Register Number : 136CS22048   CODE: 20CS54IT

V SEMESTER DIPLOMA EXAMINATION, NOVEMBER - 2024
CYBER SECURITY

TIME : 3 Hours   Max. Marks : 100

Instructions:

1. There are 5 sections.
2. One full question carries 20 marks.
3. Answer one full question from each section.

SECTION-I

1 a. Define cyber Security. Explain its security principle.   10
   b. Who is a Hacker? Explain different types of Hackers.   10
2 a. Explain the three dimensions of Mc Cumber Cube   10
   b. Define malware. Explain different types of malwares.   10

SECTION-II

3 a. What is Cryptography? Explain various components of Cryptography
      with neat diagram.   10
   b. Explain Diffee-hellman key Exchange Algorithm.   10
4 a. Explain RSA Algorithm. Using RSA solve p=17, q=11, e=7.Find the decryption key(d). 10
   b. Find the GCD of
      (i) (360,210)   5
      (ii) (108,144)   5

SECTION-III

5 a. Explain the different phases of Microsoft Secure SDLC.   10
   b. Define Firewall. Explain its types.   10
6 a. What is cloud computing? Explain its different types.   10
   b. Explain top 10 OWASP issues in mobile applications.   10

SECTION-IV

7 a. Explain IAM best practices.   10
    b. Describe Android application security architecture.   10
8 a. What is threat modelling? Why it in necessary? List five threat modelling methodologies. 10
   b. Describe the life cycle of vulnerability management.   10

SECTION-V

9 a. What is DevOps? Explain its security challenges.   10
   b. Explain GRC along with its benefits.   10
10 a. Define Incident management. Explain its stages.   10
   b. Explain ERM? Explain different types of risk faced by organization.   10