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PG (NEW) CBCS
M.Sc. Semester-IV Examination, 2020
CHEMISTRY
PAPER: CEM 404
CHEMISTRY IN TECHNOLOGY

Full Marks: 40

Time: 2 Hours

Answer any one question from the following (within 250 words): 40X1=40

1. (a) Cellulose is not a food source for human although it is made up of glucose monomers. - Comment
(b) Give examples of acidic, basic and neutral amino acids.
(c) What is pitting corrosion?
2. (a) What is fluorescence microscopy?
(b) Define nucleosides and nucleotides. Give examples.
(c) What is the principle of circular dichroism?
3. (a) Give the complementary sequence of this DNA, 5'AGTTGCACG3'
(b) Why *cis*-platin is such a potent drug against various form of cancer?
4. Describe the biochemical effect of arsenic.
5. (a) What is enzyme substrate complex? Give an example.
(b) Discuss biological function of lipids.
6. (a) How do you minimize galvanic corrosion?
(b) What are the functions of nucleic acids?
7. (a) What is an electron microscopy and how does it work?
(b) Describe the impact of toxic chemicals on enzyme.
8. Explain the mechanism of acetylation of acetylcholinesterase (AChE) by acetylcholine (ACh).
9. Write short notes on: (i) Biochemical effect of pesticides.
(ii) Pitting corrosion.
10. Discuss various methods for corrosion protection.

(1)

(P.T.O.)

(2)

11. (a) What is the principle of colorimetry?

(b) Discuss the advantages and disadvantages of colorimeter.

(c) Mention some applications of colorimeter.

12. (a) What is epifluorescence?

(b) How does epifluorescence microscope work?

(c) Mention some applications of epifluorescence microscopy.
