

(3 Hours)

[Total Marks : 70]

- N.B. (1) All the questions are compulsory.  
(2) Draw diagrams wherever necessary.

Q.No1		
A]	Answer the following	8
	i) What is EDTA.	
	ii) What is the basic unit of radioactivity.	
	iii) The temporary hardness of water is because of _____ salts of Ca and Mg.	
	iv) State True or False: Doctors prescribe antacids with alkaline drugs?	
	v) Define antidotes?	
	vi) How does calamine exhibit its protective action?	
	vii) Explain radiochemical purity.	
	viii) Fluoride prevents demineralization through formation of FAP which stands for _____.	
B]	Give reasons	4
	i) Patients of hypertension are kept on salt restricted diet.	
	ii) Only low concentrations of weak bases can be used as antacids.	
C]		3
	i) Give two advantages of use of astringent on small cuts and wounds.	
	ii) What are the units of expression for concentration of electrolytes in body?	
	iii) Disturbances in concentration of which two elements may lead to CNS symptoms?	
Q.No2		
A]	Write a note on Aluminum containing antacids OR antidiarrheal agents.	4
B]		4
	i) What are protective and adsorbents, discuss with suitable examples.	
	ii) Explain the mechanism involved in Cyanide poisoning. How does Sodium nitrate act as an antidote?	
C]	What are various mechanisms of anti-infective action? Explain with suitable examples.	3
Q.No3		
A]	Discuss various fluoride containing anticaries agents.	4
B]	i) "The half-life of radioactive element is an important parameter in treatment", explain.	3
	ii) Elaborate on radio-active iodine as radiopharmaceutical.	2
C]	Enlist biochemical functions of copper.	2
Q.No4		
A]	Compare and contrast different type of water used in or as pharmaceuticals.	4
B]	Write notes on (any two)	4
	i) Diluents	
	ii) Lubricants	
	iii) Suspending agents	
C]	Write a note on effects of radiation on human body, tissues and cells.	3
Q.No5		
A]	How does human body maintain water homeostasis? Discuss role of electrolytes.	4
B]	What are saline cathartics? Give properties, action and uses of magnesium hydroxide.	4
C]	What is heavy metal poisoning? Explain, How the chelating agents help.	3
Q.No6		
A]	Answer the following (any two)	6
	i) Enlist different buffer systems in human body? Discuss role of bicarbonate.	
	ii) Write a note on phosphate related disease conditions.	
	iii) Write a note on physiological role of potassium.	
B]	i) Write a note on Iron as essential element based on following points: Normal Concentration, requirements, role, source, absorption, distribution and diseases.	3
	ii) What are respiratory stimulants? Give one example.	2