

SEC-B-2

(E-Commerce)

Full Marks : 80

Answer *question no. 1* and *any four* from the rest.1. Answer *any ten* questions :

2×10

- ~~(a)~~ Write two major goals of e-commerce.
 (b) State the function of a firewall.
~~(c)~~ Explain Trojan as a technique of hacking.
~~(d)~~ What is Electronic cash?
~~(e)~~ Name any two web server software.
~~(f)~~ What is the full form of TCP/IP? Write its usage.
 (g) How does eavesdropping work as a threat to internet?
~~(h)~~ Explain the use of 'Google Adworks'.
 (i) What is the use of data encryption standard (DES)?
~~(j)~~ What is cookie?
~~(k)~~ What is Search Engine Optimization?
 (l) Explain geo-location targeting in e-commerce.
 (m) Write the difference between e-commerce and e-business.
~~(n)~~ Differentiate between authorization and authentication.
 (o) State the disadvantages of internet marketing.

2. (a) State and explain any three advantages of e-commerce.

(b) Explain architectural models of B2B e-commerce.

(c) Explain 5C-model of e-commerce.

6+4+5

3. (a) What are the different types of domain names in Internet? Explain these with suitable examples.

~~(b)~~ Explain B2C and B2G models with suitable example.~~(c)~~ Explain any two types of network with suitable example.

5+(2+2)+(3+3)

4. ~~(a)~~ Differentiate between SSL and SHTTP.~~(b)~~ What is the utility of Shopping Bots in e-commerce?~~(c)~~ Explain web promotion with suitable example.

4+5+6

Please Turn Over

5. (a) What is EDI? Explain the steps of EDI.

(b) Discuss about the policies of corporate email privacy.

(c) Explain the use of target mail and banner advertisement in web promotion.

4+3+(4+4)

6. (a) Explain the functionality of Digital Signature. How does it work?

(b) Write the steps of RSA algorithm.

(4+4)+7

7. Write short notes on (*any three*):

(a) Phishing and vishing

(b) SSH protocol

~~(c) Computer Crime~~

~~(d) Public Key Encryption~~

(e) e-cycle of Internet Marketing.

5×3

2024

COMPUTER SCIENCE — HONOURS

Paper : SEC-B-1 and SEC-B-2

The figures in the margin indicate full marks.

*Candidates are required to give their answers in their own words
as far as practicable.*

SEC-B-1

(Information Security)

Full Marks : 80

Answer *question nos. 1 and 2* and *any four* questions from the rest.

1. Answer *any ten* questions :

2×10

- (a) What is malware?
- (b) Distinguish between cryptography and steganography.
- (c) What is PGP?
- (d) What is e-mail spoofing?
- (e) What is digital watermarking?
- (f) How is traffic padding done in security mechanism?
- (g) What is the difference between block cipher and stream cipher?
- (h) What is hash function?
- (i) What is transposition cipher?
- (j) Define active attack.
- (k) Explain the purpose of P-boxes in DES.
- (l) What is IP sniffing?
- (m) What is Rotor machine?
- (n) Define ring and field.
- (o) What is message digest?

2. Answer *any four* questions :

5×4

- (a) List and briefly define the categories of security services.
- (b) Briefly define Monoalphabetic cipher with an example.

Please Turn Over

- (c) What are the security services of E-mail?
 (d) What services are provided by IPsec?
 (e) List the major security services provided by AH and ESP respectively.
3. (a) What is Playfair Cipher?
 (b) Using the Playfair matrix,

M	F	H	I/J	K
U	N	O	P	Q
Z	V	W	X	Y
E	L	A	R	G
D	S	T	B	C

Encrypt this message.

(Must see you over Cadogan West. Coming at once.)

4+6

4. (a) Explain the Avalanche Effect.
 (b) What is the difference between differential and linear cryptanalysis?
 (c) Briefly explain Feistel Cipher technique. 3+3+4
5. (a) Explain the functionality of Digital Signature. How does it work?
 (b) Write the steps of RSA algorithm. (4+4)+7
6. (a) Explain RSA algorithm with a suitable example.
 (b) What are the roles of the public and private key?
 (c) What are the different types of firewalls? Explain briefly. 5+2+3
7. (a) Briefly explain the IP security architecture with a diagram.
 (b) Explain transport mode and tunnel mode in IPsec. 5+5
8. Write short notes on (*any three*) : 5×3
- (a) Punishment for violation of privacy
 (b) Secure Electronic Transaction (SET)
 (c) OSI security architecture
 (d) Encapsulating Security Payload (ESP)
 (e) Roles of firewall.