**Department name: Computer Applications (Allied for chemistry)** 

**Subject code: ACCH401S** 

**Subject name : Computers In Chemistry** 

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# **UNIT-I:**

### 5 marks:

- 1. What is c language? Write a simple c program
- 2. Write about programming languages
- 3. Give the structure of programming language
- 4. What is an algorithm?
- 5. Explain about flow chart?
- 6. What is a data type?
- 7. What are the fundamentals of c language?
- 8. What are identifiers? Explain with example
- 9. What are keywords? List out them with example variable
- 10. What is constant?
- 11. What is a variable? What are the rules to declare a.
- 12. What is a C token? Give an example?

# 10 marks:

- 1. Give an account on different data types
- 2. Give an account on history of computer
- 3. Write about the character set in C

# **UNIT-II:**

### 5Marks:

- 1. What are operators? What are its types?
- 2. Write about formatted input and output in c

- 3. Write about library functions with example
- 4. Write a program to find a square root of a number
- 5. Write a program to find power of a number
- 6. Write a program to add three numbers
- 7. Write a program to find any one arithmetic operation

# 10Marks:

- 8. Give an account on various looping statements
- 9. Explain about different types of IF statement with example
- 10. Give an account on types of operators with example
- 11.Explain about BREAK,GOTO and LABEL with example
- 12. Write a program to do one arithmetic operation using switch case
- 13. Write a program to get five marks of a student using any one looping structure

# **UNIT-III:**

# 5marks:

- 1. What is call by reference in function? Show it with example
- 2. Write a c program to calculate PH and POH
- 3. Write a c program to Determine solubility of sparingly soluble salts
- 4. What is a function? What are its types?
- 5. What is a function prototype?
- 6. How to declare and access a function in c.
- 7. Explain various types of functions with examples
- 8. Write a program to add two numbers using function

#### 10 marks:

- 1. Give an account on function and its types with examples
- 2. Write a c program to Determine electro negativity of an atom from bond energy data using Pauling's relation

- 3. Write a c program to Determine lattice energy of a crystal using bond-lande equation
- 4. Write about storage class.
- 5. Write a c program to Determine shapes of molecule or ions using VSEPR theory
- 6. Write a c program to Determine empirical formula from elemental analysis
- 7. Write a c program to calculate interplanar spacing for different planes in an orthorhombic crystal

### **UNIT-V:**

### 5marks:

- 1. What is a structure? Give an example
- 2. What is an array? What are its types?
- 3. Write a c program to Determine the half life and average life of a radioactive nucleus

# 10 marks:

- 4. Give an account on arrays and its types with example
- 5. Write about various string functions with examples
- 6. Write a c program to Determine normality, molality and morality of solutions
- 7. Write a c program to calculate equivalent weight of acids, bases and salts

### Unit V:

### 5marks:

1. Write a note on Application of CHEMDRAW?

# 10 marks:

1. Detail about the ISIS Draw for Organic and Inorganic Molecules