

Roll No.

Total Pages : 2

MDE/M-20

6962

BIOINORGANIC CHEMISTRY

Paper-IC-202

Time : Three Hours]

[Maximum Marks : 70

Note : Attempt *five* questions in all, selecting at least *two* questions from each section.

SECTION-A

1. (a) Discuss the toxicity of SO_2 .
(b) What are the toxic chemicals in the environment and how do they effect enzymes ? 5,9
2. (a) Write a note on :
(i) Polymerization of alkenes.
(ii) Isomerization of alkenes.
(b) Briefly explain carbonylation of alkenes. 10,4
3. (a) Account for the diagnostic applications of radioisotopes.
(b) Write a short note on role of isotopes.
(i) In tumor localization.
(ii) In study of blood circulation. 4,10
4. Discuss the synthesis of organometallic compounds using olyfinic and acetylenic organic legends along with structure and nature of bonding highlighted in each case. 14

SECTION-B

5. Write a short note on :
- (a) Synthetic metal chelates as antimicrobial agents.
 - (b) Chelation therapy. 7,7
6. How is the role of haemoglobin as O_2 carrier helped by :
- (a) Cooperativity effect.
 - (b) Bohr's effect. 7,7
7. (a) Differentiate between Transferrin and Ferritin.
- (b) Write a short note on role of metal complexes as antitumour agents. 6,8
8. (a) Discuss the role of Haemocyanin as O_2 transporter.
- (b) Myoglobin gets saturated with O_2 at a faster rate than Haemoglobin. Why? 10,4
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