

## 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.<br>Radha <i>was dressed with</i> a green and red saree.   | was dressed up | was dressed in | was dressed of    | No improvement |
| 2      | Fill in the blanks with appropriate options.<br>_____ 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.<br>It was <i>fortuitous</i> that I met Paul in that birthday party.   | unlucky        | abominable     | distressing       | fortunate      |
| 4      | Fill in the blanks with appropriate options.<br>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              |

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| 8  | Find the missing number in the given series.<br>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 him 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. |

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| 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                          |

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## General Safety

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

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

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

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

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

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

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| 29 | As per the Explosive Rules, 2008, Those explosives, which have a mass explosion risk and major missile effect, are categorized as _____.   | Category ZZ                               | Category Z                        | Category Y                                   | Category X   |
| 30 | As per The Regulation 79 of The CEA Regulations 2023, the underground power cable meant for use exceeding 33 kV shall be laid with a minimum underground depth of _____ m and a minimum separation distance of _____ m with underground telecommunication cable. | 1.2, 0.3                                  | 1.2, 0.6                          | 1, 0.5                                       | 1.6, 0.5   |
| 31 | As per NBC 2016, the height of all rooms for human habitation shall not be less than _____ m.  | 3   | 2.5                               | 2.75   | 3.5  |
| 32 | Which of the following is <b>NOT</b> a requirement as per ISO 45001?   | Consultation and participation of workers | Documented information management | Compliance with legal and other requirements | Periodic external audits by an accredited certification body |
| 33 | Which of the following is a common anthropometric measurement?   | Body mass index (BMI)                     | Heart rate                        | Blood pressure                               | Respiration rate   |

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

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

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

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## Construction Safety

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

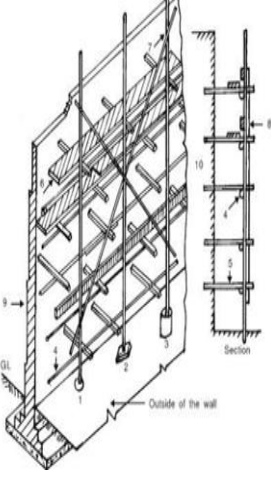
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| 6  | What precaution should be taken in sandy/alluvial soils to prevent ground subsidence around the construction site due to lowering of the groundwater table?        | Installation of additional structural supports | Provision of water retaining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

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



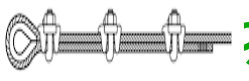
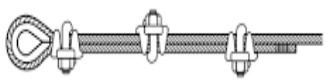

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| 18 | What is the recommended safety measure for extensive work on a non-fragile flat roof involving multiple workers and different employers?  | Providing adequate lighting for night-time work                                 | Providing safety harnesses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

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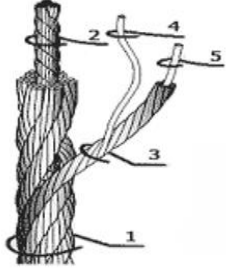
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| 22 | <p>What is the name of the part labelled as number 4 in the scaffold image below?"</p>  | Putlogs      | Planks       | Ledgers      | Braces       |
| 23 | <p>Wire rope of lifting appliance used at construction site shall be inspected at least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

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

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

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| 34 | <p>What is the name of the component labelled '2' in the wire rope? image?"</p>  | Wire | Strand | Core | centre wire |
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## Environment

| Q. No. | Question  | Option 1  | Option 2  | Option 3  | Option 4  |
|--------|---|---|---|---|---|
| 1      | Which component of an Environmental Management System (EMS) involves setting environmental objectives and targets?                                    | Environmental policy  | Environmental audit   | Environmental planning  | Environmental monitoring                                      |
| 2      | Which authority is regulated the Air pollution control activity at union territory?   | CPCB  | SPCB  | MoEF&CC   | NDMA  |
| 3      | What is the permissible noise level (in decibels) for residential areas during the daytime under the Noise Pollution Rules 2000?                      | 45 dB   | 55 dB   | 65 dB   | 75 dB   |
| 4      | Which of the following does <b>NOT</b> 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 |

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|----|---|---|--|---|---|
| 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 punished 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 <b>NOT</b> 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?<br>(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).<br>(i) Waste Disposal<br>(ii) Pollution Control<br>(iii) Reuse<br>(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 <sub>2</sub> ) 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       |

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## Answer Key

### General Aptitude: -

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

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

### General Safety: -

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

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

|                       |    |    |    |    |    |    |    |    |    |    |
|-----------------------|----|----|----|----|----|----|----|----|----|----|
| <b>Q. No.</b>         | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 |
| <b>Correct Option</b> | 4  | 2  | 1  | 3  | 1  | 1  | 3  | 4  | 1  | 3  |

### Construction Safety: -

|                       |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |
|-----------------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|
| <b>Q. No.</b>         | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| <b>Correct Option</b> | 3 | 3 | 3 | 3 | 2 | 2 | 4 | 3 | 3 | 3  | 3  | 1  | 1  | 3  | 3  |

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

**Environment: -**

|                       |   |   |   |   |   |   |   |   |   |    |
|-----------------------|---|---|---|---|---|---|---|---|---|----|
| <b>Q. No.</b>         | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| <b>Correct Option</b> | 3 | 1 | 2 | 3 | 4 | 1 | 3 | 3 | 4 | 1  |

|                       |    |    |    |    |    |    |    |    |    |    |    |
|-----------------------|----|----|----|----|----|----|----|----|----|----|----|
| <b>Q. No.</b>         | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 |
| <b>Correct Option</b> | 4  | 4  | 1  | 2  | 3  | 2  | 4  | 1  | 2  | 2  | 2  |

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