

(FOR THE CANDIDATES ADMITTED
DURING THE ACADEMIC YEAR 2021 ONLY)

SUBJECT CODE **21 UPS 6E7**

REG.NO.

N.G.M.COLLEGE (AUTONOMOUS) : POLLACHI

END-OF-SEMESTER EXAMINATIONS : MAY – 2024

B.Sc. – PHYSICS

MAXIMUM MARKS: 70

SEMESTER : VI

TIME : 3 HOURS

PART – III

C PROGRAMMING AND INFORMATION SECURITY

SECTION – A (10 X 1 = 10 MARKS)

ANSWER THE FOLLOWING QUESTIONS.

MULTIPLE CHOICE QUESTIONS.

(K1)

1. Which of the following is not a C variable name?
(a) int number (b) float rate (c) int variable count (d) int\$main
2. In an exit controlled loop if the body is executed ----- times
(a) 1 (b) 2 (c) 3 (d) infinite
3. A pointer is a ----- data type in C.
(a) derived (b) primary (c) user defined (d) none of the above
4. Which protocol is commonly used for transferring files over the Internet?
(a) HTTP (b) TCP (c) FTP (d) IP
5. Authentication is -----
(a) The process of encrypting data
(b) The process of verifying the identity of a user
(c) The process of securing network connections
(d) The process of preventing unauthorized access to a system

ANSWER THE FOLLOWING IN ONE (OR) TWO SENTENCES.

(K2)

6. What are C constants?
7. Define switch statement.
8. How is pointer initialized?
9. Define the term spoofing identity.
10. How does a firewall protect a network?

(CONTD 2)

SECTION – B**(5 X 4 = 20 MARKS)****ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS.****(K3)**

11. a) Differentiate keyword and identifiers.

(OR)

- b) Discuss the rules for increment and decrement operators.

12. a) Explain IF ELSE statement with an example.

(OR)

- b) Explain one-dimensional array with example.

13. a) What is a structure? How will you define a structure?

(OR)

- b) Explain pointers and structures.

14. a) Discuss the key components of the TCP/IP protocol suite and their respective functions.

(OR)

- b) Explain the concept of information disclosure and the different methods attackers may use to gain unauthorized access to sensitive information.

15. a) Discuss the importance of user authentication in web applications.

(OR)

- b) Explain the main threats posed by cross-site scripting (XSS) attacks?

SECTION – C**(4 X 10 = 40 MARKS)****ANSWER ANY FOUR OUT OF SIX QUESTIONS.****(K4 (Or) K5)****(16th QUESTION IS COMPULSORY AND ANSWER ANY THREE QUESTIONS (FROM Qn. No : 17 to 21))**

16. Describe the four basic data types with examples.
17. Explain logical and assignment operators with example.
18. Explain the for loop statement with an example.
19. Write a C program using structures to calculate marks of 10 students in different subjects.
20. Elucidate some Phishing techniques.
21. Discuss the process of collecting and preserving digital evidence in computer forensics investigations