



Enrollment No.....

Faculty of Engineering

End Sem (Odd) Examination Dec-2019

FT3CO15 Occupational Health & Hygiene System

Programme: B.Tech.

Branch/Specialisation: FT

Duration: 3 Hrs.

Maximum Marks: 60

Note: All questions are compulsory. Internal choices, if any, are indicated. Answers of Q.1 (MCQs) should be written in full instead of only a, b, c or d.

- Q.1 i. Heat energy received by the earth from the sun is due to **1**
 (a) Convection (b) Radiation
 (c) Reflection of light (d) Intensity
- ii. The process of heat transfer in which heat is transferred with actual migration of medium particles is known as **1**
 (a) Conduction (b) Convection
 (c) Reflection (d) Radiation
- iii. Which of the following is most rapid process? **1**
 (a) Conduction (b) Convection
 (c) Radiation (d) None of these
- iv. Design and study of work environment to address physical and psychological demands of individuals is classified as **1**
 (a) Ergonomics (b) Cumulative trauma disorders
 (c) Tag out regulations (d) Tag in regulations
- v. Disorder which occurs in employees when individuals use same muscle repetitively to perform tasks is classified as **1**
 (a) Tag out relations (b) Tag in relations
 (c) Ergonomics (d) Cumulative trauma disorders
- vi. Workplace related injuries, illness and deaths impose costs upon **1**
 (a) Employers (b) Employees
 (c) The Community (d) All of these
- vii. Phosphine liberated in the stomach in aluminium phosphide poisoning is toxic to all except **1**
 (a) Lungs (b) Kidneys (c) Liver (d) Heart
- viii. Magnan's symptoms are characteristic symptoms with which poisoning **1**
 (a) Alcohol (b) Charas (c) Cocaine (d) Ecstasy

- ix. Eco-toxicology is the study of _____ **1**
 (a) Chemical interactions of organism and environment.
 (b) Physical interactions of organism and environment.
 (c) Thermal interactions of organism and environment.
 (d) Biological interactions of organism and environment.
- x. Which part of the NFPA marking system implies flammability? **1**
 (a) White (b) Blue
 (c) Yellow (d) Red
- Q.2 i. Write the characteristics of noise. **2**
 ii. Mention the non-auditory effects of noise. **3**
 iii. Explain the purpose and benefits of good lighting. **5**
- OR iv. Explain the difference between industrial hygiene and occupational health. **5**
- Q.3 i. Enlist the various types of notifiable diseases. **2**
 ii. Explain the term sampling with its types and methods of analysis of sampling. **8**
- OR iii. Describe the noise survey and noise conservation programme. **8**
- Q.4 i. Explain the routes of chemical entry. **3**
 ii. Explain the types of exposure and statistical analysis of data for dose and response. **7**
- OR iii. What are the personal protective equipments to be considered for chemical emergency? **7**
- Q.5 i. What are the aims or general principles of first aid? **4**
 ii. Explain the first aid treatment for poisoning with acids and alkalis. **6**
- OR iii. Explain the first aid treatment when poison is not known. **6**
- Q.6 Attempt any two:
 i. Write the benefits of good housekeeping. **5**
 ii. Explain the Japanese concept of 'FIVE S'. **5**
 iii. Write the application of ergonomics for safety & health. **5**

P.T.O.

Marking Scheme
FT3CO15 Occupational Health & Hygiene System

Q.1	i.	Heat energy received by the earth from the sun is due to (b) Radiation	1
	ii.	The process of heat transfer in which heat is transferred with actual migration of medium particles is known as (b) Convection	1
	iii.	Which of the following is most repaid process? (c) Radiation	1
	iv.	Design and study of work environment to address physical and psychological demands of individuals is classified as (a) Ergonomics	1
	v.	Disorder which occurs in employees when individuals use same muscle repetitively to perform tasks is classified as (c) Ergonomics	1
	vi.	Workplace related injuries, illness and deaths impose costs upon (d) All of these	1
	vii.	Phosphine liberated in the stomach in aluminium phosphide poisoning is toxic to all except (b) Kidneys	1
	viii.	Magnan's symptoms are characteristic symptoms with which poisoning (c) Cocaine	1
	ix.	Eco-toxicology is the study of _____ (a) Chemical interactions of organism and environment.	1
	x.	Which part of the NFPA marking system implies flammability? (d) Red	1
Q.2	i.	Characteristics of noise	2
	ii.	Non-auditory effects of noise	3
	iii.	Purpose of good lighting	2 marks
		Benefits of good lighting	3 marks
OR	iv.	Difference between industrial hygiene and occupational health. Stepwise marking	5
Q.3	i.	List of notifiable diseases.	2
	ii.	Definition of sampling	2 marks
		Types of sampling	3 marks
		Analysis of sampling	3 marks

OR	iii.	Noise survey	4 marks	8
		Noise conservation programme	4 marks	
Q.4	i.	Routes of chemical entry.		3
	ii.	Types of exposure	3 marks	7
OR	iii.	Statistical analysis of dose response	4 marks	7
		PPE's chemical emergency Stepwise marking		
Q.5	i.	Principles of first aid		4
	ii.	First aid treatment for acids and alkalis Stepwise marking		6
OR	iii.	First aid treatment for poison Stepwise marking		6
Q.6		Attempt any two:		
	i.	Benefits of good housekeeping. Stepwise marking		5
	ii.	Japanese concept of 'FIVE S' Stepwise marking		5
	iii.	Application of ergonomics for safety & health Stepwise marking		5
