

**MANIPAL UNIVERSITY**  
**FIRST YEAR PHARM D (POST BACCALAUREATE)/FOURTH YEAR PHARM D.**  
**DEGREE EXAMINATION – MAY/JUNE 2013**

**SUBJECT: PD 4.1: PHARMACOTHERAPEUTICS – III**

Thursday, May 23, 2013

Time: 10:00 – 13:00 Hrs.

Max. Marks: 70

☞ **Long Essay Questions:**

1. Explain the DSM criteria for schizophrenia. Explain the role of lithium in psychiatric disorders.
2. Explain the clinical manifestations and management ascites and portal hypertension.
3. Explain the Pathophysiology and management of Parkinsonism.

(10×3 = 30 marks)

4. **Short Essay Questions:**

- 4A. Explain the management of ischemic and hemorrhagic stroke.
- 4B. Explain the role of non benzodiazepines in the management of anxiety disorders.
- 4C. Explain the symptoms and management of iron deficiency anemia.
- 4D. Describe the management of NSAID induced peptic ulcer.
- 4E. Explain the management of Crohn's disease.
- 4F. Explain the procedure for grading the clinical evidences.

(5×6 = 30 marks)

5. **Short Answers Questions:**

- 5A. Enumerate four drugs with their doses used for obsessive compulsive disorder.
- 5B. Mention the management of hepatic encephalopathy.
- 5C. List out the difference between gastric ulcer and duodenal ulcer.
- 5D. Mention the role of tricyclic anti-depressants in affective disorders.
- 5E. List out the management options for megaloblastic anemia.

(2×5 = 10 marks)



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FIRST YEAR PHARM D (POST BACCALAUREATE)/FOURTH YEAR PHARM D.  
DEGREE EXAMINATION – MAY/JUNE 2013

SUBJECT: PD 4.2: HOSPITAL PHARMACY

Saturday, May 25, 2013

Time: 10:00 – 13:00 Hrs.

Max. Marks: 70

✍ Answer ALL questions.

✍ Long Essay:

1. Define hospital. Explain organization chart of the hospital. (2+8 = 10 marks)

2A. Explain various granulation methods with its advantages.

2B. Describe various quality control tests for tablet formulation. (5+5 = 10 marks)

3. Define inventory, Reorder Quantity Level (RQL) and Economic Order Quantity (EOQ). Explain various methods to calculate economic order quantity. (3+7 = 10 marks)

4. Short Essay:

4A. What are the different professional relations and practices of hospital pharmacist in the hospital?

4B. Define Pharmacy Therapeutic Committee. Explain its objectives and composition.

4C. Explain the procedure for developing therapeutic guidelines.

4D. Explain floor stock drug distribution method with its advantages and disadvantages.

4E. Explain the legal basis of hospital formulary system.

4F. Draw an activity chart of hospital pharmacy. (5×6 = 30 marks)

5. Short Answers:

5A. Enumerate various functions of Central Sterile Supply Room.

5B. Mention the components of newsletter.

5C. What are the advantages and disadvantages of hospital formulary system?

5D. Write four advantages of unit dose drug distribution system.

5E. Write four pharmaceutical services rendered by hospital pharmacists. (2×5 = 10 marks)



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**DEGREE EXAMINATION – MAY/JUNE 2013**

**SUBJECT: PD 4.3: CLINICAL PHARMACY**

Tuesday, May 28, 2013

Time: 10:00 – 13:00 Hrs.

Max. Marks: 70

✍ **Long Essay Questions:**

1. Explain the causality assessment of ADR's according to WHO and Naranjo's scale.
2. Explain the goal and procedure for medication order review.
3. Define drug information and explain various drug information resources with its merits and demerits.

(10×3 = 30 marks)

4. **Short Essay Questions:**

- 4A. Define and classify medication errors as per American Society of Health-System Pharmacists (ASHP).
- 4B. Explain the various interventions during ward round participation.
- 4C. Define Drug Utilization Evaluation (DUE) and explain the classification of DUE studies.
- 4D. Explain briefly the principle involved in pharmaceutical care.
- 4E. Explain various cardiac markers with its clinical significance.
- 4F. Explain the verbal communication skills needed for effective patient counseling.

(5×6 = 30 marks)

5. **Short Questions:**

- 5A. Define ADR and ADE according to WHO.
- 5B. Write the clinical significance of red blood cells distribution width (RDW).
- 5C. Expand the given medical Abbreviations: ABG, CABG, BPH, LMWH.
- 5D. Write the goals of clinical review.
- 5E. Write the clinical application of Therapeutic Drug Monitoring.

(2×5 = 10 marks)



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DEGREE EXAMINATION – MAY/JUNE 2013**

**SUBJECT: PD 4.4: BIOSTATISTICS AND RESEARCH METHODOLOGY**

Thursday, May 30, 2013

Time: 10:00 – 13:00 Hrs.

Max. Marks: 70

✍ **Answer ALL questions.**

✍ **Long Essay:**

1. Briefly discuss the methodology of different observational studies.
2. Classify the tests for significance with suitable examples and describe any two tests for comparison of means.
3. Describe the need for sample size calculation in clinical studies. Explain the methodology of sample size for estimation of mean and comparison of mean.

(10×3 = 30 marks)

4. **Short Essay Questions:**

- 4A. Give examples for non-parametric tests and write the methodology of Mann Whitney U test.
- 4B. Discuss the role of computers in patient data management in hospitals.
- 4C. What are the assumptions of Chi-square test? Write the general steps involved in calculation of Chi-square test for association.
- 4D. Define odds ratio and relative risk, with the help of suitable examples explain their importance in demiological studies.
- 4E. Write the general steps involved in the calculation of One-way ANOVA.
- 4F. Briefly explain the applications of SPSS and Epi Info software in biomedical research.

(5×6 = 30 marks)

5. **Short Answer Questions:**

- 5A. State the assumptions of t-tests.
- 5B. Calculate the standard deviation for Hb content of following six students- 14.6, 13.4, 15.8, 11.8, 12.5, 15.1.
- 5C. Name the different post-hoc tests used during analysis of variance (ANOVA).
- 5D. Write the formula for calculation of coefficient variation. What is its application?
- 5E. Define power of a statistical test. Name the parameters which affect power.

(2×5 = 10 marks)



**MANIPAL UNIVERSITY****FIRST YEAR PHARM D (POST BACCALAUREATE)/FOURTH YEAR PHARM D.  
DEGREE EXAMINATION – MAY/JUNE 2013****SUBJECT: PD 4.5: BIOPHARMACEUTICS AND PHARMACOKINETICS**

Saturday, June 01, 2013

Time: 10:00 – 13:00 Hrs.

Max. Marks: 70

**1. Long Essay Questions:**

- 1A. Discuss in detail about non-renal routes of elimination.
- 1B. Explain causes of Nonlinearity of pharmacokinetics and describe Michaelis-Menten equation for non-linear pharmacokinetics.
- 1C. Explain the factors affecting drug distribution.

(10×3 = 30 marks)

**2. Short Essay Questions:**

- 2A. Explain mamillary compartment models with suitable illustration.
- 2B. Discuss Enterohepatic cycling.
- 2C. Discuss about patient related factors affecting protein binding of drugs.
- 2D. Describe open one compartment model for IV Infusion administration.
- 2E. Explain the factors affecting gastric emptying rate.
- 2F. Discuss on the binding sites of human serum albumin.

(5×6 = 30 marks)

**3. Short Answer Questions:**

- 3A. What is blood brain barrier?
- 3B. Define Apparent volume of distribution.
- 3C. Describe the effect of temperature on gastric emptying.
- 3D. Mention Cockcroft Gault formula for calculating creatinine clearance.
- 3E. Define bioavailability.

(2×5 = 10 marks)



**MANIPAL UNIVERSITY****FIRST YEAR PHARM D (POST BACCALAUREATE)/FOURTH YEAR PHARM D.  
DEGREE EXAMINATION – MAY/JUNE 2013****SUBJECT: PD 4.6: CLINICAL TOXICOLOGY**

Monday, June 03, 2013

Time: 10:00 – 13:00 Hrs.

Max. Marks: 70

- 1A. Classify venomous snakes and differentiate them.
- 1B. Explain the role of methionine and N-acetylcysteine in paracetamol poisoning.  
(5+5 = 10 marks)
- 2A. Explain the principles of antidote in the management of poisoning.
- 2B. Classify pyrethroids. Explain clinical features and management of pyrethroid poisoning.  
(5+5 = 10 marks)
- 3A. Explain the management of alcohol withdrawal syndrome.
- 3B. Explain clinical features and management of acute iron overdose.  
(5+5 = 10 marks)
- 4A. Classify organophosphorus insecticides according to WHO criteria. Explain “DUMBLES”.
- 4B. Explain the first Aid measures in snake bite poisoning.
- 4C. Classify toxidromes with suitable examples.
- 4D. Explain the grading of severity of poisoning according to Poison Severity scale.
- 4E. Explain various sources, sign and symptoms of lead poisoning.
- 4F. Explain the management of cocaine detoxification.  
(5×6 = 30 marks)
- 5A. Explain the role of atropine in OP poisoning.
- 5B. Enumerate the clinical sign and symptoms of lead poisoning.
- 5C. Enumerate the advantages and disadvantages of charcoal administration in gut decontamination.
- 5D. Enumerate the clinical sign and symptoms of benzodiazepine overdose.
- 5E. Define ABCD management in acute poisoning.  
(2×5 = 10 marks)

