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

Total Number of Pages: 02 **B.PHARM**
PH.5.1

5th Semester Regular / Back Examination 2015-16
PHARMACEUTICS - IV (PHARM. TECH. - I)
BRANCH: Pharmacy
Time: 3 Hours
Max marks: 70
Q.CODE: T155

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 surfactants and CMC. Write on types of micelles
b) Classify preservatives, give examples under each
c) Define suppositories. Write on polymorphism of cocoa butter
d) Define bloom strength. Write on method of determining it
e) Write on base adsorption and its importance in capsule filling
f) Write on superdisintegrants, Give examples. Write on mechanism of action of superdisintegrants.
g) What is significance of enteric coating? Give example of polymers used for enteric coating and write on mechanism how the polymers work.
h) Mention basic parts of an automated tablet compression machine and write on function of each part
i) What are gels? Give example of polymers used in preparation of gels.
j) What is freeze thaw technique and Ostwald ripening

Q2 **a)** Write on additives used in formulation of liquid orals. Give examples under each. **(5)**
b) Define solubility. Write on techniques to enhance solubility of low soluble drugs **(5)**

Q3 **a)** Write on factors affecting skin permeation and give examples of permeation enhancers. **(6)**
b) Write on ointment bases **(4)**

Q4 **a)** Discuss on suppository bases. Write on evaluation tests for suppositories. **(5)**
b) What are objectives of coating? Write on steps involved under sugar coating **(5)**

Q5 **a)** Write on evaluation tests for tablets **(6)**
b) Define granules. Write on granulation techniques **(4)**

Q6 **a)** Write on processing problems in tablet manufacturing **(5)**

b) Discuss on polymers used in tablet coating. Write on evaluation coated tablets. How disintegration test for enteric tablets are performed officially. **(5)**

Q7 **a)** Discuss on equipment for filling of hard gelatin capsules. **(5)**

b) Describe manufacturing of soft gelatin capsules **(5)**

Q8 Write on any four **(2.5 x 4)**

a) Write on theory of emulsification

b) Stability evaluation of Suspensions

c) Write on processing and control in making soft gelatin capsules

d) Outline formulation of suspensions

e) Write on steps for preparation of hard gelatin capsule shells

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

Total Number of Pages: 01

B.PHARM
PH.5.11

5th Semester Regular / Back Examination 2015-16
COMMUNITY PHARMACY AND HEALTH EDUCATION
BRANCH: BPharm
Time: 3 Hours
Max marks: 70
Q.CODE: T246

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 demography
b) What are the causative agents of TB and AIDS
c) Describe Lippe's Loop
d) Define patient counseling
e) What is balance diet?
f) Mention the sources rich in Iodine
g) Mention the disadvantages of Safe period method of contraception
h) Name four water borne diseases
i) What are the Antidotes for Iron and Heavy metal poisoning
j) Write about snake bite care

Q2 Describe the first aid for

a) Poisoning **(5)**
b) Fracture **(5)**

Q3 Write in details about

a) Malaria **(5)**
b) AIDS **(5)**

Q4 Define Demography. Describe the different methods of family planning. **(10)**

Q5 **a)** Describe the Organisation, structure and legal requirement for retail drug store. **(5)**
b) Ennumerate the role of community pharmacist in health care and education. **(5)**

Q6 **a)** Write about the diseases caused by deficiency of Protein and mention their treatment. **(5)**
b) Write notes on family planning methods for female **(5)**

Q7 **a)** Write notes on the causative agents and the preventations of air borne diseases. **(5)**
b) What are water soluble vitamins, mention their deficiency problems, prevention and treatment citing examples of their rich sources. **(5)**

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

a) Universal antidote
b) Emergency treatment of shock
c) Measles
d) Tetanus

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

Total Number of Pages: 2 **B.PHARM**
PH 5.3

5th Semester Regular/ Back Examination 2015-16
APPLIED MICROBIOLOGY
BRANCH: Pharmacy
Time: 3 Hours
Max marks: 70
Q.CODE: T363

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) Classify bacteria according to their morphological shapes and arrangements with examples.
b) List techniques used in transmission electron microscopy.
c) Differentiate Gram positive and Gram negative cell wall.
d) What are the basic nutritional requirements for microbial growth?
e) Define and distinguish the terms Sporangiophore and Sporangiospore.
f) Moist heat sterilization is more effective than dry heat sterilization. Commen
g) What is cold sterilization? Write few applications of cold sterilization.
h) What are plasmids?
i) What is protoplast fusion?
j) List the ideal characteristics of an antimicrobial agent.

Q2 **a)** Write about structure & morphological features of a bacterial cell with a neat labeled diagram. **(6)**
b) Describe the normal growth curve of bacteria by depicting a typical growth curve. **(4)**

Q3 **a)** What the different methods used for isolation of pure cultures? Describe in detail the “Pour plate” technique with its merits & demerits. **(6)**
b) Give a brief note on methods used for preservation of pure cultures **(4)**

Q4 What are stains? Classify them and Mention the principle involved in staining. List the staining techniques and write about Gram’s staining and Ziehl-Neelsen’s staining techniques. **(10)**

Q5 **a)** Write a brief note on structure and Morphology of virus.Describe with diagram lytic and lysogenic cycle in virus. **(6)**
b) What is mutation? Write about Mutagens and give a brief note on induced mutation. **(4)**

Q6 **a)** What is sterilization? Classify different methods of sterilization. Give a brief note on working principle and construction of autoclave. **(5)**
b) What are the different methods used for evaluation of disinfectants? Explain phenol-coefficient method. **(5)**

Q7 What is the principle of sterility testing? Describe about the general methods used for sterility testing of pharmaceuticals. Give a note on how Inactivation of inhibitory substances carried out during sterility testing **(10)**

Q8 Write the principle involved in the microbiological assay of antibiotics and vitamins. Describe the method used for microbial assay of tetracycline as per I.P. **(10)**

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

Total Number of Pages: 02 **B.PHARM**
PH.5.5

5th Semester Regular / Back Examination 2015-16
PHARMACEUTICAL CHEMISTRY - V (MED. CHEM - I)
BRANCH: PHARMACY
Time: 3 Hours
Max marks: 70
Q.CODE: T497

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 anti-spasmodic with suitable examples.
b) What is Hamett's constant in QSAR.
c) Give the structure and nomenclature of Naphazoline.
d) Explain bioisosterism with suitable examples.
e) Write briefly the chemical nature and medicinal applications of Oxytocin.
f) Give the mode of action of Non-Sterodial anti-inflammatory agents.
g) Differenciate between Cholinergics and Adrenergics.
h) Briefly write about Ergot alkaloids.
i) What is meant by receptors.
j) Define analgesics and antipyretics with suitable examples.

Q2 Give brief account on:

a) Anticholinesterases **(5)**
b) Anti-ulcer drugs **(5)**

Q3

a) What do you mean by autocoids? Define and classify antihistaminic agents with examples. **(5)**
b) Give synthesis and uses of Diphenhydramine and Chlorpheniramine. **(5)**

Q4 Write a note on Isosterism and Bioisosterism. **(10)**

Q5 **a)** Define and classify non-steroidal anti-inflammatory agents with suitable examples. **(5)**
b) Give synthesis and uses of Ibuprofen and Phenylbutazone. **(5)**

Q6 **a)** Define and classify adrenergic agents.Outline the synthesis and uses of adrenaline **(5)**
b) Discuss the SAR, mode of action and metabolism of nor-adrenaline **(5)**

Q7 **a)** Discuss the influences of stereo isomerism on biological activity. **(5)**

b) Write a note on Oxytocics. **(5)**

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

a) SAR of antihistamines.

b) Biosynthesis of Prostaglandins

c) Signal trunsduction

d) Synthesis of Paracetamol and Galamine

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

Total Number of Pages: 01 **B.PHARM**
PH.5.7

5th Semester Regular / Back Examination 2015-16
PHARMACOLOGY - I
BRANCH: B.Pharm
Time: 3 Hours
Max marks: 70
Q.CODE: T590

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 two drugs administered in sublingual routes.
- **b)** What is Plasma half-life of drug?
- **c)** What is Physiological antagonism?
- **d)** Define synergism with examples
- **e)** Write the mechanism of action of local anaesthetics.
- **f)** Write the drug used in the treatment of pheochromocytoma.
- **g)** What is anorectic agent? Give some example.
- **h)** Write the mechanism of action of Aspirin.
- **i)** Write the antagonist of morphine.
- **j)** Give some examples of Nasal decongestants.

Q2 Define receptor. Describe various types of receptor with suitable examples. **(2+8)**

Q3 Write short note on
- **a)** Classification of anti cholinergic drug **(5)**
- **b)** Skeletal muscle relaxant. **(5)**

Q4 Define biotransformation. Write brief notes on Phase-I and Phase-II drug metabolism with suitable example. **(2+8)**

Q5 Write regarding synthesis, storage, release and Pharmacological action of Acetylcholine. **(10)**

Q6 Write short note on
- **a)** Antianxiety drugs **(5)**
- **b)** CNS stimulants **(5)**

Q7 Define and Classify sedatives and hypnotics. Write the mechanism of action, adverse effect and therapeutic uses of Benzodiazepines. **(4+6)**

Q8 Classify General anaesthetics. Discuss briefly about stages of Anaesthesia. Give a note on Preanaesthetic medication. **(3+4+3)**

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

Total Number of Pages: 01 **B.PHARM**

PH.5.9

5th Semester Regular / Back Examination 2015-16

Pharmaceutical Analysis – II

Branch: Pharmacy

Time: 3 Hours

Max Marks: 70

Q.CODE: T654

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) Mention the different types of absorption liquids used in Oxygen flask Combustion method.

b) What are the advantages of coulometric method of analysis?

c) Write down the half cell reactions for quinhydrone and antimony electrodes.

d) What is Nernst equation?

e) What are the advantages of amperometric titrations over polarography ?

f) How does a starch iodide paper work as an indicator in diazotisation titration?

g) How is cell constant measured?

h) In which angle I_s and I_t are measured in Nephlometry and Turbidimetry respectively?

i) What is hapten ?

j) What is the difference between pH meter and potentiometer ?

Q2 **a)** Explain the principle, instrumentation, application and advantages of conductometric titration. **(5)**

b) What are the different types of conductometric titrations ? **(5)**

Q3 **a)** What is polarography? Describe the different components of polarogrphic cell. **(5)**

b) What are the various quantitative methods used in polarography? **(5)**

Q4 Write briefly about Bromatometry and Iodatometry in the redox titration with suitable example. **(10)**

Q5 **a)** Write down the principle, construction, advantages and disadvantages of standard hydrogen electrode. **(5)**

b) Give an account of Potentiometric titration. **(5)**

Q6 **a)** Explain the principle, instrumentation and application of Nephlo-turbidimeter. **(5)**

b) Write about gel electrophoresis. **(5)**

Q7 **a)** What is Radioimmunoassay (RIA) ? Discuss its 'merits' and 'demerits' articulately. **(5)**

b) Elaborate the theoretical aspects of RIA with suitable examples/explanations. **(5)**

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

a) Redox indicator theory and its application in the pharmacy.

b) Diazotisation titration.

c) Kjeldahl method of nitrogen estimation.

d) Karl-Fischer titration.