

Total No. of printed pages = 4

Sc-203/Chem-II/2nd Sem/2014/N

CHEMISTRY – II

Full Marks – 70

Pass Marks – 21

Time – Three hours

The figures in the margin indicate full marks for the questions.

Answer question No.1 and any six from the rest.

1. Give the answer of the following questions in very brief. 1×10=10

(i) What is the main constituent of natural gas ?

(ii) Give an ore of copper.

(iii) Who discovered Portland cement ?

(iv) Give an example of solid lubricant.

(v) What is meant by pollutant ?

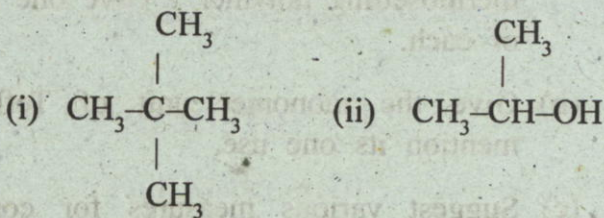
(vi) What is the IUPAC name of acetic acid ?

(vii) Give the monomer unit in PVC.

[Turn over

- (viii) What is the chemical composition of rust ?
- (ix) Gangue + Flux = _____ (Fill in the blanks.)
- (x) What is the full form of LPG ?
2. (a) Define the terms native, mineral and ore. 3
- (b) Differentiate between calcination and roasting. 3
- (c) Discuss the chemical reactions taking place inside the blast furnace. 4
3. (a) Give the composition and uses of water gas and producer gas. 4
- (b) Mention three qualities of a good fuel. 3
- (c) Define the terms octane number and cetane number. 3
4. (a) What do you mean by primary and secondary air pollutant ? Give examples. 3
- (b) What is meant by acid rain ? Mention any two effects of acid rain. 2+2=4
- (c) Mention any two sources of soil pollution. 2
- (d) Suggest one parameter for monitoring water quality. 1

5. (a) Give IUPAC name of the following : 2



(b) Give structure of the following : 2

(i) 3-ethyl 4-methyl hex-2-ene

(ii) 2-bromo propane.

(c) What do you mean by isomerism ? Discuss classification of isomerism with examples.

1+3=4

(d) Give laboratory method of preparation of ethene. 2

6. (a) What do you mean by Portland cement ? Why is it so called ? 1+1=2

(b) What are the raw materials for the manufacture of Portland cement ? 3

(c) What do you mean by lubricant ? How are they classified ? 1+3=4

(d) Give one use of lubricating emulsion. 1

7. (a) What do you mean by thermoplastics and thermosetting polymer ? Give one example of each. $2+2=4$

(b) Give the monomer unit of Teflon and mention its one use. $1+1=2$

(c) Suggest various measures for control of corrosion. 4

8. Write short notes on any four : $4 \times 2\frac{1}{2} = 10$

(a) Froth floatation process

(b) B.O.D and C.O.D

(c) Functional groups

(d) Cracking

(e) Rusting of iron.