

Total No. of printed pages = 5

Sc-203/Che-II/2nd Sem/2015/M

CHEMISTRY – II

Full Marks – 70

Pass Marks – 21

Time – Three hours

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

Answer any *five* questions.

1. (a) Choose the correct alternative : $1 \times 4 = 4$
- (i) UV radiation of the sun is cut off by (oxygen layer / ozone layer / nitrogen layer).
 - (ii) The ore of aluminium is (haematite / malachite / bauxite).
 - (iii) Water gas is a mixture of carbon monoxide and (hydrogen / oxygen / nitrogen).
 - (iv) The chief raw materials for the manufacture of Portland cement is (lime / soda / potash).

[Turn over

(b) Give the answer of the following in brief :

1×4=4

(i) Give an example of liquid lubricant.

(ii) Which metallic coating is applied over iron surface during galvanization ?

(iii) What is the monomer unit in Teflon ?

(iv) What is the general formula of alken ?

(c) What do you mean by lubricant and lubrication ? Give the important properties of a good lubricant. 2+4=6

2. (a) Define water pollution. What are the sources of water pollution ? Give two parameters for measurement of water quality. 1+3+2=6

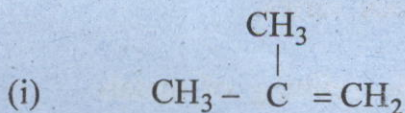
(b) What do you mean by acid rain ? What are its effect on environment ? 2+3=5

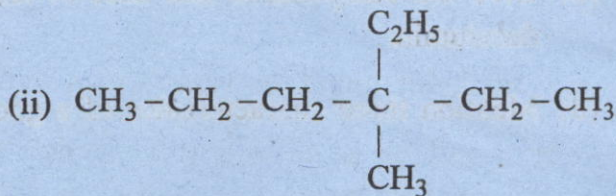
(c) Suggest few measures to control soil pollution. 3

3. (a) Define the term gangue, flux and slag. 3

(b) Give the differences between calcination and roasting. 4

- (c) Give the composition and uses of brass and duralumin. 2+2=4
- (d) Mention three characteristics of a good fuel. 3
4. (a) What do you mean by petroleum ? Mention any two fractions of petroleum and their uses. 1+2+2=5
- (b) What do you mean by Portland cement ? Who discovered it ? Why is it so called ? 1+1+1=3
- (c) What is corrosion ? Discuss rusting of iron with the help of electrochemical theory. 1+5=6
5. (a) Give the differences between addition polymerization and condensation polymerization. 4
- (b) Write IUPAC name of the following : 1×2=2





(c) How is methane prepared in the laboratory ?

3

(d) What do you mean by isomerism ? How are they classified ? Write the functional groups in alcohol and carboxylic acid. 1+2+2=5

6. Write short notes on any *four* : $3\frac{1}{2} \times 4 = 14$

(i) Calorific value of a fuel.

(ii) Setting and hardening of cement.

(iii) Control of corrosion.

(iv) Thermosetting polymer.

(v) Homologous series.

(vi) Electrolytic refining of metals.

7. (a) What do you mean by primary and secondary air pollution ? 3

(b) Mention the advantages of open hearth process over Bessemer process. 4

(c) Give composition and uses of producer gas. 3

(d) Give the product of the following reactions :
2×2=4

