

Duration: 3hrs

[Max Marks:80]

- N.B. :** (1) Question No 1 is Compulsory.
 (2) Attempt any three questions out of the remaining five.
 (3) All questions carry equal marks.
 (4) Assume suitable data, if required and state it clearly.

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| 1 | Attempt any FOUR | [20] |
| | a Explain wireless network architecture. | |
| | b Introduce UWB with its working. | |
| | c Discuss the exponential backoff algorithm used in WLAN. | |
| | d Write short note on "IEEE 802.16 standard". | |
| | e What is mobile adhoc network? Highlight on MAC protocols. | |
| 2 | a Describe WBAN architecture with diagram. | [10] |
| | b Explain Bluetooth security features and security levels with proper diagrams. | [10] |
| 3 | a Explain zigbee network components and network topologies. | [10] |
| | b Explain RFID technology with radio specifications and architecture. | [10] |
| 4 | a What are the factors influencing design of Wireless Sensor Network. Describe the components of a sensor node. | [10] |
| | b Draw the suitable diagrams for the downlink and uplink link budgets for GSM 1800 and give their equations of signal received(S) and noise (N). | [10] |
| 5 | a Explain different planning and designing phases in Wireless Networks. | [10] |
| | b Discuss the classifications MANET routing protocols. | [10] |
| 6 | a Compare main features of IEEE 802.11 a,b,i and n. | [10] |
| | b Explain the framework and architecture of IoT. | [10] |
