Assignment 2

The due date for submitting this assignment has passed. As per our records you have not submitted this assignment. Due on 2019-03-13, 23:59 IST.

1) What is the problem with CA125, an ovarian cancer biomarker? 
   - It is a bad distinguishing biomarker but low abundant hence early diagnosis of disease is lacking
   - It is a good distinguishing biomarker but low abundant hence early diagnosis of disease is lacking
   - It is a bad distinguishing biomarker and low abundant hence early diagnosis of disease is lacking
   - No problem, it is a good biomarker

No, the answer is incorrect. 
Score: 0
Accepted Answers: 
It is a good distinguishing biomarker but low abundant hence early diagnosis of disease is lacking

2) What is the advantage of Halo-tag over GST Tag? 
   - It is a small tag and hence do not interfere with protein activity
   - The chlorine moiety in the tag allows better electrostatic binding of protein molecule to the surface
   - The covalent binding allows the identification linear isotopes that are buried inside
   - All of the above

No, the answer is incorrect. 
Score: 0
Accepted Answers: 
The covalent binding allows the identification linear isotopes that are buried inside

3) What is the role of silicon nano-well in high-density NAPPA arrays? 
   - It provides more surface area for DNA immobilization

No, the answer is incorrect. 
Score: 0
Accepted Answers: 
The covalent binding allows the identification linear isotopes that are buried inside

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Rohan wants to screen the sera of malaria patients to look for the immunogenic response. Who should Rohan immobilize on the array?

- Plasmodium vivax
- Homo sapiens
- Both Plasmodium vivax and Homo sapiens
- Entire proteome of human sera

No, the answer is incorrect.
Score: 0

Which approach among the following is best suited, if Rohan wants to immobilize more than 10,000 proteins on an array?

- Multiplexed NAPPA arrays
- Halo-linked protein arrays
- Conventional NAPPA arrays
- None of the above

No, the answer is incorrect.
Score: 0

Condition: In a survey of diagnosis of Mycobacterium infections in a set of population, the following data was reported. Answer Q6 – Q9 using the information given in the table below:

<table>
<thead>
<tr>
<th></th>
<th>Diseased</th>
<th>Healthy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive</td>
<td>85</td>
<td>200</td>
</tr>
<tr>
<td>Negative</td>
<td>25</td>
<td>550</td>
</tr>
</tbody>
</table>

6) What is the positive predictive value (PPV) for the given data?

- 17%
- 28.9%
- 29.8%
- 12.7%

No, the answer is incorrect.
Score: 0

Accepted Answers:
29.8%

7) What is the sensitivity in the given case?

- 77.2%
- 78.7%
- 79.6%
- 40%

No, the answer is incorrect.
Score: 0

Accepted Answers:
8) What is the negative predictive value (NPV)?

- 73.3%
- 83.6%
- 70%
- 95.6%

No, the answer is incorrect.
Score: 0
Accepted Answers: 95.6%

9) What is the specificity in this case?

- 38%
- 82.8%
- 73.3%
- 60.4%

No, the answer is incorrect.
Score: 0
Accepted Answers: 73.3%

10) Analyze the given image carefully and specify which spot among the following is false-positive?

M1 #1
M3 #2
M1 #1
M3 #2
No, the answer is incorrect.
Score: 0
Accepted Answers:
M6#4