

Course outline

About NPTEL

How does an NPTEL online course work?

Week 0

Week 1

Week 2

Week 3

Week 4

- Lecture 16: Sensor Networks-Part-III
- Lecture 17: Sensor Networks-Part-IV
- Lecture 18: Sensor Networks-Part- V
- Lecture 19: UAV Networks
- Lecture 20: Machine to Machine Communication
- Lecture material of Week 4
- Quiz: Week 04: Assignment 04
- Week 4 Feedback Form

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Week 04: Assignment 04

The due date for submitting this assignment has passed.

Due on 2025-08-20, 23:59 IST.

Assignment submitted on 2025-08-18, 18:49 IST

1) If transmission range > 2* sensing range, 0 points

- a. Coverage implies connectivity

b. Coverage implies greater coverage

c. Both (a) and (b)

d. None of these

- ☒ a.

☐ b.

☐ c.

☐ d.

No, the answer is incorrect.

Score: 0

Accepted Answers:

d.

2) What is the full form of AUV in the context of mobile wireless sensor networks? 1 point

- a. Aerial and Underwater Vehicle

b. Ambient and Underprivileged Vehicle

c. Astronomical Underwater Vehicle

d. None of these

- ☐ a.

☐ b.

☐ c.

☒ d.

Yes, the answer is correct.

Score: 1

Accepted Answers:

d.

3) State whether the following statement is true or false. 1 point

Statement: Agricultural intrusion detection uses NFC sensors.

- a. True

b. False

- ☐ a.

☒ b.

Yes, the answer is correct.

Score: 1

Accepted Answers:

b.

4) The objective of coverage in WSN is to use a _____ number of sensors and _____ the network lifetime. 1 point

- a. minimum, minimize

b. maximum, minimize,

c. maximum, maximize

d. None of these

- ☐ a.

☐ b.

☐ c.

☒ d.

Yes, the answer is correct.

Score: 1

Accepted Answers:

d.

5) WSN in agriculture uses what for processing? 1 point

- a. Microprocessor

b. Microcontroller

c. Both (a) and (b)

d. None of these

- ☐ a.

☒ b.

☐ c.

☐ d.

Yes, the answer is correct.

Score: 1

Accepted Answers:

b.

6) Which of the following is/are options for communication among nanodevices? 1 point

- a. Electromagnetic

b. Molecular

c. Both (a) and (b)

d. None of these

- ☐ a.

☐ b.

☒ c.

☐ d.

Yes, the answer is correct.

Score: 1

Accepted Answers:

c.

7) State whether the following statement is true or false. 1 point

Statement: Voluntary Sensing allows distributed sensing carried by humans and the goal is not just to collect data but to allow the common people to assess and share the knowledge.

- a. False

b. True

- ☒ a.

☐ b.

Yes, the answer is correct.

Score: 1

Accepted Answers:

a.

8) State whether the following statement is true or false. 1 point

Statement: UAV networks use a ring topology.

- a. True

b. False

- ☐ a.

☒ b.

Yes, the answer is correct.

Score: 1

Accepted Answers:

b.

9) In multi-UAV networks, the scalability is _____. 1 point

- a. Low

b. Very Low

c. Poor

d. None of these

- ☐ a.

☐ b.

☒ c.

☐ d.

No, the answer is incorrect.

Score: 0

Accepted Answers:

d.

10) Single UAV system uses _____ antenna. 1 point

- a. Uni-directional

b. Omni-directional

c. Both (a) and (b)

d. None of these

- ☐ a.

☒ b.

☐ c.

☐ d.

Yes, the answer is correct.

Score: 1

Accepted Answers:

b.

11) Which of the following is/are constraint/constraints of UAV network? 1 point

- a. Infrequent link breakages

b. Malfunction

c. Both (a) and (b)

d. None of these

- ☐ a.

☒ b.

☐ c.

☐ d.

Yes, the answer is correct.

Score: 1

Accepted Answers:

b.

12) Low-end sensor nodes are - 1 point

- a. Whose deployment has high density in order to increase network lifetime and survivability.

b. Who perform basic functions such as data aggregation, auto configuration, and power saving.

c. Both (a) and (b)

d. None of these

- ☐ a.

☐ b.

☒ c.

☐ d.

Yes, the answer is correct.

Score: 1

Accepted Answers:

c.

13) State whether the following statement is true or false. 1 point

Statement: FANETs are flying ad hoc networks.

- a. True

b. False

- ☒ a.

☐ b.

Yes, the answer is correct.

Score: 1

Accepted Answers:

a.

14) State whether the following statement is true or false 1 point

Statement: SCADA is designed for isolated systems using proprietary solutions, whereas M2M is designed for cross-platform integration.

- a. True

b. False

- ☒ a.

☐ b.

Yes, the answer is correct.

Score: 1

Accepted Answers:

a.

15) State whether the following statement is true or false 1 point

Statement: Low-end sensor nodes are static, energy-hungry, and complex.

- a. True

b. False

- ☐ a.

☒ b.

Yes, the answer is correct.

Score: 1

Accepted Answers:

b.