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MANIPAL UNIVERSITY

**FIRST YEAR PHARM D (POST BACCALAUREATE)/FOURTH YEAR PHARM D.
DEGREE EXAMINATION – MAY 2015**

SUBJECT: PPR 4.1T/PD 4.1: PHARMACOTHERAPEUTICS – III

Tuesday, May 05, 2015

Time: 10:00 – 13:00 Hrs.

Max. Marks: 70

✍ **Answer ALL the questions.**

✍ **Long Answer Questions:**

1. Explain the etio-pathogenesis of epilepsy. Explain the algorithm for management of partial seizure.
2. Explain pain assessment and its management.
3. Discuss the various types of drug induced liver disorders with examples.

(10 marks × 3 = 30 marks)

4. **Short Answer Questions:**

- 4A. Explain briefly on the post-exposure prophylaxis of hepatitis A and hepatitis B.
- 4B. Explain the advantages and disadvantages of evidence based guidelines.
- 4C. Explain the treatment algorithm of schizophrenia.
- 4D. Explain the management of deep venous thromboembolism.
- 4E. Explain the management of ulcerative colitis.
- 4F. Describe the management of portal hypertension.

(5 marks × 6 = 30 marks)

5. **Give reason for the following:**

- 5A. The etiology of ulcerative colitis and Crohn's disease are not same.
- 5B. Vitamin B12 has specific role in the management of megaloblastic anemia.
- 5C. Carbidopa is combined with Levodopa in Parkinsonism.
- 5D. Proton pump inhibitors are preferred to give before food.
- 5E. Hepatitis D patient has a co-infection with Hepatitis B.

(2 marks × 5 = 10 marks)



MANIPAL UNIVERSITY

FIRST YEAR PHARM D (POST BACCALAUREATE)/FOURTH YEAR PHARM D. DEGREE EXAMINATION – MAY 2015

SUBJECT: PPR 4.2T/PD 4.2: HOSPITAL PHARMACY

Saturday, May 09, 2015

Time: 10:00 – 13:00 Hrs.

Max. Marks: 70

✍ **Answer ALL questions.**

✍ **Long Answer Questions:**

1. Discuss the different types of bases used in manufacture of pharmaceutical ointments and how to select appropriate base for the ointment.
2. Define hospital formulary and hospital formulary system. Explain the guiding principles to adapt hospital formulary system in a hospital.
3. Enumerate various methods of drug distribution system to the inpatients. Explain any two methods with their advantages and disadvantages.

(10 marks × 3 = 30 marks)

4. **Short Answer Questions:**

- 4A. Explain the organizational structure of a hospital pharmacy in a small hospital.
- 4B. Explain setting of various levels of inventory control method.
- 4C. Explain the review procedure for research protocol on human subjects by ethical committee.
- 4D. Explain the format of hospital formulary.
- 4E. Explain the three main objectives of Pharmacy Therapeutic committee.
- 4F. Explain the components of newsletter published by the hospital pharmacy.

(5 marks × 6 = 30 marks)

5. **Give reasons for the following:**

- 5A. Manufacturing section is important in a hospital.
- 5B. Talc-5% concentration is used in tablet formulation.
- 5C. Physical inventory is checked every year during March 31st.
- 5D. Hospital pharmacy technician should not receive the prescription and dispense the drugs.
- 5E. 'A' type item requires no safety stocks or low safety stocks in inventory control.

(2 marks × 5 = 10 marks)



MANIPAL UNIVERSITY

FIRST YEAR PHARM D (POST BACCALAUREATE)/FOURTH YEAR PHARM D.
DEGREE EXAMINATION – MAY 2015

SUBJECT: PPR 4.3T/PD 4.3: CLINICAL PHARMACY

Tuesday, May 12, 2015

Time: 10:00 – 13:00 Hrs.

Max. Marks: 70

✍ **Answer ALL the questions.**

✍ **Long Answer Questions:**

1. Describe the clinical skills needed for pharmacists in providing pharmaceutical care and explain the format of a SOAP note. (5+5 = 10 marks)
2. Explain pulmonary function tests with a neat illustration. (10 marks)
3. Describe the factors contributing to medication errors and explain the methods to prevent medication errors. (5+5 = 10 marks)

4. **Short Answer Questions:**

- 4A. Explain the clinical significance of blood urea nitrogen and serum creatinine with its normal values.
- 4B. Discuss briefly ward round participation by clinical pharmacist.
- 4C. Describe the procedure of medication order review.
- 4D. Explain the various predisposing factors of adverse drug reactions.
- 4E. Explain the various obstacles in patient counseling.
- 4F. Explain specific cardiac function tests. (5 marks × 6 = 30 marks)

5. **Give reasons for the following:**

- 5A. MCV is lower in iron deficiency anemia.
- 5B. Orally transmitted medication orders are more likely to contribute to medication errors.
- 5C. Lexi-Comp is a tertiary drug information resource.
- 5D. Measuring albumin and prothrombin time is important when assessing hepatic function.
- 5E. Empathy is a useful tool in patient communication. (2 marks × 5 = 10 marks)



MANIPAL UNIVERSITY**FIRST YEAR PHARM D (POST BACCALAUREATE)/FOURTH YEAR PHARM D.
DEGREE EXAMINATION – MAY 2015****SUBJECT: PPR 4.4T/PD 4.4: BIOSTATISTICS AND RESEARCH METHODOLOGY**

Thursday, May 14, 2015

Time: 10:00 – 13:00 Hrs.

Max. Marks: 70

✍ **Answer ALL the questions.**

✍ **Long Answer Questions:**

1. Write the methodology of case-control studies. What are its advantages and disadvantages?
2. Explain the need for sample size calculation in clinical studies. How sample size is calculated for estimation of mean and comparison of mean.
3. What is correlation? Write general steps of calculation of Pearson product-moment correlation and simple linear regression.

(10 marks × 3 = 30 marks)

4. **Short Answer Questions:**

- 4A. Write the formula for calculation of Z-score, Spearman's rank correlation coefficient, paired t-test, odds ratio and relative risk.
- 4B. Discuss the application of computers in drug information retrieval.
- 4C. Calculate Mean, SD, SEM and IQR for the data set- 3, 8, 18, 5, 10, 15.
- 4D. Write the assumptions and general steps of calculation of un-paired t-test.
- 4E. Compare the characteristics of parametric tests and non-parametric tests.
- 4F. Discuss the characteristics and applications of binomial distribution.

(5 marks × 6 = 30 marks)

5. **Give reasons for the following:**

- 5A. Why after applying ANOVA one has to apply appropriate post-hoc test?
- 5B. Scatter plot can be used to explain the relationship between two continuous variable.
- 5C. Why odds ratio >1 indicates harmful association?
- 5D. Why cohort studies are stronger compared to case-control studies?
- 5E. Why t-tests are not suitable for nominal/ordinal data?

(2 marks × 5 = 10 marks)



MANIPAL UNIVERSITY
FIRST YEAR PHARM D (POST BACCALAUREATE)/FOURTH YEAR PHARM D.
DEGREE EXAMINATION – MAY 2015

SUBJECT: PPR 4.5T/PD 4.5: BIOPHARMACEUTICS AND PHARMACOKINETICS

Saturday, May 16, 2015

Time: 10:00 – 13:00 Hrs.

Max. Marks: 70

✍ **Answer ALL questions.**

✍ **Long Answer Questions:**

1. Explain mechanisms of drug absorption.
2. Explain the factors affecting protein-drug binding.
3. Discuss in detail about non-renal routes of elimination.

(10 marks × 3 = 30 marks)

4. **Short Answer Questions:**

- 4A. Describe the binding of drugs to albumin with details of binding sites.
- 4B. Explain the factors affecting gastric emptying.
- 4C. Explain Plasma concentration-time profile of a drug.
- 4D. Explain one compartment open model for repetitive IV bolus administration.
- 4E. Describe non compartmental analysis of pharmacokinetics.
- 4F. Describe Compartmental models with their advantages and disadvantages.

(5 marks × 6 = 30 marks)

5. **Give reasons for the following:**

- 5A. Fatty food reduces the gastric emptying
- 5B. Placental barrier is not a very effective drug barrier
- 5C. Glucose is not at all excreted even if it is filtered out by glomeruli apparatus
- 5D. Zero order process is known as constant rate process
- 5E. Volunteers between only 20 to 40 years of age are selected for BE studies

(2 marks × 5 = 10 marks)



MANIPAL UNIVERSITY**FIRST YEAR PHARM D (POST BACCALAUREATE) DEGREE EXAMINATION – MAY 2015****SUBJECT: PPR 4.7T: PHARMACOTHERAPEUTICS – I & II**

Thursday, May 07, 2015

Time: 10:00 – 13:00 Hrs.

Max. Marks: 70

✍ Answer ALL the questions.**✍ Long Essay Questions:**

1. Explain the role of various lipid lowering medications for the management of dyslipidemia. (10 marks)
- 2A. Classify different stages of chronic kidney disease (CKD) based on GFR criteria. Explain initiating and progressive mechanisms involved in pathogenesis of CKD.
- 2B. Explain the role of ACE inhibitors in CKD management. (6+4 = 10 marks)
3. Explain management of Leukemia. (10 marks)

4. Short Essay Questions:

- 4A. Discuss the management of acute severe Asthma.
- 4B. Discuss the role of thiazolidinediones and biguanides used in the management of type II Diabetes mellitus.
- 4C. Discuss the role of pharmacist towards rational use of drugs.
- 4D. Formulate a plans for treating acute gouty arthritis for a patient who has been symptomatic with recent (<24 hours) onset and for more than 48 hours.
- 4E. What is thyroid storm and explain its pharmacological treatment.
- 4F. Mention the various causative organisms and pharmacotherapeutic choices of sexually transmitted diseases. (5 marks × 6 = 30 marks)

5. Give reasons for the following:

- 5A. Nitrates are used in stable angina.
- 5B. Trastuzumab is used in breast cancer therapy
- 5C. Virological failure is observed in antiretroviral therapy
- 5D. There are certain risk factor associated with meningitis
- 5E. Enzymytic changes happen during Myocardial infarction. (2 marks × 5 = 10 marks)



MANIPAL UNIVERSITY**FIRST YEAR PHARM D (POST BACCALAUREATE)/FOURTH YEAR PHARM D.
DEGREE EXAMINATION – MAY 2015****SUBJECT: PPR 4.6T/PD 4.6: CLINICAL TOXICOLOGY**

Monday, May 18, 2015

Time: 10:00 – 13:00 Hrs.

Max. Marks: 70

✍ **Answer ALL the questions.**

✍ **Long Answer Questions:**

- 1A. Describe the role of antidotes in the management of poisoning.
- 1B. Explain severity grading in poisoning by using Glasgow Coma Scale.
- 2A. Explain the management of acute mercury poisoning.
- 2B. Discuss the various laboratory tests used for diagnosing lead poisoning.
- 3A. Explain the various toxidromes with suitable examples.
- 3B. Explain the signs and symptoms and complication of radiation exposure.

(10 marks × 3 = 30 marks)

4. **Short Answer Questions:**

- 4A. Discuss the clinical features and management of cocaine abuse.
- 4B. Explain the complication of acute organophosphate poisoning.
- 4C. Explain the clinical manifestations of alcohol withdrawal syndrome.
- 4D. Explain the application of toxicokinetics in the management of poisoning.
- 4E. Explain the clinical features and management of acute iron overdose.
- 4F. Explain the signs and symptoms of Reye's syndrome with suitable example.

(5 marks × 6 = 30 marks)

5. **Give reason for the following:**

- 5A. 20 WBCT used as a diagnostic test in snake bite poisoning.
- 5B. Bupropion used as an adjuvant therapy in smoking cessation.
- 5C. Paracetamol poisoning associated with liver damage as one of the prominent symptoms.
- 5D. Gastrointestinal decontamination is contraindicated in alkali poisoning.
- 5E. Folic acid used as a supplement in methanol poisoning.

(2 marks × 5 = 10 marks)

