**Program: BE Electronics and Telecommunication Engineering**

**Curriculum Scheme: Revised 2012**

**Examination: Final Year Semester VII**

**Course Code: ETE 701 and Course Name: Data Compression &Encryption**

**Time: 1hour**                                                                                    **Max. Marks: 50**

==================================================================

==================================================================

Note to the students:- All the Questions are compulsory and carry equal marks .

| Q1. | Huffman coding is an encoding algorithm used for |
|---|---|
| Option A: | broadband systems |
| Option B: | lossless data compression |
| Option C: | lossy data compression |
| Option D: | files greater than 1 Mbit |
| | |
| Q2. | The window consists of two parts, a_____ that contains a portion of the recently encoded sequence. |
| Option A: | Search buffer. |
| Option B: | Look-ahead buffer. |
| Option C: | Offset |
| Option D: | Match point |
| | |
| Q3. | Without losing quality, JPEG-2000 can achieve compression ratios of |
| Option A: | 2000:1 |
| Option B: | 200:1 |
| Option C: | 20:1 |
| Option D: | 2:1 |
| | |
| Q4. | For Music, we need to compress digitize signals at |
| Option A: | 1.41 I-MHz |
| Option B: | 1.42 I-MHz |
| Option C: | 1.45 I-MHz |
| Option D: | 1.48 I-MHz |
| | |
| Q5. | LPC ( linear predictive coding )  is introduced in |
| Option A: | 1970 |
| Option B: | 1960 |
| Option C: | 1967 |
| Option D: | 1976 |
| | |
| Q6. | A-LAW/U-LAW encodings (8 bits/sample) Audio Coding Standards are |
| Option A: | G.711 |
| Option B: | G.721 |

| | |
|---|---|
| Option C: | G.723 |
| Option D: | G.728 |
| | |
| Q7. | The u-Law inputs a 14bit sample, and via a non-linear transform outputs an |
| Option A: | 4bit sample |
| Option B: | 6bit sample |
| Option C: | 8bit sample |
| Option D: | 10bit sample |
| | |
| Q8. | The _____ may occur when a strong sound at frequency f is preceded or followed by a weaker sound of the same (or nearly the same) frequency. |
| Option A: | Temporal masking |
| Option B: | Sampling |
| Option C: | Frequency masking |
| Option D: | Auditory masking |
| | |
| Q9. | Moving Picture Experts Group (MPEG-2), was designed for high-quality DVD with a data rate of |
| Option A: | 3 to 6 Mbps. |
| Option B: | 4 to 6 Mbps. |
| Option C: | 5 to 6 Mbps. |
| Option D: | 6 to 6 Mbps. |
| | |
| Q10. | Moving Picture Experts Group (MPEG-2), was designed for high-quality DVD with a data rate of |
| Option A: | 3 to 6 Mbps |
| Option B: | 4 to 6 Mbps |
| Option C: | 5 to 6 Mbps |
| Option D: | 6 to 6 Mbps |
| | |
| Q11. | What is MPEG compression? |
| Option A: | stores the compression values of each frame |
| Option B: | stores the differences between successive frames |
| Option C: | stores multiple frames' values together |
| Option D: | stores the encryption values of each frame |
| | |
| Q12. | The second phase of JPEG is _____. |
| Option A: | DCT transformation |
| Option B: | Data compression |
| Option C: | Quantization |
| Option D: | Data encryption |
| | |
| Q13. | _____ audio/video refers to the broadcasting of radio and TV programs through the Internet. |
| Option A: | Interactive |
| Option B: | Streaming live |

| | |
|---|---|
| Option C: | Streaming stored |
| Option D: | Demand streaming |
| | |
| Q14. | Meet in the middle Attack is observed in: |
| Option A: | AES |
| Option B: | Double DES |
| Option C: | Triple DES |
| Option D: | DES |
| | |
| Q15. | Feistel cipher is the good example of: |
| Option A: | Transposition cipher |
| Option B: | Affine cipher |
| Option C: | Play fair cipher |
| Option D: | Product Cipher |
| | |
| Q16. | What do you call a subgroup of a group which can be generated using power of an element? |
| Option A: | Random subgroup |
| Option B: | Cyclic subgroup |
| Option C: | Ring subgroup |
| Option D: | Plain subgroup |
| | |
| Q17. | The Data Encryption Standard is classified as: |
| Option A: | Symmetric Key Block Cipher |
| Option B: | Asymmetric key Block Cipher |
| Option C: | Symmetric key Stream Cipher |
| Option D: | Asymmetric key Stream Cipher |
| | |
| Q18. | Using RSA cryptosystem with p=7 and q=9. Encrypt M=24 to find cipher text. The Cipher text is |
| Option A: | 42 |
| Option B: | 93 |
| Option C: | 114 |
| Option D: | 103 |
| | |
| Q19. | The _____ method provides a one-time session key for two parties |
| Option A: | D. Hellman |
| Option B: | DES |
| Option C: | AES |
| Option D: | RSA |
| | |
| Q20. | When a hash function is used to provide message authentication, the hash function value is referred as |
| Option A: | Message Field |
| Option B: | Message digest |
| Option C: | Message score |
| Option D: | Message leap |
| | |

| Q21. | When two different message digest have the same value , it is called as |
|---|---|
| Option A: | Attack |
| Option B: | Collision |
| Option C: | Hash |
| Option D: | Digital signatures |
| | |
| Q22. | Which of these is not Internal Threat Pattern of Intrusion? |
| Option A: | Install remote administration tool called DameWare. |
| Option B: | Create network accounts for themselves and their friends. |
| Option C: | Perform large downloads and file copying. |
| Option D: | Access the network during off hours. |
| | |
| Q23. | Which is the correct definition of FRR? |
| Option A: | Ratio of True rejection to the total number of attempts |
| Option B: | Ratio of False rejection to the total number of attempts |
| Option C: | Ratio of True acceptance to the total number of attempts |
| Option D: | Ratio of False acceptance to the total number of attempts |
| | |
| Q24. | Which is the correct definition of FAR? |
| Option A: | Ratio of True rejection to the total number of attempts |
| Option B: | Ratio of False rejection to the total number of attempts |
| Option C: | Ratio of True acceptance to the total number of attempts |
| Option D: | Ratio of False acceptance to the total number of attempts |
| | |
| Q25. | Which one of these is correct definition of Antivirus? |
| Option A: | prohibits potentially vulnerable services from entering or leaving the network |
| Option B: | Computer program used to prevent, detect, and remove malware. |
| Option C: | A program inserted into software by an intruder. |
| Option D: | Software that collects information from a computer and transmits it to another system. |