Seat No.: _____ Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

B. Pharm. – SEMESTER – I • EXAMINATION – SUMMER 2017

Subject Code: 2210002 Date: 01/06/2017

Subject Name: Pharmaceutical Chemistry-I (Inorganic Chemistry)

Time: 02:30 PM to 05:30 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 various acid-base theories.	**06**
	(b)	Define Limit test. Write a note on Gutzeit test.	**05**
	(c)	Write a note on source of impurities and effects of impurities on pharmaceutical substances.	**05**
Q.2	**(a)**	Write synonym, chemical formula, preparations and uses of following (any four) (i) KOH (ii) Chlorinated Lime (iii)Nitrous Oxide (iv)Calcium Hydroxide (v) Phosphoric Acid (vi) Epsom Salt	**16**
Q.3	**(a)**	Write a note on complexing and chelating agents used in therapy.	**06**
	(b)	Define antidotes. Write a note on antidotes in poisoning.	**05**
	(c)	Write a note on detection and measurement of radiopharmaceuticals. Briefly explain radio opaque contrast media.	**05**
Q.4	**(a)**	Define follwing (any six) (i) Pharmacopoeia (ii) Buffer capacity (iii) Curie (iv) Water for injection (v) purified water (vi) pH and pOH (vii) achlorhydria (viii) Radionuclide	**06**
	(b)	Define expectorants. Discuss the role of ammonium compounds as respiratory stimulants.	**05**
	(c)	Briefly explain anticaries agents, cleaning agent, polishing agent and desensiting agent with examples as dental products.	**05**
Q.5	**(a)**	Comment on the following statements(any three) (i) KI is added in aqueous iodine solution. (ii) Nitrobenzene is used in assay of ammonium chloride. (iii) Citric acid is used in limit test of iron. (iv) Glycerin is added in the assay of boric acid.	**06**
	(b)	Write a note on electrolyte combination therapy	**05**
	(c)	Define with example following as pharmaceutical aids in pharmaceutical industry: (i) Anti-oxidant (ii) Filter aid (iii) Adsorbent (iv) Diluent (v) Preservative	**05**
Q. 6	**(a)**	Give synonym of the following(any six) (i) Lugol's solution (ii) Muriatic acid (iii) cream of tartar (iv) Green vitriol (v) tartar emectic (vi) Precipitated chalk (vii) Milk of magnesia (viii) Rochelle salt	**06**

	(b)	Define haematinics. Give preparation, properties and use of any two iron compounds.	**05**
	(c)	Define major intra and extra cellular electrolytes. Give physiological function of sodium and disease associated with it	**05**
Q.7	**(a)**	Write preparations, properties, assay, uses and storage conditions of the following.(any four) (i) Carbon Dioxide (ii) Oxygen (iii) Hydrogen Peroxide (iv) Zinc Oxide (v) Boric acid (vi) Zinc Chloride	**16**

****