

KATHMANDU UNIVERSITY
End Semester Examination
27 - December 2023

Marks Scored:

Level : B.E.

Year : IV

Exam Roll No. :

Time: 30 mins.

Course : CHEG 406

Semester : I

F. M. : 10

Registration No.:

Date :

SECTION "A"

[20Q. × 0.5 = 10 marks]

Encircle the most appropriate option from each set of choices.

1. Fatality rate is _____
a. FAR
b. death per person per year
c. death per person per month
d. none of the mentioned
2. A worker year contains _____
a. 100 hrs
b. 2,000 hrs
c. 200,000 hrs
d. 10 hrs
3. The highest potential of economic loss is due to _____
a. fire
b. explosion
c. toxic release
d. fire & explosion
4. Toxic dose is _____
a. higher than LD
b. smaller than ED
c. equal to LD
d. smaller than LD & higher than ED
5. Hood is an example of _____
a. Local ventilation
b. dilution ventilation
c. Enclosure
d. none of the mentioned
6. The energy release on fire is _____ than explosion.
a. slower
b. faster
c. equal
d. double
7. An explosion in which the reaction front moves at a speed greater than the speed of sound
a. Deflagration
b. detonation
c. fire
d. all of the mentioned
8. Corona discharge can ignite _____
a. Gases only
b. Solid only
c. Solid & Gases
d. none
9. Which of the following is hazard identification method?
a. Process hazard checklist
b. hazard survey
c. HAZOP Study
d. all of the mentioned
10. Fault tree is used for _____
a. Hazard identification
b. explosion identification
c. Fire detection
d. Risk assessment

11. A Process has a reported FAR of 2. If an employee works a standard 8-hr shift 300 days per year, compute the deaths per person per year.
 a. 4.8×10^{-2} b. 4.8×10^{-3} c. 4.8×10^{-4} d. 4.8×10^{-5}
12. The type of chemical plant accident which has the highest potential for fatalities _____
 a. explosion b. fires c. toxic release d. fire & explosion
13. Hepatotoxic affects _____
 a. Blood b. kidneys c. lever d. lungs
14. The rate of energy release during explosion is _____
 a. Faster than fire b. slower than fire
 c. equal to fire d. much lower than fire
15. Which is not an ignition source?
 a. Sparks b. flames c. static electricity d. gasoline
16. Three components in fire triangle are
 a. fuel, oxidizer & heat b. Fuel, LFL & UFL
 c. Heat, LFL & UFL d. oxidation, reduction & heat
17. Deflagration is an explosion in which the reaction front moves at a speed _____ the speed of sound
 a. Higher than b. less than c. equal to d. two times
18. Detonation is an explosion in which the reaction front moves _____ the speed of reaction front in deflagration
 a. Faster than b. slower than c. equal to d. half of
19. Inerting is the process of _____
 a. Adding oxygen b. Adding inert gas c. Adding fuel d. Adding heat
20. Event tree begin with _____
 a. initiating event b. top event
 c. mid event d. top and initiating event

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