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

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(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?

(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?

(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

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.

   (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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