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

K 6025

M.E. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2007.

Elective

Applied Electronics

AN 1628 — INTERNET WORKING MULTIMEDIA

(Common to ME — Communication Systems)

(Regulation 2005)

Time : Three hours Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. Write any two lossless data compression techniques and any two lossy data compression techniques.

2. List any four characteristics of Multimedia.

3. How is traffic shaping achieved in broadband services?

4. Differentiate between voice over IP and video over IP.

5. How is addressing performed in multicast environment?

6. Define light weight session philosophy.

7. Write the objective of MPEG — 7 standard.

8. Draw the multimedia framework architecture.

9. How is synchronization achieved in streaming video across internet?

10. Mention the MAC protocols applied for wireless networks.

PART B — (5 × 16 = 80 marks)

11. (a) (i) Explain the evoluation of internet service model. (8)

(ii) Explain JPEG compression in detail. (8)

Or

(b) (i) How do you digitize analog sound signal and explain the process of audio compression? (8)

(ii) Explain the process of multiplexing and synchronization. (8)

12. (a) (i) Explain topology control and QOS control in IP and ATM. (8)

(ii) Discuss the issues in multimedia storage management. (8)

Or

(b) (i) Explain issues in recording and remote control in broadband networks. (8)

(ii) Explain QOS in terms of throughput, delay and jitter in broadband networks. (8)

13. (a) (i) Explain resource reservation protocol in detail. (8)

(ii) Explain reliable multicast transport in detail. (8)

Or

(b) (i) Discuss RTP packet format, header compression, multiplexing in detail. (8)

(ii) Explain the conference control channel in detail. (8)

14. (a) (i) Compare and contrast MPEG — 7 and MPEG — 21. (8)

(ii) Explain the H 322 model in detail. (8)

Or

(b) (i) Explain MPEG — 4 video transport across internet. (8)

(ii) Explain the issues in intellectual property management. (8)

(a) (i) Explain layered video coding techniques. (8)

(ii) Explain multimedia transport across ATM networks and IP network. (8)

Or

(b) Write short notes on :

(i) Error resilient video coding techniques. (5)

(ii) Streaming video across internet. (5)

(iii) Packet audio/video in the network environment. (6)
