

# Unit 5 - Week 3

## Assignment 3

The due date for submitting this assignment has passed.  
As per our records you have not submitted this assignment.

Due on 2019-09-18, 23:59 IST.

1) What are the precautions for microfluidic cell culture?

1 point

- a. Bubbles
- b. Evaporation
- c. Contaminations
- d. All of these

- ☐ a.
- ☐ b.
- ☐ c.
- ☐ d.

No, the answer is incorrect.  
Score: 0

Accepted Answers:

d.

2) One of the major demerits of perfusion system is

1 point

- a. Media exchange
- b. Generates shear force
- c. Hinders cell-cell communication through growth factors
- d. Causes cell polarity

- ☐ a.
- ☐ b.
- ☐ c.
- ☐ d.

No, the answer is incorrect.  
Score: 0

Accepted Answers:

c.

3) Which material cannot be used for microfluidic channel preparation?

1 point

- a. PDMS
- b. Polystyrene
- c. Polycarbonate
- d. None of these

- ☐ a.
- ☐ b.
- ☐ c.
- ☐ d.

No, the answer is incorrect.  
Score: 0

Accepted Answers:

d.

4) Which buffer can be used to maintain pH?

1 point

- a. HEPES
- b. Acetate
- c. Citrate
- d. None of these

- ☐ a.
- ☐ b.
- ☐ c.
- ☐ d.

No, the answer is incorrect.  
Score: 0

Accepted Answers:

a.

5)

1 point

In order to understand cellular behavior, which property of fluorescent molecules are generally measured using microscopes

- a. Lifetime
- b. Intensity
- c. Diffusion time
- d. All of these

- ☐ a.
- ☐ b.
- ☐ c.
- ☐ d.

No, the answer is incorrect.  
Score: 0

Accepted Answers:

d.

6) FRET stands for

1 point

- a. Fluorescence Recovery Electron Transfer
- b. Fluorescence Resonance Energy Transfer
- c. Fluorescence Recovery Energy Transfer
- d. None of these

- ☐ a.
- ☐ b.
- ☐ c.
- ☐ d.

No, the answer is incorrect.  
Score: 0

Accepted Answers:

b.

7)

1 point

Fluorescent imaging can be quantified in terms of differences in relative intensity. What is this quantification based on?

- a. Relative intensity detected by the grey-scale detector(s)
- b. The absolute intensity of the particular fluorophore
- c. The colour of the fluorescent dye
- d. The relative intensity detected by the digital colour camera

- ☐ a.
- ☐ b.
- ☐ c.
- ☐ d.

No, the answer is incorrect.  
Score: 0

Accepted Answers:

a.

8)

1 point

Resolution is the ability of a lens to distinguish between small objects close together. What approximate resolution can be obtained with a lower power (10X, N.A. 0.25) objective lens?

- a. 0.2 microns
- b. 0.3 microns
- c. 0.9 microns
- d. 0.25

- ☐ a.
- ☐ b.
- ☐ c.
- ☐ d.

No, the answer is incorrect.  
Score: 0

Accepted Answers:

c.

9)

1 point

The media that cannot be used to grow mammalian cells is

- a. RPMI
- b. DMEM low glucose
- c. MEM
- d. None of these

- ☐ a.
- ☐ b.
- ☐ c.
- ☐ d.

No, the answer is incorrect.  
Score: 0

Accepted Answers:

d.

10)

1 point

Immortalized cell lines are

- a. Cancerous
- b. Cancerous or non-cancerous
- c. Cells freshly isolated from explants
- d. Both b and c

- ☐ a.
- ☐ b.
- ☐ c.
- ☐ d.

No, the answer is incorrect.  
Score: 0

Accepted Answers:

b.