Roll. No:

Time: 2 Hours   Max. Marks: 50

General Instructions:

IMP: *Verify that you have received the question paper with the correct course, code, branch etc.*

1. *This Question paper comprises of* **three Sections -A, B, & C.** *It consists of Multiple Choice Questions (MCQ's) & Subjective type questions.*

2. *Maximum marks for each question are indicated on right -hand side of each question.*

3. *Illustrate your answers with neat sketches wherever necessary.*

4. *Assume suitable data if necessary.*

5. *Preferably, write the answers in sequential order.*

6. *No sheet should be left blank. Any written material after a blank sheet will not be evaluated/checked.*

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SECTION A   **15**

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1. Attempt all parts:-

1-a.   In CIA Triad, A refers to -   (CO1)   1

(a) Authentication

(b) Authorization

(c) Access Control

(d) Availability

1-b.   Label the process of setting up of fake access points in high traffic public   1
locations

(a) Unsecured Wi-Fi

(b) Phishing Attacks

(c) Network Spoofing Spyware

(d) none

1-c.   Data backup security can be implemented by (CO3)   1

(a) Assigning,Accountability and responsibilities to the managers

(b) forcing the responsibilities on application developers

(c) applying firewalls

(d) All of the above

1-d.   In RSA, $\Phi(n)$ = _____ in terms of p and q. (CO4)   1

(a) (p)/(q)

(b) (p)(q)

(c) (p-1)(q-1)

(d) (p+1)(q+1)

1-e.   Name the term that gives a description of the lawful issues related to the use of communication or computer technology.   1

(a) Cyber Audit

(b) Law Enforcement

(c) Evidence records

(d) Cyber Law

2. Attempt all parts:-

2.a.   Explain term Threat.   2

2.b.   Give 2 challenges for Application Layer security   2

2.c.   State any two security concerns in PDA?   2

2.d.   What do you mean by masquerading? Explain with an example. (CO4)   2

2.e.   What is OpenStack ?   2

<div align="center">SECTION B   15</div>

3. Answer any <u>three</u> of the following:-

3-a.   Why are feasibility study and requirement gathering important in any software development model.   5

3-b.   Explain all types of Firewall in detail.   5

3.c.   Discuss Intrusion detection system and its types. What are components of intrusion detection system? IDS and CCTV play an important role in providing physical security to our information system. Discuss how?   5

3.d.   What is digital signature? What are the requirements of digital signature system? List the security services provided by Digital Signature.   5

3.e.   Explain the need for Information Security Policies. How to protect email messages?   5

<div align="center">SECTION C   20</div>

4. Answer any <u>one</u> of the following:-

4-a.   Discuss active attacks in network with suitable example. (CO1)   4

4-b.   Discuss all the phases involved in spiral model.   4

5. Answer any <u>one</u> of the following:-

5-a.   How will you differentiate between NIDS and HIDS? How Intrusion detection   4
         system is different from Intrusion Prevention System?   (CO2)

5-b.   What is VPN and how does it provide security? (CO2)   4

6. Answer any <u>one</u> of the following:-

6-a.   "Primary threats on the physical security is physical exposure to human   4
         beings". Comment on the statement. (CO3)

6-b.   Define the term mobile security in detail? (CO3)   4

7. Answer any <u>one</u> of the following:-

7-a.   Explain various key aspects in maintaining cloud security. (CO4)   4

7-b.   Explain importance of Hash functions? (CO4)   4

8. Answer any <u>one</u> of the following:-

8-a.   What is cloud computing? Discuss all cloud deployment models.   4

8-b.   Explain the term IoT. Take an example to discuss how has it changed current   4
         lifestyle.