

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

Q. No.	Question	Option 1	Option 2	Option 3	Option 4
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	Which extinguisher is typically not used in petrol pumps and chemical plants due to its ineffectiveness on flammable liquids?	Dry powder	Water	CO ₂	Foam								
2	Which of the following gases poses the highest risk in case of high-pressure storage due to its wide flammability range?	Nitrogen	Methane	Carbon dioxide	Hydrogen								
3	Which one of the following is a passive fire protection measure?	Deluge system	Fire-retardant coating	Fire alarm system	Sprinkler system								
4	Match the following:	1-b, 2-a, 3-c	1-c, 2-a, 3-b	1-c, 2-b, 3-a	1-b, 2-c, 3-a								
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5	A PAPR (Powered Air-Purifying Respirator) is most suitable when _____.	There is sufficient oxygen and contaminants are particulates or low-level gases	The atmosphere is immediately dangerous to life and health (IDLH)	The user is sitting in a well-ventilated room with no exposure risk	The user is working in a submerged, oxygen-rich aquatic environment
6	Which environmental factor has the greatest effect on the evaporative cooling process?	Air temperature	Relative humidity	Wind speed	Solar radiation
7	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
8	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
9	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

Occupational Safety and Health

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10	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
11	_____ 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
12	In the '5S' system, the step "Shitsuke" (Sustain) focuses on _____.	Organising the tasks	Cleaning everyday	Rearranging inventory daily	Maintaining and reviewing standards regularly
13	Which of the following materials is most likely to accumulate static charge?	Cotton	Steel	Copper	Glass
14	A common cause of explosions during metal casting is _____.	Use of copper molds	Pouring molten metal into a mold with moisture	High ambient temperature	Excess use of furnace flux

Occupational Safety and Health

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15	What is the primary health risk due to long-term exposure to cotton dust in spinning and weaving units?	Byssinosis	Tuberculosis	Astigmatism	Silicosis
16	In sugar industry boiler operations, the main hazard is _____.	Radiation exposure	High pressure and temperature explosion	Wind load on the building	Electromagnetic interference
17	Which of the following NDT methods is most suitable for detecting surface cracks in non-magnetic metals like aluminium?	Magnetic Particle Testing	Liquid/Dye Penetrant Testing	Ultrasonic Testing	Radiographic Testing
18	In IT environments, the risk of electrical hazards primarily arises from which of the following?	Continuous use of high-power servers and improper grounding	High voltage industrial machinery	Battery-operated gadgets	Wireless routers

Occupational Safety and Health

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19	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
20	Which Tag colour is used for warning of "potential hazards" in the industry as per the IS 8095?	RED	WHITE	YELLOW	BLUE
21	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
22	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
23	A factory with 400 workers reported 8 lost-time injuries in a year. The total man-hours worked was 8,00,000. What is the Frequency Rate (FR) of accidents as per IS 3786?	8	4	10	16

Occupational Safety and Health

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24	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
25	Which among the following statements are correct about MAH installations? 1. A unit handling hazardous chemicals below threshold quantities. 2. MAH installations are required to prepare both On-site and Off-site Emergency Plans. 3. MSIHC Rules require the occupier of a MAH installation to conduct safety drills involving external agencies like fire departments and police. 4. If hazardous chemicals are stored in underground tanks, they are excluded from the threshold calculation under MSIHC Rules.	1, 2 and 3	2 and 3	1 and 4	1, 2 and 4
26	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
27	Which Indian agency is responsible for enforcement of Dock Safety Regulations?	Directorate General of Factory Advice Service and Labour Institutes (DGFASLI)	Central Pollution Control Board (CPCB)	Ministry of Ports and Shipping	Indian Coast Guard

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28	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										
29	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										
30	Match the following explosives to its corresponding Class based on Explosives Rules 2008:	1-c, 2-b, 3-d, 4-a <table border="1"> <thead> <tr> <th>List 1</th><th>List 2</th></tr> </thead> <tbody> <tr> <td>1. Gunpowder</td><td>a. Class 6</td></tr> <tr> <td>2. Ammonium Nitrate Fuel Oil</td><td>b. Class 3</td></tr> <tr> <td>3. Bullets</td><td>c. Class 1</td></tr> <tr> <td>4. TNT</td><td>d. Class 2</td></tr> </tbody> </table>	List 1	List 2	1. Gunpowder	a. Class 6	2. Ammonium Nitrate Fuel Oil	b. Class 3	3. Bullets	c. Class 1	4. TNT	d. Class 2	1-b, 2-c, 3-d, 4-a	1-d, 2-c, 3-a, 4-b	1-c, 2-d, 3-a, 4-b
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31	What is the nature of ILO recommendations compared to conventions?	Legally binding	Not legally binding but provide guidance	Enforced by ILO through penalties	Only applicable to private sector										

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32	As per NBC 2016, which Part deals with Fire and Life Safety?	Part 4	Part 6	Part 8	Part 9
33	Which clause in ISO 45001 specifically deals with risk and opportunity assessment?	Clause 4	Clause 6	Clause 8	Clause 9
34	In safety management, which planning type focuses on day-to-day activities?	Strategic planning	Operations planning	Contingency planning	Visionary planning
35	Who bears ultimate responsibility for Safety, Health, and Environment in an Indian industrial organization?	Safety Officer	Plant Head	Top Management / Occupier	Human Resources Manager
36	The primary benefit of Safety Kaizen is _____.	Complete automation	Continuous small improvements in safety practices with worker involvement	Cost-cutting	Replacing old machinery
37	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

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38	What is collation of SHE data?	Deleting unnecessary data	Randomly selecting data	Arranging and combining relevant data	Encrypting data
39	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
40	The Seveso II Directive primarily deals with _____.	Worker compensation	Reporting of accidents	Control of major accident hazards involving dangerous substances	Import regulations of hazardous materials
41	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
42	What chemical was released that led to the explosion in Flixborough disaster?	Methane	Ammonia	Methyl Isocyanate	Cyclohexane
43	What was the main cause of the Sandoz disaster?	Explosion of a storage tank	Collision of trucks	Warehouse fire	Earthquake damage

Occupational Safety and Health

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44	Which of the following is NOT typically considered a valid Independent protection layer (IPL) in LOPA?	Pressure relief valve	Operator response to an alarm	SIS (Safety Instrumented System)	Physical containment
45	Which safety method is most appropriate when sampling toxic volatile organics in a pharmaceutical industry?	Use of open beaker method in fume hood	Use of closed-loop sampling systems with purge and vent	Use of cloth mask and manual valve	Sampling through pressurized spray nozzles
46	What is covered under UN Class 3 of dangerous goods?	Flammable liquids	Gases	Toxic substances	Radioactive materials
47	Which type of pig is typically used to separate different batches of fluids in a pipeline?	Foam pig	Cup pig	Brush pig	Calliper pig
48	What is the base colour for pipelines carrying water? (excluding firefighting)	Green	Red	Yellow	Blue
49	In which type of equipment Pressure/Vacuum valves are primarily used?	Pressure vessels	Boilers	Distillation Column	Storage tanks
50	According to the model Factories Rules, how often must workers employed in a hazardous process industry be medically examined by a qualified medical practitioner?	Every 3 months	Every 6 months	Once a year	Only at the time of employment

Occupational Safety and Health

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51	In a hazardous process industry, what is the minimum number of persons who must be trained in first-aid procedures?	2 persons	3 persons	5 persons	10 persons
52	In safety signage, which background colour is used to indicate that wearing personal protective equipment (PPE) is mandatory?	Red	Yellow	Blue	Green
53	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
54	As per IS 5572, which location given below comes under Zone 2 of the hazardous area classification?	Area with floating roof tanks of imperfectly fitting peripheral seals	Areas where the piping system is without valves, fittings, flanges	Areas in the immediate vicinity of vents and filling hatches	Area where the flammable vapours can be conducted through pipes, or ducts
55	Which of the following is an example of an inherently safer design strategy?	Use of high-pressure equipment	Substitution with less hazardous materials	Installation of multiple safety relief valves	Use of a large inventory of hazardous materials
56	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
57	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

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58	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										
59	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										
60	As per IS 4082, the maximum height for stack of cement bags is _____.	15 bags	10 bags	20 bags	18 bags										
61	Match the Following.	1-d, 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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62	In the ABC model in Behaviour based Safety ABC Stands for _____.	Antecedent, Behaviour, Consequence	Acceptance, Behaviour, Control	Ancestor, Behaviour, Consequence	Antecedent, Behaviour, Concern
63	Which international organization provides global guidelines on occupational safety and health?	WHO	UNESCO	IMF	ILO
64	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
65	What was the main cause of the Flixborough disaster (1974) in the UK?	Delayed maintenance of gas detectors	Malfunction of safety alarms	Improper modification of a reactor pipeline	Gas leak due to corroded pipelines
66	In the context of emergency planning, the term "all clear" signifies _____.	That workers should evacuate immediately	That an emergency is about to occur	That emergency equipment is fully charged	That the threat has passed and normal operations can resume safely
67	Which type of guard is best suited for high-production automated machinery where frequent access is needed?	Fixed guard	Interlocked guard	Adjustable guard	Self-adjusting guard

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68	Which type of press requires clutch/brake monitoring systems to ensure safe stopping?	Mechanical power press	Pneumatic press	Hydraulic press	Servo press
69	Which of the following gases used in gas cutting poses the greatest risk of explosion if leaked and accumulated?	Acetylene	Hydrogen	Propane	Argon
70	Which of the following Non-Destructive Testing (NDT) methods is primarily used to measure the thickness of a material without affecting its surface?	Thermography	Electro Current Testing	Radiography	Ultrasonic Testing
71	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
72	The catastrophic explosion at Mexico City LPG tank farm (1984) primarily involved failure due to _____.	Poor fencing around the plant	Lack of thermal radiation protection and domino effect	Overfilled underground pipelines	Poor quality gas cylinders
73	Which process safety management failure occurred at Seveso?	Lack of immediate public alert and evacuation system	Overtraining of the workers	Neglect of mechanical maintenance	Over-inspection of the chemical plant

Occupational Safety and Health

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74	Which instrument is typically NOT considered a layer of protection in LOPA unless it has independent effectiveness?	Process control system (PCS)	Pressure Relief Valve (PRV)	Independent High Integrity Protection System (IIPS)	Safety Instrumented System (SIS)
75	While transporting radioactive materials, which placard colour must be used according to UN guidelines?	Green	Red	Blue	Yellow and white
76	In a pigging operation, the "pig" primarily functions to _____.	Increase the flow rate	Clean and inspect the pipeline internally	Insulate the pipeline	Increase internal pipeline pressure
77	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
78	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)
79	Which of the following is not listed in the Third Schedule of the Factories Act, 1948 as a notifiable disease?	Silicosis	Asbestosis	Malaria	Toxic anemia

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80	<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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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

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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.														
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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	2	4	2	4	1	2	3	3	1	3	1	4	4	2	1	2	2	1	3	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	1	3	3	3	2	4	1	3	1	4	2	1	2	2	3	2	4	3	2	3

Q. No.	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Correct Option	2	4	3	2	2	1	2	1	4	2	3	3	3	4	2	2	2	3	1	2

Q. No.	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
Correct Option	4	1	4	3	3	4	2	1	1	4	2	2	1	1	4	2	4	4	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

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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

Occupational Safety and Health

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>The LD50 of four different compounds (A, B, C, and D) are 1000 ppm, 100 ppm, 500 ppm, and 2000 ppm, respectively. Which of these compounds is more toxic?</p>	A	B	C	D
3	<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
4	<p>Which is the IS code for industrial lighting?</p>	IS 6665	IS 4142	IS 2189	IS 6271

5	Which of the following is an engineering control method for reducing noise exposure?	Earplugs	Enclosures or barriers	Employee training and education	Job rotation								
6	Match the occupational diseases with their causes: <table border="1" style="display: inline-table; vertical-align: middle;"><tr><th>List I</th><th>List II</th></tr><tr><td>1. Byssinosis</td><td>a. Benzene</td></tr><tr><td>2. Liver Cancer</td><td>b. Cotton</td></tr><tr><td>3. Leukaemia</td><td>c. Vinyl chloride</td></tr></table>	List I	List II	1. Byssinosis	a. Benzene	2. Liver Cancer	b. Cotton	3. Leukaemia	c. Vinyl chloride	1-c, 2-a, 3-b	1-b, 2-a, 3-c	1-b, 2-c, 3-a	1-a, 2-c, 3-b
List I	List II												
1. Byssinosis	a. Benzene												
2. Liver Cancer	b. Cotton												
3. Leukaemia	c. Vinyl chloride												
7	Which anthropometric measurement is crucial for designing office chairs? 1. Popliteal height 2. Body height 3. Sitting height	Only 2	Only 3	Only 2 and 3	1, 2, and 3								
8	Which among the following statements about the Total Loss Control (TLC) technique is wrong ?	Reviewing claim data is one of the steps in TLC	TLC minimizes interruptions of services provided to the public	TLC provides more insurance claims to the workers	TLC minimizes the frequency and severity of accidents								
9	As per the Factories Act, an internal examination of the pressure vessel needs to be conducted once a _____.	12 months	6 months	18 months	24 months								
10	Which among the following is not an example of Hot work?	Welding	Grinding	Brazing	Painting								

11	A manufacturing company operates for 240 days in a year. The total hours worked by all the employees in that year were 1,00,00,000. The total number of lost days in the same year is reported as 180. Calculate the severity rate.	36	12	9	18								
12	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								
13	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								
14	Which country did the Seveso disaster occur in?	France	Germany	Italy	Spain								
15	Match the following disasters with the compounds resulting in the disaster: <table border="1"><tr><th>List I</th><th>List II</th></tr><tr><td>1. Seveso Disaster</td><td>a. Methyl Isocyanate</td></tr><tr><td>2. Bhopal Gas Tragedy</td><td>b. Dioxin</td></tr><tr><td>3. Flixborough disaster</td><td>c. Cyclohexane</td></tr></table>	List I	List II	1. Seveso Disaster	a. Methyl Isocyanate	2. Bhopal Gas Tragedy	b. Dioxin	3. Flixborough disaster	c. Cyclohexane	1-c, 2-b, 3-a	1-b, 2-a, 3-c	1-c, 2-a, 3-b	1-a, 2-c, 3-b
List I	List II												
1. Seveso Disaster	a. Methyl Isocyanate												
2. Bhopal Gas Tragedy	b. Dioxin												
3. Flixborough disaster	c. Cyclohexane												

16	<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
17	<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

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18	The general illumination in areas on the dock where dock workers have to pass, shall be at least _____ lux, and at places where dock workers are employed, the illumination shall be at least _____ lux.	25,50	10,25	20,40	50,75
19	As per IS 5572, which location given below comes under Zone 2 of the hazardous area classification?	Area with floating roof tanks of imperfectly fitting peripheral seals	Areas where the piping system is without valves, fittings, flanges	Areas in the immediate vicinity of vents and filling hatches	Area where the flammable vapours can be conducted through pipes, or ducts
20	If the HAZCHEM code of a substance is 4X, the type of medium to be employed by the fire services personnel is _____.	Water based foam	Dry agent	Solid streams of water	Water fog
21	As per IS 2379, the ground colour used for the pipelines carrying water is _____.	Sky blue	Canary Yellow	Sea Green	Dark Violet
22	The smothering technique affects the _____ component of the fire tetrahedron.	Fuel	Heat	Oxygen	Chemical Reaction
23	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
24	The IS code used for the design of unfired pressure vessels is _____.	IS 2825	IS 2869	IS 10987	IS 3370

25	Which of the following is an example of an inherently safer design strategy?	Use of high-pressure equipment	Substitution with less hazardous materials	Installation of multiple safety relief valves	Use of a large inventory of hazardous materials
26	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
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	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
29	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
30	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

31	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
32	How many clauses are there in ISO 45001?	9	10	8	11
33	Which type of machine guard is suitable when there is stock movement?	Interlocked	Fixed	Adjustable	Self-adjusting
34	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
35	What is the purpose of a counter-balance system on a power press?	To reduce operator fatigue	To prevent sudden die descent	To control the ram descent speed	To absorb energy during a malfunction
36	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

37	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
38	_____ is a painful condition that occurs when the median nerve in the wrist is compressed.	Lumbago	Thoracic pain	Myofascial pain syndrome	Carpal tunnel syndrome
39	Out of the following tests on equipment, which are all non-destructive testing methods? 1. Radiography 2. Tensile testing 3. Dye penetrant 4. Ultrasound	Only 1 and 4	1, 2, and 4	1, 3, and 4	Only 1
40	Which of the following are the common hazards in the steel industry? 1. Exposure to high temperatures 2. Exposure to toxic fumes 3. Exposure to loud noise 4. Exposure to radioactive materials	Only 1 and 2	Only 2 and 3	Only 1 and 4	All of these
41	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

42	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
43	Which of the following is considered a major accident hazard as per MSIHC Rules? 1. Fire 2. Explosion 3. Release of toxic substances 4. Slip and fall accidents	Only 1 and 2	Only 2	1, 2, 3, and 4	Only 1, 2, and 3
44	Which of the following is NOT a typical component of an Onsite Emergency Plan?	Procedures for emergency medical response	Procedures for protective actions in nearby residential or non-residential areas	Procedures for evacuation	Key personnel and their responsibilities
45	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
46	Which of the following is NOT a step in the MORT analysis process?	Define the problem	Construct the event sequence diagram	Perform a quantitative risk assessment	Develop recommendations

47	<p>As per the Section 11 of The Factories Act, which of the following statement(s) is/are correct about the repainting of factory buildings?</p> <ol style="list-style-type: none"> 1. When they are painted with washable water-paint, be repainted at least once in every period of three years 2. The whitewashing or colour washing shall be carried out at least once in every period of fourteen months 3. When they are painted otherwise than with washable water-paint, be repainted at least once in every period of four years 	Only 1	1, 2, and 3	Only 2 and 3	Only 1 and 2
48	<p>Which of the following is/are covered under the Dock Workers (Safety, Health, and Welfare) Rules, 1990?</p> <ol style="list-style-type: none"> 1. Safe handling of goods 2. Canteen and other facilities for workers 3. Health of dock workers 	1, 2, and 3	Only 1	Only 2 and 3	Only 1 and 3
49	<p>What is the maximum penalty for violating the provisions under sections 24 & 25 of the Boilers Act, 1923?</p>	Rs. 50,000 fine	Imprisonment up to 6 months	Rs. 25,000 fine	Imprisonment up to 2 years or fine up to Rs. 1,00,000 or both

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50	Which of the following statements is INCORRECT with respect to the storage of petroleum products as per the Petroleum Rules 2002 ?	Containers for petroleum Class A shall be constructed of tinned, galvanized or externally rustproofed sheet iron or steel	Normally the maximum capacity of a container storing Class A petroleum is 300 liters	Containers for petroleum Class B or petroleum Class C shall be constructed of steel or iron	An air space of not less than 3% of its capacity shall be kept in each container for petroleum Class A and B.
51	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
52	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
53	The PLI Act provides for the establishment of which of the following?	Environment Relief Fund	Hazardous Substances Management Authority	National Green Tribunal	Both Hazardous Substances Management Authority and National Green Tribunal

54	Which of the following is NOT one of the four strategic objectives of the ILO?	Promote and realize standards and fundamental principles and rights at work	Create greater opportunities for women and men to secure decent employment	Enhance the coverage and effectiveness of social protection for all	Promote environmental sustainability
55	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
56	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
57	An equipment consists of three modules with constant failure rates of 0.002, 0.003 and 0.005. What is the mean time to failure of the equipment?	1033 operating hours	200 operating hours	500 operating hours	100 operating hours
58	Which of the following is a common anthropometric measurement?	Body mass index (BMI)	Heart rate	Blood pressure	Respiration rate
59	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
60	What is the maximum time limit for filing a claim for compensation under the Workmen's Compensation Act,	1 year from the date of accident	2 years from the date of accident	3 years from the date of accident	No specific time limit is mentioned in the Act

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	1923?				
61	Any claim for compensation under the Public Liability Insurance Act, 1991 should be filed within _____ years of the occurrence of the accident.	1	2	³	5
62	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
63	Which type of safeguarding device is designed to prevent the operator from reaching into the danger zone during the press cycle?	Presence-sensing device	Safety interlock	Fixed barrier guard	Emergency stop control
64	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
65	As per Indian standards 4082, the maximum height for stack of cement bags is _____.	15 bags	10 bags	20 bags	18 bags

66	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
67	Which NDT method is used to detect surface-breaking defects in non-ferromagnetic materials?	Radiography	Dye penetrant testing	Magnetic particle testing	Ultrasonic testing
68	Which among the following are factors affecting SIL levels?	Consequence of failure	Probability of failure	Both consequence and probability of failure	None of these

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69	<p>Which among the following interpretations is wrong about the P & ID given image?</p>	<p>There is a temperature control system for the vessel</p>	<p>The temperature indicator control sends electrical signals to the temperature valve</p>	<p>Flow control system is also there for the vessel</p>	<p>Flow indicator control is an instrument mounted on main panel</p>
70	<p>Match the following List 1 to List 2 correctly as per CMV Rules, 1989:</p> <p>List 1: 1. Diesel 2. TNT 3. Phenol 4. Oxygen Compressed</p> <p>List 2: a. Class 2 b. Class 6 c. Class 3 d. Class 1</p>	<p>1-a, 2-d, 3-b, 4-c</p>	<p>1-c, 2-d, 3-a, 4-b</p>	<p>1-c, 2-d, 3-b, 4-a</p>	<p>1-c, 2-a, 3-b, 4-d</p>
71	<p>Which of the following parameters determine the Material Factor (MF) in the Dow</p>	<p>Conductivity</p>	<p>Reactivity</p>	<p>Toxicity</p>	<p>Corrosivity</p>

	Fire and Explosion Index?				
72	Which technique is commonly used for maintenance work to prevent the formation of an explosive atmosphere in a confined space?	Venting	Explosion suppression	Flame arrestor	Purging and inerting
73	What is the primary purpose of conducting a pre-start review during a plant safety inspection?	Identify potential hazards before equipment is operated	Evaluate employee performance	Test emergency response procedures	Check compliance with regulations
74	Which technique aims to reduce the probability of a loss occurring?	Loss prevention	Loss reduction	Loss financing	Both Loss prevention and Loss reduction
75	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
76	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

77	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
78	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
79	_____ is a Hazard Class 3 material	Corrosive material	Infectious substance	Flammable Liquid	Radioactive material
80	Radioactive Materials falls under which class of hazardous substances?	Class 7	Class 4	Class 8	Class 3
81	Which part of NFPA marking system implies flammability?	white	Blue	Yellow	Red
82	Oil and Paint fire comes under which class of fire _____.	Class B	Class A	Class C	Class D
83	In which method of hazard analysis a series of questions are asked?	HAZOP study	Checklist	What -if analysis	Failure mode & effect analysis
84	The written emergency information carried by the driver of all vehicles carrying hazardous substances is known as _____.	HAZCHEM	TREMCARD	Emergency Information Panel	None of the above
85	As per IS17889, how many sections are provided in MSDS?	8	9	10	16

86	As per IS 17893, the original copy of work permit shall be kept by the issuer for a period of at least _____ days from the closure of permit.	15	20	30	365
87	Time duration for TLV STEL is _____.	30 minutes	1 hours	15 minutes	None of these
88	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
89	Which color background on the hazard label signifies a substance that is water reactive according to UN Committee of Experts on the Transport of Dangerous Goods?	Orange	Red	Blue	Yellow
90	As per IS 9457, the shape of warning sign is _____.	Circular	Square	Triangular	Rectangular

NATIONAL SAFETY COUNCIL OF INDIA

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)

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

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	21	22	23	24	25
Correct Option	4	2	4	1	2	3	4	3	1	4	4	1	4	3	2	1	2	4	2	3	3	2	1	2	

Q. No.	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
Correct Option	3	2	4	4	2	3	2	4	1	2	3	1	4	3	4	2	3	4	2	3	3	4	1	4	4

Q. No.	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75
Correct Option	2	2	1	4	3	4	4	1	1	2	4	1	3	1	2	4	2	3	2	3	2	4	1	1	2

Q. No.	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90
Correct Option	4	2	1	3	1	4	1	3	2	4	3	3	1	3	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

General 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. Eagel, 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 to	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 working remotely on the same project. Which technology will allow real-time collaboration and document sharing?	Web search engine	Augmented Reality (AR)	Cloud computing	Artificial Intelligence (AI)
19	In a presentation of a power point, special effects used to introduce slides is,	Animation	Transition	Anotation	None of the above
20	The error value correspondig to the Excel expression =(0/0) is;	NULL	Zero	Infinity	None of the above

Safety

S.No.	Question	Image	Option 1	Option 2	Option 3	Option 4										
1	Which of the following statements is true about the Job Safety Analysis (JSA)?		JSA focuses on Work area, Men, Machine and Tools	JSA focuses on Men, Machine, Material and Tools	JSA focuses on Work Area, Material, machine and Tools	JSA focuses on Men, Work area, Material and Tools										
2	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 manpower	Maintaining competitive work Environment	Evolving new marketing schemes for health results										
3	Match the following question with correct answers on safety, education and training.															
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4	How does ensuring a safe workplace impact employee morale and productivity?		Safe workplace has no impact on employee morale	It decreases employee job satisfaction	Creating a safe workplace leads to a reduction in employee stress and an increase in morale	It decreases the employee productivity										
5	In the ABC model in Behaviour based Safety ABC Stands for:		Antecedent, Behaviour, Consequence	Acceptance, Behaviour, Control	Ancestor, Behaviour, Consequence	Antecedent, Behaviour, Concern										
6	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										
7	Match the following question with the right side name of the theories and their explanations.															
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8	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 spill	Radiological Incidents										
9	Risk is defined as:		Probability X Hazard	Accident X Probability	Probability X Consequence	Consequences X Hazard										
10	Which of the following is/are physical hazard agent(s)		Falls	Electricity	Noise	All of these										
11	ABC in the First		Airway, Bandage and Call medical emergency	Airways, Breathing and Circulation	Ambulance, Bandage and Circulation	Airway, Breathing and Call medical emergency										
12	What is the main objective of safety guarding in machine operation?		Unintentional machine shutdown	Provide physical barrier	More efficient machine operation	Extended maintenance periods										
13	Match the Following.															
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14	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										
15	Identify the most effective risk control measure related to use of power tool from the statements given.		use of battery powered tool	inspecting tool before use	use hand gloves to minimise vibration	use of tool tie to avoid dropping of tools										
16	In the context of manual handling, what does the study of kinetics primarily focus on?		Biomechanics and physical principles of forces and movements	Psychological elements influencing task performance	The impact of culture on manual handling techniques	Environmental circumstances during manual activities										
17	What is the main objective behind incorporating safe distances into the design of plant layouts?		Improving Visual Appeal	Ensuring Operational Safety	Lowering maintenance expenses	Increasing storage capacity										
18	Which precautionary step is effective in avoiding unintentional activation of electrical systems while performing maintenance tasks?		Arc Flash Protection	Lockout and Tagout	Grounding Methods	Electrostatic discharge										
19	Match the following Overload and Short Circuit Protection types with their definition.															
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20	What classification of workplace hazard encompasses elements such as noise, extreme temperatures, and ergonomic stressors?		Chemical Hazards	Mechanical Hazards	Biological Hazards	Physical Hazards										
21	What measure should be put in place to deal with chemical spills within agro/sugar industries?		Emergency Planning	Machinery Protection	Fall Protection	Heat stress Management										
22	What action is crucial for mitigating the hazard of insufficient training in on-board cargo handling operations?		Providing personal protective equipment (PPE)	Providing comprehensive training	ducting regular inspect	Improving ventilation and monitoring										
23	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										

24	Which of the following is true for Interlock machine Guard;		Requires a key	the machine if they are automatically if the machine	Are battery operated								
25	The purpose of a lock-out/tag-out procedure is to;		Improve productivity	Secure harmful energy sources	Slow down work	Save money							
26	SCBA stands for		Self Closing Body Apparatus	Safe Control Body Apparatus	Self Contained Breathing Apparatus	Self Contained Body Apparatus							
27	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							
28	Match the following in Column A with their description in Column B.												
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29	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							
30	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)							
31	What is the name of gas leaked from LG Polymers at Visakhapatnam on 7 th may 2020?		Chlorine	Styrene	Methyl Isocynate	Ammonia							
32	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							
33	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							
34	What does VOC stand for in the context of nitrogen blanketing?		Volatile Oxygen Components	Volatile Organic Compounds	Ventillation of Oxygen Concentration	Viscosity of Organic Chemicals							
35	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							
36	What is the purpose of conducting a Pre-Start-Up Safety Review (PSSR) before initiating plant operations?		Evaluate Personnel performance during startup	Ensure equipment maintenance is current	Identify potential safety issues and verify readiness	Review financial aspects of the plant's operations							
37	What does the "PASS" acronym stand for in relation to using a fire extinguisher?		Prevent, Alert, Suppress, Secure	Pull, Aim, Squeeze, Sweep	Push, Adjust, Stop, Switch	Prepare, Assess, Select, Start							
38	Which form of combustion results in the production of carbon monoxide as a secondary product?		Complete Combustion	Incomplete Combustion	Spontaneous combustion	Rapid combustion							
39	Which of the following is NOT a common application of pressure vessels?		Air conditioning units	Steam boilers	Propane grills	Water heaters							
40	If a gas cylinder has yellow colour band at its neck end, Which gas contains in it?		Non flammable and non toxic	Flammable but toxic	Flammable and non toxic	Non flammable but toxic							
41	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)							
42	What is the time limit of STEL for chemical exposure to a person?		8 Hours	60 Minutes	15 Minutes	5 Minutes							
43	What kind of details are usually incorporated into a safety checklist?		Safety Precautions and Procedures	Equipment Purchase Dates	Task Deadlines	Employee Salaries							
44	Which device employs light-emitting diodes (LEDs) and phototransistors to accomplish electric isolation?		Inductors	Transformers	Capacitors	Optoisolators							
45	In the Swiss Cheese Model of accident causation, what does each "slice" of cheese represent?		Layers of protection in a safety system	Different types of incidents	The chronological sequence of events in an accident	The location of the incident							
46	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							
47	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							
48	Which Indian Standard (IS) is used for analysis of accidents?		IS3796	IS5216	IS5327	IS5557							
49	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							
50	Match the Following in Column A with their description in Column B												
	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center; padding: 2px;">Column A</th> <th style="text-align: center; padding: 2px;">Column B</th> </tr> </thead> <tbody> <tr> <td style="padding: 2px;">1. Identify Hazards</td> <td style="padding: 2px;">a. Putting designed control measures into practice</td> </tr> <tr> <td style="padding: 2px;">2. Determine Control Measures</td> <td style="padding: 2px;">b. Identifying potential sources of danger</td> </tr> <tr> <td style="padding: 2px;">3. Implement Controls</td> <td style="padding: 2px;">c. Proposing strategies to mitigate or eliminate hazards</td> </tr> </tbody> </table>	Column A	Column B	1. Identify Hazards	a. Putting designed control measures into practice	2. Determine Control Measures	b. Identifying potential sources of danger	3. Implement Controls	c. Proposing strategies to mitigate or eliminate hazards				
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51	As per the MSIHC Rules, every occupier of MAH unit has to conduct an external safety audit at least once in a		6 Months	12 Months	18 Months	24 Months							
52	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							
53	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							
54	What is the unit of measurement of illumination?		Lux	Decibel	Ampere	None of the above							
55	What is the maximum permissible noise level limit in a factory for 8 hours duration?		60dB	75dB	115dB	85dB							
56	How would you categorize lung diseases that result from inhaling workplace dust particles like coal dust?		Pneumonia	Asthma	Pneumoconiosis	Bronchitis							

57	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
58	Repetitive motion injuries are caused by _____ exposure to a combination of factors.	Short	Prolonged	Immediate	Intermittent	
59	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	
60	Under the Factories Act, 1948, what is the maximum number of hours of work allowed in a week?	48 hours	40 hours	36 hours	32 hours	
61	Electric equipment shall have danger notice with a sign of skull and bones, if voltage exceeds.....	100V	150V	250V	440V	
62	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	
63	The Public Liability Insurance Act, 1991 applies to?	All industries in India	Industries dealing with hazardous substances listed in the act	Industries operating in rural areas	Only industries with foreign investment	
64	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.	
65	As per the Factories Act 1948, the requirement of one first-aid box per every (-----) workers.	50	150	100	1000	
66	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	
67	As per the hazardous area classification which is the highest hazardous zone?	Zone 0	Zone 1	Zone 2	Zone 1 & 2	
68	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	
69	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	
70	What is the time period of a periodical inspection and testing of electrical installations of voltage above 650 V by the electrical inspector as per the CEA Regulations 2010?	5 Years	15 Years	7 Years	10 Years	
71	Chemical reaction in which heat is absorbed is called as;	Endothermic	Exothermic	Neutral	None of the above	
72	Carbon dioxide gas extinguishes fire mainly by _____ principle	cooling	starvation	smothering	evaporation	
73	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	
74	The risks at workplace shall be controlled and brought down to ALARP, and ALARP means	Actual Lower Aim Result Possible	Access Lower Aid Request Practice	As Less As Really Possible	As Low As Reasonably Practicable	
75	The huge amount of information on accident statistics, health data, environmental aspects, trainings, now can be easily stored, analysed, transmitted and used for presenting an accurate MIS to management, which will show the results of investments in OH&S. Here MIS means:	Market Involvement Status	Management Information System	Management Involvement Status	Marketing Information System	
76	Dry chemical powder having monoammonium phosphate as the main chemical constituent can be used for extinguishing Class _____ fires	B and C only	A and C only	A, B and C	D Only	
77	What is the full form of BLEVE?	Boiler Low Expanding Vapour Explosion	Boiler Less Exploding Vital Equipment	Boiling Level Equivalent Vigorous Explosion	Boiling Liquid Expanding Vapour Explosion	
78	_____ is the lowest temperature at which the application of an ignition source will cause a flame to flash across the surface of the liquid	Boiling point	Vapour pressure	Flash point	Evaporation point	
79	As per Heinrich, the occurrence of a preventable injury is the natural culmination of a series of events, which invariably occur in a fixed and logical manner. List out in chronological order the five factors. 1. Fault of person, 2. Social environment/Ancestry, 3. Unsafe Act/mechanical or physical hazard 4. Injury, 5. Accident	2, 1, 3, 5, 4	1, 2, 3, 4, 5	2, 1, 5, 3, 4	2, 1, 4, 3, 5	
80	Which Indian standard is referred for conducting safety audit?	IS3786	IS14489	IS15793	IS45001	

NATIONAL SAFETY

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 factory without any treatment	All process effluent generated is used within 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) Leg	70	55	45	40

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

Safety

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

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

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

S.No	31	32	33	34	35	36	37	38	39	40
Correct option	2	4	2	2	1	3	2	2	1	4

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

S.No	51	52	53	54	55	56	57	58	59	60
Correct option	2	4	3	1	4	3	3	2	3	1

S.No	61	62	63	64	65	66	67	68	69	70
Correct option	3	3	2	3	2	2	1	4	1	1

S.No	71	72	73	74	75	76	77	78	79	80
Correct option	1	3	2	4	2	3	4	3	1	2

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

NSAT PREVIOUS YEAR QUESTION PAPER

Section 1 - General

1. Our sir teaches Mathematics English.
 - a. Across
 - b. Besides
 - c. Beside
 - d. Both

2. Mark the option containing the word that has been used incorrectly in the sentence given below.
I have an elder brother, / who is pursue his diploma / from Kelley School of Business.
 - a. I have an elder brother
 - b. who is pursue his diploma
 - c. from Kelley School of Business
 - d. No Error

3. Mark the option which best expresses the sentence in Passive voice.
Montana offered her a seat.
 - a. A seat was offered to her by Montana.
 - b. Montana offer her seat.
 - c. Seat was offered to her.
 - d. Her seat offered by Montana

4. Mark the option which best expresses the given sentence in Indirect speech.
My boss said to me, "Complete the work by fortnight, or else you are out."
 - a. My boss told me he'd completed the work for the fortnight, or else I was out.
 - b. My boss told me to complete the work by the fortnight, or else I'd be out.
 - c. My boss told me to complete the work by the fortnight, or else you are out.
 - d. None of the mentioned options

5. Mark the option which best expresses the given sentence in Indirect speech.
"Where do my parents usually go on a holiday?", asked Robert.
 - a. Robert asked where my parents usually goes on a holiday.
 - b. Robert asked my parents where do they usually go on a holiday.
 - c. Robert asked where does my parents usually go on a holiday.
 - d. None of the mentioned options

6. Which MS office program can be used to carry out the accidents trend analysis?
 - a. Power Point
 - b. Word
 - c. Excel
 - d. Access

7. Select the correct example for a connectionless network, a type of computer communications network that groups and sends data in small packets.
 - a. Internet
 - b. Protocol
 - c. Circuit
 - d. Cell
8. Observe the given options and identify in which unit internet speed is measured.
 - a. Kbps
 - b. mhz
 - c. Megabyte
 - d. Gb
9. A web-based tool that enables users to locate information on the World Wide Web is called a search engine.
Identify which of the following are search engines.
A) Google
B) MSC
C) Yahoo
D) Orkut
E) Face Search
 - a. B,C
 - b. A,C
 - c. C,D
 - d. A,B
10. The Internet Protocol is a set of rules for routing and addressing packets of data so that they can travel across networks and arrive at the correct destination.
Which of the following options is NOT an internet protocol?
 - a. FTP
 - b. RSA
 - c. IP
 - d. HTTP
11. Identify the process by which standards and traditions of behaviour, as well as beliefs and other views, are passed down and propagated.
 - a. Individualism
 - b. Leadership
 - c. Tactics
 - d. Socialization

12. Authoritarian leaders make decisions without seeking input from anyone who reports to them, or none at all. Usually the style of authoritarian leaders' rule is referred to as ____.

- Autocratic Style
- Participative Style
- Laissez-faire Style
- Leadership Style

13. Identify the leadership style where everyone is given a chance to speak their minds at meetings and silent team members are specifically asked for their opinions to make sure all perspectives are heard.

- Autocratic Style
- Participative Style
- Laissez-faire Style
- Leadership Style

14. This theory of leadership focuses on the personality of a leader and suggests that certain inborn qualities make a leader. Identify the theory.

- Trait Theory
- Personality Theory
- Group Theory
- Inspiration Theory

15. For every student, teacher leaders are the perfect example to start learning about leadership skill.
Identify qualities that a teacher leader should demonstrate for student learning:

A) Collaboration
B) Empowerment
C) Relationship
D) Authoritative
E) Ignorant

- A, B, C
- B, C, D
- C, D, E
- A, B, E

16. If the code assigned to 'ROSE' is 'ILHV', which of the following will be the correct code for the word 'TULIP'?

- HGSQL
- GFPRK
- FEOQJ
- KROEF



17. In a Family of 8 members (M, N, O, P, Q, R, S, T), there are 2 married couples and a widow. M is the Engineer and is married to a doctor. O is an architect and the wife of P. Q, a student who is the only child of O. S, the daughter of T, and the sister of R, who is the manager's niece. N, a teacher, is the mother of only M and P.
Who is the manager?

- a. T
- b. S
- c. P
- d. M

18. Find the missing term in given series:
167, 173, ___, 185, 191

- a. 177
- b. 175
- c. 179
- d. 180

19. Find the odd one out:
Introvert, Loner, Solitary, Extrovert

- a. Introvert
- b. Loner
- c. Solitary
- d. Extrovert

20. If in a certain code the word 'ZEBRA' is written as '2763182', then what would be the code for word 'LION'?

- a. 13101615
- b. 12915140
- c. 1181413
- d. 1491514

Section 2 - OHS

1. As per IS- 9457, there are four safety colours i.e. Red, Yellow, Green and _____, to which a safety meaning is attributed. Which is the missing colour?
 - a. Brown
 - b. Blue
 - c. Black
 - d. Purple

2. A company uses behavior-based safety to inform the management and employees about workplace safety. This would be done via _____.
 - a. Process Management
 - b. Process Optimization
 - c. Safety Operations
 - d. Safety Observations

3. Workers in a company are being provided safety training. Whom would this training benefit?
 - a. Employees
 - b. Employers
 - c. Government
 - d. Both A and B

4. Which of the following assemblies is used to regulate the compressed air in a breathing apparatus?
 - a. Face piece
 - b. Cylinder assembly
 - c. Regulator assembly
 - d. Back piece assembly

5. A firefighter is trying to control a fire accident. He is using a CO2-type extinguisher for the task. After the job, how will he find the discharge horn of the extinguisher?
 - a. Warm
 - b. Extremely Cold
 - c. Cold
 - d. Extremely Hot

6. Which of the following is NOT related to mechanical hazard under occupational health hazards?
 - a. No safety device
 - b. No fencing
 - c. Wrong layout of machinery
 - d. Unguarded machinery

7. Ram is assigned to work at a particular height and due to this he has to use a ladder to complete the job. In this situation, how many point(s) of contact he should maintain with the ladder?

- At least three
- Four
- One
- At least two

8. A ladder should be turned so that its foundation is 1 foot far from the wall. What should be the ladder's height for every feet away from the wall?

- 4
- 2
- 8
- 10

9. Among the following options, on which type of fire, a Class B type fire extinguisher should NOT be used?

- Paper
- Paint
- Grease
- Oil

10. Which of the following correctly represents the properties of safety shoes necessary for maintaining the safety of feet?

- The shoes should be close-toed, non-slip, and made of thick material.
- The shoes should be made from rubber.
- The shoes should be resistant to dirt.
- The shoes should have spikes for better grip and quick movement.

11. In any industry, it is necessary to have a safety manager to protect the company and workers from common workplace hazards.

Which of the following are the key responsibilities of a safety manager?

1. Preparation and growth of the workers in the safety practices
2. Judgment of requirement of safety procedures
3. Modifying the work process to make it more inclined toward safety
4. Regular testing and monitoring of the working environment

- 1, 2 and 3
- 1, 2, 3 and 4
- 1, 2 and 4
- 1 and 2

12. "To achieve continuous improvement in safety efficiency, choose the correct option, which leads to the use of methods of applied behaviour analysis.

- Strategic behavioral analysis (SBA)
- Behavior-based safety (BBS)
- Providing feedback
- Observing to gather data on behaviors

13. Where _____ or more workers are employed in a factory, there shall be a Safety Committee in the factory.

- 100
- 150
- 200
- 250

14. Who performs the joint site inspection before issuing the work permit?

- Workers and permit receiver
- Workers and permit issuer
- Area manager along with workers
- Permit issuer and receiver

15. Indian Standard for Accident Prevention tags is _____.

- IS : 3786
- IS : 8095
- IS : 8519
- None of the above

16. Which of the following type of detector is NOT used as an actuator of fire protection system?

- Line-type photoelectric smoke detectors
- Rate-of-rise heat detectors
- Flame detectors
- Nitrogen sensors

17. According to Heinrich's theory, what percent of accidents occur at the workplace due to unsafe behaviour?

- 85%-90%
- 15%-20%
- 25%-35%
- 50%-60%

18. What are the hazards associated with machine operation?

- Unguarded machine parts
- Vibration

c. Flying objects during chipping & cutting works
d. All of the above

19. What is the purpose of machine guarding?
a. To provide the physical barrier
b. To prevent machines to breakdown
c. To prevent machines to damage mechanically
d. All of the above

20. The purpose of a lock-out/tag-out (LOTO) procedure is to _____.
a. Improve productivity on the job
b. Secure harmful energy sources to prevent injury
c. Slow down work so technicians are less stressed
d. Identify personal items to avoid theft

21. Arc blast is caused by _____.
a. poor contact within electrical wire splices
b. radio frequency omissions from high-power transmitters
c. ionization of gases near high-voltage electrical conductors
d. discharge of high electrical current through open air

22. The minimum height of toe board should be _____.
a. 1 cm or more
b. 5 cm or more
c. 10 cm or more
d. None of the above

23. A job safety analysis is required to be followed in a company for better and safer working conditions.
Which of the following has to be checked?
I) Work Area
II) Men
III) Tools
a. I and II
b. I and III
c. II and III
d. I, II and III

24. What type of hazard in the workplace represent noise greater than 85 dB?
a. Biological hazard
b. Chemical hazard
c. Physical hazard

d. Ergonomic hazard

25. Which of the following is defined as a hazardous area created by two or more mechanical parts rotating in opposite direction within the same plane and in close interaction?

- Pinch point
- Nip points or bites
- Point of operation
- Power transmission

26. Which of the following device can be used as an appliance to estimate earthquakes?

- Oscillograph
- Seismograph
- Bar graph
- Telegraph

27. Under the Factory Act of 1948, in which section it is described regarding the safeguards of machinery?

- Section 21 to 40
- Section 1 to 20
- Section 41 to 60
- Section 61 to 80

28. Which of the following option correctly describes the term "PASS"?

- Pick up, Aim, Squeeze, Squirt
- Pull, Aim, Squeeze, Sweep
- Push, Alarm, Swirl, Sweep
- Pull, Aim, Swirl, Swat

29. Which among the following can affect the brain growth of children?

- Nitrogen
- Zinc
- Boron
- Lead

30. What is the test load of the lifting gear of having 25 tonnes of SWL?

- 50 tonnes
- 25 tonnes
- 37 tonnes
- 75 tonnes

31. How many notifiable diseases are listed in the Building and Other Construction Workers (Regulation of Employment and Conditions of Service) Central Rules, 1998?

- 29

b. 30
c. 15
d. 31

32. Among the following, which are the hazardous processes specified under the Building and Other Construction Workers (Regulation of Employment and Conditions of Service) Central Rules, 1998?
a) Roof Work
b) Demolition
c) Work in confined Spaces
d) Steel erection

a. Only a and c
b. Only c
c. Only a and b
d. All of the above

33. 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?
a. Several People standing under for protection
b. Safety nets
c. Strong machinery
d. Both B and C

34. Due to the Bhopal gas tragedy, among the following given chemicals, identify the one that is liable for the lung disease.
a. Methylcyanate
b. Methylisocyanate
c. Methyl
d. Methylisocyanide

35. 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?
a. Carbon
b. Dust
c. Methane
d. Slags

36. Which type of fire cannot be addressed with water?
a. Class A
b. Class D
c. Class B

d. Class C

37. For carrying out a Process Hazard Analysis such as HAZOP, the team will need to have all of the following safety information, except:

- A block flow diagram or simplified process flow diagram
- Plant layout
- Area electrical classification
- Applicable design codes & standards

38. The catastrophic failure of a hydrocarbon storage tank due to intense heating from an external fire is commonly known as:

- UCVCE
- CE
- Cascading effect
- BLEVE

39. A hazardous chemical can be identified by which of the following number?

- ID number
- UN number
- NFPA number
- Hazard Index number

40. In risk estimation, a FN-Curve depicts which of the following risk?

- Individual risk
- Process risk
- Societal risk
- None of the above

41. Emergency Information Panel contains:

- Class Label
- UN number
- HAZCHEM code
- All of the above

42. The chemical involved in Flixborough disaster was ____.

- Methyl isocynate (MIC)
- Tetrachloro Dibenzatioxin (TZ DD)
- Cyclohexane
- None of the above

43. Transporting hazardous material by road require proper identification as per which statutes?

- The Motor Vehicles Act, 1988
- The Environment (Protection) Act, 1986,

c. The Factories Act, 1948
d. The Dangerous Machines (Regulation) Act, 1983

44. Among the following gases which one is flammable?
a. Carbon Dioxide
b. Carbon Monoxide
c. Chlorine
d. Nitrogen

45. Among the following words, which is not a guide word of HAZOP study?
a. NO
b. LESS
c. GOOD
d. MORE

46. Which colour is being used in a hazard class label for explosives substances?
a. Red
b. Green
c. White
d. Orange

47. IS 2825, the code for unfired pressure vessels, does NOT include which of the following?
1. Pressure exceeding 200 kgf/cm².
2. When the ratio of outside to inside diameter of the shell is more than 1.5
3. Vessels ID not more than 150 mm.
a. 1 only
b. 1 and 2 only
c. 2 and 3 only
d. All Three

48. In a HAZCHEM code, e.g. LPG HAZCHEM code is 2WE, what does the number 2 indicates?
a. Extinguishing medium
b. Hazard level
c. Serial No.
d. Molecular weight

49. What is the word used to describe a chemical reaction which absorbs heat?
a. Exothermic reaction
b. Continuous reaction
c. Endothermic Reaction
d. None of the above

50. As per IS: 3786, scheduled charges in days of earning capacity lost due to amputation through shoulder joint upper limb (either arms) is ____.

- 4200 days
- 3600 days
- 6000 days
- 5400 days

51. Safety performance is measured usually through ____.

- Leading indicators
- Lagging indicators
- Both a & b
- None of the above

52. In case of accident, if the worker does NOT report to the duty within ____ it is known as Reportable accidents.

- 48 hrs
- 24 hrs
- 36 hrs
- 54 hrs

53. Why should near miss be reported?

- To ensure complete recovery
- To meet legal requirement
- To prevent occurrence of a more serious incident
- To test the first aider

54. Frequency Rate = ? $\times 1000000$ / Total man-hours worked as per Indian Standard 3786. Find "?".

- No. of persons employed
- No. of days of absent from work
- No. of injury(s)
- No. of man-day(s) lost

55. In a particular factory, the number of injuries occurred per year are 6, the number of workers working in the factory are 600, and the average number of hours worked by a worker per year is 1000. Determine the frequency rate of injury in the factory.

- Frequency rate = 6
- Frequency rate = 8
- Frequency rate = 10
- Frequency rate = 5

56. Suppose you are in the risk assessment control team in your plant, and you are given the task of identifying why the problem occurred in the first place.

Which root cause tool is best suitable for finding potential causes?"

- a. Fault tree analysis
- b. Pareto chart
- c. Scatter plot diagram
- d. Fishbone diagram

57. As per the section 36-A of the Factories Act, 1948, _____ volts of electric light is permitted for working in a confined space.

- a. 60
- b. 220
- c. 240
- d. 24

58. In an industry, several machines are operating, the temperature at this location is very high, and the surroundings are hot. Which of the following would be true here?

- a. More ventilation leading to more stress
- b. More ventilation leading to health issues
- c. Low ventilation leading to less stress
- d. Low ventilation leading to health issues

59. Noise hazard is required to be avoided in an industry. The exposure of sound here is 85 dB

(A). For how many hours at maximum can this sound be heard before causing issues?

- a. 14
- b. 8
- c. 5
- d. 3

60. A scientist is looking for a parameter that can be expressed by using candela. Among all the options, which one parameter could be suitable for him?

- a. Frequency
- b. Luminous flux
- c. Luminous intensity
- d. Wavelength

61. Elbert is looking for an earplug that possesses a fixing agent and silicon rubber. From the given options, which one could be used by him?

- a. Prefabricated earplugs
- b. Semi insert protectors
- c. Canal caps
- d. Custom moulded earplugs

62. What is the short term exposure time limit for certain chemicals/substances specified in the Section 41-F of the Factories Act, 1948?

- a. 60 minutes
- b. 15 minutes
- c. 10 minutes
- d. 8 hours

63. In any factory, the air movement should be of at least _____ meters per minute.

- a. 60
- b. 15
- c. 30
- d. 45

64. The general illumination in a factory where people are regularly employed shall not be less than _____ lux measures in the horizontal plane at a level of 90 centimetres above the floor:

- a. 65
- b. 85
- c. 105
- d. 45

65. Which one of the given options can be implemented in a workplace to prevent hearing loss?

- a. Always wear ear protection everywhere you go
- b. Monitor noise levels through engineering and administrative controls to minimize over exposure
- c. No need to wear PPEs
- d. Monitor your hearing loss over time with a routine hearing test

66. The safety of worker's life and person's property is to be maintained from the dangers of steam boiler explosion. In which year an act was passed for this? "

- a. 1923
- b. 1935
- c. 1905
- d. 1915

67. As per the Petroleum act passed in 1934, which of the following is checked concerning petroleum?

- I) Refining
- II) Blending
- III) Import

- a. I and II
- b. I and III
- c. II and III
- d. I, II and III

68. The government discovered the possession and importation of explosive goods by an organisation. According to which act does the government have the authority to prohibit the manufacture of such substances?

- The Explosives Act, 1984
- Hazardous Explosives Act, 1983
- Hazardous Explosives Act, 1883
- The Explosives Act, 1884

69. Among the following, what should be the exceeding capacity of the container for a class C petroleum so that its type can be approved by the Chief controller of Explosives?

- 5 liters
- 1 liter
- 3 liters
- 2 liters

70. As per Rule 74 of the Petroleum Rules 2002, vehicles carrying petroleum by road, shall not be parked at a place within _____ meters of any source of fire.

- 11
- 8
- 9
- 10

71. As per model factory rules First-aid box is to be provided for every _____ workers in a factory.

- 50
- 160
- 135
- 125

72. As per the classification in the Petroleum Rules, 2002, the Petroleum Class "B" means ____.

- Petroleum having a flash point of 23°C and above but below 65°C
- Petroleum having a flash point of 65°C and above but below 93°C
- Petroleum having a flash point below 23°C
- Petroleum having a flash point above 93°C

73. Under the Provisions of which Act, the Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 have been notified?

- The Factories Act, 1948
- The Explosive Substances Act, 1908
- The Environmental (Protection) Act, 1986
- None of the above

74. Whether "National Policy on Safety, Health & Environment at workplace" is available in India?

- No
- Not sure
- Yes
- None of the above

75. Under which section of the Factories Act, 1948 the notifiable diseases are listed?

- 89
- 95
- 106
- 42

76. The maximum travel distance for fire exit specified in the model Factories Rule is ____.

- 50 meters
- 40 meters
- 30 meters
- 20 meters

77. The Health & Safety Policy to be signed by _____ as per the Factory Model Rules under the Factories Act, 1948.

- Occupier
- Medical Officer
- Safety Officer
- Fire Officer

78. Every wire rope of lifting appliances used at construction work is required to be inspected by a responsible person at least _____.

- every 12 months
- every 36 months
- every 3 months
- every 60 months

79. What is the frequency of testing of lifting appliances after erecting at construction site as per BOCW Rules, 1998?

- every 3 years
- every 5 years
- every 2 years
- every 1 year

80. How many industries are categorised as hazardous processes under the section 2 (cb) of the Factories Act, 1948?

- 26



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- b. 30
- c. 40
- d. 29

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Section 3 - Environment

1. As per Biomedical Waste Management Rules 2016, what is the colour of the baggage in which sharp types of medical waste must be packed?
 - a. Yellow
 - b. Red
 - c. White translucent
 - d. Blue
2. The diesel generators manufactured after 1st Jan 2005 need to adhere to the noise pollution standards. What is the maximum noise permitted for the DGs?
 - a. 50 dB for a DG capacity of above 1000 KVA
 - b. 75 dB for a DG capacity of upto 1000 KVA
 - c. 75 dB for a DG capacity of above 1000 KVA
 - d. 50 dB for a DG capacity of upto 1000 KVA
3. If the stack should be 3.5 m above the building height, what is the capacity of the Diesel Generator?
 - a. 250 to 300 KVA
 - b. 300 to 350 KVA
 - c. 100 to 150 KVA
 - d. 200 to 250 KVA
4. What is the standard for the TDS for the discharge of effluents from Tanneries as per the Central Pollution Control Board?
 - a. 2100 mg/ L
 - b. 2200 mg/ L
 - c. 2000 mg/ L
 - d. 1900 mg/ L
5. Name the card that must be carried by the people involved in transportation of hazardous wastes.
 - a. TREM Cards
 - b. OSHA cards
 - c. MSDS Cards
 - d. TRAM Cards"
6. As per pollution control index, CPCB have categorized industrial sectors in 4 categories. Among the following, which is not a part of the categories?
 - a. White
 - b. Green
 - c. Red
 - d. Brown

7. As per the National Ambient Air Quality Standards, the concentration of PM10 in ambient air for Industrial area for 24 hours in microgram/m³ is ____.

- 60
- 120
- 100
- 30

8. In India, the limit of Ambient Air Quality Standards with respect to noise [dB(A) Leq] for residential areas is ____.

- 90
- 55
- 75
- 85

9. Which of the following wastes can be recycled?

1. Glass bottles
2. Candy wrappers
3. Paper
4. Ceramic items

- 1, 2 and 3
- 1 and 2
- 3 and 4
- 1 and 3

10. VER is a type of carbon credit that is represented by which of the given options?

- Voluntary Emission Reduction certified by third party
- Valued Emission Reduction certified by third party
- Valued Emission Reduction
- Voluntary Emission Reduction

11. What are the real-time air and water quality monitoring systems?

- CEMS - Air, CEQMS – Water
- CAAQMS - Air, CEMS – Water
- CEMS - Air, CAAQMS – Water
- CEQMS - Air, CEMS - Water

12. Observe all the options and identify the option which is NOT a result of burning fossil fuels.

- Increased ethane levels
- Increased greenhouse gases
- Emission of carbon dioxide
- Emission of hydrogen gas

- a. b and d
- b. a and d
- c. a and c
- d. a, c and d

13. Which option is incorrect regarding greenhouse impact?

- a. Life on earth is possible due to the greenhouse effect.
- b. More the emission of greenhouse gases, more the temperature of the earth's atmosphere.
- c. Increased emission of greenhouse gases is a natural process.
- d. The greenhouse effect is a natural process that maintains the earth's temperature.

14. Which is NOT correct for the comparative contribution of different greenhouse gases to complete global warming?

- a. Methane – 20%
- b. CFCs – 14%
- c. Carbon dioxide – 60%
- d. N₂O – 12%

15. Among all the greenhouse gases, which one has the highest atmospheric lifetime?

- a. Methane
- b. Nitrous oxide
- c. CFC
- d. Carbon tetrafluoride

16. Observe the given options and identify the one which is correct regarding the half-life period of methane.

- a. 10 years
- b. 50-55 years
- c. 28-36 years
- d. 100 years

17. Among all the options, which option describes Carbon Sequestration?

- a. Storage of CO₂ by depositing it in the reservoir
- b. Removal of CO₂ from the atmosphere & storing it by depositing it in the reservoir
- c. Storage of carbon dioxide by sedimentation
- d. Removal of CO₂ from the atmosphere

18. Observe and identify the one which is not a sink for carbon.

- a. Living beings
- b. Ocean
- c. Soil



d. Forest

19. Identify which among the following is NOT a renewable source of energy.

- a. Hydro-power
- b. Biomass energy
- c. Solar energy
- d. Geothermal energy

20. Identify the one which is a drawback of most renewable energy sources.

- a. Unreliable supply
- b. High waste disposal cost
- c. Highly pollution inducing
- d. High running cost

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Answer Key
Section 1

Q No	1	2	3	4	5	6	7	8	9	10
Answer	b	b	a	b	d	c	a	a	b	b

Q No	11	12	13	14	15	16	17	18	19	20
Answer	d	a	b	a	a	b	c	c	d	a

Section 2

Q No	1	2	3	4	5	6	7	8	9	10
Answer	b	d	d	c	b	c	a	a	a	a

Q No	11	12	13	14	15	16	17	18	19	20
Answer	c	b	d	d	b	d	a	d	a	b

Q No	21	22	23	24	25	26	27	28	29	30
Answer	d	c	b	c	b	b	a	b	d	a

Q No	31	32	33	34	35	36	37	38	39	40
Answer	c	d	b	b	b	b	b	d	b	c

Q No	41	42	43	44	45	46	47	48	49	50
Answer	d	c	a	b	c	d	d	a	c	d

Q No	51	52	53	54	55	56	57	58	59	60
Answer	c	a	c	c	c	d	d	d	b	c

Q No	61	62	63	64	65	66	67	68	69	70
Answer	d	b	c	a	b	a	d	d	a	c



Q No	71	72	73	74	75	76	77	78	79	80
Answer	a	a	c	c	a	c	a	c	b	d

Section 3

Q No	1	2	3	4	5	6	7	8	9	10
Answer	c	b	d	a	a	d	c	b	d	c

Q No	11	12	13	14	15	16	17	18	19	20
Answer	a	b	c	d	d	c	b	a	b	a