Roll No. | | | | | | | | | | |

Total No. of Pages : 02

Total No. of Questions : 13

B.Pharma. (Sem.-7)

PHARMACY PRACTICE - THEORY

Subject Code : BP-703T

M.Code : 78389

Date of Examination : 17-05-2023

Time : 3 Hrs.

Max. Marks : 75

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains THREE questions carrying TEN marks each and student has to attempt any TWO questions.
3. SECTION-C contains NINE questions carrying FIVE marks each and student has to attempt any SEVEN questions.

SECTION-A

1. **Write briefly :**

a) Define clinical review.

b) What do you know about pharmaceutical care?

c) Define re-orders level.

d) Define primary care hospital.

e) Enlist sources of drug information.

f) Define prescribed medication order.

g) Draw a layout of hospital pharmacy.

h) Define VED analysis.

i) Describe a drug interaction

j) Define ADR.

July 2023

SECTION-B

2. Define DUR, write its objectives and classification and steps involved in DUE cycle.

3. Write an elaborated note on therapeutic drug monitoring and factors considered during TDM.

4. Explain medication adherence. What is the impact and causes of non-medication adherence?

SECTION-C

5. Explain the drug distribution system for out-patients.

6. Explain the role of pharmacist in ADR reporting and management.

7. Define automatic stop order for inpatient and outpatient.

8. Explain role of pharmacist in internal training program.

9. What are the dispensing procedure for narcotics and controlled substances in the hospital?

10. Explain in detail, roles and responsibilities of hospital pharmacist.

11. Define inventory and methods of inventory control.

12. Define DUR, write its objectives and explain classification of DUR.

13. Define patient counselling and write the steps involved in patient counselling.

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Roll No. ☐☐☐☐☐☐☐☐☐☐ Total No. of Pages : 02

Total No. of Questions : 13

B.Pharmacy (Sem.-7)

INSTRUMENTAL METHODS OF ANALYSIS-THEORY

Subject Code : BP-701T

M.Code : 78387

Date of Examination : 19-05-2023

Time : 3 Hrs. Max. Marks : 75

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains THREE questions carrying TEN marks each and student has to attempt any TWO questions.
3. SECTION-C contains NINE questions carrying FIVE marks each and student has to attempt any SEVEN questions.

SECTION-A

1. **Write briefly :**

a. What are chromophores and auxochromes?

b. What is the Beer-Lambert law?

c. Define affinity chromatography.

d. What is fluorescence quenching?

e. Give the name of two detectors used in IR spectroscopy.

f. What is flame photometry?

g. What is atomic absorption spectroscopy?

h. Define column chromatography.

i. What is the principle of electrophoresis?

j. What are the sources of radiation used in U-V-Visible spectroscopy?

SECTION-B

2. Explain the theory and instrumentation of UV-Visible spectroscopy. Discuss the factors affecting the absorption spectra.

3. Explain the theory and instrumentation of fluorimetry. Discuss the factors affecting fluorescence.

4. Explain the theory, instrumentation and applications of high-performance liquid chromatography (HPLC).

SECTION-C

5. What are spectral shifts? Discuss the solvent effect on absorption spectra.

6. Write a note on nepheloturbidometry?

7. What are the sources of radiation, wavelength selectors, and detectors used in Flame Photometry?

8. Explain the concept of electronic transitions and chromophores in UV-visible spectroscopy.

9. What is the instrumentation used in affinity chromatography?

10. What are the detectors used in UV-Visible spectroscopy?

11. Discuss the factors affecting electrophoretic mobility in Electrophoresis.

12. What are the properties of ion exchange resins?

13. What is the mechanism of ion exchange process in ion exchange chromatography?

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July-2023

Roll No. [ ][ ][ ][ ][ ][ ][ ][ ][ ][ ]

Total No. of Questions : 13

Total No. of Pages : 02

B.Pharma. (Sem.-7)

NOVEL DRUG DELIVERY SYSTEM-THEORY

Subject Code : BP704T

M.Code : 78390

Date of Examination : 24-05-2023

Time : 3 Hrs.

Max. Marks : 75

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains THREE questions carrying TEN marks each and student has to attempt any TWO questions.
3. SECTION-C contains NINE questions carrying FIVE marks each and student has to attempt any SEVEN questions.

SECTION-A

1. Write briefly:

a) Define liposome with examples

b) Give any two applications of monoclonal antibodies

c) What is polymer membrane permeation controlled drug delivery systems?

d) Give any two examples for controlled release polymers.

e) Define microspeheres with example.

f) Define isoelectric point

g) Name any two methods for implant preparation

h) Define nanoparticles

i) Classify IUDs

j) Write the significance of ODDS

SECTION-B

2. Explain in detail about different approaches for Gastroetentive drug delivery systems along with advantages and disadvantages

3. Describe methods of preparation and applications of nanoparticles

4. Give a detail account on polymers along with applications

SECTION-C

5. Describe solvent extraction and solvent evaporation techniques to prepare microspheres.

6. Write a note on mucoadhesive formulations

7. Give the structure of liposomes

8. Discuss the different barriers involved in ocular drug delivery & methods to overcome

9. Write the applications of gastro adhesive systems

10. Explain about biodegradable and non-biodegradable polymers.

11. Give an account of implants preparation

12. Describe the applications of IUDs

13. Describe Niosomes along with applications

NOTE : Disclosure of Identity by writing Mobile No. or Marking of passing request on any paper of Answer Sheet will lead to UMC against the Student

July-2023

Roll No.

Total No. of Questions : 13 Total No. of Pages : 02

B.Pharma. (Sem.-7)

INDUSTRIAL PHARMACY – II (THEORY)

Subject Code : BP-702T

M.Code : 78388

Date of Examination : 26-05-2023

Time : 3 Hrs. **Max. Marks : 75**

INSTRUCTIONS TO CANDIDATES :

1. **SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.**
2. **SECTION-B contains THREE questions carrying TEN marks each and student has to attempt any TWO questions.**
3. **SECTION-C contains NINE questions carrying FIVE marks each and student has to attempt any SEVEN questions.**

SECTION-A

1. **Write Briefly :**

a) Write the full form of TIFAC.

b) Differentiate between NDA and INDA.

c) Define validation.

d) Define quality management.

e) Write the importance of MoU.

f) What do you mean by COPP and its importance?

g) Define Change control.

h) Define investigator's brochure.

i) Define the term OOS.

j) What are the basic components of Bio-Equivalence studies?

SECTION-B

2. Discuss the various pilot plant scale up considerations for liquid orals.

3. Describe the approved regulatory bodies and agencies for commercializing the product with suitable examples.

4. What is the role of Bio-Equilance studies and also elaborate clinical research protocol.

SECTION-C

5. Describe six sigma concept.

6. Write the responsibilities of CDSCO.

7. Describe regulatory affairs in brief.

8. Explain SUP AC guidelines.

9. What do you mean by technology transfer documentation and legal aspects related to it?

10. Describe the importance of ISO 9000 in brief.

11. Write various space requirements for pharmaceutical industry for solid dosage form.

12. Write a short note on technology transfer agencies in India.

13. Write a note on Drug developmental team in brief.

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July-2023

Roll No. [ ] Total No. of Pages : 02

Total No. of Questions : 13

B.Pharma. (Sem.-7)

PHARMACY PRACTICE - THEORY

Subject Code : BP-703T

M.Code : 78389

Date of Examination : 16-12-2022

Time : 3 Hrs. Max. Marks : 75

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains THREE questions carrying TEN marks each and student has to attempt any TWO questions.
3. SECTION-C contains NINE questions carrying FIVE marks each and student has to attempt any SEVEN questions.

SECTION-A

1. **Write briefly :**

   a) Define patient medication adherence.

   b) Write briefly about OTC drugs.

   c) Define Hospital formulary.

   d) Write the definition of a hospital.

   e) Write briefly about pharmacy and therapeutic committee.

   f) Define idiosyncracy.

   g) Write briefly about patient medication history and its significance.

   h) Define prescribed medication order. Write its various components.

   i) Write briefly about renal function tests and their significance.

   j) Define drug interactions. Give and example of beneficial drug interaction.

SECTION -B

2. Discuss about organization structure of a hospital, medical staff involved in a hospital and their functions.

3. Discuss about patient counseling, steps involved in patient counseling and special cases that require pharmacist.

4. Discuss about organization of a drug store, types of material stocked and storage conditions.

SECTION-C

5. Define a hospital and discuss about classification of hospitals.

6. Discuss about organization and structure of retail and wholesale drug store, types and legal requirements.

7. Write a note on detection of drug interactions.

8. Discuss about drug and poison information center and sources of drug information.

9. Define patient counselling and steps involved in patient counselling.

10. Discuss about prescribed medication order, its interpretation and legal requirements.

11. Discuss about purchase and inventory control in a drug store.

12. Discuss about economic order quantity, recorder quantity level and methods used for the analysis of drug expenditure.

13. Discuss in detail about various haematological tests and their significance.

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Dec-2022

Roll No. [ ] [ ] [ ] [ ] [ ] [ ] [ ]

Total No. of Questions : 13

Total No. of Pages : 02

B.Pharmacy (Sem.-7)

INSTRUMENTAL METHOD OF ANALYSIS

Subject Code : BP-701T

M.Code : 78387

Date of Examination : 12-12-2022

Time : 3 Hrs.

Max. Marks : 75

INSTRUCTIONS TO CANDIDATES :

1. **SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.**
2. **SECTION-B contains THREE questions carrying TEN marks each and student has to attempt any TWO questions.**
3. **SECTION-C contains NINE questions carrying FIVE marks each and student has to attempt any SEVEN questions.**

SECTION-A

1. **Write briefly :**

   a) What is Beer and Lambert's law?

   b) *'Phenol has higher absorption maxima in basic medium than in acidic medium'.* Why?

   c) How hybridization affects vibrational frequency of a C-H bond?

   d) Give applications of gel chromatography.

   e) What makes phenanthrene a fluorescent compound but biphenyl a non-fluorescent?

   f) How mobile phase flow affects chromatographic resolution of components?

   g) What is migration time in electrophoresis?

   h) What do you mean by affinity chromatography?

   i) Explain triplet excited state of molecule, giving example.

   j) Mention applications of paper chromatography.

SECTION-B

2. What is the principle of Atomic absoption spectroscopy? Discuss the components of an atomic absorption spectrophotometer. Explain its pharmaceutical applications. (10)

3. What is the principle of HPLC? Describe various detectors used in it. (10)

4. a) Discuss the various factors affecting fluorescence. (5)

   b) Discuss various detectors used in IR spectrophotometer. (5)

SECTION-C

5. Discuss instrumentation and applications of Turbidometry. (5)

6. What is Flame photometry? Discuss in detail flame atomization process. (5)

7. What is gas chromatography? Discuss various factors affecting separation by this technique. (5)

8. Discuss various factors affecting selection of appropriate buffer system for electrophoresis. (5)

9. Write a comparative account on TLC and HPTLC. (5)

10. Write an account on various types of wavelength selectors used in spectrophotometers. (5)

11. Describe instrumentation and applications of Spectrofluorimetry. (5)

12. Discuss the static quenching versus dynamic quenching. (5)

13. Using jablonski diagram explain internal conversion and external conversion. (5)

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Total No. of Questions : 13

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B.Pharma. (Sem.-7)

INDUSTRIAL PHARMACY – II (THEORY)

Subject Code : BP-702T

M.Code : 78388

Date of Examination : 14-12-22

Time : 3 Hrs.

Max. Marks : 75

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains THREE questions carrying TEN marks each and student has to attempt any TWO questions.
3. SECTION-C contains NINE questions carrying FIVE marks each and student has to attempt any SEVEN questions.

SECTION-A

1. Write briefly :

   a. IND

   b. NABL

   c. CDSCO

   d. APCTD

   e. NRDC

   f. TIFAC

   g. BCIL

   h. TBSE

   i. SIDBI

   j. OOS.

SECTION-B

2. Discuss the pilot plant scale up considerations for solids.
3. Discuss the ICH guidelines on quality risk management.
4. Discuss the technology transfer Process related to API and excipients.

SECTION-C

5. What are the responsibilities Regulatory Affairs Professionals?
6. Discuss about Clinical Research Protocols.
7. How the Data Presentation is done for FDA Submissions?
8. Discuss the concept of Six Sigma concept.
9. Write a note on organization and responsibilities of Central Drug Standard Control Organization.
10. Discuss the role of leadership in TQM.
11. Write a note on ISO 9000 series.
12. Briefly discuss GLP.
13. What are the regulatory requirements and approval procedures for New Drugs?

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DEC-2022

Roll No. _____ Total No. of Pages : 02

Total No. of Questions : 13

B.Pharma. (Sem.-7)

NOVEL DRUG DELIVERY SYSTEM-THEORY

Subject Code : BP-704T

M.Code : 78390

Date of Examination : 19-12-2022

Time : 3 Hrs. Max. Marks : 75

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains THREE questions carrying TEN marks each and student has to attempt any TWO questions.
3. SECTION-C contains NINE questions carrying FIVE marks each and student has to attempt any SEVEN questions.

SECTION-A

1. Write briefly :

   a) Polymers

   b) Bio-adhesive system

   c) Permeation

   d) Ion exchange

   e) GRDDS

   f) Diffusion

   g) Dissolution

   h) Bio-adhesive

   i) Ocular route

   j) Noisome

SECTION-B

2. Classify Polymers with properties of each. Highlight the benefit of polymers in the formulation of controlled release drug delivery system.

3. a) Enumerate formulation approaches of microencapsulation.

   b) Explain the principle of muco-adhesion.

4. Write short note on :

   a) Ocular drug delivery system

   b) Monoclonal antibodies

SECTION-C

5. Explain physicochemical and biological properties of drugs relevant to controlled delivery system.

6. Explain different methods for the preparation of TDDS.

7. What is the mechanism behind permeation enhancers?

8. Explain the pharmaceutical application of Gastroretentive drug delivery system.

9. Give advantages and disadvantages of:

   a) Microspheres

   b) Nasal spray

10. What are the approaches for the preparation and evaluation of nanoparticles.

11. Give pharmaceutical application of: a) IUDs b) Nanoparticles

12. Explain the formulation aspect of: a) Inhalers b) osmotic pumps.

13. Write short note on: a) Factors affecting permeation b) Transmucosal permeability

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DEC-2022

Roll No. [ ] Total No. of Pages : 02

Total No. of Questions : 10

B.Pharma (2012 to 2016) (Sem.–7)

PHARMACEUTICAL CHEMISTRY–VII

(Medicinal Chemistry-II)

Subject Code : BPHM-704

M.Code : 71756

Time : 3 Hrs. Max. Marks : 80

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of FIFTEEN questions carrying TWO marks each.
2. SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.
3. SECTION-C contains FOUR questions carrying TEN marks each and students have to attempt any THREE questions.

SECTION-A

1. Answer briefly :

a) Classify general anesthetics.

b) Comment upon narcotic antagonist.

c) Give synthesis of phenytoin.

d) Give mechanism of action of Haloperidol.

e) Why thiazide diuretics are referred as low efficacy agents.

f) Mention the mechanism of action of hypolipidemic agents.

g) What are site 1 diuretics?

h) Give chemical name of nifedipine.

i) Give the structure of estrogen.

j) Comment upon role of theophylline.

k) Classify opoid analgesics.

l) Draw the structure of any one anticoagulant,

m) Give the moa of isosorbide dinitrate.

n) Write the structure and moa of chlorpromazine.

o) Name any one opium alkaloid and give its use.

SECTION-B

2. Enumerate various steps involved in biosynthesis of cholesterol.
3. Comment upon stereochemistry of steroidal nucleus.
4. Discuss in detail moa and SAR of Phenothiazines.
5. Give moa, synthesis and uses of Lignocaine.
6. Classify sedatives. Comment upon hydantoins used as sedatives.

SECTION-C

7. a) Outline the synthetic procedure of any one antianxiety agent.

   b) Comment upon the chemistry of MAO inhibitors.

8. a) Give detailed account of chemistry of cardiac glycosides.

   b) What are antiarrythmic agents. Classify.

9. Give the structure and therapeutic uses of following drugs :

   a) Carbamezepine

   b) Nitrazepam

   c) Procaine

   d) Lignocaine

   e) Nikethemide

10. Explain the chemistry and SAR involved for various classes of opoid analgesics. Write down the synthesis for pentozacin.

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Roll No. [ ]

Total No. of Questions : 10

Total No. of Pages : 02

B.Pharma (2012 to 2016) (Sem.–7)
PHARMACOLOGY–III
Subject Code : BPHM-703
M.Code : 71755

Time : 3 Hrs.

Max. Marks : 80

INSTRUCTION TO CANDIDATES :

1. ***SECTION-A is COMPULSORY consisting of FIFTEEN questions carrying TWO marks each.***
2. ***SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.***
3. ***SECTION-C contains FOUR questions carrying TEN marks each and students have to attempt any THREE questions.***

SECTION-A

1. Answer briefly :
   a. What are quinolones?
   b. What are narrow spectrum antibiotics?
   c. What are the adverse effects of anti-tuberculosis drugs?
   d. Differentiate natural and acquired resistance.
   e. What is suprainfection?
   f. What are endocrine glands?
   g. Name two synthetic insulin preparations.
   h. What are the pharmacological effects of corticosteroids?
   i. What are the therapeutic effects of antiandrogen drugs?
   j. What are the side effects of biguanides?
   k. What is heavy metal poisoning?
   l. Name two anticancer drugs used for breast cancer.
   m. Enumerate adverse effect of antileprotic drugs.
   n. What are immunosuppressive agents?
   o. What is the treatment of barbiturate poisoning?

SECTION-B

2. What are antiulcer drugs? Explain pharmacological action of proton pump inhibitors.
3. Classify antiemetic drugs. Explain the pharmacological action of antihistaminics as antiemetics.
4. Classify antihyperglycemic drugs. Explain the mechanism of alpha glucosidase inhibitors.
5. Discuss pharmacological uses of corticosteroids.
6. Discuss antibiotics as antineoplastic agents.

SECTION-C

7. What are cyclosporine antibodies? Explain their pharmacological action, adverse effect and therapeutic uses.
8. a. What are antineoplastic drugs? Discuss their toxicity profile.
   b. Discuss general principle of cancer chemotherapy.
9. Explain the mechanism and therapeutic uses of :
   a. Tacrolimus
   b. Tamoxifen
   c. Glucocorticoids as immunosuppressive agent
   d. Sulphonamides
10. a. Discuss general principle of treatment of poisoning with reference to heavy metals.
    b. Discuss the pharmacological action and uses of nitrosoureas.

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Roll No.

Total No. of Questions : 10

Total No. of Pages : 02

B.Pharma (2012 to 2016) (Sem.–7)

PHARMACEUTICAL BIOTECHNOLOGY

Subject Code : BPHM-701

M.Code : 71753

Time : 3 Hrs.

Max. Marks : 80

INSTRUCTION TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of FIFTEEN questions carrying TWO marks each.
2. SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt ANY FOUR questions.
3. SECTION-C contains FOUR questions carrying TEN marks each and students have to attempt ANY THREE questions.

SECTION-A

1. Answer Briefly :

a) Define haptens.

b) What do you understand by humoral immunity?

c) What is fed batch culture system?

d) Define transformation.

e) What is hybridoma technology?

f) What are different methods of enzyme immobilization?

g) What are typical components used in fermentor media?

h) What are baffles?

i) Enlist methods of biotransformation of steroids.

j) What is the application of biotechnology in pharmaceutical sciences?

k) What is humulin?

l) What are the applications of amylase?

m) Enlist the steps in isolation of penicillin.

n) What do you understand by conjugation?

o) What is the role of mutants in fermentation?

SECTION-B

2. Elaborate the isolation of ethanol during fermentation.

3. Write a note on adsorption method of enzyme immobilization with advantages and limitations.

4. Write a note on mutant isolation.

5. Differentiate batch and continuous culture system.

6. What are different steps involved in gene cloning?

SECTION-C

7. Write a note on production of monoclonal antibodies.

8. What are biotransformation methods?

9. What are fermentors? What is the typical design of a fermentor?

10. Write a note on immune system with special reference to immune intolerance.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.

Roll No. [ ] [ ] [ ] [ ] [ ] [ ]

Total No. of Questions : 10

Total No. of Pages : 02

B.Pharma (2012 to 2016) (Sem.–7)

PHARMACEUTICS–VIII

(Pharmaceutical Technology–II)

Subject Code : BPHM-702

M.Code : 71754

Time : 3 Hrs.

Max. Marks : 80

INSTRUCTION TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of FIFTEEN questions carrying TWO marks each.
2. SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.
3. SECTION-C contains FOUR questions carrying TEN marks each and students have to attempt any THREE questions.

SECTION-A

1. Define :

a) Arching and bridging

b) Gelatin B

c) Base absorption =

d) Polymers for film coating

e) Spray congealing

f) Enumerate different official waters

g) Lyophilisation

h) Horizontal laminar flow bench

i) Ligatures and sutures

j) 100 class room area

k) Difference between absorbable and non absorbable sutures.

l) Classify different types of oral drug delivery system.

m) What is the principle behind development of CRDDS?

n) Erosion based controlled drug delivery systems.

o) Difference between SVP and LVP.

SECTION-B

2. Explain the process of manufacturing of hard gelatin capsule shells.
3. Enumerate different defects in manufacturing of tablets and explain any two in detail with remedies.
4. Explain microencapsulation using polymerization complex emulsion method.
5. How evaluation of parenterals is carried out?
6. Discuss the factors influencing choice of containers.

SECTION-C

7. Discuss Physics of tablet compression in detail.
8. Discuss the quality control tests of capsules.
9. Discuss the biopharmaceutical factors involved in manufacturing of parenterals.
10. Differentiate between wet granulation and dry granulation. Enumerate different quality control tests of tablets and explain one of the official tests.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.

Roll No. [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]

Total No. of Questions : 10

Total No. of Pages : 02

B.Pharma (2011 to 2016) (Sem.–7)
PHARMACOLOGY–III
Subject Code : BPHM-703
M.Code : 71755

Time : 3 Hrs.

Max. Marks : 80

INSTRUCTION TO CANDIDATES :

1. **SECTION-A is COMPULSORY consisting of FIFTEEN questions carrying TWO marks each.**
2. **SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.**
3. **SECTION-C contains FOUR questions carrying TEN marks each and students have to attempt any THREE questions.**

SECTION-A

1. **Answer briefly :**

a) Why systemic antacids are not indicated for long term use?

b) Outline composition of ORS.

c) Discuss pharmacological treatment of motion sickness.

d) Define :

i) Demulcents

ii) Astringents.

e) Outline adrenal hormones.

f) How T3 is different from T4.

g) Mention adverse effects of oxytocin.

h) Write non-contraceptive benefits of OCPS.

i) Outline reasons of drug resistance.

j) Classify sulfonamides.

k) Outline toxicities caused by penicillin's.

l) Outline treatment of paucibacillary leprosy.

m) Give examples of topic drugs for superficial fungal infections.

n) Outline treatment of atropine poisoning.

o) How hypoglycemic drugs are different from anti-hyperglycemic?

SECTION-B

2. Outline drugs inhibiting translation.

3. Write a detailed note on cephalosporins.

4. Discuss pharmacology of estrogens.

5. Write a detailed note on immunosuppressive agents.

6. Discuss appetite stimulant and suppressants.

SECTION-C

7. Discuss drugs useful for hyperthyroidism.

8. Write a detailed note on penicillin.

9. Discuss drugs acting on uterus in detail.

10. Discuss barbiturate poisoning and its treatment in detail.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.

May –2019

Roll No. [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]

Total No. of Pages : 02

Total No. of Questions : 10

B.Pharma (2011 to 2016) (Sem.–7)

PHARMACEUTICS–VIII

(Pharmaceutical Technology–II)

Subject Code : BPHM-702

M.Code : 71754

Max. Marks : 80

Time : 3 Hrs.

INSTRUCTION TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of FIFTEEN questions carrying TWO marks each.
2. SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.
3. SECTION-C contains FOUR questions carrying TEN marks each and students have to attempt any THREE questions.

SECTION-A

Q1. Define :

a) Microencapsulation

b) lyophilization

c) Hemostastics

d) Aseptic area

e) First order release

f) Capsule

g) Gelatin

h) Ligatures

i) Isotonicity

j) Quality control

k) Catguts

l) Blster package

m) Coacervation

n) What is the need of granulation while preparing tablets?

o) List any two criteria of drug (s) essential for microencapsulation.

SECTION-B

Q2. Highlight aqueous coating of tablets.

Q3. Explain evaluation of microcapsules.

Q4. Explain techniques for the preparation and filling of sterile powders.

Q5. Enumerate pyrogen testing of injection containing antibiotics.

Q6. Highlight different types of parenteral controlled released drug delivery systems.

SECTION-C

Q7. a) Enumerate packaging equipments for the packaging of oral solid dosage forms.

b) Explain in *vitro limvivo* packaging testing and compare it with stability of dosage forms.

Q8. a) How aseptic area could be designed and evaluated.

b) Enumerate IP method for the testing of pyrogen in parenterals.

Q9. Highlight formulation, packaging and evaluation of paracetamol tablet IP.

Q10. Write note on :

a) Stability testing

b) Wound dressing

c) Organ replacement materials

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.

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May–2019

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Total No. of Questions : 10

Total No. of Pages : 02

B.Pharma (2011 to 2016) (Sem.–7)
PHARMACOLOGY–III
Subject Code : BPHM-703
Paper ID : [A2910]

Time : 3 Hrs.

Max. Marks : 80

INSTRUCTION TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of FIFTEEN questions carrying TWO marks each.
2. SECTION-B contains FIVE questions carrying FIVE marks each and students has to attempt any FOUR questions.
3. SECTION-C contains FOUR questions carrying TEN marks each and students has to attempt any THREE questions.

SECTION-A

1. **Answer briefly :**

a. Define astringents with suitable examples.

b. Classify anti-ulcer drugs with examples.

c. Define carminatives and demulcents.

d. Name two antipseudomonal and two broad spectrum penicillins.

e. What is Yuzpe method?

f. What do you mean by soft-steroids?

g. Name antagonists used to treat atropine and organophosphate poisoning.

h. Differentiate between diabetes *mellitus* and diabetes *insipidus*.

i. What are the components of triple therapy for H. *pylori*?

j. What is the role of vitamin D_3?

k. Discuss 5-α reductase inhibitors.

l. Define emesis and role of histamine in emesis.

m. What is thalidomide tragedy?

n. What are neurotoxins? Give examples.

o. What is minipill?

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SECTION-B

2. Write short notes on :

a. Cotrimoxazole

b. Organophosphate poisoning

3. Discuss the mechanism of action of the following :

a. Quinolones

b. Corticosteroids

4. Classify anti-HIV drugs. Discuss the mode of action, uses and side-effects of protease inhibitors.

5. Discuss the general principles of management of poisoning.

6. Give an account on hepatic and renal toxicity.

SECTION-C

7. Write notes on the following :

a. Gliptins

b. Cephalosporin

8. Discuss the following :

a. Proton pump inhibitors

b. Oral contraceptives

9. Discuss the biosynthesis and secretion of thyroid hormone. Discuss the treatment for diseases associated with hypothyroidism.

10. Classify anti-cancer drugs. Discuss pharmacology of alkylating agents.

Dec 2018

Roll No. | | | | | | | | | | | | Total No. of Pages : 02

Total No. of Questions : 10

B.Pharma (2011 to 2016) (Sem.–7)

PHARMACEUTICAL CHEMISTRY–VII

(Medicinal Chemistry-II)

Subject Code : BPHM-704

Paper ID : [A2911]

Time : 3 Hrs. Max. Marks : 80

INSTRUCTION TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of FIFTEEN questions carrying TWO marks each.
2. SECTION-B contains FIVE questions carrying FIVE marks each and students has to attempt any FOUR questions.
3. SECTION-C contains FOUR questions carrying TEN marks each and students has to attempt any THREE questions.

SECTION-A

Q1 Answer briefly :

a) Write mode of action of chlorpromazine.

b) What are aldosterone antagonists? Write their uses.

c) Write structure and uses of norethisterone.

d) Give structure and mechanism of action of nalorphine.

e) What are expectorants? Give one example.

f) Write mode of action of a potassium sparing diuretic.

g) What are antianginals? Give one example.

h) Write mode of action of monoamine oxidase inhibitors.

i) Write synthesis of pethidine.

j) Give structure and IUPAC name of one antiarrhythmic drug.

k) Differentiate between centrally acting and peripherally acting antitussives.

l) Give structure of a central nervous system stimulant.

m) What are anabolic steroids? Give their uses.

n) Give structure of any one antihyperlipidemic drug.

o) What are methylxanthines?

SECTION-B

Q2 Discuss SAR of glucocorticoids.

Q3 Outline the synthesis of progesterone from stigmasterol.

Q4 Provide a detailed account of general anaesthetics.

Q5 Write structure, mode of action and uses of stilbesterol.

Q6 Give classification of anticonvulsants. Write synthesis of phenytoin.

SECTION-C

Q7 Classify various diuretics on the basis of their mechanism of action. Give synthesis and medicinal uses of bendrofluazide.

Q8 a) Discuss SAR of oxazolidinediones as anticonvulsants.

b) Give the chemical name and structure of troxidone.

Q9 Give the structure of morphine. How the structure of morphine has been modified chemically to develop new opioid analgesics? Discuss with examples.

Q10 What are natural and synthetic CNS stimulating agents? Give the detailed account of drugs used as CNS stimulating agents.

Dec 2018

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B.Pharma (2011 to 2016) (Sem.–7)

PHARMACEUTICS–VIII

(Pharmaceutical Technology–II)

Subject Code : BPHM-702

Paper ID : [A2909]

Time : 3 Hrs. Max. Marks : 80

INSTRUCTION TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of FIFTEEN questions carrying TWO marks each.
2. SECTION-B contains FIVE questions carrying FIVE marks each and students has to attempt any FOUR questions.
3. SECTION-C contains FOUR questions carrying TEN marks each and students has to attempt any THREE questions.

SECTION-A

Q.1. Answer briefly :

a. Name two preservatives used in parenteral formulations.

b. What is the moisture content for hard gelatin capsule shell?

c. Define a capsule.

d. Name two binders used in tablets.

e. Discuss disintegration tests for enteric coated tablets.

f. What is water for injection?

g. Define orange peel effect in tablet coating.

h. Define sticking and picking in tablets.

i. Define catguts.

j. Discuss leak test for ampoules.

k. Define Isotonicity.

l. Why preservatives are not added to large parenterals?

m. Discuss Sham and Lal Test for pyrogens test.

n. What is explotab and cab-o sil?

o. Name two directly compressible diluents for the tablets

SECTION-B

Q.2. Distinguish between hard gelatin capsules and soft gelatin capsules. Discuss in detail the various evaluation tests for capsules.

Q.3. Describe the hydrolytic resistance test of glass containers for parenterals.

Q.4. Elaborate in detail upon absorbable and non-absorbable sutures.

Q.5. Describe the method of coacervation for microencapsulation.

Q.6. Write a note on various types of coating materials.

SECTION-C

Q.7. What are control release delivery systems? Elaborate upon its advantages and disadvantages.

Q.8. Distinguish between a primary and secondary packaging container. List the major factors influencing the selection of these containers.

Q.9. Explain the evaluation methods of parenteral products.

Q.10. Discuss the various coating defects, their causes and remedies.

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B.Pharma (2011 to 2016) (Sem.–7)

PHARMACEUTICAL BIOTECHNOLOGY

Subject Code : BPHM-701

Paper ID : [A2908]

Max. Marks : 80

Time : 3 Hrs.

INSTRUCTION TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of FIFTEEN questions carrying TWO marks each.
2. SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt ANY FOUR questions.
3. SECTION-C contains FOUR questions carrying TEN marks each and students have to attempt ANY THREE questions.

SECTION-A

1. Answer briefly :

a) Define batch culture for microbial production.

b) Give the importance of surface immobilization by covalent coupling.

c) How does endocytosis differ from phagocytosis?

d) What is acquired immunity?

e) Define restriction endonucleases.

f) What are allotypic determinants?

g) Enlist common techniques used for immobilization of bacteria.

h) What are the uses of streptokinase?

i) What is continuous batch culture? How is it useful?

j) Compare and contrast transformation and transduction processes.

k) Define biotransformation.

l) What are Immunoglobulins? Give examples.

m) What are monoclonal antibodies?

n) Define mutants with examples.

o) Differentiate between haptens and antigens.

SECTION-B

2. Discuss various hypersensitivity reactions.
3. Write a note on kinetics of cell growth.
4. Discuss the nutritional requirements of bacteria.
5. What is gene cloning? Give its significance.
6. Describe the methods of irreversible enzyme immobilization.

SECTION-C

7. Explain various components of innate immune system using a flow chart, giving significance of each component.
8. Enumerate the hybridization process of DNA.
9. Explain in detail the fermentation process employed for the production of vitamin B_{12}.
10. Write notes on :

a) Fed-batch culture

b) Humulin

c) Hyaluronidase

d) Use of biotransformation in production of steroids