

BACHELOR OF TECHNOLOGY (C.B.C.S.) (2021-COURSE)
B. Tech. Sem - I COMPUTER :SUMMER- 2022
SUBJECT : ORGANIC & ELECTROCHEMISTRY

Day : Tuesday
Date : 19-07-2022

S-24006-2022

Time : 10:00 AM-01:00 PM
Max. Marks : 60

N.B.:

- 1) All questions are **COMPULSORY**.
- 2) Figures to the right indicate **FULL** marks.
- 3) Assume suitable data if necessary.
- 4) Use of non-programmable **CALCULATOR** allowed.

Q.1 Draw the energy level diagram for O^{2+} and explain in detail energy level diagram for O^{2+} and calculate the bond order. [10]

OR

Q.1 Discuss the factors affecting the formation of an ionic bond? [10]

Q.2 What are the basic components of green chemistry? Discuss with suitable example. [10]

OR

Q.2 Write note on following points of view of green chemistry [10]
i) Supercritical CO_2 .
ii) Ionic Liquids.

Q.3 What is Fuel cell? How is it different from commercial galvanic cells? Mention the advantages of Fuel cells? [10]

OR

Q.3 Describe the construction and working of Standard Hydrogen Electrode. [10]

Q.4 Give the conduction mechanism of a conducting polymer, with suitable example. [10]

OR

Q.4 Give the preparation method properties and applications of polyaniline. [10]

Q.5 Explain in details doping technique of semiconductor. [10]

OR

Q.5 What are stoichiometric and non-stoichiometric semiconductors give an examples of each. [10]

Q.6 How water gas and producer gas manufactured? Discuss the theoretical principle involved? [10]

OR

Q.6 Explain proximate analysis of coal and give its significance. [10]

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