

[This question paper contains 2 printed pages.]

**Sr. No. of Question Paper : 1672**

**Roll No.....**

**Name of the Course : D. Pharm. – Ist year (2015)**

**Name of the Paper : Pharmaceutics – I**

**Duration : 3 Hours**

**Maximum Marks : 80**

**Instructions for Candidates**

1. Write your Roll No. on the top immediately on receipt of this question paper.
2. Attempt any **five** questions.
3. **All** questions carry equal marks.
4. Different parts of a question should be answered in sequence.

1. Explain the continuous hot extraction for preparation of extract and tinctures. (16)
2. Describe dry heat sterilization and sterilization by filtration. Give the applications of aseptic techniques and sterilization in hospitals. (10+6)
3. (a) Give the Objectives of size reduction. With the help of schematic representation explain the working of Ball mill and give its uses. (10)  
(b) Discuss the construction and working of Planetary mixer. (6)
4. Explain any **two** of the following:  
(a) Freeze Dryer

*P.T.O.*

- (b) Cyclone Separator
- (c) Evaporating Still and Evaporating Pan (8+8)
5. List different types of compressed tablets. Explain evaluation of tablets. Write an account of enteric coating. (3+8+5)
6. What are the advantages and disadvantages of Tablets as a dosage form? Discuss on the step involved in the production of tablets by wet granulation method. (16)
7. Write notes on any **three** of the following:
- (a) Filling of capsules
  - (b) Semisolid dosage forms
  - (c) Pharmacopoeia
  - (d) Toxicity (6,5,5)

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**Sr. No. of Question Paper : 1673**

**Roll No.....**

Name of the Course : **D. Pharm. – Ist Yr. (2015)**

Name of the Paper : **II – Pharmaceutical Chemistry – I**

Duration : **3 Hours**

Maximum Marks : **80**

**Instructions for Candidates**

1. Write your Roll No. on the top immediately on receipt of this question paper.
2. Attempt any **five** questions.
3. **All** questions carry equal marks.

1. (a) What do you understand by limit tests? Discuss the principle, theory and procedure involved in the limit test of chloride and iron. (10)  
(b) Discuss the principle, theory and procedure involved in the limit test of arsenic. (6)
2. (a) Define impurities and discuss various sources of impurities in pharmaceutical substances with suitable examples. (8)  
(b) What are the significances of identification test? Discuss different methods of quality control. (8)
3. What are radio-pharmaceuticals? Discuss  $\alpha$ ,  $\beta$  &  $\gamma$  radiations and their biological effects. Write the uses of different radioactive isotopic formulations. (16)
4. Write note on the following (any **four**)
  - (a) Significant errors

*P.T.O.*

- (b) G M counter
  - (c) Dental products
  - (d) Emetics
  - (e) Bismuth sub carbonate and Kaolin (4×4)
5. What is replacement therapy? Discuss different electrolytes used in replacement therapy along with their preparations. (16)
6. (a) Define saline cathartics. Discuss the preparation and uses of potassium tartrate and magnesium sulphate. (8)
- (b) Write assay procedure and uses of ammonium chloride, zinc sulphate, iodine and calcium gluconate. (8)
7. Write the method of preparation, uses and storage conditions of the following (any **four**)
- (a) Calcium hydroxide
  - (b) Sodium thiosulphate
  - (c) Strong ammonium hydroxide
  - (d) Hypo phosphorous acid
  - (e) Silver nitrate (4×4)
8. What are the uses of antacids? Discuss different types of antacids used in pharmaceutical preparations. (16)

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Sr. No. of Question Paper : 1674

Roll No.....

Name of the Course : D. Pharm. – Ist Yr. (2015)

Name of the Paper : III Pharmacognosy

Duration : 3 Hours

Maximum Marks : 80

**Instructions for Candidates**

1. Write your Roll No. on the top immediately on receipt of this question paper.
2. Attempt any **five** questions.
3. **All** questions carry equal marks.

1. Discuss history and scope of pharmacognosy? (8×2=16)
2. Discuss pharmacological system of classification and Undeliberate adulteration in detail. (8×2=16)
3. Write in short (**two**)
  - (i) Laxative drugs
  - (ii) Cardiotoxic drugs
  - (iii) Astringent (8×2=16)
4. Write biological source, main chemical constituents and uses of (any **four**):
  - (i) Cascara
  - (ii) Coriander

P.T.O.

- (iii) Ergot
  - (iv) Colchicum
  - (v) Rauwolfia
  - (vi) Neem (4×4=16)
5. (a) Write biological source and uses of Diastase, lemongrass oil, honey and guar gum.
- (b) Discuss collection and preparation of Opium of discuss about Silk. (8×2=16)
6. Draw well labelled diagram for T.S. of (any two):
- (a) T.S. of Clove bud
  - (b) T.S. of Cinchona bark
  - (c) T.S. of Senna leaf (8×2=16)
7. Write chemical tests for identification of (any two)
- (i) Alkaloids
  - (ii) Tannin
  - (iii) Resin and saponin (8×2=16)
8. Write definition, properties, classification and chemical tests for identification of glycosides. (16)

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**Sr. No. of Question Paper : 1675**

**Roll No.....**

**Name of the Course : D. Pharma – Ist Yr. (2015)**

**Name of the Paper : IV Biochemistry and Clinical Pathology**

**Duration : 3 Hours**

**Maximum Marks : 80**

**Instructions for Candidates**

1. Write your Roll No. on the top immediately on receipt of this question paper.
2. Attempt any **five** questions.
3. **All** questions carry equal marks.

1. What are polypeptides? Classify amino acids. Write the qualitative test for amino acids. (4+4+8)
2. Classify enzymes? Discuss the various factors affecting enzyme action. Write pharmaceuticals importance of enzymes. (4+6+6)
3. Explain minerals and their role in living system. Discuss in brief the diseases related to deficiency of minerals. (8+8)
4. Classify Carbohydrates with appropriate examples. Differentiate between reducing sugar and non-reducing sugar on the basis of qualitative test. Write the significance of carbohydrate metabolism. (4+4+8)
5. What are the lipids and classify them? Discuss the chemistry involved in lipids. Explain the qualitative test for identification of lipids. (6+6+4)

*P.T.O.*

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6. Define vitamins. Discuss various types of vitamins. Discuss the chemistry involved in vitamins and their significance. (2+8+6)
  
7. Briefly explain the following
  - (a) Abnormal metabolism of proteins
  
  - (b) Explain the role of lymphocytes and platelets in health and diseases. (8+8)

(200)



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Sr. No. of Question Paper : 1676

Roll No.....

Name of the Course : D. Pharm. – Ist Year. (2015)

Name of the Paper : D – V Human Anatomy and Physiology

Duration : 3 Hours

Maximum Marks : 80

**Instructions for Candidates**

1. Write your Roll No. on the top immediately on receipt of this question paper.
2. Attempt any **five** questions.
3. **All** questions carry equal marks.
4. Illustrate appropriate example and figures in support to your answer wherever necessary.
5. Commence writing the answer to each question on a new page. Complete every question, and all its sub-parts, in continuation.

1. (a) Define the following (Any three):

(i) Neurotransmitter

(ii) Action potential

(ii) Homeostasis

(iv) Immunity

(2×3)

(b) What are the different types of Leukocytes. Describe are their functions.

(10)

P.T.O.

2. (a) Define the following in context of Human Anatomy. Give one example for each (Any **three**):
- (i) Superior
  - (ii) Proximal
  - (iii) Medial
  - (iv) Coronal (2×3)
- (b) Describe the valves present in the heart with respect to their; types, location, function and states during the cardiac cycle. (10)
3. (a) Comment on the following statements with scientific justifications (Any **three**):
- (i) Two or more bones are joined by Tendons at joints.
  - (ii) Autonomic Nervous System innervates the organs through Cranial Nerves.
  - (iii) Normal heart rate is governed by Peripheral Nervous System.
  - (iv) Low pitch sound is heard with the help of Semicircular Canals. (2×3)
- (b) Compare and contrast between the different types of muscle in human body. (10)
4. (a) State, giving appropriate scientific reasons, whether following statements are true or false:
- (i) Human beings can not survive without Gall bladder.
  - (ii) Pulmonary arteries carry oxygenated blood towards the heart.
  - (iii) Pancreas is an Endocrine Gland. (2×3)
- (b) Draw a neat, labeled diagram of Neuron. Explain the conduction of Impulse through it. (10)

5. (a) Define the following (Any **three**):
- (i) Gustatory
  - (ii) Isotonic
  - (iii) Pulmonary
  - (iv) Acidosis (2×3)
- (b) Describe physiology of urine formation. (10)
6. (a) What are the functions of each of the following (Any **three**):
- (i) Ribs
  - (ii) Lacteals
  - (iii) Appendix
  - (iv) Mitochondria (2×3)
- (b) What are the different types of Blood Groups. Explain their significance in; pregnancy and blood transfusion. (10)
7. (a) Name four disorders for each of the following (Any **three**):
- (i) Liver
  - (ii) Blood
  - (iii) Eye
  - (iv) Digestive tract (2×3)
- (b) Describe the mechanisms of Respiration. (10)
8. (a) Highlight the correlation in one or two sentences each for the most appropriately matched pairs (Any **three**):

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- |                         |   |
|-------------------------|---|
| (i) Autoinhibition      | (a) Vit B <sub>12</sub> deficiency          |
| (ii) Negative Feedback  | (b) Stimulated by Hypoxia                   |
| (iii) Positive Feedback | (c) Intrinsic factor deficiency             |
| (iv) Pernicious Anaemia | (d) Testosterone from testis                |
| (v) Sickle cell Anaemia | (e) Nor epinephrine from Adrenergic neurons |
| (vi) Erythropoiesis     | (f) Blood Glucose after digestion           |

(2×3)

(b) Name the different parts of the Lymphatic System. Explain their functions.

(10)

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**Sr. No. of Question Paper : 1677**

**Roll No.....**

Name of the Course : **Diploma in Pharmacy – Ist Yr. (2015)**

Name of the Paper : VI – Health Education and Community Pharmacy

Duration : 3 Hours

Maximum Marks : 80

**Instructions for Candidates**

1. Write your Roll No. on the top immediately on receipt of this question paper.
2. Attempt any **five** questions.
3. **All** questions carry equal marks.

1. (a) What is hardness of water? How can we remove different types of hardness from drinking water? (8)

(b) Discuss various staining techniques of microorganisms. (8)

2. Write short notes on :

(a) Emergency treatment in burns

(b) Solid waste disposal and its control (8+8)

3. Define the term “Demography”. Explain demographic cycle and its importance in family planning. (16)

4. (a) Discuss various indicators of health. (8)

(b) Classify different types of disinfectants. Give disinfection procedure for faeces and urine. (8)

*P.T.O.*

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5. Write short notes on :

- (a) Mental disorders.
- (b) Fertility
- (c) Hormonal method of contraceptive
- (d) Stroke (4×4)

6. Discuss their causes, symptoms, mode of transmission, prevention and control of the following diseases.

- (a) Tuberculosis
- (b) Malaria (8+8)

7. (a) Give the sources and deficiency diseases caused by fat soluble vitamins. (8)

(b) What is a non-communicable disease? Describe the causative factors, symptoms, prevention and control of cancer. (8)

(200)