

FACULTY OF PHARMACY

B. Pharmacy 4/4 II - Semester (NON-CBCS) (Backlog) Examination, July 2022

Subject: Pharmaceutical Biotechnology

Time: 3 Hours

Max. Marks: 70

PART – A

Note: Answer any five questions.

(5 x 14 = 70 Marks)

1. Explain in detail steps involved in DNA cloning.
2. What is Microbiological assay? Explain principle and procedure in Microbiological assay of antibiotic by diffusion method.
3. What are Vaccines? Explain Manufacturing, Standardization, storage, labeling of BCG vaccine.
4. What are Monoclonal antibodies? Explain Production of monoclonal antibodies.
5. Define Fermentation. Explain Batch and Continuous fermentation process.
6. What is Immobilization? Mention types of Immobilization. Explain methods of Immobilization and advantages and disadvantages.
7. What are plasma substitutes? Explain the method of Production of Dextran.
8. Explain method of Isolation of pure substances from Pancreas and Thyroid glands.
9. Define Biotransformation. Explain types and methods of transformation mediated by microorganisms.
10. Explain method of preparation and application of dried human plasma and dried human serum.

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FACULTY OF PHARMACY

**B. Pharmacy 4/4 II – Semester (NON-CBCS) (Backlog) Examination,
July 2022**

Subject: Pharmacoinformatics

Time: 3 Hours

Max. Marks: 70

Note: Answer any five questions.

(5 x 14 = 70 Marks)

- 1 (a) Write a note on Data mining and KDD.
(b) Write a note on (i) Biological databases with examples
(ii) Codd's rules.
- 2 Write a note on the following
(i) Bibliographic databases and library catalogs (ii) Database Normalization
- 3 What is sequence alignment? Explain Dynamic programming method (Needleman-Wunsch and Smith-Waterman) for sequence alignment of proteins and nucleic acids.
- 4 Write a note on (i) Hidden Markov model construction and applications
(ii) Homology Searches
- 5 (a) Write about Drug information resources and their advantages. Disadvantages with examples.
(b) Write a note on preparation of written and verbal reports.
- 6 (a) Write about bar-codes and coding of information.
(b) What is pharmacy automation? Write its applications.
- 7 (a) Write a note on cosmid libraries.
(b) What is DNA sequencing? Write about Maxam-Gilbert method and Sanger methods for DNA sequencing.
- 8 Write a note on (i) BLAST (ii) SEISSPROT (iii) PDB (iv) CATH
- 9 Write the difference between SAR and QSAR? Explain Free-Wilson and Hansch methods of Analysis of QSAR for drug design.
- 10 (a) Write and explain the theories of drug receptor interactions.
(b) Write a note on (i) Energy minimization (ii) Bio-isosterism.

FACULTY OF PHARMACY

B. Pharmacy IV Year II - Semester (NON-CBCS) (Backlog) Examination, July 2022

Subject: Cosmetic Technology

Time: 3 Hours

Max. Marks: 70

PART – A

Note: Answer any five questions.

(5 x 14 = 70 Marks)

1. (a) Describe the structure and function of skin.
(b) Write a note on colouring agents used in cosmetics with examples.
2. (a) Write a note on surfactants, preservatives and antioxidants used in cosmetic preparations.
(b) Write a brief note on regulatory provisions related to cosmetics.
3. Write the formulation, method, packing and labeling of following cosmetics
(i) Vanishing creams (ii) Face powders.
4. Write the formulation, method, packing and labeling of following cosmetics
(i) Eyes shadows (ii) Mascaras
5. Write the formulation, method, packing and labeling of following cosmetics
(i) Bleaching preparations (ii) Body lotions
6. (a) Differentiate between deodorants and antiperspirants.
(b) Write a note on pre-shave and after-shave preparations.
7. (a) Write the structure of hair.
(b) Write a note on (i) Shampoos (ii) Hair straighteners
8. (a) Differentiate between depilatories and epilatories.
(b) Write brief note on preparations used for oral care.
9. Write the formulation, manufacturing and labelling of
(i) Herbal body oils (ii) Herbal hair conditioners.
10. (a) Write a note on herbal shampoos.
(b) Write a note on formulation, manufacturing and labeling of Herbal face packs.

FACULTY OF PHARMACY

**B. Pharmacy 4/4 II – Semester (NON-CBCS) (Backlog) Examination,
July 2022**

Subject: Hospital and Clinical Pharmacy

Time: 3 Hours

Max. Marks: 70

Note: Answer any five questions.

(5 x 14 = 70 Marks)

- 1 (a) Write the organization and functions of hospital pharmacy.
(b) Explain the concept of drug exchange program.
- 2 (a) Explain the organization and functions of Pharmacy and Therapeutic Committee.
(b) Explain the role of pharmacist in Pharmacy and Therapeutic Committee.
- 3 Describe the procedures for purchasing and inventory control in hospital pharmacy department.
- 4 What is hospital formulary? Explain its contents, preparation and distribution in a typical hospital.
- 5 (a) Explain the kidney function tests and their role in diagnosis and treatment of disease states.
(b) Write a note on drug information center.
- 6 (a) Write about the medication history review and mention its significance.
(b) Discuss about Adverse drug Reaction identification and reporting methods.
- 7 (a) Describe various drug induced diseases along with examples.
(b) Write various drug-food interactions and mention their significance.
- 8 Explain the drug distribution systems for out-patients and in-patients in hospital.
- 9 Write the symptoms and pathophysiology of Ulcerative colitis and angina pectoris.
- 10 Write critical analysis and pharmaco-therapy of Syphilis and angina pectoris.

FACULTY OF PHARMACY

B. Pharmacy 4/4 II-Semester (Non-CBCS) (Backlog) Examination, July 2021

Subject: Pharmaceutical Biotechnology

Time: 2Hours

Max. Marks: 70

Note: Answer any Four Questions.

(4 x 17½ = 70 Marks)

1. Give a brief explanation of
 - i) DNA ligases
 - ii) Human growth hormones
 - iii) Interferons
2. Define rDNA technology. Explain the manufacture of insulin by rDNA technology
3. Draw the diagram of a fermentor. Explain the parts. Add a note on the fermentative production of semisynthetic penicillins.
4. Explain various methods of immobilization of enzymes.
5. Write the method of preparation, purification and standardization of diphtheria antitoxin.
6. Write about (i) Immunodiagnostics (ii) Viral vaccines
7. Write the preparation and purification of Dextran.
8. (i) Write about the preparation of dried human plasma & human fibrin foam
(ii) Explain the preparation of extracts of pancreas gland.
9. Explain various methods of microbial transformation of steroids.
10. What is hybridoma technology. Write the method for the production of monoclonal antibodies.

FACULTY OF PHARMACY
B. Pharmacy 4/4 II Semester (Non-CBCS) (Backlog) Examination, July 2021

Subject: Cosmetic Technology

Time: 2 Hours

Max. Marks: 70

Note: Answer any four questions.

(4x17 ½ = 70 Marks)

- 1 (a) Define Cosmetics. Classify the Cosmetic Preparations.
(b) Write a note on Regulatory requirements related to cosmetics.
- 2 (a) Classify Colors according to their sources with examples.
(b) Describe the role of Preservatives in Cosmetic preparations with example.
- 3 (a) Enlist the raw materials used in preparation of Lipsticks with an example. Add a note on manufacturing of lipsticks.
(b) Differentiate between vanishing creams and cleansing creams.
- 4 (a) Discuss about the additives used in formulation of Face Powders.
(b) Write short notes on Mascaras.
- 5 (a) Write about the formulation and evaluation of bleaching preparations.
(b) Write a note on formulation of Nail Lacquers.
- 6 (a) Classify shaving preparations. Write about formulation of Shaving creams with an example.
(b) Differentiate Deodorants and Antiperspirants.
- 7 (a) Classify Hair dyes. Write about the formulation of permanent hair dyes.
(b) Write short notes on Shampoos.
- 8 (a) Differentiate Depilatories and Epilatories.
(b) Write in detail the formulation and manufacture of Mouth washes.
- 9 (a) Discuss about the formulation and manufacturing of Moisturising Lotions.
(b) Discuss the additives used in Herbal shampoos with examples.
- 10 (a) Write briefly the formulation of Herbal Body oils.
(b) What is the importance of Herbal Cosmetics?

FACULTY OF PHARMACY

B. Pharmacy 4/4 II -Semester (NON-CBCS) (Backlog) Examination, July 2021

Subject: Pharmacoinformatics

Time: 2 Hours

Max. Marks: 70

Note: Answer any four questions.

(4 x 17 ½ = 70 Marks)

1. (a) What is Database? Classify and write about different types of databases.
(b) What are relational databases? Write about Codd's rules.
2. (a) What is Phylogenetic analysis? Write about different types of trees in phylogenetic analysis.
(b) Write about Bibliographic databases and Library Catalogs.
3. Write a note on sequence alignment. Explain Needleman-Wunsch algorithm for sequence alignment of proteins and nucleic acids.
4. (a) Write a note on construction and applications of Hidden Markov Models.
(b) Write about storage and retrieval of information from databases.
5. (a) What are drug information resources? Write drug information resources with merits and demerits.
(b) Write a note on databases used in emergency treatment of poisoning.
6. Write about Pharmacy Automation, its application in medication dosage, filling & packaging, medication distribution and inventory control.
7. (a) Describe Maxam-Gilbert and Sanger method for DNA sequencing.
(b) Write a note on BLAST.
8. Write a brief note on following and their uses.
(i) Swissprot (ii) SCOP (iii) PDB (iv) Cosmid
9. (a) What is SAR and QSAR? Write about Hansch analysis and Free-Wilson analysis.
(b) Write a note on bioisosterism.
10. (a) Write a note on (i) Molecular docking (ii) Energy minimization
(b) Write a note on theories of drug receptor for drug activity.

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FACULTY OF PHARMACY

B. Pharmacy 4/4 II-Semester (Non-CBCS) (Backlog) Examination, July 2021

Subject: Hospital and Clinical Pharmacy

Time: 2 Hours

Max. Marks: 70

Note: Answer any four questions.

(4x17½=70 Marks)

- 1 (a) Explain the organization and functions of Pharmacy and Therapeutic Committee.
(b) Explain the role of pharmacist in Pharmacy and Therapeutic Committee.
- 2 (a) Define hospital pharmacy and mention its organization and objectives.
(b) Mention the role of pharmacist in hospital pharmacy.
- 3 (a) Describe the procedures for purchasing and inventory control in hospital pharmacy department.
(b) Explain the procedure involved in procurement and distribution of alcohol in hospital pharmacy.
- 4 Write different hospital equipment and mention their significance.
- 5 (a) Explain the kidney function tests and their role in diagnosis and treatment of disease states.
(b) Write a note on drug information center.
- 6 Describe about therapeutic drug monitoring along with their importance.
- 7 (a) Describe various drug induced diseases along with examples.
(b) Write various drug-food interactions and mention their significance.
- 8 Explain the concept of rational drug therapy and mention the importance of essential drug list.
- 9 Explain the critical analysis and pharmacotherapy of asthma and Diabetes.
- 10 Write the symptoms and pathophysiology of Ulcerative colitis and angina pectoris.

FACULTY OF PHARMACY

B. Pharmacy 4/4 II-Semester (Non-CBCS)(Backlog) Examination, September 2020

Subject : Hospital and Clinical Pharmacy

Time : 2 Hours

Max. Marks: 70

Note: Answer any four questions.

(4x17½=70 Marks)

- 1 (a) Write the organization and functions of hospital pharmacy.
(b) Explain the concept of drug exchange program.
- 2 What is the significance of hospital drug policy? Explain the general factors to be considered while framing the hospital drug policy
- 3 (a) Write different types of budgeting procedures and mention their advantages and limitations.
(b) Explain the procurement and distribution of bulk supplies in hospital pharmacy.
- 4 What is hospital formulary? Explain its contents, preparation and distribution in a typical hospital.
- 5 (a) Write the medication history review and mention its significance.
(b) Discuss about Adverse drug Reaction identification and reporting methods.
- 6 Describe different liver and kidney function tests and mention their importance.
- 7 (a) Explain various drug-food interactions with examples.
(b) Describe different drug induced diseases with examples.
- 8 Explain the drug distribution systems for out-patients and in-patients in hospital.
- 9 Write the symptoms and patho-physiology of HIV and Asthma.
- 10 Write critical analysis and pharmaco-therapy of Syphilis and angina pectoris.

FACULTY OF PHARMACY

B. Pharmacy 4/4 II-Semester (Non-CBCS)(Backlog) Examination, September 2020

Subject : Cosmetic Technology

Time : 2 Hours

Max. Marks: 70

Note: Answer any four questions.

(4x17½=70 Marks)

- 1 (i) Write a note on Regulatory provisions related to cosmetics.
(ii) Write a note on surfactants used in Cosmetic preparations.
- 2 (i) Discuss the role of antioxidants and UV Absorbers used in Cosmetic preparations.
(ii) Define cosmetics. Explain the functions of skin.
- 3 (i) Discuss formulation and evaluation of face powders.
(ii) Write a note on formulation of baby lotions.
- 4 (i) Write briefly about formulation and evaluation of Cleansing creams.
(ii) Write a note on Eye Shadows.
- 5 (i) Write a note on Nail lacquers.
(ii) Differentiate between Deodorants and Antiperspirants.
- 6 (i) Write a note on formulation of body lotions.
(ii) Write the formulation and evaluation of Bleaching preparations.
- 7 (i) Write a note on evaluation of shampoos.
(ii) Write about formulation and evaluation of Hair Straightners.
- 8 (i) Differentiate depilatories and epilatories.
(ii) Write briefly about formulation of Tooth pastes.
- 9 (i) Write a note on formulation and evaluation of Herbal shampoos.
(ii) Write a note on moisturizing lotions.
- 10 (i) Write a note on formulation, manufacturing and labelling of Herbal face packs.
(ii) Discuss the formulation and manufacture of Herbal oils.

FACULTY OF PHARMACY

B. Pharmacy 4/4-Year II-Semester (Non-CBCS) (Main) Examination, May 2019

Subject : Pharmaceutical Biotechnology

Time : 3 Hours

Max. Marks: 70

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

- 1 (a) Explain the production of INSULIN by r-DNA technology process? (14)

OR

Write short notes on:

- (b) DNA ligases
- (c) interleukins
- (d) gene expression in recombinant DNA.

- 2 (a) Give an account of fermentative production of streptomycin. (14)

OR

(b) Write a note on the principle and procedure for the microbiological assay of antibiotics as per IP with a special emphasis on one level and two level assays?

- 3 Write a note on preparation and standardization of the following : (14)

- (a) DPT vaccine
- (b) BCG vaccine

OR

Write a note on the following :

- (c) Immunodiagnostics
- (d) Viral vaccines.

- 4 (a) What are the properties of an ideal plasma substitute? Write a detailed note on the preparation and purification of dextran? (14)

OR

Write short notes on:

- (a) preparation of dried human plasma
- (b) human fibrin foam
- (c) conc. Human RBC

- 5 (a) Write a note on different types of microbial transformations of steroids? (14)

OR

(b) Explain the production of monoclonal antibodies?

FACULTY OF PHARMACY

B. Pharmacy 4/4-Year II-Semester (Non-CBCS) (Main) Examination, May 2019

Subject : Cosmetic Technology

Time : 3 Hours

Max. Marks: 70

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

- 1 (a) Classify colours, and add a note on their usage in cosmetic preparations.
(b) Write a note on Structure and function of Skin.
OR
(c) Write a note on surfactants used in Cosmetic preparations.
(d) Write a note on Regulatory requirements related to cosmetics.
- 2 (a) Discuss formulation and evaluation of Cleansing creams.
(b) Discuss quality control tests for lipsticks.
OR
(c) Write briefly about formulation of face powders.
(d) Write a note on evaluation of face powders.
- 3 (a) Write the formulation and evaluation of Bleaching preparations.
(b) Differentiate between Lather shaving cream and Brushless shaving cream.
OR
(c) Write a note on formulation of shaving soaps.
(d) Write a note on Nail preparations.
- 4 (a) Differentiate depilatories and epilatories.
(b) Write about formulation and labeling of Mouthwashes.
OR
(c) Write a note on evaluation of shampoos.
(d) Write briefly about formulation of Tooth powders.
- 5 (a) Write a note on formulation and evaluation of Herbal face packs.
(b) Write a note on moisturizing lotions.
OR
(c) What are Herbal Cosmetics? Write about the formulation of Herbal Hair Conditioners.
(d) Discuss the formulation and manufacture of Herbal oils.

FACULTY OF PHARMACY

B. Pharmacy 4/4 II-semester (Non-CBCS) (Main) Examination, May 2019

Subject: Hospital and clinical Pharmacy

Time: 3 Hours

Max. Marks: 70

Note: Answer all questions. All questions carry equal marks

1. a) Write the organization and functions of hospital pharmacy. 7
b) What is drug exchange program and its benefits in hospital pharmacy. 7
OR
c) Mention the procedures followed by pharmacist for the implementation of rational drug use.
2. a) Describe the approaches for purchasing and inventory control in hospital pharmacy department.
OR
b) Write the critical procedures for the manufacture of sterile supplies in hospital. 7
c) Write different types of budgeting procedures and mention their advantages and limitations. 7
3. a) Write the medication history review and mention its significance.
b) Explain the importance of patient counseling and write approaches to improve the patient compliance.
OR
b) Explain the kidney function tests and their role in diagnosis and treatment of disease states.
c)
4. a) Describe various drug induced diseases along with examples.
OR
b) Explain various drug-food interactions with help of examples. 8
c) Write the significance of unit dose drug distribution in therapy. 6
5. Write the symptoms, patho-physiology of following diseases:
(a) HIV (b) Asthma
OR
Explain the critical analysis and pharmacotherapy in following disorders:
(a) Skin infections (b) Diabetes
