

Seat No.: \_\_\_\_\_

Enrolment No. \_\_\_\_\_

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**Diploma Pharmacy (First Year) - Examination –May/June- 2011**  
**Subject code: 410002**

**Subject Name: Pharmaceutical Chemistry-I**

**Date: 27/05/2011**

**Time: 10:30 am – 01:30 pm**

**Total Marks: 80**

**Instructions:**

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

- Q.1** (a) Explain the followings (Any Five) **10**  
(a) Hematinic (b) Hygroscopic (c) Buffer capacity  
(d) Expectorant (e) Hypothyroidism (f) Emetics  
(b) Define limit test. Write the principle, reaction and procedure involved in limit test of Iron as per IP. **06**
- Q.2** (a) Write the chemical name and uses of followings (Any Five) **10**  
(a) Epsom salt (b) Lime water (c) Baking soda  
(d) Precipitated chalk (e) Alum (f) Kaolin  
(b) Define Impurity. Discuss the sources of impurities in pharmaceuticals **06**
- Q.3** (a) What are gastrointestinal agents? Classify them with example. Write a note on antacids. **06**  
(b) What are antioxidants? Write the ideal characteristic of antioxidants. **05**  
(c) What are antidotes? Classify them with examples. **05**
- Q.4** (a) What are topical agents? Classify them with example. Discuss briefly antimicrobial agents. **06**  
(b) What is buffer? Explain the buffer action and importance of buffer solution in pharmacy **05**  
(c) Explain the limit test of arsenic. **05**
- Q.5** (a) Describe biological importance of calcium ions. Write preparation and properties of calcium gluconate. **06**  
(b) Enumerate list of official compounds of iron. Write preparation, properties, uses and storage condition of ferrous sulphate **05**  
(c) Define accuracy and precision. Describe classification of error **05**
- Q. 6** (a) What are radiopharmaceuticals? Describe the application of radioisotopes used in medicine. **06**  
(b) Enumerate the name of detector used in measurement of radioactivity. Write a note on G.M. counter **05**  
(c) Enlist major intra and extra cellular electrolyte. Write a note on ORS **05**
- Q.7** Write short notes on the following **16**  
(a) Saline cathartics  
(b) Physiological acid-base balance  
(c) Radio-opaque contrast media  
(d) Lewis theory of acid base

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