PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION MAY 2017
(Fourth Semester)

Branch- CHEMISTRY *

GENERAL CHEMISTRY - IV

Time : Three Hours Maximum : 75 Marks

SECTION-A (20 Marks)
Answer ALL questions
ALL questions carry EQUAL marks (10 x 2 = 20)
*

1 What is RF in chromatography terminology?

2 Write down the basic principles of ion-exchange chromatography.

3 Write any two uses of tungsten.

4 Define the term "mineral".

5 Write any two methods of preparation of nitroarenes.

6 How is diazomethane prepared?

7 What are enantiomers?

8 Define optical isomerism. Give example.

9 Define cetane number.

10 Give the composition and uses of LPG.

SECTION - B (25 Marksl
Answer ALL Questions
ALL Questions Carry EQUAL Marks (5x5 = 25)-

11 a How is solvent extraction carried out using counter - current extraction?

OR

b * Give a brief account on column chromatography.

12 a Write notes on the following (i) Concentration (ii) Roasting. (2+3)

OR

b What are the ores of titanium? How is it extracted from its ore?

13 a Explain the basicity of amines.

OR

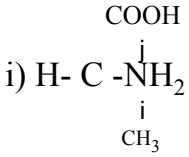
b Explain the reduction of nitroarenes in acidic, alkaline and neutral medium.

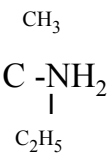
14 a Explain the following terms. (2 + 2 + 1)
i) Polarized light ii) Optical activity . iii) One example for optical inactive compounds.

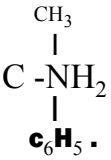
OR

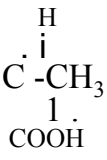
Cont....

14b Give the configuration symbols (R or S) to the following compounds.

i) 

ii) 

iii) 

iv) 

15 a What are the advantages of catalytic cracking over thermal cracking?

OR

b How is gobar gas produced? Write its application.

SECTION - C (30 Marks)

Answer any THREE Questions

ALL Questions Carry EQUAL Marks (3 x 10 = 30)

16 Explain the term theory and technique of paper chromatography.

17 What are the ores of vanadium? How is it extracted from its ore? Write the reaction.

18 Write down the separation of mixture of primary, secondary and tertiary amines.

19 Explain the geometrical isomerism in oximes and alicyclic compounds.

20 v Explain the refining of crude petroleum and write the uses of various fractions.

Z-Z-Z END