

- (b) How does mercury affect our environment ? Discuss its entry and how is it detoxified if accumulated in the body ? **8,8**

5. (a) Discuss the mechanism of metal ion induced toxicity.
(b) Discuss in detail the drugs used in hypo and hyper activity of thyroids. **8,8**

Section C

6. (a) Explain the interference of ligands with hemoglobin in the oxygen transport system.
(b) Discuss in detail the drugs where chelation and therapeutic activity are unrelated. **8,8**
7. (a) Give detailed explanation about alkylating agents as anticancer drugs.
(b) Describe in detail about carcinogenic and carcinostatic organic ligands. **8,8**

31547

M. Sc. EXAMINATION, 2025

(Fourth Semester)

(2020-21 Onwards)

(Regular & Re-appear)

CHEMISTRY

Inorganic Chemistry Special-VI

Medicinal Aspects of Inorganic Chemistry

Time : 3 Hours]

[Maximum Marks : 80

Before answering the question-paper, candidates must ensure that they have been supplied with correct and complete question-paper. No complaint, in this regard will be entertained after the examination.

Note : Attempt *Five* questions in all, selecting *one* question from each Section. Q. No. **1** is compulsory. All questions carry equal marks.

1. Answer the following in short : **2 each**

- (a) Write the symptoms of iron deficiency and how is it recovered in human beings ?
- (b) Discuss how the polyethylene amines behave as chelating drugs.
- (c) Why is Selenium essential in biological systems ?
- (d) Write a short note on lithium drugs in psychiatry.
- (e) Write down the classification of alkylating agents.
- (f) Define carcinogenic and carcinostatic ligands. Give *one* example of each.
- (g) What are the sources and functions of Vitamin A ?
- (h) What do you mean by Radio-pharmacology ?

Section A

- 2. (a) Discuss in detail the role of zinc in tumor growth and inhibition.
- (b) Elaborate the mechanism of anticancer activity of rhodium and gold complexes. **8,8**
- 3. (a) Explain the antiviral and antibacterial properties of metal complexes.
- (b) What are the symptoms and diseases that arise due to copper deficiency and how this deficiency is recovered in the human beings ? **8,8**

Section B

- 4. (a) What do you mean by dental caries ? Explain in detail about inorganic drugs used for the dental caries.

Section D

8. Describe in brief : **10,6**
- (i) Indium and Gallium scan
 - (ii) Nutrition of Calcium.
9. (a) Explain in detail about Radioiodine, I-131.
- (b) What are antioxidants and discuss their harmful effects on health ? **8,8**



Section D

8. Describe in brief : **10,6**
- (i) Indium and Gallium scan
 - (ii) Nutrition of Calcium.
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