Code No: BP102T

PCI

SET - 1

I B. Pharmacy I Semester Regular/Supplementary Examinations, February - 2019

PHARMACEUTICAL ANALYSIS-I

Time: 3 hours

Max. Marks: 75

Note: 1. Question Paper consists of three parts (**Part-I, Part-II & Part-III**)
2. Answer ALL (Multiple Choice) Questions from **Part-I**
3. Answer any **TWO** Questions from **Part-II**
4. Answer any **SEVEN** Questions from **Part-III**

PART –I

1. (i) Chloride ion can be estimated by using the reagent…… (1M)
(a) $NaNO_2$ (b) H_2SO_4 (c) $AgNO_3$ (d) $Ca(OH)_2$

(ii) Thermometer is calibrated by using…… (1M)
(a) distilled water (b) HCl (c) acetic acid (d) cholesterol

(iii) When ……. is dissolved in water, the solution will become basic (1M)
(a) NaCl (b) NH_4Cl (c) NaOAc (d) NH_4OAc

(iv) …….. indicator is used for Strong acid strong base titrations (1M)
(a) Thymol blue (b) bromothymol blue (c) methyl violet (d) methyl orange

(v) …….. is a good example of a primary standard. (1M)
(a) HCl (b) NaOH (c) Oxalic acid (d) $AgNO_3$

(vi) Actual content of a drug in formulation is estimated in… (1M)
(a) Limit test (b) Identification test (c) Assay (d) test for purity

(vii) In complexometric titrations, …… is used for masking Zn^{2+} ion. (1M)
(a) NaCl (b) NaCN (c) NaOH (d) Na_2CO_3

(viii) 0.1M EDTA solution is prepared by dissolving …… grams of disodium EDTA in 1000mL of water. (1M)
(a) 372 (b) 37.2 (c) 3.72 (d) 0.372

(xi) According to Von Weimarn, particle size of precipitate is directly proportional to …… (1M)
(a) Temperature (b) relative supersaturation (c) rate of mixing (d) Volume

(x) A lipophilic weak base is preferably estimated by using…… titration. (1M)
(a) aqueous (b) non-aqueous (c) complexometry (d) gravimetry

(xi) Oxidation involves…… (1M)
(a) loss of electrons (b) loss of oxygen (c) gain in electrons (d) gain in hydrogen

(xii) A pH meter is an example of… (1M)
(a) a fuel cell (b) reference electrode
(c) ion selective electrode (d) electrolytic cell

(xiii) If a silver strip were immersed in an aqueous solution containing Cu^{2+} ions, what would you expect to happen? (1M)
(a) Ag would be oxidized
(b) Copper would be deposited on the silver strip
(c) No reaction would occur
(d) Cu^{2+} ions would be reduced

(xiv) Which statement is *incorrect* about an electrolytic cell? (1M)
(a) The cell reaction is spontaneous
(b) Reduction occurs at the cathode
(c) The cell includes a battery
(d) The electrodes may be inert (e.g. graphite) or may be involved in the cell reaction.

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(xv) If acidified Potassium Dichromate(VI) ($K_2Cr_2O_7$) acts as oxidizing agent, color changes from (1M)
(a) orange to red (b) orange to green (c) yellow to green (d) yellow to red

(xvi) Which of the following requires formation of insoluble form of analyte? (1M)
(a) polarography (b) voltammetry (c) electrogravimetry (d) conductometry

(xvii) What will be the unit of molar conductivity? (1M)
(a) mho (b) $\Omega^{-1}cm^{-1}$ (c) $\Omega^{-1}cm^2mol^{-1}$ (d) Ω-cm

(xviii) In Conductometric titrations, one of the following is evaluated by calibration with 0.1M potassium chloride (1M)
(a) distance between two electrodes (b) Cell constant
(c) area of cross section of each electrode (d) Platinum wire of electrode

(xix) The Potential at the point on the polarographic wave where the current is equal to one half of the diffusion current is termed as (1M)
(a) Half wave current (b) full wave Current
(c) half wave Potential (d) full wave Potential

(xx) When the potential applied across two electrode is maintained at some constant value, the current is measures and plotted against the volume of the titrant is known as (1M)
(a) Potentiometry (b) Conductometry (c) Polarography (d) Amperometry

PART -II

2. a) Write in brief on indeterminate errors. (5M)
b) Write in brief on primary standards. (5M)

3. a) Write in detail on strong acid-strong base titrations. (5M)
b) Write principle and procedure involved in estimation of calcium gluconate. (5M)

4. a) With a neat sketch explain construction of pH meter. (5M)
b) Write principle and applications of diazotization titrations. (5M)

PART -III

5. Write a note on sources of impurities. (5M)
6. Write the method used for preparation and standardization of 0.1M KMnO4 solution. (5M)
7. Explain the principle, chemistry and significance of limit test for heavy metals. (5M)
8. Write in brief on masking and demasking agents. (5M)
9. Explain the principle, procedure and applications of Volhard's method. (5M)
10. Write in detail on cerimetry. (5M)
11. Explain the construction and working of silver chloride electrode. (5M)
12. Writer short notes on rotating platinum electrode. (5M)
13. Explain the conductometry curves for strong acid week base titrations. (5M)

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SET - 1

I B. Pharmacy I Semester Regular/Supplementary Examinations, February - 2019
HUMAN ANATOMY & PHYSIOLOGY-I

Time: 3 hours

Max. Marks: 75

Note: 1. Question Paper consists of three parts (**Part-I, Part-II & Part-III**)
2. Answer **ALL** (Multiple Choice) Questions from **Part-I**
3. Answer any **TWO** Questions from **Part-II**
4. Answer any **SEVEN** Questions from **Part-III**

PART –I

1. (i) The principal intracellular cation is (1M)
(a) Na^+ (b) Ca^+ (c) K^+ (d) Cl^-

(ii) Haematopoiesis means formation of (1M)
(a) Erythrocytes (b) Lymphocytes (c) Monocytes (d) All of the above

(iii) Engulfing of bacteria by white blood cells is called as (1M)
(a) Phagocytosis (b) Pinocytosis (c) Exocytosis (d) Endocytosis

(iv) The tissue that lines and covers the bone is (1M)
(a) Epithelial (b) Muscle (c) Nervous (d) Connective

(v) One of the following is not a part of axial skeletal system (1M)
(a) Limbs (b) head (c) Vertebra (d) Heart

(vi) Set of ions necessary for chemical events of muscle contraction (1M)
(a) Na^+ & K^+ (b) Ca^+ & Mg^+ (c) Na^+ & Ca^+ (d) Na^+ & Mg^+

(vii) The joints present in the Knee (1M)
(a) Pivot (b) Hinge (c) Saddle (d) Ball and Socket

(viii) Ligament connecting bone tissue is (1M)
(a) Tendon (b) Muscle (c) Synovial Capsule (d) Skin

(xi) Which of the following is *not* primarily a function of blood plasma (1M)
(a) Transport of hormones (b) Transport of O_2
(c) Transport of chylomicrons (d) Transport of antibodies

(x) Rhesus (Rh) factor is an inherited protein found on the surface of (1M)
(a) Red blood cells (b) White blood cells (c) Platelets (d) All the above

(xi) Vitamin B12 deficiency is called as (1M)
(a) Pernicious anemia (b) Sickle cell anemia
(c) Aplastic anemia (d) Thelessemia

(xii) Which one of the following is not a lymphatic tissue (1M)
(a) Heart (b) Spleen (c) Thymus (d) Bone marrow

(xiii) Which of the following is cranial nerve, except (1M)
(a) Optic nerve (b) Facial nerve (c) Occipital nerve (d) Vagus nerve

(xiv) Which of the following nerve transmits sensory information to your brain regarding smells (1M)
(a) Oculomotor (b) Olfactory (c) Trigeminal (d) Optic

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(xv) The plexus supplies the arm and upper back (1M)
(a) Cervical Plexus (b) Lumbar Plexus (c) Sacral plexus (d) Brachial plexus

(xvi) Which of the following structures is a component of reflex arc? (1M)
(a) Afferent neuron (b) Efferent neuron (c) Sensory receptor (d) All the above

(xvii) The white part of the eye that surrounds the cornea (1M)
(a) Retina (b) Sclera (c) Macula (d) Choroid

(xviii) The connection of conduction between the myocardium of atria and that of ventricle is (1M)
(a) S.A node (b) A.V node (c) Bundle of His (d) Purkinje plexus

(xix) The condition of improper beating of the heart, whether irregular, too fast or too slow is (1M)
(a) Cardiac arrest (b) Arrhythmia (c) Heart failure (d) Angina

(xx) Cardiac output is the product of (1M)
(a) Heart beat, Stroke volume (b) Heart beat, Peripheral resistance
(c) Stroke volume, Peripheral resistance (d) Peripheral resistance, Contractility

PART -II

2. a) Explain the processes of cell division. (5M)
   b) Write a brief note on Reticulo endothelial system. (5M)

3. a) Explain about origin and functions of cranial nerves. (5M)
   b) Write a note on disorders of eye. (5M)

4. a) Write about regulation functions of heart by autonomic nervous system. (5M)
   b) Explain structure of vein with neat labeled diagram. (5M)

PART -III

5. Write a brief note on general principles of cell communication. (5M)
6. Write a note on physiology of muscle contraction. (5M)
7. Describe the structure and functions of skin. (5M)
8. Write a note on functions of Lymphatic system. (5M)
9. Explain about composition and functions of blood. (5M)
10. Write a note on disorders of tongue. (5M)
11. Describe the structure of ear. (5M)
12. Write in detail about cardiac cycle. (5M)
13. Explain about disorders of heart.

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SET - 1

I B. Pharmacy I Semester Regular/Supplementary Examinations, February - 2019
PHARMACEUTICS-I

Time: 3 hours

Max. Marks: 75

Note: 1. Question Paper consists of three parts (**Part-I, Part-II & Part-III**)
2. Answer **ALL** (Multiple Choice) Questions from **Part-I**
3. Answer any **TWO** Questions from **Part-II**
4. Answer any **SEVEN** Questions from **Part-III**

PART –I

1. (i) Aerosols are what type of dosage forms (1M)
(a) Solid (b) Semisolid (c) Liquid (d) Gas

(ii) A dispersion system where solid particles are dispersed in liquid phase (1M)
(a) Suspension (b) O/W Emulsion (c) W/O Emulsion (d) Syrup

(iii) Soft gelatin capsules mainly used for (1M)
(a) Oils (b) Dry powders (c) Granules (d) Sugars

(iv) The main part of Prescription (1M)
(a) Superscription (b) Inscription (c) Subscription (d) Signatura

(v) The Prescriber gives direction to the pharmacist (1M)
(a) Inscription (b) Signatura (c) Subscription (d) Date

(vi) Which formula used to calculate dose for infants based on age (1M)
(a) Young's (b) Dilling's (c) Fried's (d) Cowling's

(vii) The powder which reacts in presence of water evolving carbon-dioxide (1M)
(a) Effervescent (b) Eutectic (c) Dentifrices (d) Douche

(viii) Preparations generally prescribed for relief of cough (1M)
(a) Elixirs (b) Linctuses (c) Syrup (d) Gargles

(xi) Multiple emulsion (1M)
(a) O/W (b) W/O (c) O/W/O (d) a & c

(x) Insolubility results in (1M)
(a) Physical incompatibility (b) Chemical incompatibility (c) Therapeutic (d) a & c

(xi) Instability of emulsion (1M)
(a) Creaming (b) Phase inversion (c) Flocculation (d) All

(xii) Therapeutic incompatibility occurs due to (1M)
(a) insolubility (b) Overdose (c) immiscibility (d) Precipitation

(xiii) Tetracycline is inactivated by the presence of calcium in milk is an (1M)
(a) Immiscibility (b) Insolubility (c) Contraindicated drug (d) Drug interaction

(xiv) Grain is the standard unit for weight in which system (1M)
(a) avoirdupois (b) apothecaries (c) Metric system (d) both a & b

(xv) Particles exhibit attractive forces in which type of suspension (1M)
(a) Flocculated (b) Deflocculated (c) Both (d) None

(xvi) Quaternary ammonium compound is an example of which type of emulsifier (1M)
(a) Cationic (b) Anionic (c) Both a & b (d) Nonionic

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(xvii) Hygroscopic substance (1M)
(a) Absorbs moisture (b) melts at body temperature
(c) absorbs calcium (d) absorbs iron

(xviii) Formulation of emulsions by (1M)
(a) Wet gum method (b) Dry gum method (c) both a &b (d) None

(xix) What is the meaning of latin word cibos? (1M)
(a) Capsule (b) Food (c) Cream (d) Lozenge

(xx) Posology deals with (1M)
(a) Dose (b) Incompatibilities (c) Drug interactions (d) Toxicity

PART -II

2. a) Write about Metric system of weights and measure in brief. (5M)
   b) What are powders? Write the advantages and disadvantages of powders. (5M)

3. a) What are Emulsions? Mention the stability problems of emulsions. (5M)
   b) Define prescription. Write about parts of prescription in brief. (5M)

4. a) Write in brief about Elixirs and Liniments. (5M)
   b) Write in brief about IP. (5M)

PART -III

5. Define posology and explain the factors affecting posology. (5M)

6. Explain different types of suppositories bases used in preparation of suppositories. (5M)

7. Explain the mechanism involved in dermal penetration of drugs. (5M)

8. Write about different types of excipients used in preparation of semi solid dosage forms. (5M)

9. Define suspensions. Explain about flocculated and deflocculated suspension. (5M)

10. Define incompatibility and explain about physical incompatibility. (5M)

11. Write about Dusting and Effervescent powders in brief. (5M)

12. Write about history of pharmacy profession in India in relation to pharmacy education. (5M)

13. In what proportions does 50% of emulsion and 60% of emulsion required to 40% of emulsion? (5M)

PCI

Code No: BP105T

SET - 1

I B. Pharmacy I Semester Regular Examinations, Jan - 2019
COMMUNICATION SKILLS
Time:1.5hours Max. Marks:35

Note: 1. Question Paper consists of two parts (**Part-I**and **Part-II**)
2. Answering any **FIVE** question in **Part-I**
3. Answer any **ONE**Questions from**Part-II**

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PART –I

5X5=25 M

1. Write about the LSRW skills?
2. What are the Dos and Don`ts of group discussion?
3. Make PPT on Environmental pollution?
4. Send your CV for the post of chemist for a Pharmaceutical company.
5. What is the importance of body language?
6. Write about the verbal (face-to-face) communication?
7. Write the process of communication?

PART –II

1X10=10M

1. What do you mean by interview? Explain the purpose, Do's and Don'ts at the Time of the interview?
2. Define communication skills? Explain the importance of communication Skills?
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Note: 1. Question Paper consists of three parts (**Part-I, Part-II & Part-III**)
2. Answer ALL (Multiple Choice) Questions from **Part-I**
3. Answer any **TWO** Questions from **Part-II**
4. Answer any **SEVEN**Questions from **Part-III**

PART –I

1. (i) Latest edition of IP is published in (1M

(a) 1956 (b) 1996 (c) 2006 (d) 2018

(ii) Antidotes neutralize (1M

(a) Poisons (b) Food (c) Acids (d) salts

(iii) The tests used to identify and control small quantities of possible impurities present in a desired substance are (1M

(a) Safety tests (b) Potency tests (c) Limit tests (d) Assay tests

(iv) The following is not an astringent (1M

(a) NaCl (b) $AgNO_3$ (c) ZnO (d) $AlCl_3$

(v) The following is a radioactive isotope (1M

(a) Sodium iodide I 131 (b) Potassium iodide
(c) Sodium iodide (d) Calcium iodide

(vi) The composition of turbid substance formed in limit test for sulphate is (1

(a) $CaSO_4$ (b) $ZnSO_4$ (c) $BaSO_4$ (d) $MgSO_4$

(vii) In limit test for Arsenic the function of cotton plug dipped in lead acetate solution is to trap gaseous impurities of (

(a) Sulphur (b) Mercury (c) Carbon dioxide (d) Nitrogen

(viii) Electrolyte and fluid imbalance can be corrected by administering

(a) Bordeaux mixture (b) ORS mixture
(c) Antidote mixture (d) Astringent mixture

(ix) Which of the following is a Gastric antacid? (1M)

(a) Milk of Magnesia (b) Sodium hydroxide
(c) Potassium hydroxide (d) Ammonium hydroxide

(x) The penetration power of 'γ' rays is (1M)

(a) Equal to α (b) Equal to β (c) Greater than α and β (d) Less than β

(xi) Compounds that resist change in pH of solutions upon the addition of small quantities of acid or alkali are (1M)

(a) Buffers (b) Acids (c) Bases (d) Salts

(xii) The following is an expectorant (1M)

(a) KCl (b) NH_4Cl (c) NaCl (d) $MgCl_2$

(xiii) The following is a dental desensitizing agent (1M)

(a) $NaNo_3$ (b) NaCl (c) Na_2SO_4 (d) NaF

(xiv) The pH of Hydrochloric acid buffer is (1M)

(a) 1.2-2.2 (b) 3.0-6.0 (c) 4.0-7.0 (d) 1.0-7.0

(xv) Copper sulphate is used as an (1M)

(a) emetic (b) expectorant (c) antacid (d) anticaries agent

(xvi) Potassium permanganate acts as an Antimicrobial by (1M)

(a) Protein precipitation (b) Oxidation (c) Reduction (d) Hydrolysis

(xvii) The function of Sodium citrate in ORS mixture is to treat (1M)

(a) Systemic acidosis (b) Systemic alkalosis
(c) Gastric acidosis (d) Renal alkalosis

(xviii) Major extracellular cation is (1M)

(a) Na^+ (b) K^+ (c) Mg^{2-} (d) Ca^{2-}

(xix) Drawback of Aluminium antacids is (1M)

(a) Constipation (b) Diarrhea (c) Vomiting (d) Drowsiness

(xx) What concentration of NaCl is isotonic? (1M)

(a) 1.9%w/v (b) 0.9%w/v (c) 0.69%w/v (d) 1.99%w/v

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SET -

PART -II

2. a) Define and classify Cathartics with suitable examples.

b) What is modified limit test for Chloride?

3. a) Write the assay and uses of Ferrous sulphate.

b) Explain the treatment for cyanide poisoning.

4. a) What are the applications of Radiopharmaceuticals?

b) Write the WHO recommended formula of ORS mixture and explain the function of each ingredient.

PART -III

What is the role of dilute Nitric acid in limit test for chloride?

Write the preparation and uses of Sodium bicarbonate.

Differentiate acidifiers and antacids.

Write the procedure, principle present in the assay of Sodium chloride.

What are impurities? Explain different sources of impurities.

10. Write the principle and reaction involved in the assay of Sodium thiosulphate.

Differentiate α and β radiations.

12. Write the preparation and uses of Alkaline Borate buffer

Write the handling and storage of radiopharmaceuticals.