(AUTONOMOUS)

BSc DEGREE EXAMINATION MAY 2018
(Fourth Semester)

Branch- PHYSICS

CHEMISTRY - II

Time : Three Hours Maximum : 75 Marks

SECTION-A (20 Marks)

Answer ALL questions

ALL questions carry EQUAL marks (10 x 2 = 20)

1 Distinguish between precision and accuracy.
2 What do you mean by significant figures? Give an example.
3 What are heterocyclic compounds? Give an example.
4 List out the various types of soaps.
5 Calculate the pH of 0.001 N sodium hydroxide solution.
6 Define the equivalent conductivity with its mathematical form.
7 Distinguish between homogeneous and heterogeneous systems.
8 How will you distinguish between inter and intra molecular hydrogen bonding by infrared spectroscopy?
9 What do you mean by pollutants? Give any two examples.
10 List out the causes of noise pollution.

SECTION - B (25 Marks)

Answer ALL Questions

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

11 a How will you classify errors? Explain them with examples.

OR

b Give any five first aid procedures that have been followed in chemistry laboratory.

12 a Outline the manufacture of soap.

OR

b Give any one method of preparation of furan and thiophene. Also compare the basic character of furan and thiophene.

13 a Explain the following: (i) Kohlrausch law and (ii) Oswald's dilution law.

OR

b List out any five importance of pH and buffer solution in living system.

14 a Illustrate the principle and instrumentation of UV - Visible spectroscopy.

OR

b Compare the reversible and irreversible processes.

15 a Explain the sources and effect of thermal pollution.

OR

b Discuss the various types of pollution.

SECTION - C (30 Marks)

Answer any THREE Questions

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

16 Explain in detail on minimization of errors.

17 a) How will you classify proteins? Give examples. (5)
b) Compare the properties of soap and detergent. (5)

18 Explain any two types of conductometric titrations with example.
19 Derive the relationship between C_p and C_v.
20 Elaborate the effect, prevention and control measures of noise pollution.

Z-Z-Z END