UE-5239

M. Sc. (Sem. - II) Examination, June - 2025

CHEMISTRY

Paper - 2.4

CHEM - 524

Computer Applications in Chemistry-T

Time Allowed : **Three Hours**

Max. Marks : **70**
Min. Marks : **28**

This question paper contains two sections as under :

Section-A ***Max. Marks-20***

This section will have 10 questions, having 02 questions from each unit. Answer in about 20 words. All questions will have equal marks. ***(10×02=20)***

Section-B ***Max. Marks-50***

This section will have 10 questions, having 02 qustions from each unit, one question to be attempted from each unit. Word limit approximately 400-500 words. Questions may have sub divisions. All questions will have equal marks. ***(10×05=50)***

SECTION - A

1 (a) Draw a block diagram of a computer system.

(b) Differentiate between hardware and software.

(c) How a document is create and same in MS-Word?

(d) Differentiate between bar and line graph in MS-Excel.

(e) How constant and variables declare in C language?

(f) Explain in brief features of Windows.

(g) What is www ?

(h) Explain in brief use of CAD in chemistry.

(i) How pH of solution is determined?

(j) What do you mean by lattiee energy?

SECTION - B

UNIT - I

2 How table is created in MS-Word? Create a document for your marksheet assume suitable rows and columns.

OR

Create a spreadsheet in MS-Excel for invoice of purchase of 5 different books for library. Assume suitable quantity and unit price. Compute Net Amount after 15% discount using formulas with proper format.

UNIT - II

3 How Power Point presentation is prepared? Create 10 slides of your department assuming suitable data, background and animation.

OR

Create a Pie Chart in MS-Excel for number of internet users in India in every year as following:

No. of Internet User	Year
20 Crores	2000
10 Crores	2005
20 Crores	2010
40 Crores	2015
60 Crores	2020
87 Crores	2025

UNIT - III

4 Write a flow chart for finding maximum no among three given numbers.

OR

Discuss any four application of window operating system in brief.

UNIT - IV

5 How Internet useful in chemistry? State any five chemical industry and their process where process communicate with computer.

OR

How computer interface with instruments and laboratory information system in chemical Industry.

UNIT - V

6 How linear simultaneous equations to solve secular equations with in the Huckel theory give examples.

OR

Write short notes on :

(a) Lambert-Beer's Law

(b) Radioactive Decay

(c) Ionic Radii

(d) Bond Length and Angles.

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