PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

MCA DEGREE EXAMINATION MAY 2024
(Third Semester)

Branch – **COMPUTER APPLICATIONS**

MAJOR ELECTIVE COURSE – II: SOFTWARE SECURITY

Time: Three Hours   Maximum: 50 Marks

SECTION-A (5 Marks)
Answer **ALL** questions
ALL questions carry **EQUAL** marks   (5 x 1 = 5)

1. How many arguments does the at( )function take?
   a) 0   b) 1   c) 3   d) 2

2. In C++, dynamic memory allocation is done using _____ operator?
   a) calloc()   b) malloc()   c) allocate   d) New

3. Which of the following is called as protocol in the http://www.google.co.in?
   a) .co   b) in   c) www   d) http

4. Which one of these is a response to positive risks?
   a) Exploit   b) Acceptance   c) Avoidance   d) Transfer

5. Which of the following is the best approach to conducting a penetration test?
   a) Black box testing   b) White box testing
   c) Grey box testing   d) Automated testing

SECTION - B (15 Marks)
Answer **ALL** Questions
ALL Questions Carry **EQUAL** Marks   (5 x 3 = 15)

6. a. Explain about Common string manipulation Errors.
   (OR)
   b. Write an object size checking with an Example.

7. a. Define Modifying the Instruction pointer with Example program.
   (OR)
   b. Write about C++ Dynamic Memory Management with suitable syntax.

8. a. Explain HTTP methods and its Description.
   (OR)
   b. Describe the HTTP server response code.

9. a. Write about Modern risk analysis.
   (OR)
   b. What are penetration testing and its type?

10. a. Define Building Block of Change in Enterprise Software Security.
    (OR)
    b. How to define the list of Abuse Case?

SECTION -C (30 Marks)
Answer **ALL** questions
ALL questions carry **EQUAL** Marks (5 x 6 = 30)

11. a. Explain the Signed Integer Typed and Signed Integer Ranges.
(OR)
    b. Discuss about Overwriting Memory with Example program.

12. a. Define Global Offset Table. Explain.
(OR)
    b. Discuss about Doug Lea's Memory Allocator with suitable diagram.

13. a. Define Keep alive secession in HTTP.
(OR)
    b. Describe the Protocol-Level Encryption.

14. a. Explain about proper penetration test.
(OR)
    b. What is a Risk Calculation in software testing.

15. a. Write Security testing and its types.
(OR)
    b. Write about Establishing a Metrics program.

Z-Z-Z   END