

**GUJARAT TECHNOLOGICAL UNIVERSITY****M. Pharmacy Sem-I Examination January 2010****Subject code: 910106****Subject Name: Clinical Pharmacy Practice****Date: 23 / 01 / 2010****Time: 12. 00 – 3.00 pm****Instructions:****Total Marks: 80**

1. Attempt any five questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1** (a) Describe following terminologies: **06**  
 1) Essential drug concept 2) Rational drug usage
- (b) List various types of ADR and write a brief note on their mechanisms. **05**
- (c) Explain the term pharmaceutical care. Describe its essential components. **05**
- Q.2** (a) Case study: Mr. BK is a 56 year old man who works long hours as a business manager in a software company. He has a BMI of 32 kg/m<sup>2</sup> and the nature of his work allows him to take little exercise. He smokes to relieve his stress and has a diet rich in fat, with numerous business lunches washed down with plenty of wine. His father died of an MI at the age of 61 years, having had a previous MI at the age of 48 years. **06**
- 1) List the risk factors Mr. BK has for coronary artery disease and indicate whether they are modifiable or non-modifiable.
  - 2) What tests should be performed to identify any other potential risk factors Mr. BK might have? What would be considered a “normal” result for each of these?
  - 3) What lifestyle advice would you give to Mr. BK and why would these changes improve any angina symptoms?
- (b) Describe various clinical laboratory tests for detection of Asthma. **05**
- (c) Explain the criteria for selecting the biomedical literature for the critical appraisal, and briefly describe appraisal method for it. **05**
- Q.3** (a) Case study: Mr. ABC aged 24, presents a prescription to a community pharmacy following discharge from the local hospital. Mr. ABC’s asthma was first detected when he was in high school when he became acutely short of breath during a football match. After initial treatment Mr. ABC was free of symptoms, and he has not used his salbutamol inhaler for many years. Recently he developed severe shortness of breath and was admitted to hospital. His present prescription lists the following medication: **06**
- |                         |         |                            |
|-------------------------|---------|----------------------------|
| Treatment               |         |                            |
| Salbutamol MDI          | 200 mcg | qds                        |
| Beclamethasone MDI      | 200 mcg | qds                        |
| Prednisolone one tablet | 10 mcg  | every morning for one week |
- What counseling would you give Mr. ABC on his medication?
- (b) Explain measures for minimizing clinically relevant drug interactions. **05**
- (c) Which methods are used to detect patient medication non-adherence? **05**  
 What measures should be taken to improve compliance?

- Q.4** (a) Describe the skills required for effective communication by the pharmacist in a clinical situation, emphasizing their role in various stages of verbal and non-verbal communication. **06**
- (b) Describe various categories for medication errors. What can Pharmacists do to improve medication use safety? **05**
- (c) What are the hazards and advantages of self-medication? **05**
- Q.5** (a) List various Pharmacoeconomics evaluation techniques and describe in detail cost-effective analysis with suitable examples. **06**
- (b) Describe the role of clinical Pharmacist in healthcare. **05**
- (c) A 45-year-old businessman has been treated for hypertension with chlorothiazide 500 mg daily and atenolol 50 mg daily for several years. He recently presented to his doctor with an acute inflammation of his right great toe. On examination the toe was hot, swollen and very painful, and a provisional diagnosis of acute gout was made. Treatment with indomethacin 50 mg three times daily was subsequently commenced. Several days later he returned complaining of swollen ankles, shortness of breath, headaches and decreased urine output. At that time, the results of serum electrolyte investigations were as follows:
- |             |              |                      |
|-------------|--------------|----------------------|
| Sodium      | 144 mmol/l   | (135-145 mmol/l)     |
| Potassium   | 6.4 mmol/l   | (3.4-4.8 mmol/l)     |
| Chloride    | 95 mmol/l    | (95-110 mmol/l)      |
| Bicarbonate | 35 mmol/l    | (22-32 mmol/l)       |
| Urea        | 30.2 mmol/l  | (3.0-8.0 mmol/l)     |
| Creatinine  | 0.860 mmol/l | (0,055-0.120 mmol/l) |
- What significant abnormalities are present, and what is the underlying cause for these? What action needs to be taken now?
- Q. 6** (a) Name some disease of the following system/organ induced by drug usage specifying the drugs responsible for those diseases: **06**  
1) CNS 2) CVS 3) Skin
- (b) What are goals of clinical pharmacist for participation in ward-round? What preparation should be done by clinical pharmacist for successful round? **05**
- (c) Explain in detail Naranjo's and WHO causality Assessment scales. **05**
- Q.7** (a) Name various tests with their normal values associated for the assessment of the disease of the following organs: **06**  
1) Heart 2) Kidney 3) Liver 4) Thyroid gland.
- (b) Describe in detail various types of costs and outcomes used in Pharmacoeconomic evaluation. **05**
- (c) Outline the components of drug therapy review. **05**

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