Registration No : | | | | | | | | | | |

Total Number of Pages : 01

B.Pharm
15PH804

8th Semester Regular Examination 2018-19
CLINICAL PHARMACY & PHARMACOVIGILANCE
BRANCH : B.Pharma

Max Marks : 100
Time : 3 Hours
Q.CODE : F120

Answer Question No.1 (Part-1) which is compulsory, any EIGHT from Part-II and any TWO from Part-III.

The figures in the right hand margin indicate marks.

Part- I

Q1 **Only Short Answer Type Questions (Answer All-10)** **(2 x 10)**

a) Write the definition of Clinical Pharmacy.
b) Write any two formulas for calculating Pediatric dose.
c) Mention the normal values and its significance of any two Hematological tests.
d) What happens when Tetracycline and milk are given together?
e) Name few drugs which should not be administered in renal failure patients & why?
f) State reasons behind irrational use of drugs.
g) Give two examples of Drug-drug interaction.
h) What are the different types of Adverse drug reaction?
i) What do you mean by patient medication history?
j) State the normal values of different electrolytes.

Part- II

Q2 **Only Focused-Short Answer Type Questions- (Answer Any Eight out of Twelve)** **(6 x 8)**

a) Explain how Therapeutic drug monitoring helps in better patient care.
b) Name the different hematological tests used in evaluation of disease state.
c) Explain Drug information services.
d) Justify the role of determination of clearance of drug in clinical pharmacy.
e) Explain the Pharmacodynamic aspect of drug interaction.
f) Write notes on the role of pharmacist in rational drug use.
g) Justify the need for dose adjustments for geriatric patents.
h) What are the duties of a Clinical pharmacist towards ward round participation?
i) Describe the significance of 'Half-Life' in clinical pharmacy.
j) Design the drug dosing in details in renal failure patients.
k) Illustrate about the different tests used in Thyroid profile.
l) Elucidate the various aspects of patient counseling.

Part-III

Only Long Answer Type Questions (Answer Any Two out of Four)

Q3 Discuss the various aspects of Clinical pharmacy and write about the roles of a Clinical pharmacist. **(16)**

Q4 Define and describe Drug Interaction specially focusing on Pharmacokinetic interaction with suitable examples. **(16)**

Q5 Discuss the concept of Pharmacovigilance elaborately. **(16)**

Q6 Classify different clinical laboratory tests used in cardiac and renal disorders. **(16)**

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Total Number of Pages : 01

B.Pharm
15PH801

8th Semester Regular Examination 2018-19

PHARMACEUTICS-IV(PHARMACEUTICAL TECHNOLOGY-III)

BRANCH : B.Pharma

Max Marks : 100

Time : 3 Hours

Q.CODE : F114

Answer Question No.1 (Part-1) which is compulsory, any EIGHT from Part-II and any TWO from Part-III.

The figures in the right hand margin indicate marks.

Part- I

Q1 **Only Short Answer Type Questions (Answer All-10)** **(2 x 10)**

a) Write very briefly about the objectives of preformulation.
b) Define partition coefficient.
c) Differentiate between Carr's index and Hausner ratio
d) Describe very briefly about the role of particle size analysis in preformulation study
e) Write the advantages of controlled release drug delivery system.
f) State the types of biocompatible carriers used for targeted drug delivery system.
g) Define the potential advantages of liposome.
h) State GRDDS; mention its importance.
i) Define the term repeat action tablets
j) Write about Transdermal Drug Delivery System, mention the types.

Part- II

Q2 **Only Focused-Short Answer Type Questions- (Answer Any Eight out of Twelve)** **(6 x 8)**

a) Explain the role of different spectroscopic methods in preformulation study
b) Discuss about intrinsic solubility.
c) Mention how polymorphism is related in formulation development.
d) What is Pka, describe its role in solubility study.
e) Classify oral controlled release drug delivery system.
f) Differentiate between liposome and nanoparticles
g) Explain briefly about Occusert
h) Classify the types of IUD, mention the formulation of each type.
i) Mention the different types of biodegradable polymer used for Colon Targeted Drug Delivery
j) Discuss about various approaches used for gastro retention.
k) Write the advantages of erythrocyte as drug carrier.
l) Mention the evaluation process of transdermal drug delivery system.

Part-III

Only Long Answer Type Questions (Answer Any Two out of Four)

Q3 Describe the protocol used to perform preformulation study. Discuss briefly various physicochemical properties which are determined prior to formulation. **(16)**

Q4 Describe the Physicochemical and Pharmacokinetic characteristics of a drug ideally suited for designing controlled release dosage form. **(16)**

Q5 Write basic principle and formulation of Alzet with proper diagram. **(16)**

Q6 Mention the parameters responsible for powder flow properties in design of an appropriate formulation. **(16)**

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B.Pharm
15PH805.E.3

8th Semester Regular Examination 2018-19
DRUG DISCOVERY & DEVELOPMENT
BRANCH : B.Pharma

Max Marks : 100
Time : 3 Hours
Q.CODE : F109

Answer Question No.1 (Part-1) which is compulsory, any EIGHT from Part-II and any TWO from Part-III.
The figures in the right hand margin indicate marks.

Part- I

Q1 Only Short Answer Type Questions (Answer All-10) **(2 x 10)**

a) Explain why -NH_2 is considered as an isostere of –OH or vice versa?
b) Name one five-membered heterocyclic ring which is considered as a non-classical isostere of –COOH group and remained most effective in drug discovery.
c) A drug ionizes to 50% at pH 2.3. Calculate its pKa and state whether the drug is acidic or basic.
d) Write the chemical nature of bead, solid support and Linkers in combinatorial chemistry.
e) Name four commercial/non-commercial databases of available compounds for virtual screening.
f) Write the significance of Molar refractivity in Drug Design.
g) How does an MD simulation works?
h) Name the different steps for non-hydrated docking of a ligand into a protein active site.
i) Write the three main aspects of Pharmacophore mapping.
j) Explain in which method of synthesis you will get higher yield of product- consecutive or convergent type.

Part- II

Q2 Only Focused-Short Answer Type Questions- (Answer Any Eight out of Twelve) **(6 x 8)**

a) Derive Hansch Equation.
b) Explain the different favorable and unfavorable forces involved in drug-receptor binding interaction.
c) Define and classify Bioisosteres with examples.
d) Justify how Craig plot helps you to identify the substituents that are particularly responsible for +ve π and σ parameters, –ve π and σ parameters, and one +ve and one –ve parameter.
e) Analyze Free-Wilson approach.
f) Distinguish between Multi-pin methodology and tea bag methodology in parallel solid phase library design.
g) Distinguish between solid phase synthesis and solution phase synthesis.
h) Justify which methods are suitable for which cases-
   i) Target based virtual screening
   ii) Pharmacophore-based virtual screening.
i) Differentiate between Consecutive and Convergent synthesis.
j) Differentiate Between CoMFA and CoMSIA.
k) Differentiate between Monte Carlo and Metropolis algorithm used in MD simulation
l) Explain the working of tyrosine kinase receptors.

Part-III

Only Long Answer Type Questions (Answer Any Two out of Four)

Q3 What should De Novo ligand design software do? What are the different classes of ligand design methods? **(16)**

Q4 Explain the various strategic approaches developed in retrosynthesis. **(16)**

Q5 Explain the method of combinatorial lead optimization of dihydrofolate reductase inhibitors. **(16)**

Q6 Write a note on various physicochemical factors affecting drug action. **(16)**

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Total Number of Pages: 02

B.Pharm
15PH803

8th Semester Regular Examination 2018-19
QUALITY ASSURANCE & GMP
BRANCH : B.Pharma

Max Marks : 100
Time : 3 Hours
Q.CODE : F101

Answer Question No.1 (Part-1) which is compulsory, any EIGHT from Part-II and any TWO from Part-III.

The figures in the right hand margin indicate marks.

Part- I

Q1 Only Short Answer Type Questions (Answer All-10) **(2 x 10)**

a) State the contents of validation protocol in brief?
b) Create a fishbone diagram for process characterization study showing cause- effect relationship?
c) Derive the features for ware housing operations?
d) Write the various audit methods for conducting audit activities?
e) Why WHO GMPs guidelines required in quality control department?
f) What are the factors affecting degradation of the products? Explain.
g) Determine the basic elements of SOP? Suggest the need for SOP.
h) How the complaints can be handled? Explain.
i) Write the types of pre-requisites qualification of process validation?
j) What is line clearance? Write the packaging and labelling instructions?

Part- II

Q2 Only Focused-Short Answer Type Questions- (Answer Any Eight out of Twelve) **(6 x 8)**

a) Distinguish between GMP and cGMP? Explain briefly the protocol for various activities?
b) Explain briefly the responsibilities and qualification of personnel?
c) Design the objective, guidelines and procedures for product recall?
d) Explain in brief the cleaning validation procedures and the controlling measures for sanitation maintenance?
e) Justify the significance of analytical validation methods for the specifications of the product?
f) Explain in brief the standard operating procedures for Dissolution apparatus & PH meter?
g) What is GLP? Analyze the principles and features of the practices in various laboratories?
h) Design the construction and layout of the organization with reference to the quality assurance system?
i) Explain the objectives and principles approaches for the audit activities?
j) Formulate the types of process validation approaches? Explain.
k) Analyze the documentation features for quality assurance specification?
l) Explain the monitoring features of regulatory agencies for marketing the product?

Registration No :

Total Number of Pages : 01

B.Pharm
15PH802

8th Semester Regular Examination 2018-19
PHARM.MANAGEMENT
BRANCH : B.Pharma
Max Marks : 100
Time : 3 Hours
Q.CODE : F119

Answer Question No.1 (Part-1) which is compulsory, any EIGHT from Part-II and any TWO from Part-III.

The figures in the right hand margin indicate marks.

Part- I

Q1 **Only Short Answer Type Questions (Answer All-10)** **(2 x 10)**

a) What is Industrial Marketing?
b) What is Consumerism?
c) What is the role of reference check in recruitment process?
d) What is pharmaceutical marketing?
e) What is delegation of authority in management?
f) What is Bank reconciliation statement?
g) 360° appraisal is conducted for the promotion to top management position. Is it true?
h) What do you mean by book keeping in accounting?
i) What is the survey method of demand forecasting technique?
j) What do you understand by the term target market?

Part- II

Q2 **Only Focused-Short Answer Type Questions- (Answer Any Eight out of Twelve)** **(6 x 8)**

a) Briefly explain the AIDAS formula.
b) Distinguish between vertical and horizontal marketing system
c) Write a short note on Global Marketing.
d) Explain the different levels of Management & the responsibility they take in organization.
e) Distinguish between leader and Manager.
f) Briefly explain the Scientific Management theory.
g) What are plant layout & factory layout and its objectives?
h) Briefly explain the communication process.
i) Distinguish between journal & ledger.
j) Write a short note on inventory control.
k) Explain different qualities of a pharmacist.
l) What is a demand curve & why does it slopes downward?

Part-III

Only Long Answer Type Questions (Answer Any Two out of Four)

Q3 Briefly discuss administrative functions of management starting from planning and ending in controlling. **(16)**

Q4 Briefly discuss the traditional and contemporary techniques of inventory control. **(16)**

Q5 Describe the performance evaluation process,along with its techniques. **(16)**

Q6 Briefly explain different distribution channels with special reference to importance of retail industry in pharama business. **(16)**