

PART C — ($5 \times 8 = 40$ marks)

Answer ALL questions, choosing either (a) or (b).

16. (a) Discuss any two high-level languages.

Or

- (b) Explain the output of a program by flow chart.

17. (a) Differentiate goto, continue and break.

Or

- (b) Give any examples with switch statement having do-while in it.

18. (a) Given are two one-dimensional arrays A and B, which are sorted in ascending order. Write a program to merge them into a single stored array C that contains every item from arrays A and B, in ascending order.

Or

- (b) Explain any four string handling functions.

19. (a) Write a program to calculate inter-ionic distance between the ions if we have lattice energy value by using while statement.

Or

- (b) Write a program to calculate the lattice energy by using nested for-statement.

20. (a) Discuss about Monte Carlo integration techniques.

Or

- (b) Explain the fitting curves to datasets.

Reg. No. :

Code No. : 7159

Sub. Code : C 33 C

M.Sc. (CBCS) DEGREE EXAMINATION,
NOVEMBER 2010.

Third Semester

Chemistry

COMPUTERS FOR CHEMISTS

(For those who joined in July 2008 and afterwards)

Time : Three hours

Maximum : 75 marks

PART A — ($10 \times 1 = 10$ marks)

Answer ALL questions.

1. How can we make distinguish between primary and secondary storage?
2. Can you write about the function of operating systems?
3. How do variables and symbolic names differ?
4. Connect relational operator and logical operator.
5. How will you declare an array?

6. Differentiate the function of float in the following :

```
float mul(x,y)
float x,y ;
{
    return (x*y) ;
}
```

7. Write a small program for giving half-life period.
8. How will you calculate rate constant of first order reaction?
9. Explain Simpson's rule shortly.
10. Write any two applications of numerical methods in Computer Programming.

PART B — (5 × 5 = 25 marks)

Answer ALL questions, choosing either (a) or (b).

11. (a) Explain the device 'Monitor'.

Or

- (b) Write any five common features of input devices.

12. (a) Explain control statements.

Or

- (b) Write a simple program to execute the following output with using for statement.

```
* * * * *
* * * * *
* * * *
* * *
* *
*
```

13. (a) Discuss about pointer expressions.

Or

- (b) Explain the meaning and purpose of the following :

(i) Template.

(ii) Tag

(iii) Size off. (2 + 1 + 2)

14. (a) How can we use functions for calculating average velocity of a gas?

Or

- (b) How can you write the program for calculating lattice energy by using switch statement?

15. (a) How will you find out root of non-linear equation?

Or

- (b) Discuss about linear congruential generator.