

Disaster Management in Chemical Industries
(Elective X- CH 802)

B. Tech. in Petrochemical Engineering

VIII Semester



Id	
Question	PHI factor is important for
A	Reaction Modelling
B	Other
C	Reactor Design
D	Material

Id	
Question	Thermal runaway occurs when rate of heat produced _____ to/than the rate of heat removed
A	data insufficient
B	equal
C	Exceeds
D	lowers

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B	Inefficient agitation
C	poor temperature control
D	all the options are correct

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A	Onset Temperature
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Id	
Question	Which one is the Human made?
A	Toxicant
B	Toxin
C	Toxon
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Question	Which one of the following is not a poison?
A	Water
B	Isocynide
C	Dioxine
D	None

Id	
Question	The ability of substance to have an adverse effect on the health or well being of a human is called as _____
A	Toxicity
B	Hazard
C	Risk
D	All

Id	
Question	Which one can be a toxicant?
A	Dust
B	Fibre
C	Asbestos
D	All the options

Id	
Question	Rapid absorption of material occurs during _____
A	Acute Effect
B	Chronic Effect
C	Subchronic Effect
D	All the options

Id	
Question	Systemic toxin affect _____part of body,
A	Organ System
B	Specific organ
C	Entire Body
D	Half body

Id	
Question	MSDS is prepared for _____ substance.
A	Toxic
B	Non toxic
C	All
D	None

Id	
Question	Full form of CAS is _____.
A	Chemical Abstract Service
B	Chemical Activities Service
C	Chemicals Activity Services
D	Chemical Appropriate Service

Id	
Question	Component data a material is obtained by _____ section of MSDS.
A	I
B	II
C	III
D	IV

Id	
Question	Full form of REL is _____.
A	Recommended Exposure Limit
B	Recommended Expose Limits
C	Recent Experience Limited
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B	Proper Exposure Limit
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Question	Handling and storage details of material is provided by_____ section of MSDS.
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Question	Boiling point & Melting point data of a material is obtained by section_____ of MSDS.
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Id	
Question	Temperature important for % Volatile by Volume is _____.
A	70 C
B	70 K
C	70 F
D	70 R

Id	
Question	Full form of TLV is _____.
A	Threshold Limit Value
B	Threshold limited Value
C	Threshold Level Value
D	Threshold leveling Value

Id	
Question	Flammable liquids have flash point _____.
A	= 140 F
B	> 140 F
C	< 140 F
D	None

Id	
Question	Toxicant entered digestive system is eliminated by_____.
A	Kidney
B	Liver
C	Brain
D	Heart

Id	
Question	Toxicant harms chromosome are called as _____
A	Mutagen
B	Teratogen
C	Chromogen
D	Chlorogen

Id	
Question	Toxicant causes birth defects are called as _____
A	Teratogen
B	Mutagen
C	Chlorogen
D	Chromogen

Id	
Question	Hepatotoxic affects _____
A	Liver
B	Kidney
C	Heart
D	Lung

Id	
Question	Pulmonotoxic affects_____
A	Liver
B	Kidney
C	Heart
D	Lung

Id	
Question	Entrance of toxicant depends on _____ state
A	Physical
B	Chemical
C	Other properties
D	None

Id	
Question	Isotonic sodiumchloride solution is used for_____
A	Toxification
B	Detoxification
C	Dose testing
D	Exposure testing

Id	
Question	Reverse engineering provide us data about _____
A	Evidence
B	Exposure
C	Both
D	None
Answer	A Evidence
Marks	1
Unit	I

Id	
Question	Dose is given as mg of Chemical per ____ of body weight.
A	mg
B	kg
C	G
D	cg

Id	
Question	Dose is dependent upon _____
A	Exposure
B	Duration
C	Pathway
D	All

Id	
Question	Dose versus response is studied using_____.
A	Perk curve
B	Isbian curve
C	Gaussian curve
D	Opex curve

Id	
Question	Unit of LD50 is _____
A	mg/kg
B	mg/mg
C	ppm
D	mg/L

Id	
Question	Unit of LC50 is _____
A	mg/kg
B	mg/mg
C	ppm
D	mg/L

Id	
Question	Full form of EDF is_____
A	Effective Dose for f percentage of population
B	Effectiveness Dose for f percentage of population
C	Effective Dose for full percentage of population
D	Effective Doses for f percentage of population

Id	
Question	Dose Response relationship is the correlation between the amount of _____ and resulting effects.
A	Exposure
B	Effectiveness
C	Effect
D	Other

Id	
Question	Which one is correct in means of effectiveness route of exposure
A	Intravenous>inhale>intraperitoneal>intramuscular
B	intramuscular>Intravenous>inhale>intraperitoneal
C	intraperitoneal> intramuscular>Intravenous>inhale
D	inhale>intraperitoneal> intramuscular>Intravenous

Id	
Question	If the exposure repeated for 1 month then called as _____.
A	Acute
B	Subacute
C	Subchronic
D	Chronic

Id	
Question	Key organ in biotransformation is _____.
A	Liver
B	Heart
C	Brain
D	All

Id	
Question	Toxic load is a function of _____.
A	Concentration
B	Quantity
C	Exposure
D	Duration

Id	
Question	Impulse response and step response are the causes for_____ modelling.
A	Toxicokinetic
B	Toxicodynamics
C	Toxicity
D	Toxicant

Id	
Question	Method for analysis of Hazard is
A	Where if
B	When if
C	whose if
D	What if

Id	
Question	Full form of HAZOP
A	Hazard and Operation Analysis
B	Hazard and Operability Analyst
C	Hazard and Operability Analysis
D	Hazard and Operable Analysis

Id	
Question	Ingredient of safety program is/ are
A	Safety Knowledge
B	Safety Experience
C	Safety Management
D	All the options

Id	
Question	Biotic Environment contains
A	Livestocks
B	Water Bodies
C	Atmosphere
D	Soil

Id	
Question	Full form of KISS
A	Keep It Sweet and Safe
B	Keeping It Simple and Safe
C	Keep It Simple and Safety
D	Keep It Simple and Safe

Id	
Question	Inherent Safety Process Methods consists of
A	Minimize
B	Substitute
C	Both
D	None

Id	
Question	Which one is not the method of Hazard identification?
A	Safety review
B	Checklist
C	Hazard survey
D	Risk Assesment

Id	
Question	The number of steps in which accident process takes place?
A	1
B	2
C	3
D	4

Id	
Question	Term used for accident and loss statistics
A	Risk Assessment
B	Fatality Rate
C	HAZOP
D	All the options

Id	
Question	Which one is not the risk control measure?
A	Educational Protection
B	Industrial Protection
C	Physical Protection
D	Procedural Protection

Id	
Question	Which one is not the part of physical protection?
A	APS
B	APP
C	PPS
D	PPE

Id	
Question	Which one is not the procedural protection ?
A	DPP
B	NSP
C	FEP
D	WSP

Id	
Question	Procedural Protection consist of
A	MSDS
B	Safe Start Up and Shut Down
C	Both
D	None

Id	
Question	Educational Protection consist of
A	Safety Manuals
B	Plant Operating Manuak
C	Both
D	None

Id	
Question	Full fom of EPA
A	Environment Protection Agency
B	Environment Protect Action
C	Environmental Protect Act
D	Environment Protection Act

Id	
Question	Probability of ocurrence is high for
A	Fire
B	Toxic Release
C	Explosion
D	All

Id	
Question	Potential for fatalities is high for
A	Fire
B	All
C	Explosion
D	Toxic Release

Id	
Question	Potential for economic loss is high in
A	Fire
B	Toxic Release
C	Explosion
D	All

Id	
Question	Inherent safety do not consist of
A	Intensification
B	Substitution
C	Attenuation
D	None

Id	
Question	Attenuation and Limitation of effects relates
A	Simplify
B	Moderate
C	Minimize
D	Substitute

Id	
Question	Full form of VCE is
A	Vapour Cloud Exposure
B	Vapour Collision Explosion
C	Vapour Cloud Explosion
D	Vapour Cloud Exploded

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Question	Chemical responsible for Flixborough Disaster
A	Cyclo Propane
B	Cyclo Butane
C	Cyclo Pentane
D	Cyclo Hexane

Id	
Question	Chemical responsible for Seveso Disaster
A	Tetra Chloro dibenzodioxine
B	Tetra Chloro dibenzodioxide
C	cyclo hexane
D	Dioxine

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Question	Chemical responsible for Bhopal gas tragedy
A	Methyl isocynide
B	Ethyl isocynide
C	Propyl isocynide
D	Butyl isocynide

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Question	Heat from the normal process leading to secondary reactions at elevated temperature leads to _____
A	Over Pressure
B	Over Temperature
C	Over production
D	Over kinetics

Id	
Question	Rate of reaction is related with_____
A	Hess Law
B	Ficks Law
C	Arrehenius equation
D	Antone Equation

Id	
Question	Reaction is a Facile reaction if Ea is _____
A	Low
B	High
C	Moderate
D	All

Id	
Question	The reaction is difficult reaction if Ea value is _____
A	Low
B	High
C	Moderate
D	All

Id	
Question	Lot of Energy change takes place if Heat of reaction is _____
A	low
B	high
C	moderate
D	all

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Question	Little Energy change takes place if Heat of reaction is _____
A	low
B	high
C	moderate
D	all

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C	< 140 F
D	None

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Question	Portable fire extinguishers should only be used for the _____ stage of a fire
A	Beginning
B	End
C	Late
D	Middle

Id	
Question	Fire _____ is based on the type of fuel used to feed a fire
A	Detection
B	Classification
C	Prevention
D	Theory

Id	
Question	Which manner is a chemical or biochemical plant not operated in?
A	Continuous
B	Batch Wise
C	Semi Continuous
D	Discontinuous

Id	
Question	When is a separation process not required in manufacturing process?
A	When there is a decomposition reaction
B	WHEN THERE is a complete conversion into one product
C	When the byproducts are in form of gases
D	When the reaction is reversible

Id	
Question	Which one is not the fuel?
A	Wood
B	Paper
C	Coal
D	Electric Spark

Id	
Question	Which one of the following have higher rate of energy release
A	Fire
B	Explosion
C	Both
D	None

Id	
Question	Which one of the following have slower rate of energy release
A	Fire
B	Explosion
C	Both
D	None

Id	
Question	Which of the following is Not an importance of separation processes?
A	Reduces the operating cost
B	Reduces the risk of explosion
C	Reduces the probability of side reactions
D	Increases the speed of the reaction

Id	
Question	Which of the following is Not used to represent a chemical process?
A	Block flow diagram
B	Process flow diagram
C	Flow Chart
D	All of Above

Id	
Question	Process safety incidents can cause
A	Multiple injuries
B	Massive asset damage
C	Environmental consequence
D	All of above

Id	
Question	Process Safety incidents are generally caused by failure of
A	A single barrier
B	Multiple Barriers
C	Sometimes single but sometimes multiple barriers
D	None of Above

Id	
Question	Who is responsible for managing process safety and asset integrity
A	Operations and Maintenance staff
B	Projects and Engineering Staff
C	Contract and Procurement Staff
D	All of us either directly or indirectly

Id	
Question	If you see any leaks o spills what should you do
A	Walk past as it is not your job
B	Report the leak immediately
C	Report only if leak seems to be getting worse
D	Report only if the leak is big

Id	
Question	While studying toxicology we have to study
A	Entrance of toxicant
B	Elimination of toxicant
C	Effect of Toxicant
D	All Of Above

Id	
Question	Ingestion word used for entry of toxicant by_____
A	Mouth
B	Nose
C	Cut
D	Skin

Id	
Question	Inhalation word used for entry of toxicant by_____
A	Mouth
B	Nose
C	Cut
D	Skin

Id	
Question	Injection word used for entry of toxicant by_____
A	Mouth
B	Nose
C	Cut
D	Skin

Id	
Question	Dermal Adsorption word used for entry of toxicant by_____
A	Mouth
B	Nose
C	Cut
D	Skin

Id	
Question	Excretion of toxicants takes place by
A	Kidney
B	Liver
C	Lungs
D	All of Above

Id	
Question	Biological organism respond differently to some dose of toxicants depending on_____
A	Age
B	Sex
C	Weight
D	All of Above

Id	
Question	Disease caused by occupation is called as_____
A	Occupational diseases
B	Non Occupational diseases
C	Both
D	None

Id	
Question	A potential of causing harm to people , environment or property is called as _____
A	Toxicant
B	Hazard
C	Risk
D	All of above

Id	
Question	First step of what if method is _____
A	Divide the system into smaller subsystems
B	Identify a list of questions for subsystem
C	Both
D	None

Id	
Question	Hazop is used to identify hazardous problems as a _____ tool
A	Risk assessment
B	Risk Management
C	Risk Control
D	All of above

Id	
Question	A list of possible problems and ao be checked for hazard is called as _____
A	Process Hazard Checklist
B	Process Checklist
C	Hazard Checklist
D	All of Above

Id	
Question	Risk Control Measures consist of ____
A	Physical Protection
B	Procedural Protection
C	Both
D	None

Id	
Question	Physical Protection consist of _____
A	Safety devices
B	Passive protection Systems
C	Both
D	None

Id	
Question	Procedural safety consist of _____
A	Fire emergency procedure
B	First aid procedure
C	Both
D	None

Id	
Question	Educational Protection deals with _____
A	Mock drill
B	Safety Motivation schemes
C	Training program
D	All of above

Id	
Question	Types of chemical plant accidents are
A	Fire
B	Explosion
C	Toxic release
D	All of Above

Id	
Question	Which one of the following will not be responsible for accienets?
A	Temperature
B	Pressure
C	Gas Generation
D	None

Id	
Question	Reaction out of control due temperature is called as _____
A	Exothermic
B	Endothermic
C	Thermal Runaway
D	All of Above

Id	
Question	The reaction in which heat is released is called as_____
A	Exothermic
B	Endothermic
C	Both
D	None

Id	
Question	The reaction in which heat is Absorbed is called as_____
A	Exothermic
B	Endothermic
C	Both
D	None

Id	
Question	The reaction in which heat is neither Absorbed nor released is called as _____
A	Exothermic
B	Endothermic
C	Both
D	None