

SUBJECT CODE:- 446
FACULTY OF ENGINEERING AND TECHNOLOGY
F.E.(ALL) Examination Nov/Dec 2015
Engineering Chemistry and Environmental Sci.
(Revised)

[Time: Two Hours]

[Max Marks : 40]

“Please check whether you have got the right question paper.”

N.Bi) Q.No.1 is compulsory.

ii) Solve any two questions from remaining questions.

iii) Figures to the right indicate full marks.

iv) Use of non- programmable calculator is allowed.

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| Q.1 Answer the following question (any five) | 10 |
| <ul style="list-style-type: none"> a) How temporary hardness is differ term permanent hardness? b) What is function of EBT in EDTA titration with hard water? c) What is conductometry? d) Give merits of gaseous fuels. e) What are types of coal? f) 1.5 gram coal gives 10,000 cal heat energy. Calculate calorizes value of coal. g) How polymers are classified based on thermal response? h) Explain the term compounding of plasters. i) What are synthetic rubbers. Give two examples of it. | |
| Q.2 | |
| <ul style="list-style-type: none"> a) Define primary & foaming. Give its causes and prevention b) Explain zeolite water softening process c) How water is purified by R.O. process? | 06 05 04 |
| Q.3 | |
| <ul style="list-style-type: none"> a) Define caloritic value of coal. How it is determined by bomb calorimeter? b) Explain carbid theory of petroleum oil. c) Give advantages of CNG. | 06 05 04 |
| Q.4 | |
| <ul style="list-style-type: none"> a) Give preparation, properties & uses of PMMA. b) What are elastomers? Give its structure? c) Give properties and uses of butyl rubber. | 06 05 04 |
| Q.5 | |
| <ul style="list-style-type: none"> a) How water is purified by electro dialysis b) Water containing 16.2 mg/lit $\text{Ca}(\text{HCO}_3)_2$ have total hardness 30PPM. Calculate permanent hardness. c) How ash is determined in coal? d) Give common uses of plastics. | 06 05 05 03 |