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| a) National Institute for occupational safety and health | b) National Institute of society and health | |
| c) National Industry for safety and health | d) National Institutional safety and health | |
10. As per the OSHA (1970) limits the Noise exposure limit for 8 hours shift is [K₁]
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| a) 90 dBA | b) 120 dBA |
| c) 145 dBA | d) 180 dBA |

PART B (10 x 2 = 20 Marks)

11. List the advantages of auditory displays. [K₂]
12. List the objectives of human factors engineering. [K₂]
13. Narrate the design considerations for lighting to provide visual comfort and to meet visual demands. [K₂]
14. Enlist the four principles of motion economy. [K₂]
15. Define Basal Metabolic Rate. [K₁]
16. Relate oxygen uptake and physical activity with an example. [K₃]
17. Illustrate the importance and state the safe exposure level of noise. [K₂]
18. Classify the sources of noise. [K₁]
19. State the effects of cold on performance. [K₂]
20. List the objectives of ergonomics in work station design. [K₁]

PART C (10 x 5 = 50 Marks)

21. State and explain the types of anthropometric data. [K₂]
22. Demonstrate the task requirements on workspace design. [K₃]
23. Characterize the design consideration for standing workers. [K₄]
24. Generalize the environmental factors affecting work capacity. [K₃]
25. Explain the effects of heat acclimatization. [K₂]
26. Discuss in detail the methods of protection against noise. [K₂]
27. Explain the principles of arrangement of components in workplace design. [K₂]

28. State the interpersonal effects of workplace design. [K₄]
29. Explain the factors considered for the design of controls. [K₂]
30. Discuss in detail the design considerations for the displays. [K₃]

PART D (2 x 10 = 20 Marks)

31. Discuss in detail the interdisciplinary nature of Ergonomics. [K₂]
32. Prepare and formulate the lighting design considerations for an assembly line. [K₆]
