## 21819

## 3 Hours / 80 Marks

- Instructions (1) All Questions are Compulsory.
  - (2) Answer each next main Question on a new page.
  - (3) Figures to the right indicate full marks.
  - (4) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

## 1. Attempt any FIVE of the following:

20

- Explain Arrhenius theory of acids and bases with example. Give its limitations.
- b) Define antimicrobial agents. Explain mechanism of action of topical antimicrobials.
- Draw a well labeled diagram of apparatus used for limit test for Arsenic. Name it.
- Define antioxidants. Enlist the criteria for selection of antioxidant.
- Define "Achlorhydria". Write a short mono-graph of drug used for it.
- Enlist properties for an ideal antacids. Why antacids are preferred in combination?
- Elaborate the role of iron and calcium in human physiology.
- Explain physiological acid-base balance. h)

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2.		Attempt any THREE of the following:	12
	a)	Discuss mechanism of action of antioxidants. Give properties and uses of hydrogen peroxide.	
	b)	Write molecular formula and uses of ammonium chloride and sodium bicarbonate.	
	c)	Define quality control and give its importance in pharmacy.	
	d)	Write properties and uses of sodium thiosulphate and sodium nitrite.	
	e)	Give uses, storage condition and labeling of carbon dioxide gas.	
3.		Attempt any THREE of the following:	12
	a)	Enlist different "sources of impurities".	
	b)	Elaborate ORS mixture. Give its composition according to WHO.	
	c)	Write a note on cyanide poisoning.	
	d)	Explain metabolic acidosis and alkalosis. Name one compound used in metabolic acidosis and metabolic alkalosis	
	e)	Give medicinal uses of:	
		(i) Zinc oxide	
		(ii) Titanium dioxide	
		(iii) Talc	
		(iv) Kaoline	

Marks

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4.		Attempt any THREE of the following:	12
	a)	Write formula and uses of ferrous sulphate and calcium gluconate.	
	b)	Explain radio-opaque contrast media. Give properties and uses of any one compound used for it.	
	c)	Define the terms:	

- (i) Desensitizers
- (ii) Emetics
- (iii) Expectorant
- (iv) Laxatives
- d) Explain the principle involved in limit test for iron with reactions.
- e) Define respiratory stimulants. Give properties and uses of ammonium carbonate.

## 5. Attempt any THREE of the following:

12

- a) What are inhalants? Give properties and uses of nitrous oxide.
- b) Define antidote and classify it.
- c) Enlist various intra and extra cellular electrolytes. Give properties and uses of sodium chloride.
- d) Explain anti carries agent giving example
- e) Define and classify gastro intestinal agents with example.

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			Marks
6.		Attempt any THREE of the following:	12
	a)	Give biological role of oxygen. Give properties and uses of	

- a) Give biological role of oxygen. Give properties and uses of oxygen.
- b) Define Radiopharmaceuticals. Enlist its various applications.
- c) Write two identification tests for:
  - (i) Calcium
  - (ii) Chlorides
- d) Explain with examples:
  - (i) Heamatinic
  - (ii) Systemic alkaliser
- e) Define topical agents. Discuss the uses of astringents with examples.