Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

DIPLOMA PHARMACY – SEMESTER – I-EXAMINATION – WINTER 2015

Subject Code: 410002 **Date: 04/12/2015**

Subject Name: Pharmaceutical Chemistry-I

Time: 10:30 AM TO 1:30 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)**	What are Radiopharmaceuticals? Give the application of various radioisotopes.	**06**
	(b)	Define Antacid. Classify them with suitable examples. Write detailed note on combination of antacid preparation.	**05**
	(c)	What is buffer capacity? Write a note on Boric acid.	**05**
Q.2	**(a)**	Describe the biochemical role of Iodine OR Iron in the body.	**06**
	(b)	Write detailed note on following monographs : (Any two) i. Copper sulphate ii. Sodium hydroxide iii. Bleaching powder	**10**
Q.3	**(a)**	Describe limit test for Arsenic in detail.	**06**
	(b)	Give the assay principle and chemical reactions involved for the followings : (Any two) i. Lugol's solution ii. Sodium chloride iii. Hydrogen peroxide	**05**
	(c)	Discuss the conditions leading to Hypocalcemia and Hypercalcemia.	**05**
Q.4	**(a)**	Discuss the followings : (Any two) i. Limitations of Arrhenious theory for acid-base. ii. Sources of impurities in pharmaceutical compounds. iii. Epsom salt.	**06**
	(b)	Give the chemical formula and uses for the followings : (Any five) 1. Baking soda 2. Green vitriol 3. Caustic potash 4. Soda ash 5. Oil of vitriol 6. Calomel	**10**
Q.5	**(a)**	Define and classify Antioxidants with suitable examples. Describe any one official antioxidant compound.	**06**
	(b)	Give the storage conditions, chemical formula and uses of Calcium chloride and Lunar caustic.	**05**
	(c)	Write detailed note on Respiratory stimulants.	**05**

Q. 6 **(a)** Enumerate major intra & extracellular electrolytes.

Discuss electrolytes used in replacement therapy. **06**

(b) Define the following terms with suitable examples : (Any five)

i. Adsorbents ii. Efflorescent compounds iii. Antimicrobials **10**
iv. Anticaries agents v. Deliquescent compounds vi. Saline cathartics

Q.7 Write detailed note on the followings: (Any four)

I. Antidotes II. Milk of magnesia

III. Limit test for Iron IV. Radio opaque contrast media **16**

V. Role of carbon dioxide and laughing gas

****