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SP—29—2024

FACULTY OF SCIENCE & TECHNOLOGY

B. PHARMA (First Semester) EXAMINATION

APRIL/MAY, 2024

HUMAN ANATOMY & PHYSIOLOGY–I

Paper–BP–101T

(Tuesday, 14-05-2024) **Time : 10.00 a.m. to 1.00 p.m.**

Time—3 *Hours* *Maximum Marks*—75

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

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

(*iii*) Draw well labelled diagrams whenever necessary.

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

(*a*) What is tissue ? Give its classification.

(*b*) Enlist basic life processes.

(*c*) Give composition and functions of synovial fluid.

(*d*) What is the importance of Rh factor ?

(*e*) Give normal values of Haemoglobin (Hb) in male and female.

(*f*) Give composition and functions of Lymph.

(*g*) Draw well labelled diagram of eye.

(*h*) Give difference between arteries and veins.

(*i*) Define the terms heart rate and stroke volume.

(*j*) Enlist facial bones.

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

(*a*) Write location, structure and functions of various epithelial tissues.

(*b*) Explain in detail mechnism of transportation of material across plasma membrane.

(*c*) Explain in detail physiology of muscle contraction.

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

(*a*) Write about ABO system of blood group.

(*b*) Give location, structure and function of lymph nodes, lymphatic vessels and spleen.

(*c*) What is autonomic nervous system ? Explain distribution and function of its divisions.

(*d*) Write about elements of conducting system of heart.

(*e*) Explain structure and functions of skin.

(*f*) Give anatomy and physiology of ear.

(*g*) Write, location, structure and functions of various connective tissue.

(*h*) Explain in brief, bones of appendicular sketeton.

(*i*) Explain in brief about cardiac cycle and electrocardiogram.

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SP—33—2024

FACULTY OF PHARMACEUTICAL SCIENCES AND TECHNOLOGY

B. Pharma (First Semester) EXAMINATION

APRIL/MAY, 2024

PHARMACEUTICAL ANALYSIS–I

(Thursday, 16-05-2024) (BP102T) **Time : 10.00 a.m. to 1.00 p.m.**

Time—3 Hours *Maximum Marks—75*

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

(*ii*) Illustrate your answers with sketches wherever necessary.

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

(*iv*) Answer to the point only.

1. Answer the following questions : 20

(*i*) Write a note on Arrhenius theory.

(*ii*) Define the terms masking and demasking agents.

(*iii*) Define Pharmaecutical Analysis. Give techniques of pharmaceutical analysis.

(*iv*) What do you mean by indicators in titrations ?

(*v*) Write *two* objectives of Pharmacopoeia.

(*vi*) Define the terms (*a*) Significant figures and (*b*) Accuracy.

(*vii*) Define primary standard and secondary standard.

(*viii*) Define oxidation and reduction with an example.

(*ix*) What is precipitation filration ?

(*x*) Enlist types of solvents used in non-aqueous titrations.

2. Solve any *two* of the following questions : 20

(*i*) Define error. Explain in detail about different types of errors and methods of minimizing of error.

(*ii*) Discuss in deail about types of conductometric titrations.

(*iii*) Define Gravimetric analysis. Explain in detail the steps involved in it.

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

(*i*) Describe indicators used in complexometric titrations.

(*ii*) Discuss solvents used in non-aqueous titrations.

(*iii*) Write an account of different types of redox titrations.

(*iv*) Write in detail about conductivity cell used in Conductometry.

(*v*) Emphasis on different types of electrodes used in potentiometric titrations.

(*vi*) Define precipitation titration. Write in detail about Mohr's method.

(*vii*) What is Polarographic method ? Give its applications.

(*viii*) Write a note on theories of acid-base indicators.

(*ix*) Write a note on ligands and chelating agents.

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SP—37—2024

FACULTY OF PHARMACEUTICAL SCIENCE AND TECHNOLOGY

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

APRIL/MAY, 2024

PHARMACEUTICS

Paper–I (BP-103T)

(Saturday, 18-5-2024) Time : 10.00 a.m. to 1.00 p.m.

Time—3 *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. Solve the following : 10×2=20

(*i*) Why simple syrup acts as a self preservative ?

(*ii*) Enlist different excipients used in liquid dosage form.

(*iii*) Classify dosage form according to sterility.

(*iv*) What do you mean by Inscription and Subscription ?

(*v*) What are effervescent powders ? Give *two* examples.

(*vi*) What are gelling agents ? Give *two* examples.

P.T.O.

(*vii*) Give advantages and disadvantages of suppositories.

(*viii*) Define incompatibility. Enlist its types.

(*ix*) Give examples of *two* ointment bases.

(*x*) Differentiate between liniment and lotion.

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

(*a*) Define emulsion. Explain methods of preparation of emulsion. Add a note on stability of emulsion.

(*b*) Explain physical and therapeutic incompatibility with suitable examples and give the methods for overcoming these incompatibilities.

(*c*) Define ointment. Add a note on method of preparation of ointment. Enlist different factors influencing dermal penetration of drugs.

3. Answer any *seven* : 7×5=35

(*a*) Write a note on history of Pharmacy.

(*b*) Explain in brief about *six* factors affecting posology.

(*c*) Define Powder. Write a note on dusting powder.

(*d*) Explain in brief about solubility enhancement technique.

(*e*) Describe preparation of syrups and elixirs with examples.

(*f*) Write a note on preparation of suppositories.

(*g*) Describe handing of prescription with examples.

(*h*) Differentiate between flocculated and deflocculated suspension.

(*i*) Enlist excipients used in semi solid dosage form and give evaluation of semi solid dosage form.

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SP—41—2024

FACULTY OF SCIENCE AND TECHNOLOGY

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

MARCH/APRIL, 2024

PHARMACEUTICAL INORGANIC CHEMISTRY

(Tuesday, 21-5-2024) BP-104T **Time : 10.00 a.m. to 1.00 p.m.**

Time—3 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 questions : 10×2=20

(*a*) What is buffer capacity ?

(*b*) Classify extra and intracellular electrolytes with examples.

(*c*) Give the principle and reaction for the limit test of chloride.

(*d*) Write the formula and uses of ORS.

(*e*) Write the molecular formula and uses of Boric acid.

(*f*) What is achlorhydria ? Give its treatment.

(*g*) Give the precautionary measure required to handle radioactive substances.

(*h*) Write the molecular formula and medicinal uses of sodium thiosulphate.

i) ~~Mention~~ define limit test.

ii) b) define impurity

iii) Classify antidote.

P.T.O.

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

(*a*) What are Antacids ? Classify them with examples. Give the ideal properties of antacids. Write the preparation, assay and uses of Sodium bicarbonate.

(*b*) What are radiopharmaceuticals ? Explain in detail any *one* method employed for the measurement of radioactivity.

(*c*) Define the term limit test. Write the procedure, reaction and principles for the limit test for :

(*i*) Sulphates

(*ii*) Iron.

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

(*a*) Write a note on electrolytes used in replacement therapy.

(*b*) What are dentrifrices ? Classify them with examples. Write a note on the role of fluoride as an Anticaries agent.

(*c*) What are emetics ? Write the method of preparation and assay of copper sulphate.

(*d*) Describe the various mechanisms of action of inorganic antimicrobial agents.

(*e*) Describe the principle, apparatus and procedure for the limit test of arsenic.

(*f*) Write the pharmaceutical applications of radioactive substances.

(*g*) Describe the various sources of impurities present in pharmaceutical substances.

(*h*) What are GIT agents ? Classify them with examples. Write a note on acidifiers.

(*i*) What are expectorants ? Give examples and mechanism of action.