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Unit 3 - Localization in IoT - Part 1

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Week 1 Assessment

The due date for submitting this assignment has passed.

Due on 2019-02-13, 23:59 IST

Assignment submitted on 2019-02-08, 13:42 IST

1) Raw sensor data may be insufficient for "Outdoor Localization without GPS" because *1 point*

- Presence of noisy data
- Cannot be directly used for determining the route map
- Both (a) and (b)
- None of the above

No, the answer is incorrect.
Score: 0

Accepted Answers:
Both (a) and (b)

2) In the example shown in "Outdoor localization using elevation - pressure mapping" lecture, why sensor has to be put on vaccine sample? *1 point*

- To check whether it has gone in specified path
- To check the road condition
- To check whether the vaccine properties are changing
- All of the above

No, the answer is incorrect.
Score: 0

Accepted Answers:
To check whether it has gone in specified path

3) For given DTW distance matrix,calculate value of [X, Y , Z] *1 point*

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5	6		3	
7	3	3	1	
X	2	1	Z	
5		Y	3	4
	4	5	7	6

- [3 , 1 , 5]
- [3 , 0 , 5]
- [5 , 1 , 3]
- [5 , 0 , 3]

No, the answer is incorrect.
Score: 0

Accepted Answers:
[3 , 1 , 5]
[5 , 1 , 3]

4) In the given HTML code - https://drive.google.com/open?id=1lMgu9qIDwzIVVe28vokhEeM463il2DAN , the threshold value of angle to be considered as a turn is: ***1 point***

- 30 Degree
- 45 Degree
- 60 Degree
- 90 Degree

No, the answer is incorrect.
Score: 0

Accepted Answers:
45 Degree

5) For the example given in the "Outdoor localization using elevation - pressure mapping" lecture, which sensor has to be put on vaccine sample? ***1 point***

- Ion Concentration measurement
- Magnetometer
- Barometer
- Gyroscope

No, the answer is incorrect.
Score: 0

Accepted Answers:
Barometer

6) Which of following coordinate transformations are correct? ***1 point***

distarr[] has the distance values measured from hall effect sensor
thetaarr[] has the magnetometer heading values

- [ ] xdiff = (distarr[i])*Math.cos((thetaarr[i])*(3.14/180)))
- [ ] ydiff = (distarr[i])*Math.cos((thetaarr[i])*(3.14/180)))
- [ ] xdiff = (distarr[i])*Math.sin((thetaarr[i])*(3.14/180)))
- [ ] ydiff = (distarr[i])*Math.sin((thetaarr[i])*(3.14/180)))

No, the answer is incorrect.
Score: 0

Accepted Answers:
*xdiff = (distarr[i])*Math.cos((thetaarr[i])*(3.14/180)))*
*ydiff = (distarr[i])*Math.sin((thetaarr[i])*(3.14/180)))*

7) Which of the following is a normalization equation? ***1 point***

y' = Normalised Value
y = Value to be normalised

- y'= (y - min(y)) / (max (y) * min(y))
- y'= (y - max(y)) + (max (y) - min(y))
- y'= (y - max(y)) / (max (y) * min(y))
- y'= (y - min(y)) / (max (y) - min(y))

No, the answer is incorrect.
Score: 0

Accepted Answers:
y'= (y - min(y)) / (max (y) - min(y))

8) Select correct optimal path distance value for a feasible DTW optimal path involving ***1 point***

P = [2 2 4 5 8 7] and
Q = [2 3 4 6 8 6]

- 10
- 9
- 5
- 16

No, the answer is incorrect.
Score: 0

Accepted Answers:
9

9) In the Unprocessed Dataset 2 - https://drive.google.com/open?id=174A6GiotDXz7nr0pwxnbtJ7f1GAO32hL , how much distance did we travel before the first turn was detected? ***1 point***

- 150-225m
- 400-450m
- 850-925m
- 1000-1100m

No, the answer is incorrect.
Score: 0

Accepted Answers:
150-225m

10) If magnetometer heading shows 90° , which of Earth's direction is it facing ? ***1 point***

- North
- South
- East
- West

No, the answer is incorrect.
Score: 0

Accepted Answers:
East

Previous Page

End