

P.G. Semester-IV Examination, 2023**CHEMISTRY****Course ID : 41464 Course Code : CHEM-404C(PR)****Course Title : Computer Application in Chemistry (Practical)**

Time : 2 Hours

Full Marks : 40

*The figures in the right-hand margin indicate marks.**Candidates are required to give their answers in their own words as far as practicable.*1. Answer any **ten** of the following questions :

1×10=10

- a) What type of technology was used in first generation computers?
- b) Which output device is used for printing building plan, flex board, etc?
- c) When a system restarts which type of booting is used?
- d) Which generation of computer does use ICs?
- e) Distinguish between data and information.
- f) What are the components of a CPU?
- g) Sketch out the basic components of a computer with a neat diagram.

[Turn over]

- h) What is the use of the function in C language?
- i) Which languages were used in first generation computers?
- j) High level language appeared in which generation of computers?
- k) In which generation of computers the development of robotics is introduced?
- l) Name the device which detects alpha numeric characters printed or written on a paper.
- m) What type of challenges are involved frequently in natural language processing (NLP)?
- n) Who is the founder of C language and when it was developed?

2. Answer any **five** of the following questions:

$$2 \times 5 = 10$$

- a) What is the ASCII value for blank space?
- b) Convert $(547)_8$ to its decimal equivalent.
- c) Write down the hierarchy of data representation.
- d) In hexadecimal C represents what numeric value?
- e) EBDIC coding system can handle how many characters?

- f) How will you convert decimal to octal? Give example.
- g) Convert the following binary numbers to decimal
(i) 11101 (ii) 1011010
- h) Write down the name of first completely 64-bit compatible version of Android.

3. Answer any **four** of the following questions:

$$5 \times 4 = 20$$

- a) Write a C-programme to make the multiplication table of a given integer.
- b) What is the use of printf() and scanf() functions?
- c) Write a C-programme to swap two numbers without using the third variables.
- d) Write a C-programme to input and print a matrix.
- e) Write a programme to check prime number in C programming.
- f) What is the difference between call by value and call by reference in C?
