KUMARAGURU
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Register Number:……

M.E DEGREE EXAMINATIONS: DEC 2015

(Regulation 2014)

Third Semester

INDUSTRIAL ENGINEERING

P14IETE42**:** Industrial Safety Management

Time: Three Hours **Maximum Marks: 100**

Answer all the Questions:-

PART A (10 x 1 = 10 Marks)

1. Consider the following control of working environment in an organization CO3 [K_1]

   1. Reduction in labor absenteeism
   2. Increase in production
   3. Increase physical and mental fatigue
   4. Decrease employee morale

   Which of the statements are correct?

   a) 1,2 b) 2,3

   c) 2,4 d) 1,3

2. A risk management process is a systematic way of making plant as CO1 [K_1]

   a) Quality b) Operation

   c) Safe d) Consider engineering revision

3. Material which will not respond to biological action is called CO2 [K_1]

   a) Organic material b) Inorganic material

   c) Sludge d) Effluent

4. Match the type item with multiple choice code CO4 [K1]

List I	List II
A. Face and eye protection	i. Foundries, mining
B. Hand and Arm protection	ii. Hot and wet surface
C. Foot and leg protection	iii. Cut and punctures
D. head protection	iv. Dust and gas

	A	B	C	D
a)	i	ii	iii	iv
b)	iv	i	ii	iii
c)	iii	iv	i	ii
d)	iv	iii	ii	i

5. Assertion (A): An inherent property of a substance, agent, source of energy or situation having the potential of causing undesirable consequences CO4 [K_1]

Reason(R): Risk to which an individual person within a specific population is subjected.

a) Both A and R are individually true and R is the correct explanation of A

b) Both A and R are individually true and R is not the correct explanation of A

c) A is true but R is false

d) A is false but R is true

6. Form of energy that can harm the body if exposed is known as CO1 [K_1]

a) Physical hazards

b) Biological hazards

c) Chemical hazards

d) Work design hazards

7. Consider the following selection of remedy CO3 [K1]

1. Education and training of employees
2. Following improper maintenance system
3. unsafely inspection
4. Adopting the right procedure for selection of employees

Which of the statements are correct?

a) 1,2

b) 2,3

c) 3,4

d) 4,1

8. Assertion (A): Any operation inside the design envelope that would cause a shutdown that could possibly lead to violation health. CO5 [K_1]

Reason (R): Explosive chemicals or any action that could result in injury to personal.

a) Both A and R are individually true and R is the correct

b) Both A and R are individually true and R is not the correct

explanation of A

c) A is true but R is false

explanation of A

d) A is false but R is true

9. A situation without intolerable risks — CO5 — [K_1]

a) Safety

b) Uncertainty

c) Societal risk

d) Risk

10. Consider the following steps in safety inspection — CO2 — [K_1]

1.planning

2.Inspection

3.Reporting

4. Monitoring

The correct sequence of the safety inspection is

a) 3-2-4-1

b) 1-2-3-4

c) 4-3-2-1

d) 4-2-3-1

PART B (10 x 2 = 20 Marks)

11.	List the modern safety concepts	CO1	[K_1]
12.	Mention the functions of safety management	CO1	[K_1]
13.	Define safety and productivity	CO2	[K_2]
14.	What is mean by operational safety?	CO2	[K_2]
15.	Define on-site and off site	CO3	[K_2]
16.	What is mean by road safety?	CO3	[K_2]
17.	Define HAZOP	CO4	[K_1]
18.	Write a note on fire fitting devices	CO4	[K_2]
19.	What is the role of an industrial Hygienist?	CO5	[K_2]
20.	List any two Indian boiler act	CO5	[K_2]

PART C (10 x 5 = 50 Marks)

21.	Narrate the safety organization and constitution of safety committee in an industry	CO1	[K_2]
22.	Describe the employee participation in safety	CO1	[K2]

23.	Explain the operation safety of the pressure vessels	CO2	[K_2]
24.	Elaborate on the safety precautions to be taken for hot and cold working process	CO2	[K_2]
25.	Illustrate the safety of sewage disposal and cleaning process	CO3	[K_3]
26.	Elaborate on control of major industrial hazards	CO3	[K_2]
27.	Discuss about personal protective equipments	CO4	[K2]
28.	Explain the accident prevention programmes	CO4	[K_2]
29.	Explain occupational diseases prevention	CO5	[K_2]
30.	Describe the safety features of the Explosive act	CO5	[K_2]

PART D (2 x 10 = 20 Marks)

31.	Illustrate the performance measurement and motivation in safety management	CO1	[K_3]
32.	Explain the step-by-step approach to emergency planning, response and recovery for a fertilizer manufacturing company	CO3	[K_2]

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