

Register No.: Name:

SAINTGITS COLLEGE OF ENGINEERING (AUTONOMOUS)

(AFFILIATED TO APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY, THIRUVANANTHAPURAM)

FIFTH SEMESTER B. TECH DEGREE EXAMINATION (Regular), DECEMBER 2022

(2020 SCHEME)

Course Code : 20CHT381

Course Name: Occupational Health and Industrial Hygiene

Max. Marks : 100

Duration: 3 Hours

PART A

(Answer all questions. Each question carries 3 marks)

1. List out some Occupational health and safety regulations.
2. Discuss the salient features of the Water act-1974.
3. Differentiate ionizing and non-ionizing radiation.
4. Recall some health effects caused due to vibration.
5. Explain the hierarchy of controls used in hazard identification and risk reduction.
6. Explain the term Xenobiotics.
7. List out some notifiable occupational diseases in India as per the Factories act -1948.
8. Mention some physical fitness tests used in the industry.
9. Explain threshold limit values.
10. Differentiate between Occupational Health and Industrial Hygiene.

PART B

(Answer one full question from each module, each question carries 14 marks)

MODULE I

11. a) Explain the significance of OSHAS 18001 in the context of occupational health. (4)
- b) Elaborate on:
 - (i) Factories Act. (10)
 - (ii) The Workmen's Compensation Act.

OR

12. a) List out some National and International organizations in the field of Occupational health and their role in managing health and safety. (6)
- b) Define occupational epidemiology and explain the various approaches used. (8)

MODULE II

13. a) Explain the effects of occupational noise on health, its diagnosis and control measures employed to reduce the risk. (8)
b) Describe the common physical hazards encountered in the industry. (6)

OR

14. a) Define the term hazard. Elaborate on radiation hazards. (10)
b) List common hazards caused by electricity in the workplace. (4)

MODULE III

15. a) Identify the routes through which toxicants enter the human body. (6)
b) Explain the different control strategies that could be implemented for toxic vapor and mist exposure. (8)

OR

16. a) What are the causes, effects, signs and symptoms of Carbon monoxide poisoning? (8)
b) Explain Occupational Zoonotic diseases. List out some major zoonotic diseases. (6)

MODULE IV

17. a) Write short notes on:
(i) Silicosis
(ii) Byssinosis (8)
(iii) Coal miners' pneumoconiosis
(iv) Asbestosis
b) Explain Pulmonary function tests. (6)

OR

18. a) Define the term Ergonomics. Elaborate on some ergonomic related health effects and related control measures. (10)
b) Elaborate on Anthropometry. (4)

MODULE V

19. a) Define industrial hygiene. What are the basic principles of industrial hygiene. (6)
b) Explain in detail the contents of an MSDS. (8)

OR

20. a) Explain different assessment techniques for air borne contaminants in a workplace. (6)
b) Elaborate on biological monitoring and list out its advantages and limitations. (8)
