

Section –A

Note: Multiple Choice questions. All questions are compulsory.**10x1=10**

- Q.1 The zone of demolition while dismantling of a building of height H is
a. 1.5 x H
b. 0.5 x H
c. 2.5 x H
d. 3.5 x H
- Q.2 A hazard is:
a. The likelihood of a substance, event, activity or process to cause harm
b. The probability of a substance, event, activity or process to cause harm
c. The potential of a substance, event, activity or process to cause harm
d. The prospect of a substance, event, activity or process to cause harm
- Q.3 What is important in an accident investigation?
a. Only to interview the victim
b. To clear up the site of the accident as quickly as possible in order to prevent new accidents
c. To collect all facts and information at the location of the accident
d. None of the above
- Q.4 A fall arrestor system the fall and fall restraint system the fall.
a. Limit, prevent
b. Allows, prevent
c. Prevent, allows
d. Hold, limit
- Q.5 The list of notifiable diseases as per BOCW Central Rules, 1998 is given in
a. Schedule-I
b. Schedule-II
c. Schedule-III
d. Schedule-IV
- Q.6 Emergency preparedness and planning includes:
a. Escape routes
b. Assembly points
c. Evacuation procedures
d. All of the above
- Q.7 While climbing the ladder by workers, how many point-contacts will be required?
a. No Point Required
b. Three Point Required
c. Two Point Required
d. Four Point Required
- Q.8 The IS Standard for "Excavation Works-Code of Safety" is
a. IS 3576
b. IS 3764
c. IS 3765
d. IS 3776
- Q.9 The gas responsible for decompression sickness is:
a. Nitrogen
b. Oxygen
c. Helium
d. Argon
- Q.10 Which of the following is not one of major component of personal fall arrest system?
a. Anchorage
b. Net
c. Body harness
d. Connectors

Section-B

Note: Objective type questions. All questions are compulsory. 10x1=10

- Q.11 List down the hazards commonly present on a construction sites.
- Q.12 What are the safety provisions related to entry and exit into an excavated pit with depth greater than 1.5 m?
- Q.13 Differentiate between a Hot Work and Cold Work Permit.
- Q.14 What do you mean by pneumatic caisson?
- Q.15 What do you mean by PDCA cycle ?
- Q.16 What do you mean by a Flame proof equipment?
- Q.17 What do you mean by benching in case of excavation works?
- Q.18 What do you mean by " Zone of Demolition" defined as per BOCW Central Rules, 1998 ?
- Q.19 What do you mean by thorough check of lifting equipment/ loose gears stipulated in BOCW Act, 1996 ? Also mention the periodicity for the same.
- Q.20 What is the function of an outrigger in case of a telescopic crane?

Section –C

Note: Short answer type Questions. Attempt any twelve questions out of fifteen questions. 12x5=60

- Q.21 Differentiate between Caissons and Cofferdams.
- Q.22 Describe the stepwise procedure for carrying out an accident investigation at a construction site.
- Q.23 What do you mean by "Hierarchy of Controls" in context of risk management? Describe each type of control with examples and comment on the relative effectiveness of these controls.
- Q.24 Write a short note on salient features of Health & Safety policy stipulated under BOCW Act, 1996 and BOCW Central Rules, 1998?
- Q.25 What do you understand by notifiable diseases? Write a short note on Asbestosis covering its causes and preventive measures.
- Q.26 Write a note on safety provisions to be followed while storage and handling of paints & varnishes.
- Q.27 Write a note on safety provisions to be followed while carrying out piling works at a construction sites.
- Q.28 Why do we require shoring?
- Q.29 List and explain the various methods of demolition of RCC structures?
- Q.30 What are the various types of hazards linked with excavation? Describe the various protection methods with sketches used in excavation works?
- Q.31 What do you mean by "Fall Protection System"? Give the classification of types of Fall protection systems.
- Q.32 List down the types of work permits used in construction industry. Describe the applicability and procedure to be followed for issue of an excavation permit.
- Q.33 List down the various types of Fire Extinguishers and their uses.
- Q.34 What do you mean by ELCB and RCCB? Elaborate on the working principle with sketches for both of these devices.
- Q.35 What do you understand by ERDMP (Emergency Response and Disaster Management Plan) ? Differentiate between onsite and offsite emergencies.

Section-D

Note: Long answer questions. Attempt any two questions out of three questions. 2x10=20

- Q.36 Sketch a diagram for a typical scaffolding and label its various components. Prepare a safety checklist for a scaffolding erected for carrying out painting works of a G+2 building at a construction site.
- Q.37 Briefly narrate the major provisions of the Building and other Construction Workers (Regulation of Employment and Conditions of service) Act, 1996?
- Q.38 Write a note covering various safety provision to be considered for preparation of SOP for demolition of a RCC overhead water tank with height around 15 m having existing buildings in its vicinity at construction site.