

4 SEM TDC GECS (CBCS) 4 (A/B)

2024

(May/June)

COMPUTER SCIENCE

(Generic Elective)

Paper : GE-4

Full Marks : 53

Pass Marks : 21

Time : 3 hours

*The figures in the margin indicate full marks
for the questions*

Paper : GE 4 A

(Information Security and Cyber Laws)

1. Answer any *five* of the following questions :

1×5=5

- (a) What is the primary purpose of the IT Act?
- (b) What is cyber stalking?
- (c) What is 2FA?
- (d) What is Copy Right in Information Technology?

(2)

- (e) What is session hijacking in cyber security?
- (f) Which Section of IT Act deals with cyber terrorism?

2. Answer any *five* of the following questions :

2×5=10

- (a) How is encryption different from hashing?
- (b) What is Firewall and why is it used?
- (c) What are vulnerabilities? Name any two vulnerabilities.
- (d) What is Man-in-the-Middle Attack? How to prevent a 'Man-in-the-Middle Attack'?
- (e) What are the differences between electronic and digital signatures?
- (f) What is the difference between law and ethics?

3. Answer any *five* of the following questions :

4×5=20

- (a) Explain various types of authentication in cyber security.
- (b) What is cyber crime? How cyber crime is distinct from other types of crime?



(3)

- (c) Explain the brute force attack. How to prevent it?
 - (d) What is the difference between black hat, white hat and grey hat hackers?
 - (e) What is computer forensics? Why is computer forensics important?
 - (f) Explain the encryption and decryption technique used in the electronic commerce.
4. Write short notes on any *three* of the following : 6×3=18
- (a) Section 66C of the IT Act, 2000
 - (b) Public key cryptography
 - (c) Importance of data security
 - (d) Cyber warfare

(4)

Paper : GE 4 B

(Web and E-commerce Technologies)

1. Answer any seven of the following questions :

1×7=7

- (a) What is a domain name?
- (b) What is shopping bots?
- (c) What is digital signature?
- (d) What is ISP?
- (e) What is a white hat hacker?
- (f) Define VPN.
- (g) What is WORM?
- (h) What is DES?

2. Answer any five of the following questions :

2×5=10

- (a) How does e-commerce lead to saving of cost and time?
- (b) What are the disadvantages of e-commerce?
- (c) What is the difference between domain name and URL?
- (d) What is Firewall? State the function of Firewall in e-commerce.

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(5)

- (e) What are symmetric key and asymmetric key cryptography?
- (f) What is computer virus? How to prevent computer virus?

3. Answer any six from the following questions :

6×6=36

- (a) Explain different types of e-commerce systems.
- (b) Define electronic data interchange. What are the components of electronic data interchange?
- (c) What are the steps in planning for an e-commerce website?
- (d) Differentiate between traditional and e-commerce technologies.
- (e) What is e-cash? Explain various types of electronic payment systems.
- (f) Explain briefly about different applications of e-commerce.
- (g) Why are authentication and authorization important in e-commerce? Differentiate between authentication and authorization.

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