Reg. No. : | | | | | | | | | | |

Question Paper Code: 42949

M.E.DEGREE EXAMINATION, MAY 2016

Elective

Computer Science and Engineering (with Specialization in Networks)

14PNE510 - NEXT GENERATION NETWORKS

(Regulation 2014)

Duration: Three hours Maximum: 100 Marks

Answer ALL Questions

PART A - (5 x 1 = 5 Marks)

1. Next Generation Networks separates the network into how many layers

   (a) One (b) Seven (c) Five (d) Three

2. What device is used for voice applications in Next Generation Networks?

   (a) VoIP (b) Mike (c) Gatekeeper (d) Soft switch

3. Which protocol is used for call establishment, maintenance and termination from packet mode terminals?

   (a) Mobile originated call (b) Mobile terminated call
   (c) Session initiation protocol (d) Call establishment protocol

4. Which protocol is used to negotiate flow routing procedures across different NGN domains?

   (a) CAC (b) BGP (c) ENUM (d) MPLS

5. Which consumer authentication technique evaluates the user's typing (i.e., both the time between keystrokes and the time that a key is pressed as part of the user authentication process?

   (a) Risk analytics (b) Behavioral biometrics
   (c) One-time password (OTP) device (d) Mobile PKI

PART - B (5 x 3 = 15 Marks)

6. Explain the services provided by next generation networks.

7. List the advantages of IMS.

8. List the components of MPLS.

9. Explain about the applications of VPN.

10. How to improve the performance of next generation networks?

PART - C (1 x 16 = 80 Marks)

11. (a) Explain the Wireless IP network architecture in detail. (16)

Or

(b) Explain the 3GPP packet data network architecture. (16)

12. (a) Explain the IMS architecture and services in detail. (16)

Or

(b) Explain the next generation OSS architecture and its important standards. (16)

13. (a) Explain the MPLS services and components in detail. (16)

Or

(b) Define VPN. Explain its technology, signaling services in detail. (16)

14. (a) Explain about the enhancement of MPLS in detail. (16)

Or

(b) Explain about the future services in layer 2 and layer 3. (16)

15. (a) Explain about the network management and provisioning in detail. (16)

Or

(b) Explain about the adaptive self healing networks in detail. (16)

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