

General Aptitude

Q. No.	Question	Option 1	Option 2	Option 3	Option 4
1	Convert the given sentence into indirect speech: The PM said, 'Prioritize the security patch'.	The PM said that they prioritized the security patch.	The PM said that the security patch be prioritized.	The PM said to prioritize the security patch.	The PM said prioritizing the security patch.
2	Determine the grammatically correct version of the given statement: She is one of those people who always takes criticism personally.	She is one of those people to always takes criticism personally.	She is one of those people who always take criticism personally.	She is one of those person who always take criticism personally.	She is one of those person who always takes criticism personally.
3	Which sentence is passive-aggressive in a professional email?	Let's discuss how to resolve the issue.	As per my last email, the issue remains unresolved.	The issue requires your attention.	Could you please update me on this?
4	What is the closest synonym of the word "adversary" as used in the given sentence? The unexpected storm was an adversary to the hikers' progress up the mountain.	Companion	Threat	Opponent	Guide

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5	<p>In the below question, a part of the sentence is in brackets. Below are given alternatives to the bracketed part which may improve the sentence. Choose the correct alternative. In case no improvement is required, choose 'No Improvement' option.</p> <p>Please do not talk about your office work (on the dinner table).</p>	No Improvement	at the dinner table	in the dinner table	around the dinner table
6	<p>In the question below, a sentence is given with one part bracketed. Select the option that provides the correct replacement for the bracketed part. In case of no improvement needed, choose Option D.</p> <p>The roof of the garage has (fallen down).</p>	fallen in	fallen through	fallen off	No Improvement

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7	<p>Aman starts walking from his home facing north. He walks 5 km, then turns right and walks 3 km. He then turns left, walks 4 km, and again turns left to walk 3 km. Finally, he turns right and walks 2 km.</p> <p>How far is Aman from his home and in which direction?</p>	6 km, South	8 km, East	11 km, North	10 km, West

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8	<p>In the following question, some statements are followed by some conclusions. You must consider the given statements true even if they seem at variance from commonly known facts. Read all the conclusions and then decide which of the given conclusions logically follows the given statements, disregarding commonly known facts.</p> <p>Statements:</p> <ul style="list-style-type: none">1. All phones are boxes.2. Some boxes are big.3. All big are fans. <p>Conclusion:</p> <ul style="list-style-type: none">1. Some fans are phones.2. Some big are phones.3. Some fans are boxes.	Only (1) follows.	Only (2) follows.	Only (3) follows.	Both (2) and (3) follow.

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9	Eight members living under one roof, consists of three generations. Krish is married to Rama. Quasi is the mother of Pranav. Sivi is the sister of Krish. Pranav is the brother of Rama. Krish is the child of Tashi. Sivi is the aunt of Mandy. If Quasi is married to Bhanu, then how Bhanu is related to Mandy?	Grandfather	Father	Brother-in-law	Uncle
10	In an exhibition of science, a certain number of projects are placed in a row. Project M is placed 14th from the left end, and Project K is placed 16th from the right end. There are 13 projects between M and K. How many projects are placed in the exhibition?	16	17	43	Cannot be determined
11	Find the missing number in the given series. 1, 2, 9, ___, 65, 126, 217	28	37	46	19
12	Which of the following is a key characteristic of a transformational leader?	They establish clear incentives and consequences to guide team performance.	They ensure consistent operations through well-defined structures and authority.	They maintain a predictable environment by preserving established organizational norms.	They foster creativity and motivate individuals to achieve beyond standard goals.
13	The social construction of leadership suggests that leadership is _____.	An innate trait that only certain individuals possess	A fixed set of behaviours defined by corporate policies	A dynamic process shaped by interactions and perceptions within a group	It is determined by a leader's formal authority

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14	Anam is the newly appointed leader of a software development team tasked with a highly complex and unstructured project with tight deadlines. The team members are relatively new to working together and have varying levels of technical expertise. Which of the following leadership approaches would be most effective in this situation?	Focus on building strong interpersonal relationships and fostering a supportive team environment	Implement a structured approach with clear task assignments and close monitoring	Empower the team by delegating significant autonomy and encouraging collaborative problem-solving	Prioritize the leader's expert technical knowledge and provide direct solutions to technical challenges
15	How does transformational leadership differ from transactional leadership?	Transformational leaders focus on short-term goals, while transactional leaders focus on long-term vision	Transformational leaders rely on contingent rewards, while transactional leaders avoid structured incentives	Transformational leaders inspire and motivate through vision, while transactional leaders focus on exchanges (rewards/punishments)	Transformational leaders avoid emotional connections, while transactional leaders build strong relationships
16	What is the keyboard shortcut to insert a manual line break in MS Excel?	Ctrl + Shift	Alt + Enter	Ctrl + Enter	Alt + Shift
17	A cybercriminal sends you an email with a link to a website that looks identical to your bank's. The website asks you to enter your login credentials. What type of attack is this?	Phishing attack	Malware attack	DDoS attack	Viruses

General Aptitude

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18	In MS PowerPoint presentations, the design regulate the layout and formatting for the slide. These are commonly known as _____.	Blueprints	Placeholders	Templates	Design Plates
19	What is the maximum zoom percentage in MS PowerPoint?	400	300	200	100
20	Match the MS Word shortcuts with their purpose and choose the correct option.	A → 3, B → 1, C → 4, D → 2	A → 1, B → 4, C → 3, D → 2	A → 3, B → 4, C → 1, D → 2	A → 2, B → 3, C → 1, D → 4

Column A (Shortcut)	Column B (Purpose)
A. Ctrl + Shift + N	1. Open Thesaurus
B. Alt + Shift + D	2. Apply superscript
C. Shift + F7	3. Apply Normal style
D. Ctrl + Shift + Plus sign	4. Insert current date

Occupational Safety and Health

Q. No.	Question	Option 1	Option 2	Option 3	Option 4
1	From the following identify the symptoms of heat stroke: 1. High body Temperature 2. Flushed, dry skin 3. Profuse sweating 4. Confusion or unconsciousness	Only 4	1,2 and 3	1, 2 and 4	1, 2, 3 and 4
2	Which of the following is NOT a principle of zero access guarding?	Use of fixed or interlocked guards	Remote machine operation	Operator entry allowed with supervision	Prevention of all operator contact with moving parts
3	A fixed guard is most suitable for _____.	Machines with repetitive and predictable operations	Maintenance work zones	Machines with highly variable sizes of input materials	High-speed conveyor belts with changing loads
4	What is the ideal posture for lifting heavy objects?	Bend forward from the waist	Keep legs straight and back rounded	Squat down using legs and keep back straight	Twist the body while lifting
5	_____ cranes and _____ cranes are most suitable for indoor and outdoor lifting with high vertical clearance respectively.	Overhead travelling and gantry	Jib and overhead travelling	Gantry and tower	Gantry and jib

Occupational Safety and Health

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6	In the '5S' system, the step "Shitsuke" (Sustain) focuses on _____.	Organising the tasks	Cleaning everyday	Rearranging inventory daily	Maintaining and reviewing standards regularly
7	Which of the following materials is most likely to accumulate static charge?	Cotton	Steel	Copper	Glass
8	What is the primary purpose of a Safety Operating Procedure (SOP) in a plant?	To delegate operational responsibilities among various plant departments	To provide technical training	To ensure uniform and safe execution of operations	To ensure consistent documentation practices across departments
9	Which Tag colour is used for warning of "potential hazards" in the industry as per the IS 8095?	RED	WHITE	YELLOW	BLUE
10	What distinguishes a permit-to-work (PTW) system from regular safety protocols?	PTW is a formal written authorization for hazardous and non-routine tasks	PTW is a formal written authorization for hazardous/routine tasks	PTW is a formal written authorization for special tasks	PTW is mandated only for confined spaces

Occupational Safety and Health

Q. No.	Question	Option 1	Option 2	Option 3	Option 4
11	In the context of incident investigation, what is the "Domino Theory" used for?	Determining cost of loss	Establishing liability in civil courts	To model the chain of events leading to an accident or incident	Predicting market trends after an accident
12	Which of the following is a reportable accident as per IS 3786:1983?	Minor scratch treated with first aid	Slip without injury	Injury causing more than 48 hours' absence from work	Temporary deafness for a few minutes
13	What is the first step in conducting a safety audit as per IS 14489?	Interviewing staff	Verifying past pending the audit compliances	Obtaining past accident data	Preparation of a pre-audit questionnaire
14	The use of loose gears like chains and slings is allowed only if _____.	They are supplied by a government contractor	They are hand-made	They are tested and marked with safe working load (SWL)	They are lubricated weekly
15	The maximum permissible quantity of Class A petroleum product that may be stored without a license for private use (non-transportation) is _____.	30 litres	50 litres	100 litres	500 litres

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Occupational Safety and Health

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16	As per NBC 2016, which Part deals with Fire and Life Safety?	Part 4	Part 6	Part 8	Part 9
17	Which clause in ISO 45001 specifically deals with risk and opportunity assessment?	Clause 4	Clause 6	Clause 8	Clause 9
18	In safety management, which planning type focuses on day-to-day activities?	Strategic planning	Operations planning	Contingency planning	Visionary planning
19	The tendency of individuals to underestimate the likelihood of being harmed in a hazardous situation is known as _____.	Risk aversion	Safety bias	Confirmation bias	Optimism bias
20	What is collation of SHE data?	Deleting unnecessary data	Randomly selecting data	Arranging and combining relevant data	Encrypting data
21	Which model focuses on management system failures as the primary root of accidents?	Human Error Model	Frank Bird's Loss Causation Model	Heinrich's Theory	Swiss Cheese Model
22	What is the primary goal of disaster mitigation?	Forecasting disasters precisely	Reducing the impact of disasters on life and property	Increasing the intensity of warning signals	Limiting access to disaster-prone areas

Occupational Safety and Health

Q. No.	Question	Option 1	Option 2	Option 3	Option 4
23	What is covered under UN Class 3 of dangerous goods?	Flammable liquids	Gases	Toxic substances	Radioactive materials
24	What is the base colour for pipelines carrying water (excluding firefighting)	Green	Red	Yellow	Blue
25	In safety signage, which background color is used to indicate that wearing personal protective equipment (PPE) is mandatory?	Red	Yellow	Blue	Green
26	Among the following, which is not the step of JSA?	select Job	break Job into sequence	identify ways to speed up the job	identify hazards and control measures
27	Which among the following techniques helps to standardize the operation for easy monitoring, controlling, comfort, safety, and simultaneously ensuring more productivity and profit?	One Point Lessons	Safety Kaizen	Tool Box Talks	None of these
28	As per Noise Pollution Rules 2000, the permissible noise levels in Residential areas are _____ dBA at daytime and _____ dBA at night-time.	90,85	55,45	75,70	50,40

Occupational Safety and Health

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29	As per IS 18001, if an event that is very unlikely to happen and that is slightly harmful in nature occurs, the associated risk is _____.	Trivial Risk	Moderate Risk	Tolerable Risk	Substantial Risk										
30	What is the purpose of a Deadman switch on a portable power tool?	To prevent accidental startup	To increase the tool's speed	To adjust the tool's settings	To hold the workpiece in place										
31	As per IS 4082, the maximum height for stack of cement bags is _____.	15 bags	10 bags	20 bags	18 bags										
32	Match the Following.	1-a, 2-c, 3-b, 4-a	1-b, 2-c, 3-a, 4-d	1-b, 2-a, 3-c, 4-d	1-d, 2-c, 3-a, 4-b										
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33	In the ABC model in Behaviour based Safety ABC Stands for _____.	Antecedent, Behaviour, Consequence	Acceptance, Behaviour, Control	Ancestor, Behaviour, Consequence	Antecedent, Behaviour, Concern
34	Which international organization provides global guidelines on occupational safety and health?	WHO	UNESCO	IMF	ILO
35	Heinrich's Theory (or Domino Model) suggests that for every major accident, there are how many minor accidents and near misses combined?	1 minor accident and 2 near misses	1 minor accident and 29 near misses	29 minor accidents and 300 near misses	100 minor accidents and 100 near misses
36	Which of the following gases used in gas cutting poses the greatest risk of explosion if leaked and accumulated?	Acetylene	Hydrogen	Propane	Argon
37	Which of the following Non-Destructive Testing (NDT) methods is primarily used to measure the thickness of a material without affecting its surface?	Thermography	Eddy Current Testing	Radiography	Ultrasonic Testing

Occupational Safety and Health

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38	The Carpal Tunnel Syndrome (CTS) is caused by _____.	High-frequency noise exposure	Repetitive hand movements and poor wrist positioning	Working in extreme temperatures	Lack of sleep and rest
39	The Fatal Accident Frequency Rate (FAFR) is defined as _____.	Number of fatal accidents per 1,000 workers	(No. of all injuries / Total production units)	(No. of near misses \times 100) / man-days	(No. of fatal accidents \times 1,000,000) / Total man-hours worked
40	Which of the following respiratory protection devices would be used in an area with unknown hazardous gas concentration and oxygen-deficient atmosphere?	Air-purifying respirator (APR)	Dust mask	Particulate respirator	Self-contained breathing apparatus (SCBA)

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41	<p>Match the following:</p> <table border="1"> <thead> <tr> <th>List 1</th><th>List 2</th></tr> </thead> <tbody> <tr> <td>A. ISO 45001</td><td>1. Focuses on energy management and improving energy efficiency and performance.</td></tr> <tr> <td>B. ISO 14001</td><td>2. Specifies requirements for occupational health and safety management systems.</td></tr> <tr> <td>C. ISO 50001</td><td>3. Provides a framework for environmental management systems to minimize environmental impacts.</td></tr> <tr> <td>D. ISO 18001</td><td>4. Establishes criteria for a comprehensive safety management system in workplaces.</td></tr> </tbody> </table>	List 1	List 2	A. ISO 45001	1. Focuses on energy management and improving energy efficiency and performance.	B. ISO 14001	2. Specifies requirements for occupational health and safety management systems.	C. ISO 50001	3. Provides a framework for environmental management systems to minimize environmental impacts.	D. ISO 18001	4. Establishes criteria for a comprehensive safety management system in workplaces.	A-3, B-4, C-1, D-2	A-4, B-2, C-1, D-3	A-2, B-3, C-1, D-4	A-1, B-4, C-2, D-3
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42	What is the primary purpose of the cess collected under the BOCW Cess Act, 1996?	To compensate employers for safety compliance costs	To generate revenue for central infrastructure projects	To fund welfare schemes for registered construction workers	To subsidize public housing under the Ministry of Housing and Urban Affairs										
43	Generally speaking, when there are more wires per strand in a wire rope, the rope is more _____.	Flexible	crush resistant	abrasion resistant	only a & c										
44	What is the frequency to inspect wire ropes of lifting appliances as per the BOCW Central Rules?	once in 3 month	once in 6 month	once in 12 month	once in 18 month										

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Occupational Safety and Health

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45	According to wire rope inspection standards, a wire rope should be removed from service if, in any length of 8 diameters (8D) of rope, the total number of visible broken wires exceeds what percentage of the total number of wires in the rope?	0.05	0.1	0.15	0.2
46	The symbol is used when something in your workplace is a _____. 	Chemical weapon	Bio hazard	Toxic substance	Radiation danger
47	How are the frames of U-Frame Scaffolding interconnected and locked in position?	Bolted connections	Welded joints	Rope lashings	Spring clips
48	For maintenance tasks on a 150-meter-tall communication tower, which temporary installation is most suitable for ensuring safe access and stability?	Suspended Scaffolding System	Aerial Lift (Cherry Picker)	Rope Access System (Rope Descent)	Cantilevered Platform System

Occupational Safety and Health

Q. No.	Question	Option 1	Option 2	Option 3	Option 4
49	On a construction site, which temporary power supply system arrangement provides protection against electric shock _____.	Residual Current Circuit Breaker	Miniature Circuit Breaker	Over Current Protection device	HRC Fuse
50	What is the minimum number of building workers required to mandate the establishment of an ambulance room with an effective communication system?	100	200	500	1000

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Construction

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1	A motor truck carrying concrete blocks to a construction site must navigate a steep, curved descent. Which construction safety feature is most essential to prevent loss of control during this operation?	Load equalization	Engine braking	Suspension lift	Chassis lubrication
2	Which structural safety feature most effectively minimizes seismic energy transfer to buildings, improving occupant safety and reducing damage?	Shear walls	Mass dampers	Base isolators	Cross bracing
3	During deep excavation near a structurally sensitive area, a tracked excavator begins to show signs of destabilization due to soil displacement and vibration from adjacent machinery. Which construction safety intervention is most effective to immediately restore operational stability and prevent equipment rollover?	Counterweight adjustment	Stabilization mat deployment	Soil compaction	Load redistribution

Construction

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4	In a 10 m deep excavation next to an active roadway, early lateral movement is observed in the retaining wall due to insufficient temporary supports. What immediate engineering measure is most appropriate to prevent wall failure and ensure safety?	Soil nailing	Dewatering	Shoring	Backfilling
5	While working inside a partially completed tunnel, workers detect a sudden increase in humidity and groundwater seepage near the tunnel face. What immediate safety action should be taken to prevent structural compromise and ensure worker safety?	Grouting	Waterproof membrane installation	Sump pumping	Ground freezing
6	Which base element is essential for ensuring scaffold stability on uneven ground?	Soleplate	Joist	Corbel	Girder
7	During the erection or dismantling of a tower crane, when sections are added or removed, and bracing is incomplete, what type of structural failure is the crane most vulnerable to?	Torsion	Overload	Buckling	Shear

Construction

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8	During deep trench excavation for utility installation on a busy urban site, which temporary bracing method should be applied to stabilize trench walls and protect workers from collapse hazards?	Laced bracing	Hydraulic bracing	Cable bracing	Beam bracing
9	During controlled blasting operations at an open cast quarry located near critical infrastructure such as a railway bridge, engineers observe increasing complaints of vibration damage and flyrock reaching beyond the safety perimeter. What specific technique should be prioritized to contain the blast energy and prevent debris from endangering nearby structures and personnel?	Mucking	Stemming	Benching	Ripping
10	While conducting hot work on the exterior shell of a crude oil storage silo, internal vapor concentrations begin to fluctuate due to rising ambient temperatures. According to Safety in Construction Industry guidelines, which critical preventive method must be used to control ignition risk during this operation?	Inert gas purging	Cold patching	Oil skimming	Steam tracing

Construction

Q. No.	Question	Option 1	Option 2	Option 3	Option 4
11	A team is scheduled to enter a large underground utility tunnel for maintenance work. Which formal process must be completed to ensure safety measures are assessed and approved before entry?	Work scheduling notice	Depth operation clearance	Confined space entry permit	Environmental clearance form
12	During road construction, a contractor mistakenly constructs the shoulder layer at a higher level than the carriageway, causing frequent water stagnation after rains. Which component of the road's typical cross-section has been incorrectly constructed?	Camber	Median	Kerb	Formation width
13	Under Safety in Construction Industry considerations, which port layout component must be properly configured to prevent traffic bottlenecks and ensure safe vehicle and cargo movement within the port?	Transit shed	Internal roads	Breakwater	Dock sill

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Construction

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14	In a tunnel excavation project, workers spend long hours using heavy pneumatic drills in awkward, crouched positions. Several team members report lower back pain and decreased stamina during shifts. What advanced ergonomic strategy should be prioritized to enhance worker safety and reduce fatigue?	Exoskeleton	Tool belt	Work gloves	Headlamp
15	During crane setup, which misalignment condition can cause boom instability and lead to critical structural stress during operation?	Outrigger misplacement	Cab ventilation	Wire insulation	Tire pressure
16	During simultaneous excavation and hauling, a bulldozer crosses into the operational swing area of an excavator, nearly causing a collision. Which safety control should have been enforced to prevent such a hazard?	Zoning protocol	Track cleaning	Engine warming	Paint marking

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Construction

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17	On a busy urban construction site, a concrete mixer is parked on a slight incline during continuous operation. Midway through mixing, the drum unexpectedly shifts, and the vehicle begins to roll toward pedestrian access. Upon investigation, it is found that the safety measures failed to prevent this incident. Which two specific safety precautions were most likely neglected, leading to the dangerous situation?	Wheel chocking and drum sealing	Wheel chocking and hydraulic brake testing	Water drainage and color coding	Drum sealing and operator training
18	In the case of heavy-duty timber scaffolds with two working platform bays, which of the following is the correct maximum platform load per meter square according to the IS 3696 (Part 1): 1987?	200 kg	300 kg	600 kg	150 kg
19	Which of the following is a key safety precaution while operating Earth Moving Equipment (EME) like a backhoe loader on site?	Operate on uneven slopes to increase digging range	Allow minor hydraulic leaks if performance is unaffected	Conduct pre-start inspection for brakes, horns, and hydraulic systems	Keep the engine running during short refuelling breaks to save time

Construction

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20	In which earthmoving task is an angle dozer most suitable due to its ability to move material sideways while moving forward continuously?	Land clearing	Backfilling	Sidehill cuts	Stripping
21	According to IS 3764:1992, which of the following is a mandatory safety measure during manual trench excavation exceeding 1.5 m in depth?	Use of bamboo poles to reinforce side walls	Installation of shoring or strutting to support the trench walls	Allowing workers to work without PPE to increase mobility	Avoiding any support unless water is present
22	When using a ladder on a construction site, what is the first thing to check before climbing?	Whether nearby equipment may obstruct ladder use	The ladder's stability and support	The weight of the tools being carried	If the ladder is tall enough to reach the work area
23	When considering whether to install a fixed platform as an engineering control for working at height, which of the following is NOT a factor that must be considered?	Whether there is adequate room for the platform	Whether workers have completed personal fall arrest training	Whether the duration of work justifies installing the platform	Whether the fixed platform could replace other engineering controls

Construction

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24	In the case of temporary installations like scaffolding or formwork, which of the following is the most critical factor in preventing failure during heavy operations?	The quality of materials used	The design of the installation	The speed at which the installation is erected	The number of workers assigned to the task
25	What is a critical safety consideration when performing underwater concreting in a caisson?	Ensuring the water pressure is high enough to prevent flooding	Wearing diving gear even when not required	Regularly inspecting the structural integrity of the caisson	Using any available machinery to speed up the process
26	What is the primary safety measure when handling explosives on a construction site, particularly in quarrying operations?	Storing explosives in an open and accessible area	Ensuring only authorized personnel handle explosives	Allowing experienced workers to bypass minor safety checks	Using outdated procedures if they worked in the past
27	In the mechanical demolition of a high-rise reinforced concrete building, which scenario poses the greatest risk of triggering a chain progressive collapse?	Employing hydraulic busters simultaneously on all vertical columns	Removing non-load bearing walls from upper storeys manually	Overloading the roof slab with machinery without prior assessment	Dismantling window frames and exterior cladding before core structure removal

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28	What is the correct sequence for carrying out demolition operations to ensure safety and regulatory compliance?	Start with demolishing the foundation, then the roof	Begin with the removal of hazardous materials, then proceed to structural demolition	Demolish the entire structure at once	Start with the roof, then the walls, and finally the foundation
29	According to construction safety guidelines, what is the primary responsibility of a contractor to ensure safety on a worksite?	Complete the project within budget and on schedule without interruptions	Inspect work areas only when safety complaints are raised by workers	Provide adequate lighting, protect workers from extreme weather, and assess environmental conditions	Hire additional workers during adverse weather to maintain workflow
30	How can ergonomics help improve worker productivity on a construction site?	By making tasks more physically demanding to increase endurance	By reducing the need for workers to take breaks during shifts	By designing tools and work environments that reduce physical strain and fatigue, leading to better focus and efficiency	By eliminating the use of machinery to ensure workers perform tasks manually

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Environment

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1	According to Water Act 1974 _____ includes any liquid, gaseous or solid substance which is discharged from any premises used for carrying on any [industry, operation or process, or treatment and disposal system], other than domestic sewage.	Trade effluent	Sewage effluent	Industrial effluent	Process effluent
2	Which of the following fund is established under Public Liability Insurance Act, 1991 to provide immediate relief to victims of accidents involving hazardous substances?	Environmental Recurring Fund	Environmental Protection Fund	Environmental Relief Fund	Accident Protection Fund
3	Water cess is levied for the following four purposes. Arrange them in the increasing order of water cess. 1. Domestic purpose 2. Processing where water gets polluted and are not easily biodegradable. 3. Processing where water gets polluted and the pollutants are bio degradable. 4. Industrial cooling plants.	1, 4, 3, 2	1,2,3,4	4,3,1,2	1,3,4,2
4	Arrange the elements of ISO 14001 in the correct sequence. 1. Planning 2. Environmental Policy 3. Management review 4. Implementation and operation 5. Checking and corrective action.	2, 1, 5, 4, 3	2, 1, 4, 5, 3	1, 2, 4, 5, 3	2, 1, 4, 3, 5
5	In _____ units the dirty gases are made to pass through beds of activated carbon thereby removing pollutants.	adsorption	absorption	combustion	incinerators
6	Which of the following process is used for pretreatment purposes such as coagulation, disinfection etc?	Sludge thickening	Elutriation	Chemical conditioning	Dewatering

Environment

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7	What is the treatment and disposal method for bio medical waste collected in Red coloured bin?	Landfilling	Autoclaving	Deep burying	Discharge into sewer
8	Depletion of ozone in the stratosphere is due to increasing release of _____ due to human activities.	methane	carbon dioxide	chlorofluorocarbons	nitrogen
9	ISO 50001 is based on the _____ continual improvement framework and incorporates energy management into everyday organizational practices.	Plan-Do-Check-Act	Plan-Check-Do Act	Plan-Do-Act-Check	Plan-Act-Do-Check
10	Which of the following method is considered to be one of the most cost effective technology for removing Total Suspended Solids from the industrial effluent?	Cooling	Dissolved air flotation system	Equalisation	Heating
11	Water Cess Act was enacted in the year _____. _____.	1977	1978	1974	1988
12	What is the general standard for the discharge of Suspended solids (mg/l) in public sewers?	100	300	600	500

Environment

Q. No.	Question	Option 1	Option 2	Option 3	Option 4										
13	<p>Match the acts given in List 1 with the objectives given in List 2</p> <table border="1"> <thead> <tr> <th>List 1</th><th>List 2</th></tr> </thead> <tbody> <tr> <td>1. Environment Protection Act 1986</td><td>a. To provide for public insurance for the purpose of providing immediate relief to the persons affected by accident while handling any hazardous substance.</td></tr> <tr> <td>2. The Manufacture, Storage, and Import of Hazardous Chemical Rules, 1989.</td><td>b. For setting standards of emission or discharge of environmental pollutants.</td></tr> <tr> <td>3. Management and Handling of Hazardous Waste, 1989</td><td>c. To set up an Authority to inspect, once a year, the industrial activity connected with hazardous chemicals and isolated storage facilities.</td></tr> <tr> <td>4. The Public Liability Insurance Act 1991</td><td>d. To control generation, collection, treatment, import, storage and handling of hazardous waste.</td></tr> </tbody> </table>	List 1	List 2	1. Environment Protection Act 1986	a. To provide for public insurance for the purpose of providing immediate relief to the persons affected by accident while handling any hazardous substance.	2. The Manufacture, Storage, and Import of Hazardous Chemical Rules, 1989.	b. For setting standards of emission or discharge of environmental pollutants.	3. Management and Handling of Hazardous Waste, 1989	c. To set up an Authority to inspect, once a year, the industrial activity connected with hazardous chemicals and isolated storage facilities.	4. The Public Liability Insurance Act 1991	d. To control generation, collection, treatment, import, storage and handling of hazardous waste.	1-c, 2-b, 3-d,4-a	1-a, 2-c, 3-c,4-d	1-b, 2-c, 3-d,4-a	1-b, 2-c, 3-a,4-d
List 1	List 2														
1. Environment Protection Act 1986	a. To provide for public insurance for the purpose of providing immediate relief to the persons affected by accident while handling any hazardous substance.														
2. The Manufacture, Storage, and Import of Hazardous Chemical Rules, 1989.	b. For setting standards of emission or discharge of environmental pollutants.														
3. Management and Handling of Hazardous Waste, 1989	c. To set up an Authority to inspect, once a year, the industrial activity connected with hazardous chemicals and isolated storage facilities.														
4. The Public Liability Insurance Act 1991	d. To control generation, collection, treatment, import, storage and handling of hazardous waste.														
14	Which of the following is a process for identifying and assessing the various environmental impacts associated with a particular product or services?	Learn Adopt Assessment	Environmental Impact assessment	Life Cycle Assessment	Strategic Environmental Assessment										
15	Identify the qualitative pollutant from the given options?	Carbon dioxide	Nitrogen dioxide	Fungicides	Carbon monoxide										
16	How can the top management demonstrate leadership and commitment with respect to Environmental Management system?	By ensuring the integration of the environmental management system requirements into the organization's business processes.	By providing a framework for setting environmental objectives.	By ensuring that the environmental management system conforms to the requirements of this International Standard.	By committing to fulfil its compliance obligations.										

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Environment

Q. No.	Question	Option 1	Option 2	Option 3	Option 4
17	What is the maximum permissible annual concentration of Particulate matter (size $<10\mu\text{m}$) in industrial and residential areas?	40 $\mu\text{g}/\text{m}^3$	60 $\mu\text{g}/\text{m}^3$	80 $\mu\text{g}/\text{m}^3$	70 $\mu\text{g}/\text{m}^3$
18	The _____ provides international guidelines to control the transboundary movement of hazardous waste between different countries.	Basel Convention	Montreal Protocol	Kyoto Protocol	Paris Agreement
19	Under which category does the ecologically sensitive and important areas such as National Parks belong to as per Coastal Regulation Zone?	CRZ-I	CRZ-II	CRZ-III	CRZ-IV
20	As per GRI G4 guidelines which of the following is the third step in preparing a sustainability report?	Obtain an overview	Prepare to disclose general standard disclosures	Prepare to disclose specific standard disclosures	Choose the preferred "In Accordance option"

Answer Key

General Aptitude: -

Q. No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Correct Option	3	2	2	3	2	1	3	3	1	3	1	4	3	2	3	2	1	3	1	3

Occupational Safety and Health: -

Q. No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Correct Option	3	3	1	3	1	4	4	3	3	1	3	3	4	3	1	1	2	2	4	3

Q. No.	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Correct Option	2	2	1	1	3	3	2	2	3	1	2	4	1	4	3	1	4	2	4	4

Q. No.	41	42	43	44	45	46	47	48	49	50
Correct Option	3	3	4	1	2	2	4	3	1	3

Construction: -

Q. No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Correct Option	2	3	3	1	3	1	3	2	2	1	3	1	2	1	1

Q. No.	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Correct Option	1	2	2	3	2	2	2	2	2	3	2	1	2	3	3

Environment: -

Q. No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Correct Option	1	3	1	2	1	3	2	3	1	2	1	3	3	3	3	1	2	1	1	2

General Aptitude

Q. No.	Question	Option 1	Option 2	Option 3	Option 4
1	In the following sentence, substitute the italicized part with the correct option. Radha was dressed with a green and red saree.	was dressed up	was dressed in	was dressed of	No improvement
2	Fill in the blanks with appropriate options. _____ lecture made it difficult for the students to stay	irrelevant	recusant	monotonous	Arduous
3	Choose the word that best expresses the meaning opposite of the italicized word. It was fortuitous that I met Paul in that birthday party.	unlucky	abominable	distressing	fortunate
4	Fill in the blanks with appropriate options. Raju _____ very polite at the moment, because he wants to make a good impression in front of his colleagues.	is being	has been	has been behaving	was being
5	John starts from a point A and walks 8 km North, then turns left and walks 10 km, then turns left and walks 14 km up to the point B. What is the direction of John?	North	South	East	West
6	In a certain code language, if 'PLAYER' is written as QNDCJX, how 'DANCER' will be written in the same language?	ECOFJX	ECQFKX	ECQGKX	ECQGJX
7	J is sitting next to K and L is next to M. M is not sitting with N. N is on the extreme left of the bench and L is in 2nd position from right. J is on the right hand side of K and N. J and L are sitting next to each other. Who is sitting exactly in the middle?	N	K	J	M

8	Find the missing number in the given series. 1, 2, 9, ___, 65, 126, 217	28	37	46	19
9	Which of the following has characteristics of transactional leadership?	Believes success arises from leaders and staff working together	Seeks to involve staff in decision making process	Seeks to ensure staff understand issues facing the organization	Takes the view that rewards and punishment motivate staff
10	According to contingency theory, the ideal leader _____	Shapes the leadership style depending on the situation.	Provides clear instructions to the followers so that they know what they are doing.	Knows what their strengths are and makes the most out of them.	Spends time with their followers and therefore listens and responds to their needs.
11	Choose the three situational criteria identified in the fielder model.	Job requirements, position power and leadership ability	Charisma, influence and leader-member relations	Leader-member relations, task structure and position power	Task structure, leadership ability and group activity
12	Which of the following best describes leaders in high power distance cultures?	Making decisions without input from employees.	Subordinates can challenge their leaders.	Seeking welfare of the organization.	Employees can address the leader by his name.
13	Who is a transactional leader?	Inspires people and has strong interactions with them.	Does deals with people in order to get them to do things the leader wants.	Someone who is involved in the organizational change.	A leader who inspires the workers to new levels by offering them a vision of a better future.

14	In which type of leadership does the superior enjoy more	Consultative Leadership	Autocratic Leadership	Free Rein	None of these
15	Which set of terms given below is associated with the SMART acronym related to MBO?	Specific, Management, Assignable, Relevant	Specific, Measurable, Achievable, Relevant	Synchronized, Matching, Attainable, Relevant	Supportive, Manageable, Achievable, Relevant
16	In MS PowerPoint presentations, the design regulate the layout and formatting for the slide. These are commonly known as.	Blueprints	Placeholders	Templates	Design Plates
17	What is the maximum zoom percentage in MS PowerPoint?	400	300	200	100
18	Which of these refers to the PowerPoint view used for displaying only the text (tile and bullets)?	Slide sorter show	slide view	outline view	notes page view
19	Formula in Excel starts with -----	*	/	?	=
20	Which of the following is a shortcut in excel to go to	ALT+M	ALT+N	ALT+W	ALT+H
21	Which of the following cybercrime involved a significant ransomware attack that disrupted the operations of a major U.S fuel pipeline in 2021?	WannaCry attack	Colonial attack	NotPetya attack	Equifax data breach

General Safety

Q. No.	Question	Option 1	Option 2	Option 3	Option 4
1	<p>Arrange the steps involved in the hierarchy of hazard controls in order:</p> <ol style="list-style-type: none"> 1. Administrative controls 2. Substitution 3. Engineering controls 4. PPE 5. Elimination 	5,1,2,3,4	4,3,1,2,5	4,1,2,3,5	5,2,3,1,4
2	<p>Men are at work in a room with an ambient temperature of 33 degrees Celsius. Calculate the WBGT index there if the wet bulb temperature and globe temperature readings are 30 degrees Celsius and 31 degrees Celsius, respectively.</p>	30.5	30	30.8	30.3
3	Which is the IS code for industrial lighting?	IS 6665	IS 4142	IS 2189	IS 6271
4	Which of the following is an engineering control method for reducing noise exposure?	Earplugs	Enclosures or barriers	Employee training and education	Job rotation
5	<p>Which anthropometric measurement is crucial for designing office chairs?</p> <ol style="list-style-type: none"> 1. Popliteal height 2. Body height 	Only 2	Only 3	Only 2 and 3	1, 2, and 3

	3. Sitting height				
6	Which among the following is not an example of Hot work?	Welding	Grinding	Brazing	Painting
7	The lost-time injury incidence rate is calculated by the formula _____.	No. of lost-time injuries*1000/ average number of persons employed	No. of lost-time injuries*1000/average number of persons injured	No. of lost-time injuries with total disablement*1000/average number of people employed	No. of lost-time injuries with total disablement*1000/average number of persons injured
8	Which among the following has the least chance of being considered a work injury?	Loss of a toe finger	Amputation through the shoulder joint	Absolute deafness	Hypertensive disease
9	Oxy-fuel welding, cutting and heating torches are subject to _____ phenomena.	Backfire	Sustained Backfire	Flashback	All of these

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10	<p>Which among the following is/are the objective(s) of the National Policy on Safety, Health and Environment at Workplace?</p> <ol style="list-style-type: none"> 1. Continuous improvement of workers lifestyle and giving incentives 2. Continuous reduction in the incidence of work related injuries, fatalities, diseases, disasters and loss of national assets 3. Continually increasing community expectation of workplace health and safety standards 4. Continuous enhancement of community awareness regarding safety, health and environment at workplace related areas 	Only 2, 3 and 4	1, 2, 3 and 4	Only 1 and 2	Only 3 and 4
11	<p>Arrange the steps of Training Needs Assessment (TNA) in its order:</p> <ol style="list-style-type: none"> 1. Data Collection 2. Implementation Strategy 3. Analysis Phase 4. Identifying Goals 5. Developing Solution 	4-1-3-5-2	3-5-1-4-2	2-3-5-1-4	1-4-3-5-2
12	<p>The smothering technique affects the _____ component of the fire tetrahedron.</p>	Fuel	Heat	Oxygen	Chemical Reaction

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13	What is the fire load of 100 kg of paper kept in a 20 sq. m. room? Given that the calorific value of paper is 3732 kcal/kg.	373200	18660	37320	74640
14	Which among the following statements is wrong about an explosive hazardous substance capable of high energy release but hard to initiate?	The heat of decomposition is greater than 0.7 kcal/g	The reaction can or cannot be exothermic	The substance is sensitive to impacts	The substance is insensitive to impacts
15	Which among the following techniques helps to standardize the operation for easy monitoring, controlling, comfort, safety, and simultaneously ensuring more productivity and profit?	One Point Lessons	Safety Kaizen	Tool Box Talks	None of these
16	Which of the following is NOT a benefit of implementing a behaviour-based safety program?	Increased employee engagement in safety	Reduced injury rates	Improved safety culture	Elimination of all workplace hazards
17	Which among the following is a major advantage of using Management Information System (MIS) in Safety, Health and Environment?	MIS facilitates the tracking of safety metrics and performance indicators	MIS facilitates quick access to critical information during emergencies	MIS facilitates organizations to identify potential hazards	All of these
18	As per Frank Bird's 1969 theory, out of the total 641 events, only _____ may result in minor injuries and _____ in major injuries.	100, 10	30, 1	50, 5	75, 25

19	Which of these is NOT a key principle of Heinrich's Theory?	Preventing minor injuries prevents major ones	Unsafe acts are the primary cause of injuries	Management has direct control over safety	Adequate safety training is essential
20	How many clauses are there in ISO 45001?	9	10	8	11
21	Which type of machine guard is suitable when there is stock movement?	Interlocked	Fixed	Adjustable	Self-adjusting
22	Identify the function of an interlocked machine guard from the following: 1. Allows to accommodate various sizes of stocks 2. Prevent the machine from starting unless the guard is closed 3. Provide a physical barrier against hazards 4. Allows access to the machine for removing jams easily as compared to the fixed barriers.	Only 2, 3, and 4	Only 1, 2, and 3	Only 2	1, 2, 3, and 4
23	What is the purpose of a load backrest extension on an industrial truck?	To increase the load capacity	To prevent the load from shifting	To protect the operator from falling objects	To stabilize the truck during travel

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24	Identify the elements of the '5S' system? 1. Support 2. Sort 3. Sustain 4. Standardize 5. Shine	2, 3, 4 and 5	1, 2, 3 and 4	Only 2, 3, and 4	Only 2 and 3
25	_____ is a painful condition that occurs when the median nerve in the wrist is compressed.	Lumbago	Thoracic pain	Myofascial pain syndrome	Carpal tunnel syndrome
26	As per Noise Pollution Rules 2000, the permissible noise levels in industrial areas are _____ dBA at daytime and _____ dBA at night-time.	90,85	75,70	85,75	75,65
27	Which of the following statements about JSA is WRONG ?	JSA is a proactive approach to identifying and mitigating workplace hazards	JSA can be used to develop safe work procedures and train employees	JSA needs to be conducted only for new or non-routine tasks	JSA is a qualitative technique
28	As per IS 18001, if an event that is very unlikely to happen and that is slightly harmful in nature occurs, the associated risk is _____.	Trivial Risk	Moderate Risk	Tolerable Risk	Substantial Risk

NSC

29	As per the Explosive Rules, 2008, Those explosives, which have a mass explosion risk and major missile effect, are categorized as _____.	Category ZZ	Category Z	Category Y	Category X
30	As per The Regulation 79 of The CEA Regulations 2023, the underground power cable meant for use exceeding 33 kV shall be laid with a minimum underground depth of _____ m and a minimum separation distance of _____ m with underground telecommunication cable.	1.2, 0.3	1.2, 0.6	1, 0.5	1.6, 0.5
31	As per NBC 2016, the height of all rooms for human habitation shall not be less than _____ m.	3	2 ⁵	2.75	3.5
32	Which of the following is NOT a requirement as per ISO 45001?	Consultation and participation of workers	Documented information management	Compliance with legal and other requirements	Periodic external audits by an accredited certification body
33	Which of the following is a common anthropometric measurement?	Body mass index (BMI)	Heart rate	Blood pressure	Respiration rate

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34	Which of the following is the correct order of airflow during inhalation?	Nose/mouth → pharynx → larynx → trachea → bronchi → bronchioles → alveoli	Nose/mouth → trachea → larynx → bronchi → bronchioles → alveoli → pharynx	Nose/mouth → pharynx → trachea → bronchi → alveoli → bronchioles → larynx	Nose/mouth → larynx → pharynx → trachea → bronchioles → bronchi → alveoli
35	What is the purpose of a safety interlock?	To prevent machine operation if a guard is open	To override safety features in an emergency	To adjust machine settings	To clean and maintain the machine
36	What is the purpose of a Deadman switch on a portable power tool?	To prevent accidental startup	To increase the tool's speed	To adjust the tool's settings	To hold the workpiece in place
37	As per Indian standards 4082, the maximum height for stack of cement bags is _____.	15 bags	10 bags	20 bags	18 bags
38	Which of the following factors should be considered when determining the maximum height for stacking materials? 1. Type of material 2. Floor loading capacity 3. Size and weight of the stack	Only 2 and 3	Only 2	Only 1 and 3	1, 2 and 3

39	Which technique aims to reduce the probability of a loss occurring?	Loss prevention	Loss reduction	Loss financing	Both Loss prevention and Loss reduction
40	What is the first step recommended by IS 14489 for conducting a safety and health audit?	Selecting the audit team	Defining the audit scope and criteria	Preparing the audit plan	Conducting the opening meeting
41	Which of the following is NOT a key component of an effective Management Oversight and Risk Tree method?	Established policies and procedures	Regular monitoring and reporting	Corrective action plans	Frequent changes in personnel
42	The primary goal of behaviour-based safety is to _____.	eliminate all workplace accidents	identify and correct unsafe behaviours	impose strict safety rules and regulations	provide safety training to employees
43	The Heinrich Theory suggests that by addressing _____.	unsafe acts/conditions more serious incidents can be prevented	serious injuries, near-misses will be reduced	property damage incidents, injuries will be eliminated	fatalities, all other incidents will be reduced
44	_____ is a Hazard Class 3 material.	Corrosive material	Infectious substance	Flammable Liquid	Radioactive material
45	Radioactive Materials falls under which class of hazardous substances?	Class 7	Class 4	Class 8	Class 3

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46	Oil and Paint fire comes under which class of fire _____.	Class B	Class A	Class C	Class D
47	In which method of hazard analysis a series of questions are asked?	HAZOP study	Checklist	What -if analysis	Failure mode & effect analysis
48	As per IS17889, how many sections are provided in MSDS?	8	9	10	16
49	Body Mass Index is calculated as _____.	Body weight in kg/Height in meter squared	Body weight in pounds/Height in inches squared	Body weight in kg/ Height in centimetres squared	None of these
50	As per IS 9457, the shape of warning sign is _____.	Circular	Square	Triangular	Rectangluar

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Construction Safety

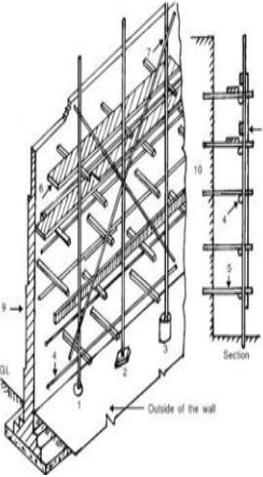
Q. No.	Question	Option 1	Option 2	Option 3	Option 4
1	Which type of hazard is attributed to work stressors causing stress among construction workers?	Chemical hazards	Biological hazards	Psychological hazards	Physical hazards
2	What is the primary focus of behavioural measures introduced at the construction worksites?	Ensuring compliance with safety regulations	Minimizing exposure to occupational hazards	Improving lifestyle conduct and ergonomics	Obtaining health and safety certificates
3	What should workers always check before operating a crane to avoid overloading?	Engine temperature	Hydraulic pressure	Load rating chart	Systolic pressure
4	What is the recommended positioning of the feet when lifting a load using the two-handed lift technique?	Both feet alongside the object	Both feet behind the object	One foot alongside the object and one behind it	Both feet shoulder-width apart and staggered
5	What does the parameter "Burden" (V) depends on, in a drilling pattern for surface works?	Diameter of the hole (d) and degree of packing (P)	Rock constant (C), charge per meter at the bottom, and its height (h)	The colour of the rock being drilled	Nature of rock, degree of fragmentation desired, and sequence of firing

6	What precaution should be taken in sandy/alluvial soils to prevent ground subsidence around the construction site due to lowering of the groundwater table?	Installation of additional structural supports	Provision of water retaining barriers around the site	Implementation of surface tension reduction techniques	Use of vibratory compaction methods
7	How are the frames of U-Frame Scaffolding interconnected and locked in position?	Bolted connections	Welded joints	Rope lashings	Spring clips
8	What type of cofferdam is suitable for broad excavations where cross-bracing is uneconomical?	Single wall sheet pile cofferdam	Triple wall sheet pile cofferdam	Double wall sheet pile cofferdam	Concrete wall cofferdam
9	What should be subtracted from the crane's capacity at a given radius to determine the actual lifting capacity when considering the hook block and lifting slings?	The weight of the load	The weight of the crane's main boom	The weight of the hook block and lifting slings	The weight of the crane's counterweights
10	Why is it important to select the right flex (cable) for an appliance?	To increase the voltage in the circuit	To decrease the resistance in the circuit	To ensure it can safely carry the maximum current required	To limit the flow of current
11	Which method of underwater concreting involves packing formwork with coarse aggregate and then injecting grout to fill the voids?	Pumping Method	Bottom Dump Bucket Method	Preplaced Aggregate Method	Tremie Method

12	How is the minimum weight of passengers considered for designing ropeway cars with a capacity up to 15 persons?	70 kg per passenger	65 kg per passenger	60 kg per passenger	68 kg per passenger
13	What are examples of demolition hazards?	Exposure to hazardous chemicals and high noise levels	Exposure to extreme temperatures	Slips and falls on slippery surfaces	Proximity of the workplace to other buildings
14	What precautions should be taken when demolishing materials suspected to contain lead?	Using compressed air to clean up lead dust	Disposing of lead waste in a regular landfill.	Wearing the appropriate PPE	Using power tools without HEPA filters to minimize lead dust.
15	Under what condition would super-elevation not be required on a curve with a very large radius?	When the road surface is flat	When the curve has a wide lane width.	When the camber of the road is sufficient to counteract the centrifugal force	Depends on the slope of road
16	Which type of cranes are specifically used for handling standard containers?	Jib cranes	Gantry cranes	Tower cranes	Mobile cranes
17	What is emphasized to prevent accidents during construction?	Focusing on productivity over safety to meet project deadlines	Relying solely on experienced workers to ensure safety	Implementing local design principles	Catching hazards early during planning and design stages

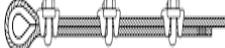
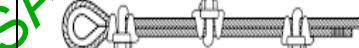
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18	What is the recommended safety measure for extensive work on a non-fragile flat roof involving multiple workers and different employers?	Providing adequate lighting for night-time work	Providing safety harnesses to all workers	Installing perimeter barriers	Conducting regular safety inspections
19	What is a primary risk associated with carrying huge and bulky loads during manual handling activities?	Decreased productivity due to slower work pace	Potential damage to the surrounding environment	Potential for slips and injury	Potential for damage to the load or surrounding structures
20	What are the key considerations worker should follow while using mechanical equipment for storage and movement of materials?	Letting the skill and experience of operator dictate the type of equipment used	Letting the weight, size, and shape of the material dictate the type of equipment used	Reaching the rated capacity of the equipment	Reducing the running cycles of machines as far as possible
21	As per BOCW central rules, the maximum load a worker can lift by hand or carry overhead or over the back or shoulders is _____ kg for an adult man and _____ kg for an adult woman.	65,30	55,25	60,40	55,30

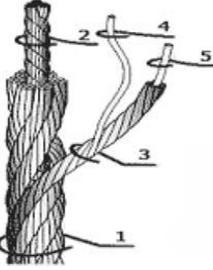
22	<p>What is the name of the part labelled as number 4 in the scaffold image below?"</p> 	Putlogs	Planks	Ledgers	Braces
23	<p>Wire rope of lifting appliance used at construction site shall be inspected at least in _____ months.</p>	3	6	12	24
24	<p>As per BOCW Act 1996, how many female building workers require creche at construction site for their children under age six?</p>	More than 10	More than 25	More Than 40	More Than 50

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25	What safety measure ensures that workers can quickly reach a safe place in case of an emergency during underground piping projects?	Infrastructure Systems	Ventilation Systems	Entropy systems	Escape Systems
26	Which specification should be followed for earthquake resistant design and construction of buildings?	IS 4372	IS 4226	IS 4272	IS 4326
27	In the question given below, there are two statements marked as Assertion (A) and Reason (R). Mark your answer as per the codes provided below: Assertion: Crawler-mounted tower cranes can travel over firm, flat, level ground carrying loads up to capacity of their rated loads. Reason: Crawler-mounted tower cranes are required to be transported on low-loaders or towed on special road axles when traveling on public roads.	Both the assertion and reason are true, and the reason is the correct explanation of the assertion.	Both the assertion and reason are true, but the reason is not the correct explanation of the assertion.	The assertion is false, but the reason is true.	The assertion is true, but the reason is false.
28	In land cofferdams, where are the guides provided for driving sheet piles?	At the bottom level only	At both the bottom and top levels	At the top level only	Guides are not necessary for land cofferdams
29	As per the Rule 207 of BOCW Central Rules 1998, what is the frequency of internal	Six months	Twelve months	Twenty four months	Forty eight months

	examination by a competent person for pressure plant and equipment?				
30	As per the Rule 168 of BOCW Central Rules 1998, for how many workers working in a compressed air environment at tunnelling work requires provision of one medical lock?	50	100	150	200
31	The excavated material to be stored at least _____ meter from the edge of open trench.	0.5	0.65	0.75	1
32	What is the recommended method to control silica dust during sandblasting operations?	Use of water	Use of pressure oxygen in work area	Use of iodine gas to negate the effect of silica in air	Use of alternatives of silica
33	Which is correct method of placing saddle in the wire rope?				Any one

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34	What is the name of the component labelled '2' in the wire rope? image?"		Wire	Strand	Core	centre wire
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Environment

Q. No.	Question	Option 1	Option 2	Option 3	Option 4
1	Which component of an Environmental Management System (EMS) involves setting environmental objectives and targets?	Environmental policy	Environmental audit	Environmental planning	Environmental monitoring
2	Which authority is regulated the Air pollution control activity at union territory?	CPCB	SPCB	MoEF&CC	NDMA
3	What is the permissible noise level (in decibels) for residential areas during the daytime under the Noise Pollution Rules 2000?	45 dB	55 dB	65 dB	75 dB
4	Which of the following does NOT fall under the definition of "Trade Effluent" provided under the Water Act of 1974?	Liquid, gaseous or solid substance from any operation or process	Liquid, gaseous or solid substance from treatment and disposal system	Domestic sewage	Gaseous or solid substance from an industry
5	Which body can take punitive action with respect to illegal release of hazardous microorganism under the Environmental Protection Act at state level?	State Genetic Engineering approve committee	Institutional biosafety committee	Review committee on genetics manipulation	State Biotechnology Co-ordination Committee
6	According to the MSIHC Rules 1989, what is the primary objective of conducting a Hazard and Operability Study (HAZOP)?	Identifying potential safety hazards and risks associated with industrial processes	Developing emergency response plans for industrial accidents	Evaluating the financial implications of safety measures implementation	Determining the environmental impact of industrial operations

7	According to the MSIHC Rules 1989, what is the frequency of updating the safety report?	1	2	3	5
8	In accordance with Section 40 of the Air Act 1981, when an offence is committed by a company, _____ shall be deemed to be guilty of the offence and shall be liable to be against and published accordingly.	Only the company	Depend on the facts and circumstances of the case	Every person, who at the time the offence was committed, was directly in charge of the company for the conduct of the business of the company and the company itself.	Only the person(s) who at the time offence was committed was directly in charge of the company or the conduct of the business of the company.
9	What is NOT a role of state pollution control boards (SPCBs) in contributing to air pollution control strategies under the Air Act, 1981?	Developing and implementing air quality management plans	Promoting public awareness campaigns on air pollution prevention	Monitoring ambient air quality through a network of monitoring stations	Administering financial incentives to industries for adopting cleaner technologies
10	Which component of a Sewage Treatment Plant (STP) is responsible for the removal of suspended solids and sediments from wastewater?	Clarifier	Aeration tank	Trickling filter	Pressure filter
11	Which one of the following is the white category of Biomedical Waste Management Rules, 2016 in India?	Microbiology, Biotechnology and other clinical laboratory waste	Contaminated Waste (Recyclable)	Glassware	Waste Sharps including metals

12	What is the main objective of implementing ISO 50001 in an organization?	To enhance product quality	To promote water conservation	To increase production	To reduce energy consumption and costs
13	What is the cause of bulking of sludge?	Growth of filamentous bacteria	Low pH levels	Bacteria in primary sludge tank	Uncontrolled growth of algae
14	Identify correct statement about the Centrifugal collector.	It can remove gaseous and particulate contaminants	Dynamic precipitator is a type of Centrifugal collector	It has higher efficiency in comparison to ESP	It need height electricity supply
15	Which among the following is the goal of solid waste incineration? (i) Volume increment (ii) Volume reduction (iii) Stabilization of waste (iv) Recovery of energy from waste (v) Sterilization of waste	Only (i) and (iv)	Only (iii) and (iv)	(ii), (iii), (iv) and (v)	Only (ii) and (iv)
16	Arrange the following environmental management concept in the descending order of their importance (most important to least important). (i) Waste Disposal (ii) Pollution Control (iii) Reuse (iv) Waste minimization	(i), (ii), (iii), (iv)	(iv), (iii), (ii), (i)	(iii), (iv), (ii), (i)	(iii), (iv), (i), (ii)

NATIONAL SAFETY COUNCIL OF INDIA

17	If a sewage sample incubated at 20°C for 5 days at 3% solution results in a 3 ppm depletion of oxygen, the BOD of sewer is _____. _____.	250 ppm	170 ppm	70 ppm	100 ppm
18	Which air pollution control device is commonly used to reduce sulphur dioxide (SO ₂) emissions from coal-fired power plants?	Wet scrubber	Electrostatic precipitator	Baghouse filter	Catalytic converter
19	How many missions have been identified under the National Action Plan on Climate Change (NAPCC) by Govt of India released on 30th June 2008?	5	8	11	3
20	As per Rule 8 of Hazardous and Other Wastes Rules 2016, Small Quantity Generator (up to ten tonnes per annum) of Hazardous waste can store in its premises for how many days without special permission?	365 days	90 days	180 days	500 days
21	Name the special judicial body that was established by law passed in 2010 to hear environmental cases at national level?	National Appellate Authority	National Green Tribunal	Comptroller and Auditor General	None of these

NATIONAL SAFETY COUNCIL Q

Answer Key

General Aptitude: -

Q. No.	1	2	3	4	5	6	7	8	9	10
Correct Option	2	3	1	1	2	4	3	1	4	1

Q. No.	11	12	13	14	15	16	17	18	19	20	21
Correct Option	3	1	2	2	2	3	1	3	4	1	2

General Safety: -

Q. No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Correct Option	4	4	1	2	4	4	1	4	4	1	1	3	2	3	2	4	4	2	3	2

Q. No.	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Correct Option	4	1	3	1	4	2	3	3	2	2	3	4	1	1	1	1	2	4	1	2

Q. No.	41	42	43	44	45	46	47	48	49	50
Correct Option	4	2	1	3	1	1	3	4	1	3

Construction Safety: -

Q. No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Correct Option	3	3	3	3	2	2	4	3	3	3	3	1	1	3	3

Q. No.	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34
Correct Option	2	4	3	3	2	4	3	1	4	1	4	3	2	2	2	2	1	1	3

Environment: -

Q. No.	1	2	3	4	5	6	7	8	9	10
Correct Option	3	1	2	3	4	1	3	3	4	1

Q. No.	11	12	13	14	15	16	17	18	19	20	21
Correct Option	4	4	1	2	3	2	4	1	2	2	2

Construction 2023

General Aptitude

S.No	Question	Choice 1	Choice 2	Choice 3	Choice 4
1	Which of the following is a synonym for the word "abundant"?	Scarcity	Limited	Rare	Plentiful
2	Fill in the blank according to the passage: They already ____ a lot of food on platter, when waiter asked for more pasta.	had	take	have	bought
3	Fill in the blank according to the passage: How ____ you pay the rent with no job?	should	had	will	are
4	Find the appropriate meaning of the highlighted phrase: "I have decided to see the project through come what may ."	To give up on the project	To continue with the project regardless of difficulties	To delegate the project to someone else	To postpone the project
5	Find the appropriate meaning of the highlighted phrase: "After a long day of hiking, Sarah was on cloud nine as she watched the sunset from the mountaintop."	Feeling tired and exhausted	Feeling indifferent and uninterested	Feeling disappointed and upset	Feeling euphoric and extremely happy
6	Convert the sentence into indirect speech. Martin asked her teacher, "When is the assignment due?"	Martin asked her teacher when would the assignment be due.	Martin asks her teacher when the assignment is due.	Martin asked her teacher when the assignment would be due.	When is the assignment due? Is asked by Martin.
7	Arrange the sentences given below in a meaningful sequence. 1. where vibrant colours blended with the cacophony of diverse cultures, 2. painted against the canvas of time. 3. Amidst the bustling city streets, 4. each moment, a snapshot of human experience	1<2<4<3	3<2<1<4	1<4<3<2	3<1<4<2
8	N is the husband of E. W is the mother of N. How is W related to E?	Daughter in law	Daughter	Mother	Mother in Law
9	Find the next term of the series: 11, 47, 89, 137, 191, ...	261	251	241	271
10	Prabhash is standing 20 m north of Sumit, who is standing 15 m west of Rahul. Pappu is standing 20 m south of Rahul, who is 15 m east of Somesh. In which direction and how far is Prabhash from Somesh?	South, 35 m	South, 40 m	North, 35 m	North, 40 m
11	Arrange the following words in a meaningful sequence 1. Frog, 2. Grass, 3. Grasshopper, 4. Eagle, 5. Snake	2, 3, 1, 5, 4	3, 2, 1, 4, 5	2, 1, 3, 4, 5	4, 5, 1, 3, 2
12	The day before yesterday was Saturday. What will be the day after tomorrow?	Thursday	Friday	Wednesday	Monday
13	Which leadership skill involves the ability to inspire and motivate team members towards a shared vision or goal?	Technical expertise	Delegation	Communication	Coaching and mentoring
14	You are assigned a new team in order to build positive relationships and enhance team effectiveness. Which key skill will you require?	Emotional intelligence	Time management	Decision-making	Conflict resolution
15	A team leader consistently addresses disagreements and misunderstandings in a constructive manner. What leadership skill is exemplified in the scenario?	Strategic thinking	Problem solving	Adaptability	Active communication
16	A critical task has been assigned to your team that requires strong coordination, quick decision-making, and efficient problem-solving. What leadership skill should you primarily focus on to ensure the success of the project?	Technical expertise	Delegation	Communication	Conflict resolution
17	Which of the following is an example of a spreadsheet software?	MS Excel	Powerpoint	MS Word	Paint
18	Watson needs to collaborate with her team members who are ____.	Web search engine	Augmented	Cloud computing	Artificial Intelligence
19	In a presentation of a power point, special effects used to introduce slides is,	Animation	Transition	Annotate	None of the above
20	The error value corresponding to the Excel expression =0/0 is;	NULL	Zero	Infinity	None of the above

General Safety

S.No.	Question	Option 1	Option 2	Option 3	Option 4								
1	What is the term used to describe the process of evaluating the severity (seriousness) and probability of risks?	Risk Assessment	Probability Estimation	Hazard Identification	Incident Investigation								
2	Match the following in Column A with their description in Column B.												
	<table border="1" style="display: inline-table; vertical-align: middle;"> <tr> <th>Column A</th> <th>Column B</th> </tr> <tr> <td>1. Process Safety Management</td> <td>a. Analyzing and understanding the root causes of accidents</td> </tr> <tr> <td>2. Incident Investigation</td> <td>b. Assessing the performance of safety barriers and controls</td> </tr> <tr> <td>3. Safeguard Effectiveness</td> <td>c. Integrating risk management principles into safety practices</td> </tr> </table>	Column A	Column B	1. Process Safety Management	a. Analyzing and understanding the root causes of accidents	2. Incident Investigation	b. Assessing the performance of safety barriers and controls	3. Safeguard Effectiveness	c. Integrating risk management principles into safety practices				
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2. Incident Investigation	b. Assessing the performance of safety barriers and controls												
3. Safeguard Effectiveness	c. Integrating risk management principles into safety practices												
3	What was the main type of substance that played a central role in the Mexico Tank Farm disaster?	Water	Liquefied Petroleum Gas (LPG)	Gasoline	Coal								
4	What important regulatory body was established as a result of the Flixborough disaster to oversee safety in major hazard industries?	Environmental Protection Agency (EPA)	Occupational Safety and Health Administration (OSHA)	Hazardous Installations Directorate of the Health and Safety Executive (HSE)	Industrial Safety Committee (ISC)								
5	What is the name of gas leaked from LG Polymers at Visakhapatnam on 7 th may 2020?	Chlorine	Styrene	Methyl Isocyanate	Ammonia								
6	In India, Fire service week is observed in remembrance of the lives lost in the following disaster.	Uphar cinema fire in delhi	Bhopal gas disaster	Circus fire in Bangalore	Bombay Port fire								
7	What is the main objective of taking into account criteria for the location and arrangement of chemical plants?	Increasing Earnings	Ensure safety, environmental protection, and operational efficiency	Reduce Regulating Compliance	Reduce Transportation Expenses								
8	What is the full form of the TWA in chemical safety?	Time weighted average	Total weighted average	Threshold weighted average	Total waste average								
9	What does VOC stand for in the context of nitrogen blanketing?	Volatile Oxygen Components	Volatile Organic Compounds	Ventilation of Oxygen Concentration	Viscosity of Organic Chemicals								
10	What should you do if you accidentally splash a corrosive chemical on your skin?	Rinse the affected region with plenty of water for at least 15 minutes	Rub the affected area to remove the chemical	Bandage the area and continue working	Apply an alcohol-based sanitizer to neutralize the chemical								
11	Which form of combustion results in the production of carbon monoxide as a secondary product?	Complete Combustion	Incomplete Combustion	Spontaneous combustion	Rapid combustion								
12	Which of the following is commonly employed to recognize potential dangers in operating chemical process plants?	Process optimization	Safety audit	Environmental impact assessment	Hazard and Operability Study (HAZOP)								
13	What is the time limit of STEL for chemical exposure to a person?	8 Hours	60 Minutes	15 Minutes	5 Minutes								
14	What kind of details are usually incorporated into a safety checklist?	Safety Precautions and Procedures	Equipment Purchase Dates	Task Deadlines	Employee Salaries								
15	Which device employs light-emitting diodes (LEDs) and phototransistors to accomplish electric isolation?	Inductors	Transformers	Capacitors	Optoisolators								
16	What is the primary purpose of analyzing near-miss incidents?	Assigning blame to persons involved	Demonstrating the effectiveness of safety systems	Learning from potential hazards and preventing future accidents	Playing down the impact of small incidents								
17	How is the Severity Rate (SR) calculated?	(Total number of incidents / Total hours worked) x 200,000	(Total Man-days lost due to injuries / Total Man-hours worked) x 100,000	(Total number of accidents / Total number of employees) x 100	(Total number of near-miss incidents / Total hours worked) x 100,000								
18	Which Indian Standard (IS) is used for analysis of accidents?	IS3786	IS5216	IS5327	IS5557								
19	What is correct sequence of hierarchy of control?	Elimination, Substitution, Engineering control, Administrative & PPE	PPE, Substitution, Engineering control, Elimination	Engineering Control, Substitution, Elimination, PPE	Substitution, PPE, Elimination, Engineering control								
20	Match the Following in Column A with their description in Column B.												
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1. Identify Hazards	a. Putting designed controls/measures into practice												
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21	Which Indian standard is referred for conducting safety audit?	IS3786	IS14489	IS15793	IS45001								
22	What control method entails making physical changes to the workplace environment or equipment in order to lessen or remove hazards?	Administrative Controls	Substitution	Changing the Process	Engineering Controls								
23	Which legal framework lays down requirements for working conditions, including ventilation, in Indian factories?	ISO 14001	OSHA Act	Factories Act, 1948	ASHRAE Standard 62.1								
24	What is the maximum permissible noise level limit in a factory for 8 hours duration?	60dB	75dB	115dB	85dB								
25	In a man-machine environment system, what is the key aspect?	Isolating humans from machine interaction	Eliminating the need for human intervention	Optimizing collaboration between humans and machines to accomplish tasks	Reducing the complexity of machines to make them user-friendly								

26	Repetitive motion injuries are caused by _____ exposure to a combination of factors.	Short	Prolonged	Immediate	Intermittent										
27	The Model Rules prescribe the maximum permissible weight to be manually lifted by an adult worker without assistance. What is this weight?	15 kilograms	20 kilograms	55 kilograms	30 kilograms										
28	What is prescribed training period for the drivers carrying hazardous goods by road under the Rule 9 of the Central Motor Vehicle Rules, 1989.	1 Day	2 Days	3 Days	4 Days										
29	Among the following topics, which is addressed by ILO Conventions and Recommendations?	Space exploration techniques.	Cooking recipes for international cuisines.	Equal pay for equal work.	Methods of artistic expression.										
30	What is the frequency of medical examination of the building workers above 40 years of age employed as drivers, operators of lifting appliances and transport equipment under the BOCW Act, 1996?	Once in 2 years	Once in a year	Once in a 4 year	Once in a 5 years										
31	Which ISO standard is applicable for environmental management system?	ISO 9001	ISO 14001	ISO 27001	ISO 45001										
32	Which establishments are required to register under the BOCW Act 1996?	Establishments employing 5 or more workers	Establishments employing 10 or more workers	All establishments regardless of the number of workers	Establishments employing 15 or more workers										
33	As per the Factories Act, 1948, all lifting appliances are thoroughly examined by Competent Person at least once in a period of (....) months.	6	12	24	48										
34	As per the hazardous area classification which is the highest hazardous zone?	Zone 0	Zone 1	Zone 2	Zone 1 & 2										
35	Where _____ or more building workers are employed at construction site, there shall be a Safety Committee.	500	1000	150	250										
36	The Public Liability Insurance Act was notified in year (....)	1948	1986	1923	1991										
37	Display of emergency information panel is a mandatory on the vehicles carrying hazardous goods under (.....)	Factories Act	Motor Transport Workers Act	Air Act	Central Motor Vehicles Act										
38	At what minimum depth the underground cable of voltage exceeding 33 kV shall be laid?	1.2 m	1 m	0.8 m	0.5 m										
39	What is the frequency of hydraulic test for pressure plant at construction site under the BOCW Act ?	Once in 6 months	Once in 12 months	Once in 2 years	Once in 4 years										
40	As per the National Building Code, 2016, for high rise buildings more than two years old, fire evacuation drills shall be conducted, at least once _____	every 3 month	every 6 months	every 12 months	every month										
41	Which of the options mentioned best describes the concept of organizing to ensure safety, health, and efficient work practices?	Executing new technologies to increase work efficiency	Organizing and Directing safety initiatives for their man power	Maintaining competitive work Environment	Evolving new marketing schemes for health results										
42	What purpose does data processing serve within an MIS?	Collection of data from various sources	To store processed data in databases	To organize, sort, and transform data into meaningful information	To generate reports and dashboards										
43	Match the following question with the right side name of the theories and their explanations:														
	<table border="1"> <tr> <td>Left side:</td> <td>Right side:</td> </tr> <tr> <td>a. Safety education and training.</td> <td>1. Simulation of emergency situation and evaluate employee response.</td> </tr> <tr> <td>b. Reinforcement of safety practices among employees.</td> <td>2. Promoting safety conscious culture and minimizing work place hazards.</td> </tr> <tr> <td>c. Major goal of safety drill</td> <td>3. Regular safety training sessions and workshops</td> </tr> </table>	Left side:	Right side:	a. Safety education and training.	1. Simulation of emergency situation and evaluate employee response.	b. Reinforcement of safety practices among employees.	2. Promoting safety conscious culture and minimizing work place hazards.	c. Major goal of safety drill	3. Regular safety training sessions and workshops	a-2, b-1, c-3	a-2, b-3, c-1	a-1, b-2, c-3	a-2, b-3, c-1		
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44	Which kind of emergency in industrial settings can arise due to flammable gases, or chemical reactions, dust, potentially causing abrupt releases of energy and resulting in damage?	Fire emergencies	Explosions	Chemical leakage and spillage	Radiological Incidents										
45	Which of the following is/are physical hazard agent(s)	Falls	Electricity	Inhalation	All of these										
46	ABC in the First	Airway, Bandage and Call medical emergency	Airways, Breathing and Circulation	Ambulance, Bandage and Circulation	Airway, Breathing and Call medical emergency										
47	What is the main objective of safety guarding in machine operation?	Unintentional machine shutdown	Provide physical barrier	More efficient machine operation	Extended maintenance periods										
48	Match the Following:														
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49	What safety mechanisms are employed to avoid unintended or repeated press strokes in power presses?	Anti-repeat controls	Noise reduction systems	Two-hand controls	Vibration dampers										
50	What preventive action can be taken in the IT, electronic, and related service sectors to mitigate the risks associated with radiation exposure?	Stress management programs.	Ergonomic furniture	Suppression systems	Shielding and safety regulations										

NATIONAL SAFETY COUNCIL

Construction

S. No.	Item/Question	Option 1	Option 2	Option 3	Option 4
1	Which of the following is a crucial step to ensuring effective liaison for safety with local authorities under the BOCW Act?	Displaying promotional banners of the construction company on-site.	Organizing weekly parties for construction workers.	Registration of establishment	Buying premium construction equipment for faster project completion.
2	Which property of soil significantly affects the potential for a trench collapse when using an excavator?	Soil pH level	Soil texture	Soil's organic matter content	Soil's electrical conductivity
3	Construction Safety Training should be provided for	Managers	Supervisors	Workers and Contractors	All of the above
4	While working below ground level on the foundations for plant, machinery, and structure, which of the following considerations is essential to ensuring both the stability of the structure and the safety of the workers?	The depth of the water table in relation to the foundation depth.	The colour of the soil at the deepest excavation point.	The distance between two adjacent structures above ground.	The type of plants to be grown on the surface after construction.
5	When working on a fragile roof, which of the following equipment is essential for preventing damage and ensuring worker safety while accessing the roof from a ladder?	Safety net positioned below the ladder.	Ladder stabilizers or stand-off brackets.	Heavy-duty work gloves.	High-visibility safety vest.
6	For maintenance tasks on a 150-meter-tall communication tower, which temporary installation is most suitable for ensuring safe access and stability?	Suspended Scaffolding System	Aerial Lift (Cherry Picker)	Rope Access System (Rope Descent)	Cantilevered Platform System
7	As per risk control hierarchy, replacing old generation Hydra with new generation pick and carry crane is _____.	Elimination	Substitution	Administrative Controls	Engineering controls
8	When designing a scaffold for workers operating at height, identify the correct base to height ratio for scaffold's stability?	1:4	4:1	1:6	6:1
9	Why is maintaining neutral buoyancy crucial for diver safety during underwater maintenance operations?	Reduces the risk of decompression sickness.	Extends the dive time by conserving breathing gas.	Enables more effective handling of heavy equipment.	Prevents uncontrolled ascent or descent, reducing the risk of barotrauma.
10	As per the BOCW central rules what is the frequency of conduction safety committee meetings.	Quarterly	Six monthly	Yearly	Monthly
11	Which of the following is a most common hazard associated with working in confined spaces?	Eye injuries	Oxygen deficiency	Fall from height	Electric shock
12	The minimum height of toe board should be _____.	1 cm or more	5 cm or more	10 cm or more	None of the above
13	Identify the safe option during reversing from the statements given below	Put your hazard warning lights on and perform the maneuver as quickly as possible to minimize danger	Unbuckle your seat belt so you can reverse as quickly as possible	Sound your horn to warn other drivers	Take care and never reverse for a greater distance and time than is necessary
14	Which of the following is a safe practice for lifting heavy objects in construction?	Lifting with the back instead of the legs	Rushing to lift objects quickly	Using mechanical lifting aids or equipment	Lifting objects alone without assistance
15	What type of common protection is must for everyone at a construction site?	Safety helmet	Hand gloves	Apron	Ear plug
16	Which factor is crucial in determining the optimal handle diameter for hand tools to minimize the risk of hand-arm vibration syndrome (HAVS) in construction?	Maximum static grip strength of workers.	Weight of construction materials.	The length of work shifts.	Ambient temperature at the construction site.
17	For the safe and structurally sound storage of 15-foot-tall precast concrete panels on a construction site, which method is most recommended?	Laying flat on timber battens every 5 feet.	Storing vertically with spacers and upper corner support.	Inclining at 75° using A-frame racks with rubber padding.	Hanging vertically with crane hooks 10 feet apart.
18	On a construction site, which temporary power supply system arrangement provides protection against electric shock	Residual Current Circuit Breaker	Miniature Circuit Breaker	Over Current Protection device	HRC Fuse
19	John is a construction worker working at a height. He has been asked to fix the top of a tall building. For John's safety, what must be done?	Several People standing under for protection	Safety nets	Strong machinery	Option 1 & 3
20	Who has the ultimate responsibility for the safety and health programme at a construction site.	Safety Officer	Supervisor	Top management	Welfare officer
21	What is the test load of the lifting gear of having 25 tonnes of SWL?	50 tonnes	25 tonnes	37 tonnes	75 tonnes
22	Duke is working in a foundry within a company and he is having a lung infection due to that. Among the given options, which substance's presence in the foundry may cause this infection?	Carbon	Dust	Slags	Methane
23	What is the purpose of a Job Safety Analysis (JSA) at construction site?	Identifying potential hazards	Monitoring employee attendance	Analyzing project profitability	Conducting equipment inspections
24	Which of the following is an example of a fall protection system in construction?	Safety glasses	Hard hats	Guardrails	Faceshield
25	What does the term "excavation" refer to in construction safety?	The process of removing debris from a construction site	The installation of electrical systems	The digging of trenches or foundation pits	The transportation of construction materials
26	Which of the following is NOT a safe practice for using ladders in construction?	Using ladders on stable and level surfaces	Overreaching while on the ladder	Inspecting ladders for damage before use	Securing the ladder to prevent slipping
27	Which of the following is a safe practice for handling hazardous materials at construction site?	Storing them near heat sources	Mixing them with other materials to save space	Pouring them down drains for disposal	Using appropriate containers and labels
28	What is the purpose of a safety signage at construction sites?	To indicate the project completion date	To direct workers to rest areas	To communicate safety warnings and instructions	To display project specifications and requirements
29	As per the Rule 159 of the BOCW Central Rules, 1998 not exceeding (----) volts of portable electric light is permitted for working in a confined space at an excavation or tunnelling work.	60	240	40	24
30	What is the limit prescribed under the BOCW Central Rules, 1998 for stacking of cement and other material bags at construction site?	10	20	30	50

Environment

S. No.	Question	Choice 1	Choice 2	Choice 3	Choice 4
1	What is the primary objective of the State Pollution Control Board (SPCB) as per the Water (Prevention and Control of Pollution) Act, 1974?	Finance the water conservation projects	Groundwater extraction	Implement water conservation	Control water pollution
2	Which of the following activities would require a 'consent to operate' from the State Pollution Control Board (SPCB) under the Air Act, 1981?	Setting up a small-scale industry	Household cooking using LPG	Public transportation using electric vehicles	Planting trees in urban areas
3	Which of the given options represents the purpose of the Public Liability Insurance Act?	To regulate the use of public spaces for commercial activities	To regulate the import and export of hazardous chemicals	To promote public awareness about environmental protection	To ensure liability coverage for damage caused by pollution
4	Mark Industries, a major manufacturing company, operates in a state where strict regulations under the Water and Air Acts. Which of the following roles is likely to be carried out by the State Pollution Control Board (SPCB)?	Monitoring local transportation routes	Regulating the emission of pollutants from the industries	Ensuring proper waste disposal at households	Managing public parks and recreational areas
5	A major industrial plant in the state is suspected of releasing toxic pollutants into the air. What would likely be the course of action of state pollution control board?	Focus solely on promoting tourism in the region	Ignore the situation as it's beyond their scope	Wait for public complaints before taking any action	Conduct an investigation and take necessary regulatory actions
6	Which waste management technique can lead to soil pollution?	Landfilling	Composting	Recycling	Reusing
7	The local environmental authorities have mandated the implementation of a Common Effluent Treatment Plant (CETP) in the industrial area. How will CETP contribute to environmental protection?	By allowing industries to bypass wastewater treatment regulations	By concentrating all industrial wastewater at a single point of discharge	By releasing treated effluents without any monitoring	By increasing pollution levels in the water body
8	Which of the following symbol is found in label of bio hazardous waste materials?				
9	Which of the following is the correct group of greenhouse gases?	Oxygen (O ₂), Nitrogen (N ₂), Carbon Dioxide (CO ₂), Sulphur Dioxide (SO ₂)	Carbon Dioxide (CO ₂), Methane (CH ₄), Oxygen (O ₂), Nitrogen (N ₂)	Hydrogen (H ₂), Nitrous Oxide (N ₂ O), Water Vapour (H ₂ O), Carbon Monoxide (CO)	Carbon Dioxide (CO ₂), Methane (CH ₄), Nitrous Oxide (N ₂ O), Ozone (O ₃)
10	Which type of light is considered to be the most energy efficient?	Halogen bulbs	LED bulbs	CFL bulbs	Incandescent bulbs
11	Which of the following are key elements of the energy management system ISO 50001?	Energy policy, energy planning, and energy performance evaluation	Quality management, safety management, and financial management	Energy efficiency, waste reduction, and resource conservation	Employee training, product marketing, and customer relations
12	Which of the following is the essence of Sustainable Operations Management?	Short-term profit optimization	Cost reduction	Quick fixes for environmental challenges	Integration of environmental, social, and economic factors
13	The full form of MINAS in respect of effluent standards achievable by industry is	Minimum National Standards	Maximum National Standards	Minimal National Standards	All of these
14	Zero Liquid Discharge (ZLD) refers to	No process effluent is generated inside factory	All process effluent generated is used within the factory without any treatment	All process effluent generated is used within the factory after required treatment	None of these
15	In Air Quality Index (AQI) of the Central Pollution Control Board, RED colour signifies which category?	Very Poor	Poor	Moderate	Good
16	Permissible concentration of SO ₂ in ambient air for industrial areas as per National Ambient Air Quality Standards based on 24 hourly monitored values is	60 microgram per cubic meter	80 microgram per cubic meter	120 microgram per cubic meter	None of these
17	CRZ stands for	Coastal Registration Zone	Coastal Regulation Zone	Coastal Red Zone	None of these
18	United Nations came up with how many sustainable development goals?	15	16	17	20
19	Name the card that must be carried by the people involved in transportation of hazardous wastes.	TREM Cards	OSHA cards	MSDS Cards	None of these
20	Ambient air quality standard in respect of noise for industrial area during night time is (_____) dB(A) Leq	70	55	45	40

NATIONAL SAFETY

CIL

Answer Key

General Aptitude

S.No	1	2	3	4	5	6	7	8	9	10
Correct answer	Choice 4	Choice 1	Choice 3	Choice 2	Choice 4	Choice 3	Choice 4	Choice 4	Choice 2	Choice 4

S.No	11	12	13	14	15	16	17	18	19	20
Correct answer	Choice 1	Choice 3	Choice 4	Choice 1	Choice 2	Choice 3	Choice 1	Choice 3	Choice 2	Choice 3

General Safety

S.No	1	2	3	4	5	6	7	8	9	10
Correct option	1	2	2	3	2	4	2	1	2	1

S.No	11	12	13	14	15	16	17	18	19	20
Correct option	2	4	3	1	4	3	2	1	1	3

S.No	21	22	23	24	25	26	27	28	29	30
Correct option	2	4	3	4	3	2	3	3	3	2

S.No	31	32	33	34	35	36	37	38	39	40
Correct option	2	2	2	1	1	4	4	1	4	2

S.No	41	42	43	44	45	46	47	48	49	50
Correct option	2	3	2	2	4	2	2	4	1	4

Construction

S.No	1	2	3	4	5	6	7	8	9	10
Correct answer	3	2	4	1	2	3	2	1	4	4

S.No	11	12	13	14	15	16	17	18	19	20
Correct answer	2	3	4	3	1	1	3	1	2	3

S.No	21	22	23	24	25	26	27	28	29	30
Correct answer	1	2	1	3	3	2	4	3	4	1

Environment

S.No	1	2	3	4	5	6	7	8	9	10
Correct answer	Choice 4	Choice 1	Choice 4	Choice 2	Choice 4	Choice 1	Choice 2	Choice 2	Choice 4	Choice 2

S.No	11	12	13	14	15	16	17	18	19	20
Correct answer	Choice 1	Choice 4	Choice 3	Choice 3	Choice 1	Choice 2	Choice 2	Choice 3	Choice 1	Choice 1