Seat No.: _____ Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

B.PHARM - SEMESTER– 1 EXAMINATION – WINTER -2019

Subject Code: 2210002 **Date: 30-12-2019**

Subject Name: Pharm Chem-I (Inorganic Chemistry)

Time: 10:30 AM 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 the following terms with examples. 1) Astringent, 2) Emetic, 3) Laxative, 4) Sedative, 5) Expectorant, 6) Antioxidant.	**06**
	(b)	Enlist the sources of impurity in pharmaceuticals and explain the manufacturing hazards as source of impurity.	**05**
	(c)	Write a note on Gutzeit test.	**05**
Q.2	**(a)**	Write the assay principle of following compounds. 1) Hydrogen peroxide, 2) Ammonium chloride, 3) Magnesium sulphate.	**06**
	(b)	Define and classify antacids. Enumerate ideal characteristics of antacid.	**05**
	(c)	Write a note on anaesthetics and respiratory stimulants.	**05**
Q.3	**(a)**	Write the synonyms and uses of following compounds. 1) Laughing gas, 2) Precipitated chalk,3) Rochelle salt, 4) Caustic soda, 5) Lunar caustic, 6) Green vitriol.	**06**
	(b)	Define and Classify topical agents giving examples.	**05**
	(c)	Give a brief note on chelating agents used in therapy.	**05**
Q.4	**(a)**	Explain following terms. (Any three) 1) Pharmacopoeia, 2) Limit test, 3) Assay, 4) Pharmaceutical aids	**06**
	(b)	Define and Classify antidotes giving examples.	**05**
	(c)	Write briefly about various types of cathartics.	**05**
Q.5	**(a)**	Write the synonyms and uses of following compounds. 1) Epsom salt, 2) Bleaching powder, 3) Baking soda, 4) Slaked lime, 5) Boric acid, 6) Milk of magnesia.	**06**
	(b)	Classify dental products with suitable examples. Give a brief account of zinc chloride as a dental product.	**05**
	(c)	Write in detail about types of water.	**05**
Q. 6	**(a)**	Write the assay principle of following compounds. 1) Copper sulphate, 2) Calcium gluconate, 3) Borax.	**06**
	(b)	Explain various mechanisms of inorganic antimicrobial agents with examples.	**05**
	(c)	What are Radiopharmaceuticals? Give the application of Radiopharmaceuticals.	**05**
Q.7	**(a)**	What are intra and extra cellular electrolytes? Write the physiological function of calcium and disease associated with it.	**06**
	(b)	Define buffer and buffer capacity. Derive Handerson-Hasselbach equation for buffer action.	**05**

(c) Justify the importance of **05**

1) Glycerine in assay of boric acid
2) Citric acid in limit test for iron.
3) Potassium iodide in aqueous iodine solution.
4) Nitrobenzene in assay of ammonium chloride
5) Hydrogen sulphide in limit test for heavy metal.

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