Week 8 Assignment 8

The data set for this submission is already past.

As per our records you have not submitted this assignment.

Due on 2021-08-23, 23:59 IST.

1) A far from is biased three times. What is the probability of it being 3 heads?

- 1/5
- 1/4
- 1/2
- None of the above

No, the answer is incorrect.

Score: 0

Accepted Answers:
1/5

2) From a deck of 52 cards, two cards are picked up. There are two events defined as:

A = First card is a spade
B = Second card is a spade

Then what is the P(AB)

- 26/52
- 25/52
- 13/52
- 1/52

No, the answer is incorrect.

Score: 0

Accepted Answers:
26/52

3) A and B are events, then which of the following is true:

- P(A) + P(B) = P(A ∩ B)
- P(A) = P(B) + P(A ∩ B)
- P(A) = P(B) + P(A ∩ B) - P(B)
- P(A) = P(B) + P(A ∩ B)

No, the answer is incorrect.

Score: 0

Accepted Answers:
P(A) = P(B) + P(A ∩ B) - P(B)

4) What is the probability of getting an even number when a dice is thrown?

- 1/6
- 1/3
- 1/2
- 1/4

No, the answer is incorrect.

Score: 0

Accepted Answers:
1/2

5) Young's Modulus of Material A = 100 MPa and Material B = 10 MPa. Which of them is a preferred material for making an implantable device with better tissue interaction?

- Material A
- Material B
- Both Material A and Material B
- None of the above

No, the answer is incorrect.

Score: 0

Accepted Answers:
Material A

6) Which of the following statements are true when modeling the thermal transport in ideal tissues?

- The local perfusion term is absent.
- The metabolic heat generation acts as a source of heat.

- Only 1
- Only 2
- Both 1 and 2
- Neither 1 nor 2

No, the answer is incorrect.

Score: 0

Accepted Answers:
Neither 1 nor 2

7) Which among the following statements are not true regarding local field potentials (LFP)?

- Local field potentials (LFP) are electrical signals generated in neuron and other tissues by the summed and synchronous electrical activity of the individual cells (e.g. neurons) in that tissue.
- LFP signals are transient in nature.

- Only 1
- Only 2
- Both 1 and 2
- Neither 1 nor 2

No, the answer is incorrect.

Score: 0

Accepted Answers:
Neither 1 nor 2

8) Why, modelling the heat transport in tissue surface (for example, that of the skin surface), for a finite depth of tissue, which among the following interfaces and organs are seen in the model?

- Connective tissue layer
- Adipose tissue layer
- Basal lamina interface
- All of the above

No, the answer is incorrect.

Score: 0

Accepted Answers:
All of the above

9) Which among the following statements is true regarding tissue-electrode interface?

- Double layer capacitance $C_{dl}$ is an important parameter that models the nature of the tissue-electrode interface.
- A good contact between tissue and the electrode needs to provide electrical and a lower value for $C_{dl}$.

- Only 1
- Only 2
- Both 1 and 2
- Neither 1 nor 2

No, the answer is incorrect.

Score: 0

Accepted Answers:
Both 1 and 2

10) Which among the following options are true regarding the I-V method?

- It is a measurement method for determining the intrinsic conductivity of bulk materials and thin layers.
- In this method, the sample is periodically heated, and the temperature dependence is measured.
- Both 1 and 2
- None of the above

No, the answer is incorrect.

Score: 0

Accepted Answers:
Both 1 and 2