



w.e.f. 2015-16 Admitted Batch (CBCS)
SIR C R REDDY COLLEGE (AUTONOMOUS), ELURU
(Affiliated to Adikavi Nannaya University, Rajamahendravaram)

III B.Sc. Degree Examinations - April, 2018

(At the end of VI Semester)

PHYSICS Cluster Paper-8(2)

Computational Methods and Programming

Time : 3 Hrs.

Date: 11-04-2018

Max.Marks: 75

Pass Min: 26

SECTION-A

5x10=50M

Answer any FIVE of the following

1. Explain the Structure of a C program with an example program?
2. What is a Data type? Explain the basic data types in C?
3. Describe any two types of operators in C.
4. Explain about formatted and unformatted input and output functions in C?
5. What is the use of 'switch' statement? Explain the switch statement with an example program?
6. Explain about the loop statements available in C? What is the difference between while and do-while statements?
7. Brief about 2D arrays? Write a C program to multiply two given matrices after checking compatibility?
8. Evaluate $f(15)$ using Newton's forward interpolation formula, given the following table of values:

x	10	20	30	40	50
f(x)	46	66	81	93	101

SECTION-B

5x5=25M

Answer any FIVE of the following

9. What is a variable? Write the rules for naming variables in C?
10. Explain any five mathematical library functions in C?
11. What is an expression? How do you evaluate arithmetic expressions in C?
12. Differentiate 'break' and 'continue' statements?
13. Explain if-else statement? Write a C program to check whether the given number is even or odd?
14. What is recursion? Write a recursive function that returns the factorial of a given number?
15. Explain about the storage classes in C?
16. Write the Newton's backward interpolation formula? Construct the backward difference table of given data:

x	1	2	3	4	5
f(x)	40	43	48	52	57