Week 11 Assignment

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

Due on 2019-04-17, 23:59 IST.

Week 11

1) ________ provides an environment to work safely with infectious biological materials (bacteria, virus or other infectious tissues) in the lab

- Fume hood
- Clean bench
- Bio safety hood
- Laboratory work bench

No, the answer is incorrect.
Score: 0
Accepted Answers:
Bio safety hood

2) Autoclave is used to ________

- Sterilize the equipment
- Cut the tissues
- Grow the tissues
- Store the tissues in sterilized environment

No, the answer is incorrect.
Score: 0
Accepted Answers:
Sterilize the equipment

3) Centrifuge can be used in biomedical engineering laboratory to

- Separate cells from biofluids

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4) Which of the following statement(s) is/ are correct:

I. UV light is used to sterilize the biosafety hood after use
II. UV light should be switched on while the biosafety hood is being used

- [ ] I Only
- [ ] II Only
- [ ] Both I and II
- [ ] Neither I nor I

No, the answer is incorrect.
Score: 0

5) Which of the following statements are true?

I. Biosafety Level 2 (BSL-2) is appropriate for work involving microbes which can cause serious and potentially lethal disease via the inhalation route.
II. A biosafety hood usually has an inbuilt HEPA filter

- [ ] I only
- [ ] II only
- [ ] Both I and II
- [ ] Neither I nor II

No, the answer is incorrect.
Score: 0

6) Evaluate whether the following statement is true or false regarding the use of incubators:
"Bacterial and Mammalian Cells can be cultured at the same time inside a common incubator"

- [ ] True
- [ ] False

No, the answer is incorrect.
Score: 0

7) Ultrasonic bath is used to:

I. Dissolve solute particles in solvent
II. Substrate cleaning
III. Substrate coating
IV. Decrease particle count in room by ultrasonic radiation

- [ ] I
- [ ] I, II
- [ ] I, II, III

1 point
8) In lithography, for pre-bake, after photoresist coating on a silicon wafer _______ can be used.

I. Hot Plate  
II. Oven  
III. Autoclave  

- Only I  
- Only II  
- I and II  
- I, II, and III

No, the answer is incorrect.  
Score: 0  
Accepted Answers:  
I, II

9) Static platform for determining efficacy of drug gives result different than the dynamic systems. The reason behind it is:

- Drugs cannot be properly placed on the tissue in static system  
- Human body is a dynamic system. So, it cannot be replicated properly using static platform  
- Human body acts as static system. So, statement is false  
- Human body may be a dynamic system, but static replication gives same result as dynamic system gives

No, the answer is incorrect.  
Score: 0  
Accepted Answers:  
Human body is a dynamic system. So, it cannot be replicated properly using static platform

10) In vivo situation of body can be mimicked most faithfully by:

- IDE structure  
- Micro-tubules with peristaltic pump  
- Microfluidic chips  
- All of these individually can mimic

No, the answer is incorrect.  
Score: 0  
Accepted Answers:  
Microfluidic chips

11) Why micro-heater is fabricated in drug screening device?

- At elevated temperature sensitivity increases  
- To maintain normal human body temperature on the chip  
- Matrigel is stable only at elevated temperature (~ 320K)
12. Considering the microfluidic chip for rapid drug screening, evaluate whether the following statement is true or false?
"The normalized impedance of the drug susceptible cancer cells increased upon addition of the drug"

- True
- False

No, the answer is incorrect.
Score: 0

Accepted Answers:
No, the answer is incorrect.

13. Which of the following is/are used as 3D printing material(s)

- Poly Lactic Acid (PLA)
- Acrylonitrile Butadiene Styrene (ABS)
- Stainless Steel
- All of these

No, the answer is incorrect.
Score: 0

Accepted Answers:
All of these

14. How 3D printing technology can be described?

- Incremental Design
- Additive Manufacturing
- Re-engineering
- All of these

No, the answer is incorrect.
Score: 0

Accepted Answers:
Additive Manufacturing