

BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI
(END SEMESTER EXAMINATION)

CLASS: MSC
BRANCH: CHEMISTRY

SEMESTER : III
SESSION : MO/19

SUBJECT: CH505 BIOINORGANIC CHEMISTRY

TIME: 3 HOURS

FULL MARKS: 50

INSTRUCTIONS:

1. The question paper contains 5 questions each of 10 marks and total 50 marks.
 2. Attempt all questions.
 3. The missing data, if any, may be assumed suitably.
 4. Before attempting the question paper, be sure that you have got the correct question paper.
 5. Tables/Data hand book/Graph paper etc. to be supplied to the candidates in the examination hall.
-

- Q.1(a) What are metalloenzymes? Discuss the mechanism involved in storage of iron by ferritin. [5]
Q.1(b) What is the importance of Na⁺,K⁺ pump? Discuss its mechanism diagrammatically. [5]
- Q.2(a) Explain Bohr's effect? Discuss how pH effects Hb saturation curve? [5]
Q.2(b) Write short notes on the following: (i) Hemerythrin (ii) Hemocyanin [5]
- Q.3(a) Discuss the structure and mechanism of action of Alcohol dehydrogenase. [5]
Q.3(b) Discuss the catalytic activity of copper/iron protein and its mechanism. [5]
- Q.4(a) Discuss the structure and chemistry of vitamin B12. What are its uses? [5]
Q.4(b) What are cytochromes? Discuss its role in biological system giving suitable examples? [5]
- Q.5(a) Explain metal toxicity and hemostasis giving its structure, mechanism and remedy? [5]
Q.5(b) What are drugs? Discuss the role of metals in drug formulation? [5]

:::::27/11/2019:::::M