P131/CMP506/EE/20240121

Time : 3 Hours   **Marks : 80**

Instructions :

1. All Questions are Compulsory.
2. Each Sub-question carry 5 marks.
3. Each Sub-question should be answered between 75 to 100 words. Write every questions answer on separate page.
4. Question paper of 80 Marks, it will be converted in to your programme structure marks.

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1. Solve any **four** sub-questions.

   a) Write a short note on 'Protocol'.   5

   b) Explain the *hybrid network* in detail give one example.   5

   c) Enlist different networking components (any three). Describe any two of them.   5

   d) Explain Tree topology with Advantages and Disadvantages.   5

   e) Compare Mesh topology with Star topology.   5

2. Solve any **four** sub-questions.

   a) Explain the disadvantages of fiber optic cable.   5

   b) Explain different selection criteria used while selecting transmission media.   5

   c) Draw a neat sketch and describe the construction of the co-axial cable.   5

   d) Explain the term Layered Architecture with a diagram.   5

   e) Explain the following terms :   5

      i)   LAN

      ii) WAN

      iii) MAN

3. Solve any **four** sub-questions.

   a) Explain the OSI Reference model with a neat diagram.   5

   b) What are Unicasting, Multitasking and broadcasting.   5

   c) What is Subnet Masking?   5

   d) Differentiate IPv4 and IPv6.   5

   e) Compare TCP and UDP.   5

4. Solve any **four** sub-questions.

    a)   Explain 'Active Attack' on a network.   5

    b)   Explain the term 'Integrity' and 'Accountability' in cyber security.   5

    c)   Explain Five features of a firewall.   5

    d)   What is Virtual Private Network?   5

    e)   Explain the Intrusion Detection System.   5

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