Seat No.: _____ Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

B.Ph. / M. Ph. / D.Ph. - SEMESTER–I • EXAMINATION – WINTER-2016

Subject Code: 410002 Date: 21/10/2016

Subject Name: Pharmaceutical Chemistry I

Time:10:30AM TO 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)**	Define acids and bases according to Arrhenius, Bronsted- Lowry and Lewis approach and give their limitations if any.	**06**
	(b)	Give the method of preparation, properties, assay principle and uses of boric acid.	**05**
	(c)	Define buffers. Give mechanism of buffer action with suitable example.	**05**
Q.2	**(a)**	What is antacid? Classify antacids with suitable examples in each class. Give the method of preparation and uses of calcium carbonate.	**06**
	(b)	What are antioxidants? Write the ideal characteristic of antioxidants.	**05**
	(c)	Classify gastro-intestinal agents with examples. Comment on "Combination antacid preparations are advantageous than individual preparation".	**05**
Q.3	**(a)**	What are Astringents? Give method of preparation, properties, uses and storage conditions of Hydrogen peroxide.	**06**
	(b)	Write a brief note on Iodine as an antimicrobial agent.	**05**
	(c)	Define and classify topical agents. Give properties of Titanium dioxide.	**05**
Q.4	**(a)**	What are dental products? How they are important for oral hygiene? Write some account on Sodium Fluoride.	**06**
	(b)	Write the uses of radioisotopes.	**05**
	(c)	Discuss the storage and labeling condition required for oxygen, carbon dioxide and nitrous oxide.	**05**
Q.5	**(a)**	Define antidote. Give the mechanism of action for different types of antidotes. Discuss the treatment of cyanide poisoning.	**06**
	(b)	What are expectorants? Write properties, uses and storage conditions of Ammonium Chloride.	**05**
	(c)	Write short note on Respirator Stimulants.	**05**
Q. 6	**(a)**	Write a detailed note on electrolyte replacement therapy.	**06**
	(b)	Enumerate official compounds of iron. Give preparation, procedure and uses of Ferrous Sulphate.	**05**
	(c)	What do you meant by impure chemical compounds? Discuss the sources of impurities in pharmaceuticals.	**05**
Q.7	**(a)**	What is radio activity? How it is measured by G.M.Counter ? Explain with figure.	**06**
	(b)	Give principle and role of each reagent used in the limit test of Iron.	**05**
	(c)	Give principle and diagram of apparatus of limit test of Arsenic.	**05**

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