Register Number:……………..

KUMARAGURU
college of technology
character is life

B.TECH DEGREE EXAMINATIONS: APRIL 2018

(Regulation 2014)

Eighth Semester

INFORMATION TECHNOLOGY

U14ITTE62- Information Security

COURSE OUTCOMES

CO1: Describe threats to information security and security SDLC.

CO2: Identify the security threats and attacks

CO3: Analyze the mechanism to assess and control risk.

CO4: Describe the types of security policies and standards.

CO5: Identify security issues related to personnel decisions, and qualifications of security personel.

Time: Three Hours **Maximum Marks: 100**

Answer all the Questions:-

PART A (10 x 1 = 10 Marks)

1. Matching type item with multiple choice code CO5 [K2]

List I	**List II**
A. First generation Firewalls	i. Stateful inspection
B. Second generation firewalls	ii. Static packet filtering
C. Third generation firewalls	iii. Dynamic packet filtering
D. Fourth generation firewalls	iv. Application-level

	A	B	C	D
a)	ii	i	iii	iv
b)	iii	iv	ii	i
c)	ii	iv	i	iii
d)	iii	i	ii	iv

2. Information has _________ when it is whole complete and uncorrupted CO1 [K2]

a) Accuracy b) Integrity

c) Authenticity d) Hashing

3. The purpose of SETA is to enhance security by doing CO4 [K2]

1. Improving awareness of the need to protect system resources
2. Developing skills and knowledge so computer users can perform their jobs more securely.
3. Building in-depth knowledge, as needed, to design, implement or operate security programs for organizations and systems.

Which of the above statements are correct?

a) 1,2,3 b) 1 only

c) 1,2 only d) 1,3 only

4. Stealing credit card numbers and demanding compensation is a deliberate act of ______ CO2 [K2]

a) Theft b) Sabotage

c) Information extortion d) Espionage

5. Assertion (A): Clean desk policy is difficult to enforce CO3 [K2]

Reason (R): It requires that employees secure all information in appropriate storage containers at the end of each day

a) Both A and R are Individually true and R is the correct explanation of A

b) Both A and R are Individually true but R is not the correct explanation of A

c) A is true but R is false d) A is false but R is true

6. ________assigns a score to each information asset. CO3 [K2]

a) Risk management b) Risk assessment

c) Risk identification d) Risk control

7. Find the correct sequence of SDLC methodology CO1 [K2]

1. Investigation
2. Physical Design
3. Logical Design
4. Analysis
5. Implementation

a) 1,2,3,4,5 b) 1,4,2,3,5

c) 1,4,3,2,5 d) 1,3,2,4,5

8. __________ is a tool to determine a remote computer's operating system CO3 [K2]

a) XProbe b) HPING

c) NMAP d) SSH

9. Assertion (A): C.I.A triangle model no longer adequate CO1 [K_2]

Reason (R): Does not address the constantly changing environment

a) Both A and R are Individually true and R is the correct explanation of A

b) Both A and R are Individually true but R is not the correct explanation of A

c) A is true but R is false

d) A is false but R is true

10. Surveying all target organizations address is called ________. CO5 [K2]

a) Foot printing

b) Foot printing

c) Address gathering

d) Address spoofing

PART B (10 x 2 = 20 Marks)

(Answer not more than 40 words)

11. What are the approaches to the implementation of information security? CO1 [K2]

12. Explain about McCumber Cube. CO1 [K2]

13. What efforts can individual take to avoid shoulder surfing? CO2 [K3]

14. What do you mean by denial of service attack? CO2 [K2]

15. Illustrate the cost benefit analysis method. CO3 [K2]

16. Differentiate discretionary and non discretionary access controls. CO3 [K3]

17. What are the drawbacks of ISO 17799/BS 7799. CO4 [K3]

18. What do you mean by security blueprint? CO4 [K2]

19. What are Honey Pots, Honey Nets and Padded Cell Systems? CO5 [K2]

20. What are Sock Servers? CO5 [K2]

Answer any FIVE Questions:-

PART C (5 x 14 = 70 Marks)

(Answer not more than 300 words)

Q.No. 21 is Compulsory

21. (i) List and explain critical characteristics of information. (7) CO1 [K3]

(ii) List and explain the components of information system. (7)

22. Summarize the major types of attacks used in controlled systems and suggest means to avoid them. CO2 [K2]

23.	Describe various threats to information security with examples.	CO2	[K3]
24.	What is risk Management? State the methods of identifying and assessing risk management.	CO3	[K2]
25.	What are the three types of security policies? Explain in detail.	CO4	[K2]
26.	What is an intrusion detection system? Describe the various types of intrusion detection and prevention systems. State the advantages of each of them	CO5	[K2]
27.	Describe the various firewall architectures and the best practices for firewall use.	CO5	[K2]

****