

8. Which of the following should NOT be used to balance empty buckets of centrifuges?
- a. Hypochlorite solution
 - b. Ethanol
 - c. Propanol
 - d. Water
9. While opening up ampoules, materials might disperse into the atmosphere because
- a. Contents are at high pressure
 - b. Contents tend to be volatile
 - c. Contents are very light
 - d. Contents are in reduced pressure
10. If human embryos were offered for consumption of contestants in a reality TV show which of the following tenets would be affected
- a. Potential versus actual rights
 - b. Respect for human embryos
 - c. Immediately exercisable versus basic natural rights
 - d. Moral status of the embryo
11. We think that the person who deliberately drowns a child has done more wrong than the person who refuses to wade into a shallow pool to rescue a drowning child. This can be explained by:
- a. The basic arithmetic
 - b. Acts and omissions
 - c. Certain versus potential harm
 - d. Other approaches
12. Alcohols are not active against
- a. Bacteria
 - b. Fungi
 - c. Spores
 - d. Lipid viruses
13. What type of autoclave allows removal of air from the chamber before steam is admitted?
- a. Gravity displacement autoclave
 - b. Pressure cooker autoclave
 - c. Steam autoclave
 - d. Pre vacuum autoclave
14. What is the disadvantage of microinjection method of plant cell DNA delivery
- a. It is limited to dicots
 - b. It is tedious and slow
 - c. It is limited to protoplasts
 - d. It is not very effective
15. Which is NOT one of the principles of WTO?
- a. Trade without discrimination
 - b. Promotion of fair competition
 - c. Trade without tariff
 - d. Predictability: through binding and transparency

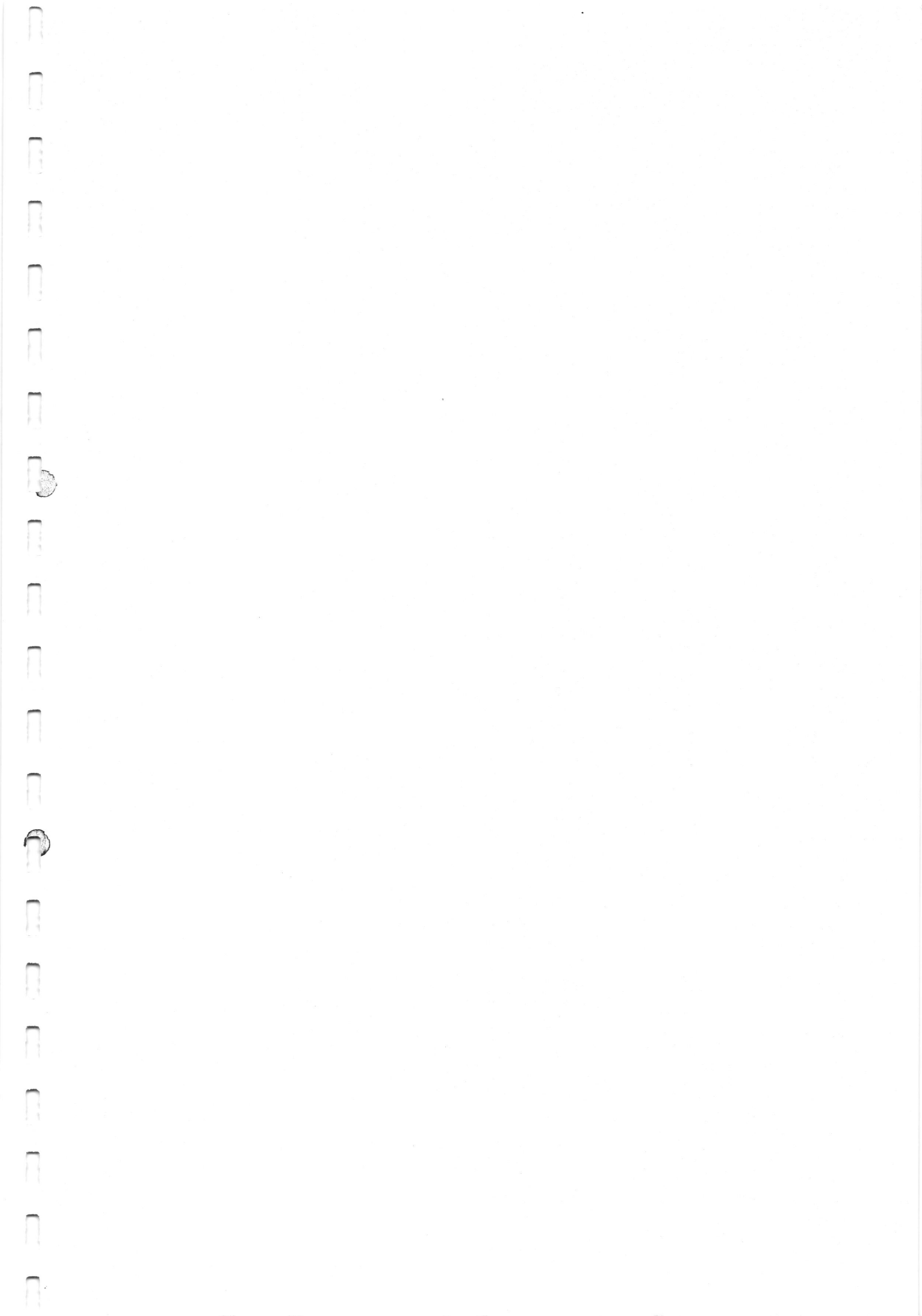
AUG 19 2018

SECTION "B"

[10Q. ×0.5 = 5 marks]

Fill in the blanks.

1. SOP stand for _____.
2. Hippocratic oath is historically taken by _____.
3. Exhaust air from Class III cabinet laboratory in BSL 4 must pass through _____ HEPA filters prior to release outdoors.
4. States should encourage establishment of independent, multidisciplinary and _____ ethics committees.
5. _____ alarms indicate a disruption in the cabinet's normal airflow pattern.
6. The morning after pill consists of high dose of female _____.
7. The shanks of microbiological transfer loops should not be more than 6 cm in length to minimize _____.
8. Three types of yields are potential, water and nutrient limited and _____ yield.
9. Organization dedicated to promoting the use and protection of human intellectual work is _____.
10. Patent applicant desirous of filing patent application in Nepal claiming priority from one or more than one countries based on same or substantially same invention file a _____ type of patent application.



KATHMANDU UNIVERSITY
End Semester Examination
August, 2018

AUG 19 2018

Level : B.Tech.
Year : III
Time : 2 hrs. 30 mins.

Course : BIOT 309
Semester: II
F. M. : 55

SECTION "C"
[11Q. × 5=55 marks]

Answer *ANY ELEVEN* of the following questions.

1. What are the questions asked before discharge of objects or materials in BSL 1 and 2? How are sharps handled in BSL 1 and 2? [2+3=5]
2. What is ethics of care? Describe casuistry. [2+3=5]
3. Write a short note on suit apparatus used in BSL4 [5]
4. James Sr. was a class valedictorian for Central High School in 1975 and earned an aerospace degree from Georgia Institute of Technology. He became an accomplished pilot for Skyway Airlines, but his dream of flying ended when his employer restricted him from being a pilot even though he had outstanding scores on all his physical tests, because a blood test revealed the sickle cell trait.

James Jr. has his father's ambition to become a pilot. He has just graduated from college with an aerospace engineering degree and was looking for a job as a pilot. His father has read recent newspaper stories about how most employees are not protected from genetic discrimination in the workplace. He is very worried that his son might also have sickle cell trait and be denied a job. James Jr. thinks his dad is overreacting and does not want to discuss these issues with his dad. He dismisses his fathers concerns and is ready to interview with a number of airlines and willing to give a blood sample if necessary.
 - a) Are James Sr.'s concerns justified? How come?
 - b) What lessons can be learned from the sickle cell screening programs of the 1970's?
 - c) Is it reasonable for any employer to collect a blood sample from prospective employees and screen them for genetic variations? Why?
 - d) What additional concerns are there when a genetic test is available for disease with a higher prevalence in specific populations? [5]
5. Draw a diagram of class I and class III biosafety cabinets. [5]
6. How can it be argued that legalizing abortion is important for the safety of women? [5]
7. What are 5 precautions that need to be taken while working with prions? [5]
8. Write a short note on induced Pluripotent Stem Cells? [5]

9. Describe the role of formaldehyde as a disinfectant. [5]
10. In the documentary "The world according to Monsanto" what does revolving door refer to? [5]
11. What are the three layers in triple packaging system? What is the function of each layer? [5]
12. What is patent persecution? [5]
13. Describe the issue of biopiracy. [5]