

FACULTY OF PHARMACY**B. Pharmacy 4/4 II-Semester (Makeup) Examination, July 2013****Subject : Pharmaceutical Biotechnology****Time : 3 Hours****Max. Marks: 70****Note: Answer All questions. All questions carry equal marks.**

- 1.(a)(i) Explain the structure of DNA and Replication of DNA. (4+6)
(ii) Define Exonuclease, Endonuclease, Restriction Endonuclease and Ligases with examples. (4)
- OR**
- (b) Explain in detail about cloning strategies using mRNA as a source material. (14)
- 2.(a)(i) Draw a neat labelled diagram of fermentor and explain its parts. (10)
(ii) Explain about foam control equipment. (4)
- OR**
- (b) Explain microbiological assay of antibiotics by disc. diffusion and turbidimetric methods. (14)
- 3.(a) Explain manufacturing, standardization, storage, labelling and specific applications of diphtheria toxoid. (14)
- OR**
- (b) Explain standardization and storage of any two toxins. (14)
- 4.(a) What are plasma substitutes? Explain in detail about production of Dextran. (14)
- OR**
- (b) Describe the extraction and isolation of pure substances from pituitary and Thyroid glands. (14)
- 5.(a) Explain the production of monoclonal antibodies with few applications. (10+4)
- OR**
- (b)(i) Explain the techniques used in Animal cell culture. (10)
(ii) Explain the media used in Animal cell culture. (4)

FACULTY OF PHARMACY

B. Pharmacy 4/4 II-Semester (Makeup) Examination, July 2013

Subject : Hospital and Clinical Pharmacy

Time : 3 Hours

Max. Marks: 70

Note: Answer All questions. All questions carry equal marks.

- 1.(a) Discuss various hospital committees and explain the roles of hospital pharmacist in hospital committees. (14)
- OR**
- (b)(i) What is rational drug therapy and mention the complications of irrational drug use? (6)
- (ii) Explain role of pharmacist in rational use of drugs. (8)
- 2.(a) Explain distribution of drugs and their dispensing procedures in in-patient services department. (14)
- OR**
- (b) Describe storage and handling of radio isotopic pharmaceutical in hospital pharmacy. (14)
- 3.(a) What are different adverse drug reactions and mention the role of pharmacist to avoid them? (14)
- OR**
- (b) Explain various clinical tests for diagnosis of liver and kidney disease states. (14)
- 4.(a) Explain different drug induced disease along with suitable examples. (14)
- OR**
- (b) Explain various pharmacodynamics drug-drug interactions with examples. (7)
- (c) Describe food and drug interactions with examples. (7)
- 5.(a) Explain symptoms and pathophysiology of liver cirrhosis and angina pectoris. (14)
- OR**
- (b) Describe pharmacotherapy and rational use of drugs in hemocological and endocrine disorders. (14)

FACULTY OF PHARMACY

B. Pharmacy 4/4 II – Semester (Make-up) Examination, July 2013

Subject: Cosmetic Technology

Time: 3 Hours

Max.Marks: 70

Note: Answer all questions. All questions carry equal marks.

- 1.(a) i) Define and classify cosmetics giving suitable examples.
ii) Enumerate a brief note on the requirements of factory premises for manufacture of cosmetics.
- OR**
- (b) i) Enlist the labelling requirements for cosmetics products.
ii) Discuss in detail the importance of cosmetic applications in day-to-day life.
- 2.(a) i) Define vanishing creams. Explain in detail the formulation, manufacturing and quality control of vanishing creams.
ii) Enlist baby specialty products giving marketed examples for each and add a note on formulation and manufacture of baby shampoo.
- OR**
- (b) i) Differentiate between antiperspirants and deodorants, giving marketed examples for each and add a note on the evaluation of deodorants.
ii) Discuss various components of a nail lacquer and add a brief note on manufacture of revaluations of nail lacquer.
- 3.(a) i) Define lip sticks and write the ideal requirements for lip sticks, giving a detailed note on manufacturing of lip sticks.
ii) Define shampoo and enlist the formulation ingredients required for shampoo, giving examples.
- OR**
- (b) i) Define shaving preparations and add a detailed note on the formulation of pre-shave preparations, giving suitable examples.
ii) Write a note on evaluation of shaving preparations, giving examples.
- 4.(a) i) Define epilatories and depilatories giving a detailed note on formulation of depilatories.
ii) What are herbal cosmetics? Write about the formulation, manufacture and evaluation of herbal shampoos.
- OR**
- (b) i) Classify the cosmetics for eye, giving commercial examples for each type, and add a short note on eye shadows.
ii) Define tooth pastes and add a detailed note on formulation, manufacture of tooth pastes giving examples.
- 5.(a) i) Enlist the classification of colouring agents used in cosmetic preparations.
ii) Write a detailed note on the evaluation of hair creams.
- OR**
- (b) i) Write a brief note on the formulation and manufacture of mouth washes.
ii) What are cleansing creams, add a brief note on different types of cleansing creams giving suitable examples.

FACULTY OF PHARMACY

B. Pharmacy IV Year II – Semester (Make-up) Examination, July 2013

Subject: Pharmacoinformatics

Time: 3 Hours

Max.Marks: 70

Note: Answer all questions. All questions carry equal marks.

- 1.(a) What is database? Write about different types of databases?
(b) Write about phylogenetic analysis.
OR
(c) Write about data mining and knowledge discovery in databases.
(d) Describe briefly about database architecture.
- 2.(a) What is sequence alignment? Write about dynamic programming methods of sequence alignment.
OR
(b) Write about storage and retrieval of information from databases.
(c) Write about homology search and pattern matching.
- 3.(a) Discuss about drug information resources.
(b) Write about databases useful in emergency treatment of poisoning.
OR
(c) Describe in detail about the distribution, management and inventory control of medication.
- 4.(a) What are the methods of DNA sequencing? Write about conventional and automated DNA sequencing.
OR
(b) Write about homology searches (BLAST and FASTA) for proteins and nucleic acids.
- 5.(a) What is the difference between SAR and QSAR? Write about Hansch analysis and Free-Wilson analysis for drug design.
OR
(b) What are the theories for drug – receptor interactions? Write briefly about factors affecting on drug – receptor interactions.

FACULTY OF PHARMACY

B. Pharmacy 4/4 II-Semester (Main) Examination, March / April 2013

Subject : Pharmaceutical Biotechnology

Time : 3 Hours

Max. Marks: 70

Note: Answer All questions. All questions carry equal marks.

1.(a) Give an account of production of Insulin by rDNA technology.

OR

- (b) Write brief account on :
(i) Restriction Endonucleases
(ii) Cloning strategies

2.(a) Give a detailed account of various methods for immobilization of Enzymes. Add a note on their applications.

OR

- (b) Give a brief account on
(i) Aeration in fermentors
(ii) Scale up of fermentors
(iii) Batch and continuous fermentations

3.(a) Define and classify vaccines. Write the preparation and standardization of any one bacterial vaccine.

OR

- (b) Give a brief account on
(i) Preparation and purification of Diphtheria antitoxin
(ii) Immunodiagnostics

4.(a) Give an account of collection, processing and storage conditions of whole Human Blood and concentrated Human RBC. Add a note on the preparation and sterilization of Human Fibrin foam.

OR

- (b) What are the ideal requirements of plasma substitute? Write the fermentative production of Dextran.

5.(a) Give an account of production of monoclonal antibodies. Add a note on their applications.

OR

- (b) What is the significance of microbial transformation of steroids? Explain the type and methods of transformation mediated by micro organisms.

FACULTY OF PHARMACY

B. Pharmacy 4/4 II – Semester (Main) Examination, March / April 2013

Subject: Cosmetic Technology

Time: 3Hours

Max.Marks: 70

Note: Answer all questions. All questions carry equal marks.

- 1.(a) i) Write about the labelling and packaging requirements of cosmetic products.
ii) Explain the role of antioxidants in cosmetic preparations.
- OR**
- (b) i) What are preservatives. Classify them with suitable examples.
ii) Write about the classification of perfumes with examples.
- 2.(a) i) What are vanishing creams. Explain the formulation and packing of vanishing creams.
ii) How do you formulate and evaluate a baby shampoo.
- OR**
- (b) i) Discuss about the various raw materials used in the formulation of face powders.
ii) Write short notes on eye liners and eye shadows.
- 3.(a) i) Write about the formulation and quality control tests for nail lacquers.
ii) Mention the differences between deodorants and antiperspirants. Write about the formulation of an antiperspirant liquid.
- OR**
- (b) i) Discuss about the formulation and evaluation of nail polish removers.
ii) Write about talcum powders.
- 4.(a) i) List out the various therapeutic substances used in the formulation of medicated toothpastes. Write about the formulation of fluoride toothpaste.
ii) How do you formulate and evaluate a depilatory cream.
- OR**
- (b) i) Discuss about the various surfactants used in the formulation of shampoos.
ii) Write short notes on hair creams and mouth washes.
- 5.(a) i) Discuss about the various ingredients used in the formulation of herbal shampoos.
ii) How do you formulate and manufacture a body oil with herbal ingredients.
- OR**
- (b) i) Discuss about herbal face packs.
ii) Write about the formulation and manufacture of herbal hair conditions.

FACULTY OF PHARMACY

B. Pharmacy 4/4 II-Semester (Main) Examination, March / April 2013

Subject : Hospital and Clinical Pharmacy

Time : 3 Hours

Max. Marks: 70

Note: Answer All questions. All questions carry equal marks.

- 1.(a)(i) Describe the organizational chart of a typical hospital. Discuss about Hospital drug policy.
(ii) Define and explain the role of hospital pharmacist.

OR

- (b) Discuss the purpose, organization and function of pharmacy and therapeutics committee.

- 2.(a)(i) Write a note on pharmacy procedural manual.
(ii) Explain the procedure for handling and dispensing of ancillary and controlled substances.

OR

- (b)(i) Explain the storage and handling of radiopharmaceuticals in a hospital.
(ii) Write a note on Hospital formulary.

- 3.(a) Write a short note on :
(i) Drug therapy monitoring (ii) Medication History Review

OR

- (b) Describe the Liver and Renal organ functional tests.

- 4.(a) What are Drug Distribution systems? Explain Unit Dose drug distribution system.

OR

- (b) Write a note on Drug induced diseases with examples.

- 5.(a) Describe the symptoms, pathophysiology and etiology of
(i) Asthma (ii) Diabetes

OR

- (b) Explain the pharmacotherapy and rational use of Drugs
(i) Gastro intestinal disorders
(ii) Cardiovasucular disorders

FACULTY OF PHARMACY

B. Pharmacy IV Year II – Semester (Main) Examination, March / April 2013

Subject: Pharmacoinformatics

Time: 3Hours

Max.Marks: 70

Note: Answer all questions. All questions carry equal marks.

- 1.(a) What is database? Write about sequence and structural databases.
(b) Discuss about drug information databases.
OR
(c) Write about codd's rules in databases.
(d) Describe briefly about database normalization and database architecture.
- 2.(a) What is Hidden Markov model? Describe briefly about its construction and use in alignment and prediction.
OR
(b) What is an algorithm? What are the algorithms used in sequence alignment for proteins and nucleotides?
- 3.(a) Describe in detail about the drug information services and resources available.
OR
(b) What is pharmacy automation? Write about automated medication dosage, filling and packaging.
- 4.(a) What are biological databases? Write the databases useful for proteins and nucleic acids.
OR
(b) Write about BLAST and FASTA for homology searches of proteins and nucleic acids.
- 5.(a) What is QSAR? Write about QSAR methods and applications of QSAR.
OR
(b) What is energy minimization? Write the importance of energy minimization in drug design.
(c) Write briefly about factors affecting the bioactivity of drugs.
