

FACULTY OF PHARMACY

B. Pharmacy IV Year II – Semester (Main) Examination, April 2015

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 rDNA technology.
OR
b) Give a brief account of (i) Restriction Endonucleases (ii) Cloning strategies.
- 2 a) Give an account of microbiological assay of Vitamin B₁₂.
OR
b) Give an account of immobilization of enzymes and their applications.
- 3 a) Define and classify vaccines. Write the preparation and purified forms of diphtheria vaccine.
OR
b) Give an account of
 - i) Viral vaccines
 - ii) Immunodiagnostics
- 4a) i) Describe the collection, processing and storage conditions of whole human blood.
ii) Write the preparation of dried human plasma.
OR
b) What are the ideal requirements of plasma substitutes? Write the fermentative production of dextran.
- 5 a) Give an account of microbial transformation of steroids.
OR
b) Describe the production of monoclonal antibodies. Add a note on their applications.

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B. Pharmacy 4/4 Year II – Semester (Main) Examination, April 2015

Subject: Hospital and Clinical Pharmacy

Time: 3 Hours

Max.Marks: 70

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

- 1 a) Describe the organization and functions of pharmacy therapeutic committee.
OR
b) What is rational drug therapy and explain the role of pharmacist in it.
- 2 a) Describe the procedures and precautions during the storage and handling of radiopharmaceuticals.
OR
b) Write the list of surgical instrument and hospital equipments in typical hospital formulary and mention their significance.
- 3 a) Describe the requirements of therapeutic drug monitoring and mention the role of pharmacist in it.
OR
b) Explain the various liver function tests along with their significance.
- 4 a) Describe the procedure of unit dose distribution system in out-patient and in-patient services.
OR
b) Describe different drug induced diseases with help of examples.
- 5 a) Explain the symptoms, manifestation and patho-physiology of ulcerative colitis and angina pectoris.
OR
b) Describe the critical analysis and rational use of drugs in hypertension.

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B. Pharmacy IV Year II – Semester (Main) Examination, April 2015

Subject: Cosmetic Technology

Time: 3 Hours

Max.Marks: 70

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

- 1 a) i) Write a note on anatomy and function of skin.
ii) Write a note on regulatory provisions relating to manufacturing of cosmetics.
OR
b) i) Write in brief quality control tests for tooth powders and tooth pastes.
ii) List out the colouring agents used in cosmetic preparations with advantages.
- 2 a) i) What are lipsticks? Explain the formulation of lipsticks.
ii) Discuss quality control tests for lipsticks.
OR
b) i) Differentiate between vanishing creams and cleansing creams.
ii) Describe the formulation, packing and labelling of baby shampoos.
- 3 a) i) Write about the formulation and evaluation of body creams.
ii) Write about the formulation of Nail Lacquers.
OR
b) i) Classify shaving preparations. Write about the formulation of shaving soaps.
ii) Differentiate deodorants and antiperspirants.
- 4 a) i) What are the additives used in shampoos. Write about the formulation of liquid shampoos.
ii) Explain formulation of typical mouth wash.
OR
b) i) What are depilatories and epilatories.
ii) Write a note on quality control tests for shampoos.
- 5 a) i) Discuss the formulation and manufacture of moisturizing lotions.
ii) What are herbal cosmetics? Write about the formulation of herbal shampoos.
OR
b) i) Discuss about the formulation and evaluation of face packs.
ii) Write briefly about herbal body oils.

FACULTY OF PHARMACY**B. Pharmacy IV Year II – Semester (Main) Examination, April 2015****Subject: Pharmacoinformatics****Time: 3 Hours****Max.Marks: 70****Note: Answer all questions. All questions carry equal marks.**

- 1 a) Write about data mining and Knowledge Discovery in Databases (KDD). (7)
 b) Write about Database Architecture and Codd's rules? (7)
OR
 c) What is database normalization? Discuss about different types of normalization. (7)
 d) Write about bibliographic databases and library catalogs. (7)
- 2 a) What is sequence alignment? Explain Needleman – Wunsch algorithm and Smith – Waterman algorithm for sequence alignment? (14)
OR
 b) Write a note on database querying, key work searching and search machines? (10)
 c) Write the applications of HMM. (4)
- 3 a) Classify the drug information resources available. Give their merits and demerits with examples. (10)
 b) What are databases useful for emergency treatment of poisoning? (4)
OR
 c) Write a brief note on coding of information and barcodes. (7)
 d) What is pharmacy automation? Write its importance in medication distribution and inventory control. (7)
- 4 a) What is DNA sequencing? Write and explain methods of sequencing. (9)
 b) Write short note on cosmid libraries and BAC libraries. (5)
OR
 c) Write a note on protein sequence databanks (14)
 i) Swissport ii) PIR iii) Interpro
- 5 a) What is drug design? Write about Free-Wilson and Hansch analysis for QSAR. (10)
 b) Write a brief note on docking. (4)
OR
 c) Write a brief note on theories of drug activity and drug-receptor interactions. (8)
 d) Write methods and applications of energy minimization. (6)
