Registration no: | | | | | | | | | | |

Total Number of Pages: 02 **B.PHARM**
PH. 7.1

7th Semester Regular / Back Examination 2016-17
Pharmaceutics-VI
(Bio-Pharmaceutics & Pharmacokinetics)

BRANCH: B.Pharm
Time: 3 Hours
Max Marks: 70
Q.CODE: Y102

Answer Question No.1 which is compulsory and any five from the rest.
The figures in the right hand margin indicate marks.

Q1 Answer the following questions: **(2 x 10)**

a) Define bio-pharmaceutics, mention its importance.
b) Amorphous showing greater bioavailability than crystalline, justify.
c) Delay intestinal transit is sometimes desirable, why?
d) Define volume of distribution and write its significance?
e) Characterize very briefly the blood placental barrier.
f) Differentiate the Zero and 1st Order drug absorption process.
g) What is excretion; define renal and non renal excretion.
h) Mention the Pharmaceutical importance of Bioavailability.
i) Mention different types of pharmacokinetic parameters.
j) What is AUC? How it is determined?

Q2 Define drug absorption. Mention the bioavailability of drug from various routes of administration. **(2+8)**

Q3 **a)** Mention how Pka of a drug relates to absorption process. **(05)**

b) Differentiate between transcellular and paracellular drug transport. **(05)**

Q4 **a)** Characterize the distribution of drug to brain. **(05)**

b) Mention the parameters required for passive transport process. **(05)**

Q5 **a)** Write uptake mechanism of Vitamin A. **(5)**

b) Define renal clearance? Write the mechanism of renal clearance. **(5)**

Q6 **a)** What is drug protein binding? Write its significance and mechanism. **(5)**

b) Mention the characteristics of microsomal enzymes. **(5)**

Q7 What is compartment modeling, classify and write the significance. Determine various pharmacokinetic parameters in case of one compartment open model with IV bolus administration. **(2+3+5)**

Q8 Answer any four **(2.5 x 4)**

a) Soft drug

b) BCS classification

c) Clearance ratio

d) Danckwert's model

e) Method of residual

Registration no: | | | | | | | | | | |

Total Number of Pages: 2

B.PHARM
PH.7.2

7th Semester Regular / Back Examination 2016-17

PHARMACOLOGY- III

BRANCH: PHARMACY
Time: 3 Hours
Max Marks: 70
Q.CODE: Y136

Answer Question No.1 which is compulsory and any five from the rest.
The figures in the right hand margin indicate marks.

Q1 **Answer the following questions:** **(2 x 10)**

a) Write the difference between chemotherapeutic agent and antibiotic with suitable example, write the example of first chemotherapeutic agent

b) Write the difference between immediate type and delayed type of hypersensitivity reaction and mention which drug produces these type of adverse effect

c) Write the drug produces disulfiram like reaction and explain its mechanism and use

d) What is prokinetic agent? Write its use and adverse effect

e) Justify why sulfadrugs are not recommended for children

f) Write at least two antibacterial agent which inhibits protein synthesis

g) Give atleast two example of neuraminidase inhibitor and write its adverse effect

h) What is aminoglycoside antibiotics?Write its mechanism and adverse effect

i) What is the difference between fluoroquinolones and quinolones, write its mechanism

j) Write the mechanism and adverse effect of artesunate

Q2 **a)** Explain the mechanism of insulin secretion and classify anti-diabetic drug. **(5)**

b) Describe the pharmacology of insulin secretagogues agent. **(5)**

Q3 **a)** Classify the drugs used in cancer chemotherapy with example. **(5)**

b) Discuss the mechanism and adverse effect of anti-metabolites. **(5)**

Q4 Discuss the mechanism and factors involved in vomiting.Classify anti-emetics with example. Discuss their mechanism and adverse effect. **(10)**

Q5 **a)** Classify anti-HIV agent with suitable example. **(5)**

b) Discuss the mechanism and adverse effect of reverse transcriptase inhibitor in detail. **(5)**

Q6 **a)** Mention the hormones secreated from the hypothalamus and pituitary glands. **(5)**

b) Write in detail the physiological function and therapeutic uses of growth hormones. **(5)**

Q7 **a)** Discuss the general principle of treatment of poisoning. **(5)**

b) Write a note on organophphorous and barbiturate poisoning. **(5)**

Q8 **Write short notes on ANY TWO:** **(5 x 2)**

a) Proton pump inhibitor
b) Glucocorticoids
c) Blood schizonticidal agent
d) Heavy metal antagonist

Registration no: | | | | | | | | | | |

Total Number of Pages: 2 **B.PHARM**
PH.7.3

7th Semester Regular / Back Examination 2016-17
PHARMA CHEMISTRY - VII (MED. CHEMISTRY - III)
BRANCH: PHARMACY
Time: 3 Hours
Max Marks: 70
Q.CODE: Y181

Answer Question No.1 which is compulsory and any five from the rest.
The figures in the right hand margin indicate marks.

Q1 **Answer the following questions:** **(2 x 10)**

a) Define mutual prodrugs with suitable examples.
b) Discuss the mechanism of action of sulfonamides.
c) Discuss the mechanism of action of ketocoazole.
d) Outline the synthesis of thyroxine.
e) Outline the synthesis and give the mechanism of action of acyclovir.
f) Outline the synthesis and uses of chloramphenicol.
g) What are bioprecursor prodrugs?
h) What are immunosupressants?
i) Outline the synthesis and mechanism action of 5-Fluorouracil.
j) Name the principal organs involved in drug metabolism.

Q2 **a)** Define and classify antibiotics on the basis of their chemical structure with suitable examples. Discuss the structure activity relationship of penicillins. **(5)**

b) Outline the synthesis protocol and give the mechanism of action of methicillin and ampicillin. **(5)**

Q3 Discuss briefly drug metabolism with suitable examples. Describe phase-I reactions with suitable examples. **(10)**

Q4 **a)** Define and classify antiamoebic agents with suitable examples. Outline the synthesis of metronidazole. **(5)**

b) Discuss briefly anti-TB and antileprosy drugs with suitable examples. Outline the synthesis and give the mechanism of action of Isoniazid. **(5)**

Q5 **a)** Define neoplasm and classify antineoplastic agents with suitable examples. **(5)**

b) Discuss briefly the mechanism of action of alkylating agents with suitable examples. Outline the synthesis and uses of chlorambucil and busulfan. **(5)**

Q6 Define and classify anti-malarial agents with suitable examples. Outline the synthesis of chloroquine and mepacrine. **(10)**

Q7 **a)** Define and classify oral hypoglycemic agents with suitable examples. **(5)**
b) Outline the synthesis and mechanism of action of phenformin and tollbtuamide. **(5)**

Q8 **Write short notes on (Any two)** **(5 x 2)**
a) Insulin preparations
b) Anticoagulants
c) Antithyroid drugs

Registration no: | | | | | | | | | | |

Total Number of Pages:02 **B.PHARM.**

PH. 7.4

7th Semester Regular /Back Examination 2016-17

PHARMACEUTICAL ANALYSIS-III

BRANCH: PHARMACY

Time: 3 Hours

Max marks: 70

QUESTION CODE: Y245

Answer Question No.1 which is compulsory and any five from the rest.

The figures in the right hand margin indicate marks.

Q1 **Answer the following questions:** **(2 x 10)**

a) What is finger print region and its applications in I.R. Spectroscopy.

b) Why primary and secondary filters used in Flourimeter and its significance?

c) What are Molecular ion peak and Base peak and its applications?

d) How qualitative and quantitative analysis performed by TLC?

e) Mention various solid sample preparation techniques used in I.R. spectroscopy?

f) What are pre and post column derivatization techniques in G.C.?

g) Differentiate between absorbance and Calibration curve of an analyte and their applications in drug analysis.

h) Differentiate between Isocratic and Gradient elution techniques used in chromatography. Which one is better and why?

i) What are Retention time and Retention volume and its applications in Chromatography?

j) What is TMS and its chemical shift values?

Q2 **a)** Write the principle of Flourimetry and factors influencing Fluorescence intensity in Flourimetry. **(5)**

b) Qualitative and Quantitative analysis by TLC. **(5)**

Q3 **a)** Write down the principle of NMR Spectroscopy. **(5)**

b) Define chemical shift. What are the different factors influencing the chemical shift values in NMR. **(5)**

Q4	**a)**	Write down the theory and principle involved in I.R. Spectroscopy.	**(5)**
	b)	Write a short note on different components of I.R. Spectrophotometer.	**(5)**
Q5		Write down the Instrumentation and applications of UV-Spectrophotometer.	**(10)**
Q6		Describe the principle and different steps involved in HPTLC method. In which aspect HPTLC technique is superior to TLC.	**(10)**
Q7	**a)**	Explain the principle of Mass spectroscopy.	**(5)**
	b)	Write notes on CIMS and FIMS.	**(5)**
Q8		Write down the principle, Instrumentation and few important applications of G.C.	**(10)**

Registration no: | | | | | | | | | | |

Total Number of Pages: 02 **B.Pharm**
PH.7.6

7th Semester Regular / Back Examination 2016-17
PHARMA BIOTECHNOLOGY
BRANCH: PHARMACY
Time: 3 Hours
Max Marks: 70
Q.CODE: Y334

Answer Question No.1 which is compulsory and any five from the rest.
The figures in the right hand margin indicate marks.

Q1 **Answer the following questions:** **(2 x 10)**

a) What is Hapten?

b) Write the difference between Humoral immunity and Cellular immunity?

c) Define Antibody.

d) What is natural acquired passive immunity?

e) What is tolerance?

f) What do you mean by Genetic Recombination?

g) Define the term Microbial biotransformation.

h) Write the principle of Immunology.

i) What is Transcription in protein synthesis?

j) What is Plasma substitute? Give two examples.

Q2 What are Hypersensitivity reactions describe briefly? Explain briefly the different types of hypersensitivity reactions. **(5+5)**

Q3 Define Genetic code. How genetic code helps for protein synthesis? **(2+8)**

Q4 Describe briefly about Antigen-antibody reactions with suitable examples. **(10)**

Q5 **Write short notes on:**

a) Advantages of Microbial Biotransformation. **(5)**

b) Describe the general methods of Biotransformation of Steroids. **(5)**

Q6 **a)** Explain the process involved in isolation of Penicillin. **(5)**

b) Write the collection, processing and storage of whole human blood. **(5)**

Q7 **Describe the followings:**

a) Fermenter. **(5)**

b) Dextran **(5)**

Q8 **Write short answer on any TWO:** **(5 x 2)**

a) Clonal expansion.

b) Vaccines.

c) Streptokinase.

d) Enzyme Immobilization.

Registration no: | | | | | | | | | | |

Total Number of Pages: 01

B.PHARM
PH.E.7

7th Semester Regular / Back Examination 2016-17

HOSPITAL PHARMACY ADMINISTRATION

BRANCH: Pharmacy

Time: 3 Hours

Max Marks: 70

Q.CODE: Y414

Answer Question No.1 which is compulsory and any five from the rest.
The figures in the right hand margin indicate marks.

Q1 **Answer the following questions:** **(2 x 10)**

a) Name few non-drug consumables.
b) Define the term Budget.
c) What is satellite pharmacy?
d) Write the constitution of Drug committee.
e) Mention the different sources of infections in a hospital.
f) Mention the different methods of sterilization?
g) Write two abilities required from hospital pharmacist.
h) What is VED analysis?
i) Differentiate LVP and SVP.
j) Mention the temperature range for different storage conditions.

Q2 **a)** Define and describe about Hospital Formulary System. **(5)**
b) Drug distribution method to Out Patients **(5)**

Q3 Write in details about Drug committee. **(10)**

Q4 Describe in details the different methods of drug distributions to the in-patients with their advantages and disadvantages. **(10)**

Q5 **a)** Pyrogen test **(5)**
b) Sterility test **(5)**

Q6 **a)** Write in brief about Infection control committee. **(5)**
b) Write notes on Research and Ethics committee.

Q7 **a)** Write notes on TPN. **(5)**
b) Responsibilities of Hospital Pharmacist. **(5)**

Q8 **Write short notes on any two:** **(5 x 2)**

a) Drug recall
b) Write notes on Purchase procedure.
c) Drugs of dependence.
d) Research and Ethics committee