Seat No.: _____ Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

B.Ph. - SEMESTER–I • EXAMINATION – SUMMER -2018

Subject Code: BP104TP Date: 10/05/2018

Subject Name: Pharmaceutical Inorganic Chemistry

Time: 02:30pm to 05:30pm 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 Impurities. Enlist the sources of the impurities in Pharmaceuticals and discuss the manufacturing hazards as source of impurity.	**06**
	(b)	What do you understand by limit test? Give its importance in pharmacy. Explain principle and procedure for limit test for Iron.	**05**
	(c)	Draw a neat and labeled diagram of Gutzeit apparatus.	**05**
Q.2	**(a)**	Explain the various theories of acids and bases. Write preparation, reactions and assay principle of boric acid.	**06**
	(b)	Discuss the factors affecting selection of Pharmaceutical buffers and name any two physiological buffers and two analytical buffers.	**05**
	(c)	Define Following terms: i)Antacids ii) acidifiers iii) Expectorants iv) cathartics v) Haematinics	**05**
Q.3	**(a)**	Write a note on Oral Rehydration Salt (ORS).	**06**
	(b)	What are intra and extra cellular electrolytes? What is meant by oral rehydration therapy?	**05**
	(c)	Discuss the biological significance of calcium.	**05**
Q.4	**(a)**	What are Radiopharmaceuticals ? Write down various clinical applications of radiopharmaceuticals.	**06**
	(b)	What is G.M. Counter? Give a brief account on therapeutic and diagnostic applications of inorganic radiopharmaceuticals.	**05**
	(c)	Write a short note on Anticarries agents.	**05**
Q.5	**(a)**	Explain briefly the characteristic of Ideal antacid. Give preparations, properties, and uses of aluminium Hydrochloride Gel.	**06**
	(b)	Give a brief account for any one saline cathartic.	**05**
	(c)	Write a brief note on expectorants and emetics.	**05**
Q. 6	**(a)**	What do you understand by antibacterial agent? Explain its mechanism. Give preparation, properties, assay principle and uses of Povidone iodine.	**06**
	(b)	Write a short note on activated charcoal OR Sodium Thiosulphate.	**05**
	(c)	Write about various haematinic preparations	**05**
Q.7		Justify following comments (i) The pharmacopoeia do not prescribe the numerical values for the limit test. (ii) Equivalent weight of KMnO4 changes with the media. (iii) Aqueous Ammonia is added in limit test of lead. (iv) Potassium iodide is added in aqueous iodine solution.	**10**
	(b)	Give the synonyms and uses of the following: (Any Three) i) Green Vitriol ii) Rochelle salt iii) Chlorinated lime iv) Muramic acid	**06**

****