Reg. No. : ....

Code No. : 6398   Sub. Code : PCSE 33

M.Sc. (CBCS) DEGREE EXAMINATION,
NOVEMBER 2021

Third Semester

Computer Science

Elective — MOBILE COMPUTING

(For those who joined in July 2017 onwards)

Time : Three hours   Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answers :

1. A computing environment of physical mobility is defined as ————

    (a) Mobile computing

    (b) Virtual computing

    (c) Soft computing

    (d) All of the above

2. A lightweight protocol to perform trans coding on HTTP message are known as

   (a) Web services

   (b) Internet content adaptation protocol

   (c) Transmission control protocol

   (d) File transfer protocol

3. A new header encapsulates the original packet, causing the mobile node's home address to have no impact on the encapsulated packet's routing is called ————————

   (a) User datagram protocol

   (b) Tunneling

   (c) Foreign agent

   (d) Routing cache

4. ———————— maintains mappings for stationary and idle hosts.

   (a) Paging cache

   (b) Message signal unit

   (c) Paging update packets

   (d) None of the above

5. A security protocol based upon the transport layer security protocol is ——————
   (a) Wireless data protocol
   (b) WAP gateway
   (c) Wireless transaction protocol
   (d) Wireless transport layer security

6. The delivery of subscription-based services in intended by ——————
   (a) Combined delivery
   (b) Separate delivery
   (c) Forward-lock
   (d) Virtual private network

7. The —————— provides on-premises control of the routing information requested by switches for translation of 800 type dialing.
   (a) Customer routing point
   (b) Service control point
   (c) Service switching point
   (d) Signaling transfer point

8. The network name which identifies the area covered by an access point is
   (a) MAC address access control
   (b) Wired equivalent privacy
   (c) Service set identifier
   (d) MANET

9. The range of possible values of a key in a cryptographic key is called as

   (a) Cryptanalysis   (b) Keyspace

   (c) Integrity   (d) None of the above

10. The ———— algorithm does various computations and various transformations on the input plaintext.

    (a) Encryption   (b) Decryption

    (c) Key distribution   (d) Public key

    PART B — (5 × 5 = 25 marks)

Answer ALL questions, choosing either (a) or (b)

   Each answer should not exceed 250 words.

11. (a) Discuss about the applications of mobile computing.

                  Or

    (b) Explain transaction processing middleware in detail with diagram.

12. (a) What are the application models of Bluetooth? Explain.

                  Or

    (b) Describe the tunneling operations in mobile IP.

13. (a) Explain the architecture of GPRS network in detail.

Or

(b) Write a note on WML – Wireless Markup Language.

14. (a) Discuss about customer routing point in detail.

Or

(b) Give a brief note on softswitch.

15. (a) Write the applications for Symbian.

Or

(b) What are the different types of attacks in static asset and dynamic asset? Explain.

PART C — (5 × 8 = 40 marks)

Answer ALL questions, choosing either (a) or (b)

Each answer should not exceed 600 words.

16. (a) Briefly discuss about :

(i) Wireline network

(ii) Wireless network

(iii) Adhoc network.

Or

(b) Explain with diagram three tier architecture for mobile computing.

17. (a) Discuss in detail architecture of GSM with a neat diagram.

Or

(b) Explain the functional areas of radio frequency identification (RFID) in detail.

18. (a) Write a note on the data services provided in GPRS.

Or

(b) Explain with diagram the WAP layered architecture and protocol stack in detail.

19. (a) Explain the types of wireless LAN.

Or

(b) With a neat diagram explain the IN framework – In Conceptual Model (INCM).

20. (a) What are the components of a information security? Explain.

Or

(b) Explain the palm OS architecture in detail with diagram.

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