

Basavarajeswari Group of Institutions

BALLARI INSTITUTE OF TECHNOLOGY & MANAGEMENT
 (Autonomous Institute under Visvesvaraya Technological University, Belagavi)

2022 SCHEME

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Course Code

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First / Second Semester B.E. Degree Examinations, February 2025

INTRODUCTION TO INTERNET OF THINGS

Duration: 3 hrs

Max. Marks: 100

Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.
2. Missing data, if any, may be suitably assumed

<u>Q. No</u>	<u>Question</u>	<u>Marks</u>	<u>(RBT:CO:PI)</u>
<u>Module-1</u>			
1.	a. Discuss the different types of network reachabilities present in computer networks.	08	(2:1:1.3.1)
	b. Discuss about evolution of IoT.	08	(2:1:1.3.1)
	c. Explain IoT LAN and IoT WAN in IoT networking components.	04	(2:1:1.3.1)
(OR)			
2.	a. With neat diagram, explain each layer in the ISO- OSI layered network model.	08	(2:1:1.3.1)
	b. Discuss physical topologies related to computer networks.	08	(2:1:1.3.1)
	c. Differentiate between point to point and point to multipoint connection types with neat diagram.	04	(2:1:1.3.1)
<u>Module-2</u>			
3.	a. Explain the functional blocks of typical sensor node in IoT.	08	(2:2:1.3.1)
	b. Explain the different sensing types in IoT with neat diagrams.	08	(2:2:1.3.1)
	c. Discuss various sensing characteristics.	04	(2:2:1.3.1)
(OR)			
4.	a. Explain the optoelectronic and piezoelectric transducers with neat diagram.	08	(2:2:1.3.1)
	b. Discuss about different types of actuators.	08	(2:2:1.3.1)
	c. Discuss any four sensors deviations.	04	(2:2:1.3.1)
<u>Module-3</u>			
5.	a. Explain offload location. Discuss about offload decision making.	08	(2:3:1.3.1)
	b. Briefly explain about the importance of processing in IoT.	08	(2:3:1.3.1)
	c. What is data format? Explain the types of data formats.	04	(2:3:1.3.1)
(OR)			

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| 6. | a. Briefly discuss about design and selection consideration of IoT device. | 10 | (2:3:1.3.1) |
| | b. Explain different types of processing topologies with neat diagram. | 10 | (2:3:1.3.1) |

Module-4

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| 7. | a. What is SLA? Explain metrics for SLA in cloud computing. | 10 | (2:4:5.1.1) |
| | b. What is virtualization? Briefly discuss different types of virtualization. | 10 | (2:4:5.1.1) |

(OR)

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| 8 | a Explain the advantages of IoT in agriculture. | 10 | (2:4:5.1.1) |
| | b. Explain in detail the components of agricultural IoT with a neat diagram. | 10 | (2:4:5.1.1) |

Module-5

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| 9. | a. Explain in detail about the architecture of healthcare IoT with neat diagram. | 10 | (2:5:5.1.1) |
| | b. Discuss the various advantages and risks of healthcare IoT. | 10 | (2:5:5.1.1) |

(OR)

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| 10. | a. Explain in detail about the architecture of vehicular IoT with neat diagram. | 10 | (2:5:5.1.1) |
| | b. Discuss briefly about machine Learning | 05 | (2:5:5.1.1) |
| | c. Discuss layered architecture of Ambusens system. | 05 | (2:5:5.1.1) |

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