BSc DEGREE EXAMINATION DECEMBER 2017
(Firs! Semester)

Branch - **NUTRITION, FOOD SERVICE MANAGEMENT & DIETETICS**

CHEMISTRY -1

Time : Three Hours   Maximum : 75 Marks

SECTION-A (20 Marks)
Answer **ALL** questions

ALL questions carry **EQUAL** marks   (1 0 x 2 = 20)

1   Write the name of indicators used in acid - base titrations.
2   What is universal antidote?
3   What is meant by covalent bonding?
4   Define reducing agents.
5   Write the structure of menthol.
6   Mention any two uses of Teflon.
7   Define chromogen.
8   What are antibiotics? Give one example.
9   State law of Mass action.
10   What is called Ideal solution?

SECTION - B (25 Marks)
Answer **ALL** Questions

ALL Questions Carry **EQUAL** Marks (5 x 5 = 25)

11 a   Write the principles of volumetric analysis.

OR

b Explain redox and precipitation titrations.

12 a Explain the shapes of SF_6 with neat diagram.

OR

b What are the rules of calculating oxidation number?

13 a Write Isoprene rule with example.

OR

b How will you prepare (i) Teflon and (ii) Nylon ?   (2 A + 2 'A)

14 a Define antipyretics and anesthetics with examples.

OR

b   Write the preparation and uses of alizarin and methyl orange.

15 a   Derive an expressive for equilibrium constant for the dissociation of N_2O_4.

OR

b State and explain the following (i) Raoulf s law (ii) Henry's law. (2 A + 2 A)

SECTION - C (30 Marks)
Answer any **THREE** Questions

ALL Questions Carry **EQUAL** Marks (3 x 1 0 = 30)

16   Define the term indicator. How does phenolphthalein and methyl orange act as an indicator?

17   Explain the following terms with example, (i) Hybridisation (ii) Ionic bonding (iii) Covalent bonding (iv) Co-ordinate covalent bonding (v) Hydrogen bonding.   (5X2=10)

18   What are carbohydrates? How are they classified?

19   What are dyes? Write down their classification on the basis of chemical structure. Explain them,

20   State Carnot theorem. Explain the efficiency of Carnot engine using Carnot cycle.

Z-Z-Z   *   END