X

Unit 3 - Week 2

Register for Certification exam

Course outline

How to access the portal

Week 1

Week 2

- Lecture 6 : Biomarkers: Harnessing the immune system for early detection of disease-III
- Lecture 7 : NAPPA and its applications in study of antibody immune response in disease and in drug Screening-I
- Lecture 8 : NAPPA and its applications in study of antibody immune response in disease and in drug screening-II
- Lecture 9 :

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? ***1 point***

- 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? ***1 point***

- 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? ***1 point***

- It provides more surface area for DNA immobilization

Accepted Answers:
It reduces the probability of protein diffusion

4) Rohan wants to screen the sera of malaria patients to look for the immunogenic response. Whose proteome should Rohan immobilize on the array? ***1 point***

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

No, the answer is incorrect.
Score: 0

Accepted Answers:
Plasmodium vivax

5) Which approach among the following is best suited, if Rohan wants to immobilize more than 10,000 proteins on an array? ***1 point***

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

No, the answer is incorrect.
Score: 0

Accepted Answers:
Multiplexed NAPPA arrays

6) 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: ***1 point***

	Diseased	Healthy
Positive	85	200
Negative	25	550

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? ***1 point***

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

No, the answer is incorrect.
Score: 0

Accepted Answers:

77.2%

8) What is the negative predictive value (NPV)? ***1 point***

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

No, the answer is incorrect.
Score: 0

Accepted Answers:
95.6%

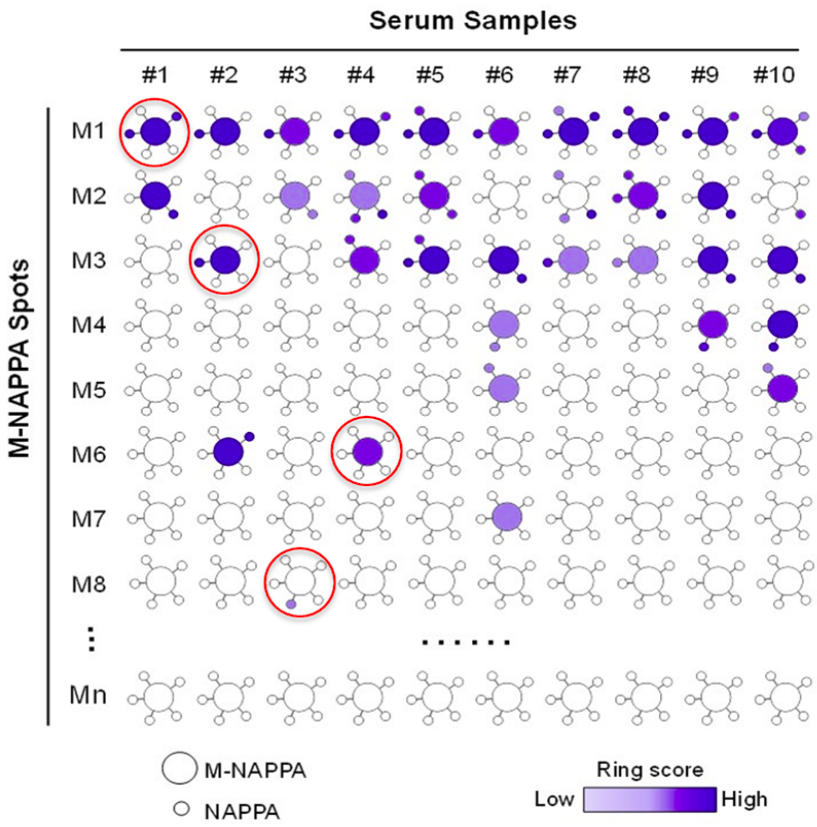
9) What is the specificity in this case? ***1 point***

- 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? ***1 point***



- M1#1
- M3#2

M6#4

M8#3

No, the answer is incorrect.
Score: 0

Accepted Answers:
M6#4

Previous Page End