

Total No. of Printed Pages:2

SUBJECT CODE NO:- H-416
FACULTY OF SCIENCE AND TECHNOLOGY
F. E. (All)
Engineering Chemistry & Environmental Sci.
(OLD)

[Time: Two Hours]

[Max.Marks: 40]

Please check whether you have got the right question paper.

- N.B
1. Q.no.1 is compulsory.
 2. Solve any two questions from the remaining questions.
 3. Figures to the right indicate full marks.
 4. Use of non-programmable calculator is allowed.
- Q.1 Answer the following questions any five: 10
- a) Define polymer, monomer.
 - b) What is action of NaCl in regeneration of zeolite?
 - c) Define temporary & permanent hardness.
 - d) What are the impurities observed in coal?
 - e) Give composition of petroleum.
 - f) What are advantages of vulcanized rubber?
 - g) What are the raw materials used to prepare styrene rubber?
 - h) Distinguish between solid fuel & Gaseous fuel.
- Q.2 06
- a) Explain in detail zeolite process of water softening? Write its limitations & advantages. 06
 - b) Explain EDTA method for determination of hardness? 05
 - c) Give application of PH-meter. 04
- Q.3 06
- a) What is proximate analysis of coal sample? Write its significance. 06
 - b) Write the characteristic of Good Fuel. 05
 - c) Define: 04
 - 1) Viscosity
 - 2) Viscosity index
 - 3) Octane number
 - 4) Calorific value
- Q.4 06
- a) Give the preparation, properties & uses of PMMA. 06
 - b) Write the difference between natural rubber & vulcanization of rubber. 05
 - c) Define elastomers? Explain the structure of elastomer. 04

- Q.5 a) Explain in detail Ion-exchange water purification method. 05
- b) Define Alkalinity? Give its disadvantages. 04
- c) Write the difference between addition & condensation polymerization. 03
- d) Write significance of ultimate analysis of coal. 03