

Enrollment No.....



## Faculty of Science

End Sem (Even) Examination May-2022

CH5SE01 Computer for Chemists

Programme: M.Sc.

Branch/Specialisation: Chemistry

Duration: 3 Hrs.

Maximum Marks: 60

Note: All questions are compulsory. Internal choices, if any, are indicated. Answers of Q.1 (MCQs) should be written in full instead of only a, b, c or d.

- Q.1 i. A CPU contains- **1**  
 (a) A card reader and a printing device  
 (b) An analytical engine and a control unit  
 (c) A control unit and an arithmetic logic unit  
 (d) An arithmetic logic unit and a card reader
- ii. Which of the following are the functions of an operating system? **1**  
 (a) Allocates resources (b) Monitors activities  
 (c) Manages disks and files (d) All of these
- iii. Which of the following is not a correct variable type? **1**  
 (a) Float (b) Char (c) Int (d) Real
- iv. A C variable cannot start with- **1**  
 (a) A number (b) A special symbol  
 (c) Both (a) and (b) (d) An alphabet
- v. For Van der Waals Equation, how many constants are there? **1**  
 (a) 2 (b) 3 (c) 4 (d) 1
- vi. Distance between the centres of two covalently bonded atoms is called \_\_\_\_\_. **1**  
 (a) Bond order (b) Bond length  
 (c) Bond angle (d) None of these
- vii. The \_\_\_\_\_ feature of MS Excel quickly completes a series of data. **1**  
 (a) Fill auto (b) Sorting (c) Fill series (d) Auto complete
- viii. By default, Footers are printed on- **1**  
 (a) First page (b) Last page (c) All pages (d) Even pages
- ix. Full form of PDF is- **1**  
 (a) Portable Document Format (b) Portable Design Format  
 (c) Portable Data Format (d) None of these

P.T.O.

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- x. RTF is a type of- **1**  
 (a) Image format (b) Text file format  
 (c) Video format (d) None of these
- Q.2 Attempt any two:  
 i. What is flowchart? Explain the basic symbols of the flowchart. Draw a flowchart to enter the radius and calculate the area of the circle. **5**  
 ii. Write down four differences between volatile and non-volatile memory. Is RAM a volatile or non-volatile memory? **5**  
 iii. What is algorithm? Write an algorithm to calculate simple interest. **5**
- Q.3 Attempt any two:  
 i. Explain the syntax and use of Input and Output format statement in C language. Write a C program to input the string "LOCKDOWN INDIA" from user and display it on screen. **5**  
 ii. Explain break, continue, goto statement in C with examples. **5**  
 iii. What is data type? Explain any 3 built in data types and their size in C. **5**
- Q.4 Attempt any two:  
 i. Explain Van der Waals equation. Write a C program for it. Assume data of your choice. **5**  
 ii. Write a C program to calculate lattice energy. Assume data of your choice. **5**  
 iii. Write a C program to determine the half-life in a radioactive decay. Assume data of your choice. **5**
- Q.5 Attempt any two:  
 i. Explain uses of header and footer. Can we apply same header on alternate page of word file? **5**  
 ii. What is chart? Discuss four types of charts in excel. **5**  
 iii. Explain cell formatting including border and shading. **5**
- Q.6 Attempt any two:  
 i. What is search engine? Explain any two category of search engines. **5**  
 ii. What is PDF? Write any four uses and advantages of it. **5**  
 iii. Write short note on- **5**  
 (a) Scanning (b) Web Camera

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# Scheme of Marking



Faculty of Science  
End Sem (Even) Examination May-2020  
Computer For Chemists (T)-CH5SE01

Programme: M.Sc.

Branch/Specialisation:

Note: The Paper Setter should provide the answer wise splitting of the marks in the scheme below.

Q.1	i)	c	1
	ii)	d	1
	iii)	d	1
	iv)	a	1
	v)	c	1
	vi)	<del>a</del> b	1
	vii)	<del>c</del> a	1
	viii)	c	1
	ix)	a	1
	x)	b	1
Q.2	i.	What is flowchart? Explain the basic symbols of the flowchart. Draw a flowchart to enter the radius and calculate the area of the circle Input -0.5 mark Logic -1 mark Output -0.5 mark	1+2+2
	ii.	Write down four differences between volatile and non-volatile memory. Is RAM a volatile or non-volatile memory?	4+1
	iii.	What is algorithm? Write an algorithm to calculate simple interest. Input -1 mark Logic -1 mark Output -1 mark	2+3
Q.3	i.	Explain the syntax and use of Input and Output format statement in C language. Write a C program to input the string "LOCKDOWN INDIA" from user and display it on screen.	2+3

		Input -1 mark Logic -3 mark Output -1 mark	
	ii.	Explain break, continue, goto statement in C with examples. Break with example- 2 mark Continue with example-2 mark Goto with example-1 mark	5
	iii.	What is data type? Explain any three built in data types and their size in C. Three data types 1 mark each	2+3
Q.4	i.	Explain Van der Waals equation. Write a C program for it. Assume data of your choice. Input -0.5 mark Logic -2 mark Output -0.5 mark	2+3
	ii.	Write a C program to calculate lattice energy. Assume data of your choice Input -1 mark Logic -3 mark Output -1 mark	5
	iii.	Write a C program to determine the half-life in a radioactive decay. Assume data of your choice. Input -1 mark Logic -3 mark Output -1 mark	5
Q.5	i.	Explain how to add header and footer in a word document. Write three uses of header and footer. Can we apply same header on alternate page of word file?	2+2+1
	ii.	What is chart? Discuss four types of chart in excel.	1+4
	iii.	Explain cell formatting including border and shading. Stepwise marking	5
Q.6	i.	What is search engine? Explain any two category of search engines.	1+4
	ii.	What is PDF? Write four uses and advantages of it.	2+3
	iii.	Write short note on a) Scanning b) Web Camera	2.5+2.5

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