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DH—2—2018

FACULTY OF SCIENCE AND TECHNOLOGY

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

MARCH/APRIL, 2018

HUMAN ANATOMY AND PHYSIOLOGY

Paper II (BP-201T)

(Saturday, 21-4-2018)

Time : 10.00 a.m. to 1.00 p.m.

Time—3 Hours

Maximum Marks—75

N.B. :— (i) Answer All the questions.

(ii) Answer to the point only.

(iii) Draw neat labelled diagram wherever necessary.

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

(a) What are neurotransmitter ? Give its *two* examples.

(b) Give functions of creatinine phosphate.

(c) Mention various ventricles of brain.

(d) Give composition and function of saliva.

(e) Define lung volumes and lung capacities.

(f) Draw neat labelled diagram of Nephron.

(g) What are Goitre and Grave's disease.

(h) Enlist hormones secreted by adrenal gland.

(i) Define menarch and menopause.

(j) Give the various changes that occur at puberty in male.

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

(a) Draw a neat labelled diagram of brain. Describe in detail anatomy and physiology of cerebrum and brain stem.

(b) Describe in detail digestion and absorption of carbohydrates, proteins and fats occurs in gastro-intestinal tract.

(c) Distinguish between male and female reproductive system. Describe in detail anatomy and physiology of female reproductive system.

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3. Answer the following (any *seven*) :

7×5=35

- (a) Discuss in detail the mechanism of conduction of nerve impulses across the nerve fibres.
- (b) Write a brief note on electro-encephalograph.
- (c) Draw neat labelled diagram of liver. Discuss on its structure and function.
- (d) Discuss in detail anatomy and physiology of stomach.
- (e) Discuss in detail about mechanism of respiration.
- (f) Draw neat labelled diagram of respiratory system. Describe in detail structure and functions of lung.
- (g) Write a note on renin-angiotensin system.
- (h) Discuss on anatomy and physiology of thyroid gland.
- (i) Write in brief about menstrual cycle.

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FACULTY OF PHARMACEUTICAL SCIENCES AND TECHNOLOGY

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

MARCH/APRIL, 2018

PHARMACEUTICAL ANALYSIS

Paper I

(Monday, 23-4-2018)

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 : 20
- (a) Define molarity and normality.
 - (b) Enlist the types of non-aqueous solvent.
 - (c) Give the difference between co-precipitation and post-precipitation.
 - (d) What is masking and demasking agents ?
 - (e) What do you mean by precipitation titration ?
 - (f) Sketch a neat labelled diagram of standard hydrogen electrode.
 - (g) Define limit test and pharmacopoeia.
 - (h) Give the applications of polarography.
 - (i) How will you prepare conductivity water ?
 - (j) Name the indicator used in Mohr's method and Valhard's method.
2. Solve any *two* of the following : 20
- (a) What do you mean by Gravimetric analysis ? Describe in detail steps involved in Gravimetric analysis.
 - (b) Define errors. Give the detailed classification of errors. Explain the method of minimization of errors.
 - (c) Give the construction and working of dropping mercury electrode and rotating platinum electrode.

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3. Solve any *seven* of the following :

- (a) Give the procedure for preparation and standardisation of 0.1 M HCl and 0.1 M oxalic acid.
- (b) Write estimation of calcium gluconate.
- (c) Define non-aqueous titration. Classify non-aqueous solvents with examples.
- (d) State law of mass action and explain its applications.
- (e) Give the types of EDTA titration.
- (f) Explain the following terms :
 - (a) Cerimetry
 - (b) Iodimetry
- (g) Write construction and working of calomel electrode.
- (h) Write the applications of conductometry.
- (i) Discuss sources of impurities of medicinal agents.

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DH—05—2018

FACULTY OF PHARMACEUTICAL SCIENCES AND TECHNOLOGY

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

MARCH/APRIL, 2018

PHARMACEUTICS-I

(Wednesday, 25-4-2018)

Time : 10.00 a.m. to 1.00 p.m.

Time—3 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.

(iv) Illustrate your answer with neat sketch wherever necessary.

1. Solve the following :

10×2=20

(a) Define Pharmacy.

(b) Name any four standard books used in India.

(c) Write any two formulae for calculation of dose in children.

(d) Mention different systems of weights and measures.

(e) Define the term 'Powder' with example.

(f) Give advantages of liquid dosage form.

(g) Differentiate between liniment and lotion.

(h) Why is glycerine used as a base in throat paint ?

(i) Why are adjuncts needed in preparing different monophasic liquid dosage form.

(j) Define the term "suspension" with example.

2. Solve any two of the following :

2×10=20

(a) Define Dosage form. Classify sterile and non-sterile dosage form.

(b) Define emulsions. Give identification tests and method of preparation of emulsions.

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(c) Define and classify incompatibilities. Write in detail therapeutic incompatibility.

3. Solve any *seven* of the following :

7×5=35

(a) Define pharmacopoeia. Give its importance.

(b) Define prescription. Write in brief about inscription and subscription.

(c) Write in brief about Hot/fusion method of suppository.

(d) Give the difference between flocculated and deflocculated suspension.

(e) Give the ideal qualities of suppository bases.

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

(g) Calculate the dose of a drug for a :

(i) 6 months old infant

(ii) Child of 7 years.

when the adult dose of the drug is 100 mg.

(h) Write a note on eutectic mixtures.

(i) Give advantages and disadvantage of powders.

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DH—7—2018

FACULTY OF PHARMACEUTICAL SCIENCES

B.Pharm. (First Semester) EXAMINATION

MARCH/APRIL, 2018

PHARMACEUTICAL INORGANIC CHEMISTRY (PIC)

(Friday, 27-4-2018)

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.

1. Answer the following :

10×2=20

(a) Name any *two* extracellular and intracellular electrolytes.

(b) Fill in the blanks :

(i) is known as white vitriol.

(ii) Molecular weight of zinc sulphate is

(c) Define term radioactivity.

(d) Match the following pairs :

Category

Name of Compound

(i) Cathartics

(a) Potassium iodide

(ii) Antimicrobials

(b) Chlorinated lime

(iii) Emetics

(c) Kaolin

(iv) Expectorants

(d) Sodium potassium tartarate

(e) Write ideal properties of antacids.

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(f) Write True/False :

- (i) Nonsystemic antacid should be soluble in water.
- (ii) Calcium carbonate is desensitizer.

(g) Complete the following reactions :

- (i) $K_2CO_3 + 2HCl \rightarrow ? + H_2CO_3$
- (i) $2HF + Na_2CO_3 \rightarrow 2NaF + ? + CO_2 \uparrow$

(h) Write uses of zinc eugenol cement.

- (i) What is achlorhydria ?
- (j) Write molecular formula of sodium potassium tartarate.

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

- (a) Write about Arrhenixs, Bronsted-Lowry Concept and Lewis acid and base concept with their limitations.
- (b) Write in detail about cloud chamber, ionization chamber and Geiger-Muller counter.
- (c) Write about various sources of impurities in pharmaceutical substances.

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

- (a) Write assay of NH_4Cl .
- (b) Write limit test for sulphate.
- (c) Write molecular formula and molecular weight of potassium chloride, calcium carbonate, sodium fluoride, copper sulphate and potash alum.
- (d) Write in brief about anticaries agents.



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- (e) Write any *two* preparation methods of ferrous sulphate and ferrous gluconate.
- (f) Write preparation methods, chemical properties and uses of KMnO_4 .
- (g) Write assay of calcium gluconate.
- (h) Define antidote and classify them with examples.
- (i) Write any *two* formulas of oral rehydration salt.

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