

**BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI
(END SEMESTER EXAMINATION)**

**CLASS: BTECH
BRANCH: ECE**

**SEMESTER : VII
SESSION : MO/2025**

SUBJECT: EC433 WIRELESS SENSORS & NETWORKS

TIME: 3 Hours

FULL MARKS: 50

INSTRUCTIONS:

1. The question paper contains 5 questions each of 10 marks and total 50 marks.
 2. Attempt all questions.
 3. The missing data, if any, may be assumed suitably.
 4. Before attempting the question paper, be sure that you have got the correct question paper.
 5. Tables/Data hand book/Graph paper etc. to be supplied to the candidates in the examination hall.
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		CO	BL
Q.1(a)	Differentiate between MANET and WSN.	[5] 1	2
Q.1(b)	Derive the value of power received for two path models of wireless channel.	[5] 1	3
Q.2(a)	Explain Wireless Sensor Network Architecture.	[5] 2	2
Q.2(b)	Explain Data Relaying Strategies.	[5] 2	2
Q.3(a)	Explain the features of MAC.	[5] 3	2
Q.3(b)	Differentiate between Sensor MAC(SMAC) and LEACH.	[5] 3	2
Q.4(a)	Describe the main aspects of design challenges in wireless sensor networks.	[5] 4	3
Q.4(b)	Differentiate between Ad hoc transport protocols and GARUDA protocol.	[5] 4	2
Q.5(a)	Explain the key concept to understand the mathematical basics for the lateration problem.	[5] 5	2
Q.5(b)	Describe the properties of localization and positioning procedures.	[5] 5	2

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