INORGANIC CHEMISTRY (BS103)

B.E. (Chemical)-MBA 2nd Semester B.E. (Food Tech.) 2nd Semester Mid-term Semester Exam

Max. Marks: 18 Time: 1h

- Q1. Explain why O_2 is paramagnetic according to MOT. (5)
- Q2 Diagrammatically show crystal field splitting in octahedral complexes. (4)
- Q3 Give the no. of unpaired electrons for the following (4)

(a)
$$[V^{+3} F_6]^{3-}$$

(b)
$$[Fe^{+2}(CN)_{6}]^{4-}$$

(c)
$$[Fe^{+3}(CN)_{6}]^{3-}$$

(d)
$$[Rh^{+3}Cl_6]^{3-}$$

- Q4. [Hg (CN) 6] 2- is a stable but labile complex. Explain (3)
- Q5. With the help of an example, explain <u>synergic effect</u> in organometallic compounds. (2)