ? (6)
- Q3. Give the pharmacology of cardiac glycosides. Elucidate the structure of ouabain. (6)
- Q4. Define cardiac glycosides. Differentiate cardinolides and bufodinilides. Elucidate the structure of Digoxin? (6)

#### IPT/ BPUT/B.Pharm 6<sup>th</sup> semester/Class Test-I/ PH.6.11. Pharma. Juris. & Ethics /FM-15/Time-1Hr./Dt. 19.02.2016

- Q1. Answer the following (Each question carries 0.5 marks) [0.5x10=05]
  - a) Name the young Scotch who came to India with East India Company and opened the chemist's shop in Calcutta in 1811?
     b) Name the Pharmacologist who was appointed as the Chairman of DEC?
    - c) Name the person who was appointed as the Chairman of Health Survey & Development committee?
    - d) In which year the Pharmacy Act was enacted?
    - e) Name the person who has moved a resolution in the council of states on 9.3.1927 recommending to the Governor General in council to take immediate steps to control the craze of medicinal drugs by legislation for standardization of preparation and sale of drugs?
    - f) Name the person who has established the Bengal Chemicals & Pharmaceutical Works at Calcutta in 1901?
    - g) In which year the Poisons Act was enacted?
    - h) What are the aims and objective of enacting Pharmacy Act?
    - i) How many members are elected to the Executive Council of PCI and what is the total number of members in the EC including Ex-officio members.
    - j) In which year the first pharmacy council of India was constituted.
- Q2. Answer anyone. (5 Marks)
  - a) Write down the composition, constitution, functions & powers of Pharmacy Council of India.
  - b) Define Ethics and Law. Discuss about Code of Pharmaceutical Ethics as framed by PCI for guidance of an Indian Pharmacist.
  - c) Write note notes on brief history of Pharmaceutical Legislations in India
- Q3. Answer any five of the followings (Each question 1 mark). [1x5=5]
  - a) Name the chapters & any five important sections of Pharmacy Act.
  - b) Outline the various regulations framed under Education Regulation 1991.
  - c) What are the situations under which a casual vacancy arises in the composition / constitution of PCI?
  - d) What were the terms of references for constitution of Drug Enquiry Committee?
  - e) Name the various Acts which were enacted during the pre- Independence period.
  - f) Outline the aspects covered under each section of the Practical training contract form for Pharmacist
  - g) Name the Standard Inspection Forms, as approved by PCI, used for approval of the institutions

### IPT/ BPUT/B.Pharm 6<sup>th</sup> semester/Class Test-I/ PH.6.3. Pharm. Chemistry-VI /FM-15/Time-1Hr./Dt. 20.02.2016

Answer any three questions including Q.No.1

- Q1. A. Mention the chemical structure and chemical name of Nifedipine. (1)
- B. Mention the chemical structure and chemical name of Betamethasone. (1)
  - C. Classify Diuretic agent with suitable example. (1)
- Q2. Write down the chemeical structure, synthesis & mechanism of action of Acetazolamide & Frusemide. (6)
- Q3. Write down the chemeical structure, synthesis & mechanism action of Prazocin & Clonidine. (6)
- Q4. Write down the stereochemistry & chemical naming of Steroid & Steroidal drugs. (6)

## IPT/ BPUT/B.Pharm 6<sup>th</sup> semester/Class Test-II/ PH.6.11. Pharma. Juris. & Ethics /FM-15/Time-1Hr./Dt. 08.04.2016

	Answer any three questions including Q.No.1					
Q1.	Outline the provisions enumerated in any Six of the following Schedules of D & C Rules 1945:					
	a) Schedule A	b) Schedule B	c) Schedule C &C1	d) Schedule H	[6 x 0.5 = 3]	
	e) Schedule J	f) Schedule M	g) Schedule N	h) Schedule X		
Q2.	Write down the	composition, con	stitution and functions of	of the DTAB and DCC.	[6]	
Q3.	Write down the	definitions of the	following:		[3 x 2 = 6]	
	a) Drugs	b) Cosmetics	c) Misbrande	ed Drugs		
Q4.	Write down the	composition, con	stitution and functions of	of the State Pharmacy Cou	incils. [6]	

## IPT/ BPUT/B.Pharm 6<sup>th</sup> semester/Class Test-II/ PH.6.3. Pharm. Chemistry-VI /FM-15/Time-1Hr./Dt. 09.04.2016

(1x3)

(2)

(2+4)

(1+5)

(2+4)

(2)

Answer any three questions including Q.No.1

- Q1. (a) Mention the structure and chemical name of Cyclobarbitone.(b) Mention the structure and chemical name of progesterone.(c) Write down the mechanism action of local anaesthetic agent.
- Q2. Mention the Structure, Chemical name, SAR and Synthesis of Testosterone. (6)
- Q3. (a) Classify the hypnotics and sedative with suitable examples.
- (b) Mention the Structure, Chemical name, and Synthesis of Glutethimide & Phenobarbitone sodium. (2+2)
- Q4. (a) Classify anticonvulsant agent with suitable examples. (2)
  - (b) Mention the Structure, Chemical name, and Synthesis of Ethosuximide and Chlordiazepoxide. (2+2)
  - (a) Classify Local anaesthetic agent with suitable examples.
  - (b) Mention the Structure, Chemical name, SAR and Synthesis of Procaine and Lignocaine. (2+2)

### IPT/ BPUT/B.Pharm 6<sup>th</sup> semester/Class Test-II/ PH.6.1. Pharmaceutics - V /FM-15/Time-1Hr./Dt. 11.04.2016

- Answer any three questions including Q.No.1
- Q1. i. Types of plastic container. (1)
  - ii. Stabilizer in ophthalmic preparation. (1)
    - iii. Types of propellants. (1)
- Q2. Describe about contact lenses and care of solution.(6)
- Q3. Write down about various systems of aerosol with advantages and disadvantages. (6)
- Q4. Define packaging and write about glass container with examples. (6)

## IPT/ BPUT/B.Pharm 6<sup>th</sup> semester/Class Test-II/ PH.6.9. Pharmacology-II /FM-15/Time-1Hr./Dt. 12.04.2016

- Answer any three questions including Q.No.1
- Q1. (a). Write any two examples of coagulants. (1)
- (b). Name any two plasma volume expanders. (1)
- (c). Write one example of heparin antagonist. (1)
- Q2. Classify diuretics. Write about the M.O.A., adverse effect and uses of furosemide.
- Q3. Define haematinics. Add a note on haematinics.
- Q4. Define and classify aticoagulants. Write a note on oral anticoagulant.

#### IPT/ BPUT/B.Pharm 6<sup>th</sup> semester/Class Test-II/ PH.6.7. Pharmacognosy-IV /FM-15/Time-1Hr./Dt. 16.04.2016

Answer any three questions including Q.No.1

- Q1. a). Write down the biological source , chemical constituents and uses of Belladoana. (1)
  - b). Write down the uses of Ephedra and Colchicum. (1)
  - c). Write down the microscopic characters and uses of Cinchona. (1)
- Q2. Give a detail pharmacognosy of opium. (6)
- Q3. Define Asava and Arista, write down the method and precautions taken during their preparations . (6)
- Q4. Define Bhasma, Explain the method of preparation of Bhasma? (6)

#### IPT/ BPUT/B.Pharm 6<sup>th</sup> semester/Class Test-II/ PH.6.5. Phytochemistry /FM-15/Time-1Hr./Dt. 18.04.2016

Answer any three questions including Q.No.1

- Q1. a). What is Diel-Alder reaction & how it is helpful in the structural elucidation of terpenoids? (1)
- b). What it special isoprene rule? Explain with examples. (1)
- c). Name the different isomers of citral. (1)
- Q2. Define & classify Vitamin. Elucidate the structure of Vitamin A
- Q3. Define and classify terpenoids with suitable examples. Elucidate Citral. (6)
- Q4. Give the structural elucidation of menthol along with its stereochemistry. (6)

## B.Pharm 7<sup>th</sup> Semester 2015-16

IP1/ DPU1/D.Pfidffff / Seffiester/Cidss Test-i/ Pfi.7.5. Pfidffff. Cheffilstry-vii / Fivi-15/ Hitte-1ff./Dt.24.06.201;		IPT/ BPUT/B.Pharm 7 <sup>th</sup>	<sup>h</sup> semester/Class Test-I/ PH.7.3.	Pharm. Chemistry-VII /FM-15/Time-1Hr./Dt.24.08.2015
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- Q1. a). Define and classify prodrugs giving suitable examples. (1)
  - b). Differentiate hard drugs from soft drugs. (1)
- c). Write the structure mode of action of chloramphenicol. (1)
- Q2. Write the mechanism of action of  $\beta$ -lactum antibiotics. (6)
- Q3. Name the causative organism of malaria. Classify antimalarial drugs giving suitable examples. (6)
- Q4. What do you mean by drug metabolism? Discuss about phase-I metabolic reaction. (6)

### IPT/ BPUT/B.Pharm 7<sup>th</sup> semester/Class Test-I/ PH.7.2. Pharmacology-III /FM-15/Time-1Hr./Dt.25.08.2015

- Answer any three questions including Q.No.1
- Q1. (i) What are the uses of gluco-corticosteroids? (1)
- (ii) What is diabetic keto acidosis? (1)
- (iii) Write the MOA of Amphotericin-B. (1)
- Q2. Classify anti thyroid drugs. Write down the Pharmacology of carbimazole. (6)
- Q3. Classify OHA. Write down the Pharmacology of Metformin. (6)
- Q4. Classify anti-fungal drugs. Write down the Pharmacology of ketoconazole (KTZ). (6)

## IPT/ BPUT/B.Pharm 7<sup>th</sup> semester/Class Test-I/ PH.7.4. Pharm. Analysis-III /FM-15/Time-1Hr./Dt.26.08.2015

[1]

Answer any three questions including Q.No.1

Q1. a) What do you mean by edge effect in TLC?

b) What is  $\lambda_{max}$ ? Write significance of it. (1)

c) What do you mean by bathochromic & hypsochromic effect? (1)

- Q2. Explain in detail the different laws involved in UV-Visible spectroscopy. (6)
- Q3. Explain the requirements/ steps involved in TLC.

Q4. Write in detail about different types of molecular vibrations occurring in IR spectroscopy. (6)

#### IPT/ BPUT/B.Pharm 7<sup>th</sup> semester/Class Test-I/ PH.7.1. Pharmaceutics-VI /FM-15/Time-1Hr./Dt.27.08.2015

[6]

Answer any three questions including Q.No.1

Q1. a). Anhydrous form of drug have higher bioavailability than hydrates, justify. (1)

- b). Differentiate between active transport and facilitate diffusion. (1)
- c). Define endocytosis. (1)

Q2. Short notes on; a). First pass metabolism, b) Passive diffusion (3 x2)

Q3. a). Write a short note on pH partition hypothesis. b). Describe how polymorphism & particle affects drug absorption. (3 x2)

Q4. Describe about pharmaceutical factors affecting drug absorption. (6)

## IPT/ BPUT/B.Pharm 7<sup>th</sup> semester/Class Test-I/ PH.7.7. Elective-I (Hospital Pharmacy)/FM-15/Time-1Hr./Dt.28.08.2015

Answer any three questions including Q.No.1

- Q1. (a) Write briefly about composition /organization of PTC? (1)
- (b) What is cold storage? Explain with examples?(1+1)
- Q2. Write in detail about role of hospital pharmacy department and its relationship to other hospital departments and staff ?(6)
- Q3. Define Pharmacy and Therapeutic committee (PTC)? Write in brief about the objectives of PTC and role of PTC in drug safety? (1+3+2)
- Q4. Define Hospital Formulary? Explain in detail about the guiding principles of Hospital Formulary? Write short notes on revision of formulary?(1+3+2)

#### IPT/ BPUT/B.Pharm 7<sup>th</sup> semester/Class Test-I/ PH.7.6. Pharm. Biotechnology /FM-15/Time-1Hr./Dt.31.08.2015

Answer any three questions including Q.No.1

- Q1. a). Stopping codon. (1)
- b). Degenerative property of genetic code. (1)
- c). m-RNA. (1)
- Q2. Define antigen antibody reaction and write in detail about precipitation reaction. (6)
- Q3. What is immunity? Classify immunity with examples. (6)
- Q4. What is hypersensitivity reaction, write in detail about different types of hypersensitivity reactions? (6)

IPT/ BPUT/B.Pharm 7<sup>th</sup> semester/Class Test-II/ PH.7.7. Elective-I (Hospital Pharmacy)/FM-15/Time-1Hr./Dt.30.10.2015

Answer any three questions including Q.No.1

- Q1. a) Define Lead Time. [1]
- b) Write in brief about TPN. [2]
- Q2. Write about drug distribution system for inpatient services. [6]
- Q3. Write in brief about purchase procedure & inventory control. [3+3]
- Q4. Write in detail about infection control committee. [6]

### IPT/ BPUT/B.Pharm 7<sup>th</sup> semester/Class Test-II/ PH.7.6. Pharm. Biotechnology /FM-15/Time-1Hr./Dt. 31.10.2015

- Q1. Write short notes on the following, {1.5 X 2 = 3]
- a HGPRT, b. Microbial transformation reaction.
- Q2. Describe the construction of aerobic fermentor with diagram. [6]
- Q3. Describe PCR technique in detail. [6]
- Q4. Define monoclonal antibody, describe the method of preparation of monoclonal antibody. [6]

### IPT/ BPUT/B.Pharm 7<sup>th</sup> semester/Class Test-II/ PH.7.3. Pharm. Chemistry-VII /FM-15/Time-1Hr./Dt.02.11.2015

(1)

(1)

Answer any three questions including Q.No.1

- Q1. a) What is Cancer? What do you mean by the term malignancy?
- b) What is DOT & Ara-C? (1)
- c) Draw the structure of Isoniazid or Phenformin or Thiotepa.
- Q2. Classify Anti Cancer drugs and give the synthesis of any two Anti Cancer drug. (6)
- Q3. Write short notes on Tuberculosis management. (6)
- Q4. Classify Anti hyperglycemic drugs and writes a short note on insulin and insulin product. (6)

[1]

#### IPT/ BPUT/B.Pharm 7<sup>th</sup> semester/Class Test-II/ PH.7.2. Pharmacology-III /FM-15/Time-1Hr./Dt. 03.11.2015

Answer any three questions including Q.No.1

Q1. a) MOA of Dapsone [1]

b) What is "HAART" region?

- c) MOA of PPI. [1]
- Q2. Classify Anti-TB drugs. Add a note on management of TB. [6]
- Q3. Classify anti-ulcer drugs. Explain about anti-secretory. [6]

Q4. Classify Anti-leprotic drugs. Write in detail about its treatment. [6]

# IPT/ BPUT/B.Pharm 7<sup>th</sup> semester/Class Test-II/ PH.7.4. Pharm. Analysis-III /FM-15/Time-1Hr./Dt. 04.11.2015

	Answer any three questions including Q.No.1		
Q1.	a) What is singlet excited & triplet excited state of electrons?	[1]	
	b) How paper acts as liquid stationary phase in Partition chromatography?		[1]
	c) Define elution, eluent and eluate.		[1]
Q2.	Write in detail about the principle and types of fluorescence.	[6]	
Q3.	Describe the steps involved in paper chromatography.		[6]
Q4.	Describe the principles and procedure involved in Column chromatography.		[6]

# IPT/ BPUT/B.Pharm 7<sup>th</sup> semester/Class Test-II/ PH.7.1. Pharmaceutics-VI /FM-15/Time-1Hr./Dt. 05.11.2015

Answer any three questions including Q.No.1 Q1. a) Define Vd. Write how protein binding affects Vd. [1] b) Define pharmacokinetic model. Differentiate between central & peripheral compartment. [1] c) Define extraction ratio. [1] Derive equation for C<sub>max</sub> & t<sub>max</sub> for a drug administered through oral route & following one compartmental model. Find Q2. absorption rate constant by method of residual. [6] Q3. Describe briefly plasma protein binding. Write its clinical significance. [6] Q4. Write different methods of measurement of bioavailability. [6]

## B.Pharm 8<sup>th</sup> Semester 2015-16

IPT/ BPUT/B.Pharm 8 <sup>th</sup> semester/Class Test-I/PH.8.4.	Quality Assurance & GMP/FM-15/Time-1Hr./Dt. 15.02.2016
Answer any three questions including Q.No.1	

Q1. a) What is GMP & cGMP?[1]b) What is the objective of GMP?[1]c) What is QA & QC.? Write down th

c) What is QA & QC.? Write down the differences between QA & QC.[1]

- Q2. Write down the silent features of Drug & Cosmetic Act related to manufacturing of drugs.[6]
- Q3. Write down the various specification for building and equipment's as per the GMP guideline.[6]
- Q4. Write a short notes on function and responsibilities of QA Manager.[6]

#### IPT/ BPUT/B.Pharm 8<sup>th</sup> semester/Class Test-I/ PH.8.1 Pharmaceutics - VII /FM-15/Time-1Hr./Dt. 16.02.2016

- Q1. (a) Define preformulation study. Write the goal and objective of preformulation study. (1)
  (b) Generally amorphous compounds have greater solubility and dissolution rate. Justify the statement. (1)
  (c) What are liposomes? (1)
- Q2. Write in detail the concept and approaches for designing of sustained released formulation. (6)
- Q3. Describe the methods to access the flow properties of a powder. (6)
- Q4. Define Liposome. Write method of preparation of Liposomes. (6)

#### IPT/ BPUT/B.Pharm 8<sup>th</sup> semester/Class Test-I/PH.8.5. Pharmaceutical Management /FM-15/Time-1Hr./Dt. 17.02.2016

[1]

- Answer any three questions including Q.No.1
- Q1. a) Define cost. [1]
  - b) What is a trial balance? [1]
  - c) What is depreciation?
- Q2. What is marketing management? Explain with the help of flow chart. [6]
- Q3. Write short notes on planning management. [6]
- Q4. State the nature, function & objectives of management. [6]

#### IPT/ BPUT/B.Pharm 8<sup>th</sup> semester/Class Test-I/PH.8.3. Clinical Pharm. & Ther. /FM-15/Time-1Hr./Dt. 18.02.2016

Answer any three questions including Q.No.1

- Q1. Write in detail about the drug interaction between
- (i) Tetracycline & milk (ii) MAOI and Tyramine containing food
- Q2. Define drug interaction? Describe in detail about Drug-Food interaction. [6]
- Q3. Write down the mechanism of pharmaco-dynamic drug interaction with suitable example. [6]
- Q4. With suitable example briefly describe about the pharmaco-kinetic mechanism of Drug interaction. [6]

#### IPT/ BPUT/B.Pharm 8<sup>th</sup> semester/Class Test-I/ PH.8.6. Elective-II /FM-15/Time-1Hr./Dt. 19.02.2016

#### Answer any three including Q1.

- Q1. Write short note on a) Nonionic surfactant, b) Propellant, c) Preservative (1×3=3)
- Q2. Define cosmetics. Write down the classification of cosmetic product with example. (6)
- Q3. Define humectants. Write down its ideal characteristics. Give two examples humectants. (1+3+2)
- Q4. Briefly describe about different purification technique of water used in cosmetic preparation. (6)

#### IPT/ BPUT/B.Pharm 8<sup>th</sup> semester/Class Test-II/ PH.8.6. Elective-II /FM-15/Time-1Hr./Dt. 08.04.2016

- Answer any three questions including Q.No.1
- Q1. a. Shelf life, b. Plasticizer,

(1x3)

[2X1.5=3]

- Q2. Write down formulation and evaluation of tooth paste. (6)
- Q3. Briefly describe formulation and evaluation of shampoo. (6)
- Q4. Briefly describe formulation and evaluation of lipstick. (6)

#### IPT/ BPUT/B.Pharm 8<sup>th</sup> semester/Class Test-II/PH.8.5. Pharmaceutical Management /FM-15/Time-1Hr./Dt.09.04.2016

- Answer any three questions including Q.No.1
- Q1. <u>a</u>). Who are in top level in company?. (1)
  - b). What is difference between goods & service? (1)
    - c). What is market share? (1)
- Q2. Define entrepreneurship. Classify type of entrepreneurship in the field of pharmaceutical management. (6)

c. SPF

- Q3. Describe Market research. (6)
- Q4. Explain Market Information System. (6)

#### IPT/ BPUT/B.Pharm 8<sup>th</sup> semester/Class Test-II/PH.8.4. Quality Assurance & GMP/FM-15/Time-1Hr./Dt. 11.04.2016

- Answer any three questions including Q.No.1
- Q1. a). What is CDSCO, DMF, DCGI and IPR? [1] b). Define orange book. [1]
  - c). What is validation? [1]
- Q2. Write down the different types of validation, write the validation parameters and define them. [6]
- Q3. What is a regulatory affair? Write down the function of regulatory affairs personal; write the name of regulatory agency of India, USA, Japan & UK. [6]
- Q4. Write down the ICH stability study protocol. [6]
- Q5. Write short notes on SOP & TQM. [6]

## IPT/ BPUT/B.Pharm 8<sup>th</sup> semester/Class Test-II/ PH.8.1 Pharmaceutics - VII /FM-15/Time-1Hr./Dt. 12.04.2016

- Q1. a. Define preformulation, objective and goal of preformulation study. (1)
- b. Differentiate between cream and lotion. (1)
  - c. Define partition co-efficient; write its importance in preformulation study. (1)
- Q2. Write different methods to measure the flow property of powder. (6)
- Q3. Write short notes on reshield erythrocytes. (6)
- Q4. Write short notes on IUD. (6)

# IPT/ BPUT/B.Pharm 8<sup>th</sup> semester/Class Test-II/PH.8.3. Clinical Pharmacy & Therapeutics /FM-15/Time-1Hr./Dt.14.04.2016

Answer any three questions including Q.No.1 Q1. a). Define essential drug. (1.5)

- b). Give examples of two drugs with narrow therapeutic index. (1.5)
- Q2. What is therapeutic drug monitoring? Write its objective, application and methodology. (6)
- Q3. Define adverse drug reaction. Write the predisposing factors and mechanism of adverse drug reaction. Give a brief note on ADR monitoring. (6)
- Q4. What is rational use of drug? Write down the reasons of irrational drug use. Discuss in detail about the steps to be taken for rational drug use. (6)