Code No. BTS 031(B)

B.TECH DEGREE II SEMESTER (SUPPLEMENTARY) EXAMINATION IN INFORMATION TECHNOLOGY/COMPUTER SCIENCE AND ENGINEERING/ELECTRONICS AND COMMUNICATION ENGINEERING/CIVIL ENGINEERING (HABITAT ENGINEERING AND CONSTRUCTION MANAGEMENT)/MECHANICAL ENGINEERING (CAD/CAM)/SAFETY ENGINEERING, APRIL 2000.

IT/CS/EC/CE/ME/SE 202 **APPLIED SCIENCES II**
ENGINEERING CHEMISTRY
(Old Scheme & New Scheme)

Time: 1½ Hours Maximum Marks: 50

I. (a) What are petrochemicals? Give examples of the three classes of organic compounds included therein. (5)
(b) What are the colour reactions employed for detecting proteins? (4)
(c) Explain the differences between oils and fats with suitable examples. (6)

OR

II. (a) How are the following prepared?
(i) glycine (ii) tryptophan (4)
(b) How is benzene isolated from coal tar ? (5)
(c) Discuss the structure of benzene. (6)

III. (a) Write a note on the vulcanization of rubber. (6)
(b) Give the structure of the monomer from which each of the following polymers would most likely be made (i) Bunas (ii) Nylon Terylene. (3)
(c) What are the two main types of plastics ? In what respect do they differ from each other ? (6)

OR

IV. (a) Explain the mechanism of ionic polymerisation with suitable examples. (7)
(b) What is the difference between addition and condensation polymerisation. (8)

V. (a) Explain the mechanism of rusting of iron. (5)
(b) What do you understand by sacrificial protection of iron from corrosion. Give one example. (5)
(c) Why is hard water unsuitable in the industry? Discuss the different methods available for the removal of hardness of water. (10)

OR

VI. (a) Describe the ion exchange process for the softening of water. (5)
(b) Write a note on any one method for the desalination of water. (5)
(c) What is lubrication ? What are the qualities of a good lubricant ? Discuss any two qualities in detail. (10)

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