

*Time allowed : 3 hours]**[Maximum marks : 80*

Note : Attempt any five questions in all, selecting at least one question from each section. Question No. 1 is compulsory. All questions carry equal marks.

1. Answer the following in short : 2 each
- Name some metal complexes which are used as antiviral drugs.
 - What are the side effects of Platinum complexes ?
 - How the heavy metals detoxify in human body ?
 - How do you cure Hypo-activity of thyroid ?
 - What are the effects of lead on our environment?
 - What do you mean by antiviral activity of chelating agents ?
 - What are fat soluble vitamins ?
 - Define Radiopharmacology.

Section-A

2. (a) Discuss the anticancer activity of platinum complexes ? What are the side effects of Pt-complexes?
- (b) Write a note on Rhodium complexes as carcinostatic agents. 8,8

3. (a) How the polyaminocarboxylic acids and polyethylene amines used as chelating drugs ?
- (b) Discuss the role of zinc in tumour growth. 10,6

Section-B

4. (a) What are the use of iodine as trace element ? Explain its drug action in hypo and hyper activity of thyroids ?
- (b) Write an explanatory note on drugs applied for the dental caries. 8,8
5. (a) What are the disorders that arises due to imbalance of alkali metals ?
- (b) Discuss the mechanism of interaction between orally administered drug and metal ion in guts. 8,8

Section-C

6. (a) How heterocyclic thiosemicarbozones shows carcinostatic activity, explain ?
- (b) Discuss in brief antiviral activity of chelating agents. 8,8
7. (a) What do you mean by ligand induced toxicity ? How it works in the beneficial form ?
- (b) Discuss some macrocyclic compounds used as antibiotic ligands. 8,8

Section-D

8. (a) What is the nutrition of calcium and how we can improve our health ?
- (b) Write brief note on Vitamin-D and biomineralization. 6,10
9. Write a brief note on the following : 8,8
- (a) Iodine-31
- (b) Radiopharmacology