DP—29—2022

FACULTY OF SCIENCE AND TECHNOLOGY

B.Pharm. (First Year) (First Semester) EXAMINATION

MARCH/APRIL, 2023

HUMAN ANATOMY AND PHYSIOLOGY-I

Paper-BP-101-T

(Thursday, 16-03-2023)   **Time : 10.00 a.m. to 1.00 p.m.**

Time— Three Hours   *Maximum Marks—75*

N.B. :—   (i)   *All* questions are compulsory.

     (ii)   Draw a neat labelled diagram wherever necessary.

     (iii)   Answer to the point only.

1.   Answer all the questions :   10×2=20

   (a)   Draw a neat labelled diagram of Human cell.

   (b)   Enlist the scope of anatomy and physiology.

   (c)   Classify different types of tissues.

   (d)   Name the different bones of skull.

   (e)   Define the term articulation.

   (f)   Give normal value of haemoglobin in male and female.

   (g)   Give composition and functions of Lymph.

   (h)   Enlist functions of spinal cord.

   (i)   Differentiate between arteries and veins.

   (j)   Define the term Bradycardia and Tachycardia.

2.   Long answer (answer **2** out of **3**) :   2×10=20

   (a)   Draw a neat labelled diagram and Heart. Discuss in detail about systemic and pulmonary blood circulations.

   (b)   Enlist various coagulation factors. Discuss in detail about intrinsic and extrinsic pathway of blood coagulation.

   (c)   Describe in detail various intracellular and extracellular signalling cell communication.

                 P.T.O.

3. Long answer (answer **2** out of **3**) :   7×5=35

    (a)   Write anatomy and physiology of Erythrocytes.

    (b)   Give structure and functions of skin.

    (c)   Write a note on cardiac cycle.

    (d)   Write a note on appendicular skeletal system.

    (e)   Write a note on regulation of blood pressure by Barorecceptors.

    (f)   Write a note Physiology of Hearing.

    (g)   Write about structure and functions of parasympathetic nervous system.

    (h)   Discuss about physiology of skeletal muscle on traction.

    (i)   Write a note on Human basic life processes.

DP—33—2022

FACULTY OF SCIENCE AND TECHNOLOGY

B. Pharm. (First Year) (First Semester) EXAMINATION

MARCH/APRIL, 2023

PHARMACEUTICAL ANALYSIS–I

Paper BP102T

(Saturday, 18-3-2023)   **Time : 10.00 a.m. to 1.00 p.m.**

Time—Three Hours   *Maximum Marks—75*

N.B. :— (i) *All* questions are compulsory.

      (ii) Answer to the point only.

      (iii) Figures to the right indicate full marks.

1. Answer the following :   10×2=20

   (a) Define :

      (i) Neutralization indicator

      (ii) Self-indicator.

   (b) Name the primary standard and indicator used in standardization sodium hydroxide solution.

   (c) What is meant by cell constant ?

   (d) Comment on 'Significant Figures'.

   (e) Write principle of Gravimetry.

P.T.O.

(f) Define :

  (i) Oxidizing agent

  (ii) Electrochemical cell.

(g) What is Half Wave Potential ?

(h) Comment on 'Post Precipitation'.

(i) Define :

  (i) Aprotic Solvent

  (ii) Strong Acid.

(j) Calculate molarity of the solution, if 250 ml solution contains 1g NaOH.

2. Solve any *two* of the following :   2×10=20

  (a) Discuss construction, working and merits of normal hydrogen electrode.

  (b) Discuss in detail theories of acid-base indicators.

  (c) Describe principle and procedure of estimation of magnesium sulphate and calcium gluconate.

3. Solve any *seven* of the following :   7×5=35

  (a) Write principle, procedure and stoichiometric factor of standardization sulphuric acid.

  (b) Describe various methods of minimization of errors.

  (c) Explain Alkalimetry titration with suitable example.

  (d) Write the principle and procedure of modified Volhard's method.

(e) Discuss in detail diazotisation titration.

(f) Describe different types of complexometric titration.

(g) Write construction and working of dropping mercury electrode.

(h) Explain 'cerimetry' with suitable example.

(i) Explain 'Conductometric Titration'.

This question paper contains **2** printed pages]

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FACULTY OF PHARMACEUTICAL SCIENCE AND TECHNOLOGY

B.Pharm. (First Year) (First Semester) EXAMINATION

MARCH/APRIL, 2023

PHARMACEUTICS-I

Paper (BP-103-T)

(Tuesday, 21-03-2023)　　　　　　　　　　　**Time : 10.00 a.m. to 1.00 p.m.**

Time— Three Hours　　　　　　　　　　　　　　*Maximum Marks—75*

N.B. :— (*i*)　*All* questions are compulsory.

　　　　(*ii*)　Figures to the right indicate full marks.

　　　　(*iii*)　Answer to the point only.

1.　Solve the following :　　　　　　　　　　　　　　　　10×2=20

　　(*a*)　Give the importance of pharmacopoeia.

　　(*b*)　Write the difference between Gargles and Mouthwashes.

　　(*c*)　Define Elixirs and Liniments.

　　(*d*)　Write basic requirements of suspension.

　　(*e*)　Give any *two* formula for calculation of dose in children.

　　(*f*)　Define Semisolid dosage form.

　　(*g*)　Classify emulsion.

　　(*h*)　What is proof spirit ?

　　(*i*)　Why are drugs converted into dosage form ?

　　(*j*)　Give ideal properties of suppository base.

2.　Solve any *two* of the following :　　　　　　　　　　　2×10=20

　　(*a*)　Define Posology. Describe various factors affecting dose of drug.

　　(*b*)　What do you mean by powders ? Classify powders. Explain various mehtods of preparation of powders.

　　(*c*)　What is Pharmaceutical Imcompatibility ? Discuss in detail therapeutic incompatibility.

　　　　　　　　　　　　　　　　　　　　　　　　　　　　　P.T.O.

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3. Solve the following (any *seven*) : 7×5=35

(a) Differentiate between flocculated and deflocculated suspension.

(b) Discuss in brief history of profession of pharmacy in India.

(c) Define prescription. Write a note on Inscription and Subscription.

(d) Give evaluation test for Semisolid dosage form.

(e) Define Dosage forms. Give its classification.

(f) Describe different excipients used in formulation of liquid dosage form.

(g) Define Suppositories. Explain any *two* methods for preparation of Suppositories.

(h) Write about the imperical and metric system of weight and measures.

(i) Write in brief different methods of preparation of syrups.

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FACULTY OF PHARMACEUTICAL SCIENCE & TECHNOLOGY

B.Pharm. (First Year) (First Semester) EXAMINATION

MARCH/APRIL, 2023

PHARMACEUTICAL INORGANIC CHEMISTRY

Paper-BP-104T

(Friday, 24-03-2023)   **Time : 10.00 a.m. to 01.00 p.m.**

Time—Three Hours   *Maximum Marks—75*

N.B. :— (i) *All* questions are compulsory.

      (ii) Draw structure(s) and write reaction(s) wherever necessary.

      (iii) Figures to the right indicate full marks.

1.   Answer *all* the questions :   10×2=20

    (i)   What are expectorants ? How do they act ?

    (ii)   Define the term buffer capacity.

    (iii)   Name *two* inorganic substances used as antacid.

    (iv)   Define radioactivity. Give the units of radioactivity.

    (v)   What is Pharmacopoeia ? Enlist official compendia.

    (vi)   Write uses of zinc eugenol cement.

    (vii)   What are catharatics ? Give its classification.

    (viii)   What is achlorhydria ?

    (ix)   Give molecular formula and synonym of sodium fluoride.

    (x)   What are Astringents ? Give its example.

P.T.O.

2. Answer any *two* of the following : 2×10=20

   (*i*) What are gastrointestinal agents ? Classify them with example. Describe about qualities of an ideal antacid and combination therapy of antacid.

   (*ii*) What are radiopharmaceuticals ? Give the therapeutic and diagnostic application of radioisotopes.

   (*iii*) What is impurity ? Discuss in detail sources of impurities of pharmaceuticals and give the effect of impurities.

3. Answer any *seven* of the following : 7×5=35

   (*i*) Define Antidote. Give classification of Antidote. Explain in detail mechanism of cyanide poisoning.

   (*ii*) Describe various concepts of acids and bases.

   (*iii*) Give assay of hydrogen peroxide.

   (*iv*) Define limit test. Write principle, reaction and procedure involved in limit test for Iron.

   (*v*) Write preparation method, chemical properties and uses of $KMnO_4$.

   (*vi*) Describe *two* methods of measurement of radioactivity.

   (*vii*) Describe role of fluorides in the treatment of dental caries.

   (*viii*) Define Acidifying agents. Write properties and uses of Dil. Hydrochloric acid.

   (*ix*) Write the function of major electrolytes. Explain electrolyte imbalance and its causes.