

Question Paper

Exam Date & Time: 12-May-2022 (10:00 AM - 01:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

SECOND YEAR D. PHARM. EXAMINATION - MAY 2022

SUBJECT: PHARMACEUTICS - II (2.1)

Marks: 80

Duration: 180 mins.

Answer ANY TEN questions.

- 1A) Define mixtures. Write a note on vehicles used in the preparation of mixtures. (4)
- 1B) Discuss the general method of preparation of emulsions using dry gum method. What causes phase inversion in emulsions? (4)
- 1C) Explain the general requirements for sterile products.. (4)
- 1D) Define and classify powders. Write a note on dentifrices. (4)
- 1E) Write a note on fatty bases used in the preparation of suppositories. (4)
- 1F) Differentiate between pastes and ointments. (4)
- 1G) Discuss the containers and closures used for parenteral products. (4)
- 1H) What is herapath reaction? (4)
- 1I) Briefly explain liniments and lotions. (4)
- 1J) Explain total parenteral nutrition. (4)
- 1K) Write a note on shampoos. (4)
- 1L) Briefly explain different types of therapeutic incompatibility. (4)
- 1M) i) Write a note on idiosyncrasy and tachyphylaxis. (4)
ii) What is the dose of a drug for a child that weighs 28 lb if the average adult dose is 100 mg? (4)

2. Compulsory Question.

- 2A) i) What are parenteral products? Write a note on various vehicles used in the preparation of parenteral preparations. (14)
ii) Briefly explain the formulation of eye drops.
- [OR] i) Define suspensions. Differentiate between flocculated and non-flocculated suspension. (14)
- 2B) ii) Explain the various tests for identification of type of emulsion.

Answer ANY TWO questions.

- 3) What are effervescent granules? Explain the preparation of effervescent granules by fusion method. (13)
- 4) List the different methods of preparation of ointments and explain any two methods in detail. (13)

- 5) i) Define prescription. Explain the different parts of a prescription.
ii) Find the concentration of boric acid required to produce a solution iso-osmotic with lachrymal secretion. Molecular weight of boric acid is 62 and it is non-ionizing.

(13)

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Question Paper

Exam Date & Time: 05-May-2022 (10:00 AM - 01:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

SECOND YEAR D PHARM DEGREE EXAMINATION - MAY 2022
SUBJECT: 2.2: PHARMACEUTICAL CHEMISTRY - II

Marks: 80

Duration: 180 mins.

1. Answer ANY TEN questions.

- 1A) What are antiseptic and disinfectants? Classify them with examples. (4)
- 1B) Give the chemical structure, IUPAC name and uses of sulphacetamide. (4)
- 1C) Give the chemical structure, IUPAC name and uses of Isoniazid. (4)
- 1D) What are antileprotic agents? Classify them. (4)
- 1E) Explain the life cycle of Entamoeba histolytica with diagram. (4)
- 1F) Give the properties, storage conditions and uses of chloroquine. (4)
- 1G) Give the properties and uses of benzyl penicillin. (4)
- 1H) Give the chemical structure and uses of Chlorpromazine. (4)
- 1I) Discuss the properties, storage conditions and uses of Propantheline. (4)
- 1J) Give the structure and uses of adrenaline. (4)
- 1K) What are hypnotics and sedatives? Classify them. (4)
- 1L) Give the chemical structure and uses of cyclopropane. (4)
- 1M) Give the properties, storage conditions and uses of Phenobarbitone. (4)
- 1N) What are analeptics? Classify them. (4)

2. Compulsory question.

- 2A) Define diuretics. Classify diuretics giving one example under each class. Give the structure, storage conditions and uses of Furosemide and Hydrochlorothiazide. (14)
(1+7+6 = 14 marks)
- [OR]
2B) Classify oral hypoglycemic agents with one example each class. Write the general description, properties, stability and storage and uses of insulin. Give the structure, properties, storage conditions and uses of Menadione. (14)
(3+6+5 = 14 marks)

Answer ANY TWO questions.

- 3) Classify anticancer agents, giving one example each class. Give the properties, storage conditions and use of Chlorambucil. (13)

- 4) Define antihistaminics. Write the structure, properties, storage conditions, dosage forms and uses of (13)
Diphenhydramine and Chlorpheniramine.
- 5) Give the classification of diagnostic agents with one example. Give the properties and uses of (13)
Iopanoic acid, Propyl iodone, Indigo carmine, Evans blue.

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Question Paper

Exam Date & Time: 02-May-2022 (10:00 AM - 01:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

SECOND YEAR D. PHARM. DEGREE EXAMINATION - MAY 2022
SUBJECT: PHARMACOLOGY & TOXICOLOGY (2.3)

Marks: 80

Duration: 180 mins.

Answer ANY TEN questions.

- 1A) Explain the mechanism of action of sulphonamides. List its toxicities. (4)
- 1B) Classify the drugs used in the treatment of leprosy with one example each. (4)
- 1C) What are the applications of antiviral drugs? Classify them with one example each. (4)
- 1D) Classify antianginal drugs with example. (4)
- 1E) Explain the role of pH and particle size on drug absorption. (4)
- 1F) Define general anaesthesia. Write its uses. (4)
- 1G) Classify diuretics with example. Explain their uses. (4)
- 1H) Define REM and NREM sleep. Mention the various stages of NREM sleep. (4)
- 1I) Write a note on first pass metabolism. Name any two drugs that follow first pass metabolism. (4)
- 1J) Define arrhythmia. Classify antiarrhythmic drugs with example. (4)
- 1K) Classify NSAIDs with example. (4)
- 1L) Define the terms: Pharmacokinetics, Bioavailability, Bioequivalence, distribution. (4)
- 1M) Classify antihypertensive drugs with example. (4)

Compulsory questions.

- 2A) Explain the cholinergic neurotransmission with a labelled diagram. Mention the drugs affecting it. (14)
- [OR]
2B) Classify anticholinesterases. Explain the mechanism of action of anticholinesterase with a diagram. (14)

Answer ANY TWO questions.

- 3) Name the various routes of drug administration. Write a note on factors modifying drug effect. (13)
(6+7 = 13 marks)
- 4) Classify sympathomimetic drugs. Explain their pharmacological actions. (13)
(4+9 = 13 marks)
- 5) Explain the coagulation pathway with diagram. Classify oral anticoagulant. Discuss the pharmacological uses of oral anticoagulants. (13)
(4+4+5 = 13 marks)

Question Paper

Exam Date & Time: 10-May-2022 (10:00 AM - 01:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

SECOND YEAR D. PHARM. EXAMINATION - MAY 2022
SUBJECT: PHARMACEUTICAL JURISPRUDENCE (2.4)

Marks: 80

Duration: 180 mins.

1. Answer any TEN questions.

- 1A) What are the functions of NPPA? Enlist. (4)
- 1B) What is the formula to fix a retail price of medicine according to DPCO 1995? (4)
- 1C) What are classes of advertisement exempted under Drugs and Magic Remedies Act? (4)
- 1D) Provide a brief description regarding duties of pharmacists in relation to his job. (4)
- 1E) What are the functions of Animal Welfare Board of India? (4)
- 1F) What experience and training is required for a medical practitioner to perform medical termination of pregnancy? (4)
- 1G) What is the function and purpose of Law? What is meant by Legislation, Regulation and Guidelines? (4)
- 1H) Enlist objective of Poisons Act. What are the offences and penalties related to Poisons Act? (4)
- 1I) Define "Sch. G" and "Sch. J" of D and C Act with suitable examples. (4)
- 1J) What are the substance which is prohibited to be imported into India? (4)
- 1K) Define "Opium derivative" and "Poppy Straw" as per NDPS Act. (4)
- 1L) Write a specimen label for Sch. X and Sch. G drug. (4)
- 1M) Write a note on 'e-Pharmacy'. (4)

Compulsory Question.

- 2A) Why was it imperative to have pharmaceutical legislations in India? What recommendations were given by Justice Ramnath Chopra Committee and Justice Joseph Bhore Committee? (14)
- [OR]
2B) Write in detail manufacturing dutiable goods in-Bond and outside the Bond. (14)

Answer anyTWO questions.

- 3) Explain Education regulations, approved courses of study and examination, and withdrawal of approval according to Pharmacy Act 1948. (13)
- 4) What are the powers given to Central Govt. and State Govt. as per NDPS Act? Discuss. (13)
- 5) List and explain different licenses provided for wholesale of drugs. (13)

Question Paper

Exam Date & Time: 07-May-2022 (10:00 AM - 01:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

SECOND YEAR D PHARM DEGREE EXAMINATION - MAY 2022
SUBJECT: 2.5: DRUG STORE AND BUSINESS MANAGEMENT

Marks: 80

Duration: 180 mins.

1. Answer ANY TEN questions.

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|-----|---|-----|
| 1A) | Enlist and explain the parts of an advertisement. | (4) |
| 1B) | What are the functions of retailers? | (4) |
| 1C) | Write a brief note on different kinds of Partners. | (4) |
| 1D) | Write the classification of industry based on type of goods produced. | (4) |
| 1E) | What are the essential features on good advertisement? | (4) |
| 1F) | Explain the procedure to be adopted for acquisition of premises for a pharmacy. | (4) |
| 1G) | Write a short note on scrap and surplus disposal. | (4) |
| 1H) | Discuss various compensation plans for an efficient employee. | (4) |
| 1I) | What information do the internal and external users get from accounting? | (4) |
| 1J) | Define Accounting Conventions. Enumerate various conventions. | (4) |
| 1K) | Define Book-Keeping. What are the principles of double entry book-keeping? | (4) |
| 1L) | State the requirements of effective budgeting. | (4) |
| 1M) | Expand GAAP. Explain dual aspect concept. | (4) |

Compulsory Question.

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|-------------|---|------|
| 2A) | What are the features, advantages and disadvantages of Sole Proprietorship form of business organisation? | (14) |
| [OR]
2B) | Define banks. Enlist and discuss different types of banks. | (14) |

Answer ANY TWO questions.

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|----|---|------|
| 3) | Define inventory control. Explain various inventory control techniques. | (13) |
| 4) | What are the documents that is required for renewal of wholesale license? | (13) |
| 5) | Explain the objectives and legal aspects of drug store. | (13) |

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Question Paper

Exam Date & Time: 14-May-2022 (10:00 AM - 01:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

SECOND YEAR D. PHARM. EXAMINATION - MAY 2022
SUBJECT: HOSPITAL AND CLINICAL PHARMACY (2.6)

Marks: 80

Duration: 180 mins.

Answer ANY TEN questions.

- 1A) Define hospital pharmacy. List out various category of staff functioning in hospital pharmacy and explain their functions. (4)
- 1B) Define drug information and explain various drug information resources with examples. (4)
- 1C) Write a short note on bandages. (4)
- 1D) Explain the application of computers in maintenance of records and inventory control. (4)
- 1E) Define adverse drug reactions and write the importance of reporting adverse drug reaction. (4)
- 1F) Write a short note on teratogenicity and drug induced disease. (4)
- 1G) Define bio availability of the drug and enlist the factors affecting the bioavailability. (4)
- 1H) Draw a floor plan of sterile product area. (4)
- 1I) Write a note on prepacking. (4)
- 1J) Explain the role of Pharmacy Therapeutic Committee in a hospital. (4)
- 1K) Discuss the various functions of an ideal hospital. (4)
- 1L) Define and classify stages of hypertension. (4)
- 1M) Mention various clinical pharmacy services. (4)

Answer Question No. 2A OR 2B.

- 2A) Explain signs and symptoms, pathophysiology, clinical manifestation of Tuberculosis. (14)
- [OR]
2B) Describe the various surgical instruments used in operation theatre of a hospital. (14)

Answer ANY TWO out of THREE questions.

- 3) Describe the processing involved in sterile manufacturing. (13)
- 4) Explain the process of drug distribution system for out-patients in hospital. (13)
- 5) Explain the treatment of insecticide poisoning, heavy metal poison and organophosphorus poisons. (13)

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