



रेलवे भर्ती बोर्ड / RAILWAY RECRUITMENT BOARDS
सीईएन - 05/25 - जेई, डीएमएस, सीएमए - CEN - 05/25 - JE, DMS, CMA



RRB JE 2025 CBT-2

Civil Engineering | CEN 05/2025

ENGLISH ANSWER KEY

Official Answer Key

Complete Paper · 02-07-2026

Questions	150
Marking	+1 correct / -1/3 wrong
Duration	120 minutes
Sections	General Abilities 50 · Technical Abilities 100

Every paper is set out as the official RRB response sheet, typed from the saved paper, with the official answer key marked. No candidate details are included.

HOW TO USE THIS BOOK

- 1 Open the INDEX on the next page.
- 2 Click any row to jump straight to that date and shift.
- 3 The correct option is ticked in green; the other options are crossed in red.
- 4 Use the bookmarks panel of your PDF reader to move between shifts.

Blackbook

Score & Rank Calculator · rank.qmaths.in

Compiled 28 October 2026

INDEX · Click any row to open that paper

RRB JE 2025 CBT-2 Civil (English) · 1 shifts

DAY	DATE	SHIFT	TIME	PAGE
Day 1	02-07-2026	Shift 1	09:00 - 11:00	3



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Test Date	02/07/2026
Test Time	9:00 AM - 11:00 AM
Subject	RRB JE CBT 2 - Civil Engineering

*** Note**

Correct Answer will carry 1 mark per Question.

Incorrect Answer will carry 1/3 Negative mark per Question.

1. Options shown in green color with a tick icon are correct.

Section : General Abilities

Q.1 What is the main reason sulfur dioxide irritates the upper respiratory mucous membrane?

- Ans**
- ☒ A. It dissolves in moisture in upper respiratory tract and forms irritant
 - ☐ B. It oxidizes to sulphur trioxide and inhaled deep into lung
 - ☐ C. It combines with haemoglobin and effect the oxygen transport
 - ☐ D. It combines with other pollutants and polymerizes in the lungs

Q.2 The primary method of managing biodegradable domestic waste after collection is _____.

- Ans**
- ☐ A. sending for recycling
 - ☐ B. throwing into sewers
 - ☒ C. conversion into compost
 - ☐ D. burnt in open air

Q.3 According to the Article 75 of the Indian Constitution, the total number of ministers (including the Prime Minister) in the Council of Ministers shall NOT exceed what percentage of the total members of the House of the People, i.e., Lok Sabha?

- Ans**
- ☐ A. 25%
 - ☒ B. 15%
 - ☐ C. 10%
 - ☐ D. 20%

Q.4 Which of the following indicators is NOT typically used to measure sustainable development?

- Ans**
- ☐ A. Human Development Index (HDI)
 - ☒ B. Gross Domestic Product (GDP) growth rate
 - ☐ C. Biocapacity
 - ☐ D. Ecological Footprint

Q.5 According to Thomson's model, how are electrons arranged in an atom?

- Ans**
- ☒ A. Embedded in a positively charged sphere like seeds in a watermelon
 - ☐ B. Randomly placed inside the nucleus
 - ☐ C. Orbiting around neutrons in elliptical paths
 - ☐ D. Moving in fixed orbits around the nucleus

Q.6 Which of the following statements best describes the behavior of magnetic field lines around a straight current-carrying conductor?

- Ans**
- ☐ A. They change direction randomly along the wire.
 - ☒ B. They form concentric circles centered on the conductor.
 - ☐ C. They radiate straight outward from the wire.
 - ☐ D. They are parallel straight lines along the wire.

Q.7 The term 'smog' is a combination of _____.

- Ans**
- ☐ A. Fog and clouds
 - ☐ B. Smoke and haze
 - ☐ C. Smog and mist
 - ☒ D. Smoke and fog

Q.8 Which of the following statements is true about the Outbox?

- Ans**
- ☒ A. It temporarily stores emails that are queued for sending.
 - ☐ B. It holds emails that have been successfully sent.
 - ☐ C. It contains emails that are currently being drafted.
 - ☐ D. It is used to receive incoming emails.

Q.9 Which of the following is/are the primary reasons to fall in the trap of Email fraud or phishing?

- A) Paying attention to lucrative offers.
- B) Not checking on links or attachments from unknown senders
- C) Providing official information via email
- D) Paying attention to the company logo sent in the email

- Ans**
- ☐ A. A, B, D Only
 - ☒ B. A, B, C Only
 - ☐ C. A, B Only
 - ☐ D. A only

Q.10 Who won the maximum number of medals at the 38th National Games of India?

- Ans**
- ☐ A. Manu Bhaker
 - ☐ B. Neeraj Chopra
 - ☒ C. Dhinidhi Desinghu
 - ☐ D. Bajrang Punia

Q.11 What file extension is used to save an MS PowerPoint 2021 presentation?

- Ans**
- ☐ A. .docx
 - ☐ B. .pdf
 - ☒ C. .pptx
 - ☐ D. .xlsx

Q.12 Which of the following Articles states about the right of individual to form associations or unions or co-operative societies?

- Ans**
- ☒ A. Article 19 (1) (c)
 - ☐ B. Article 19 (1) (d)
 - ☐ C. Article 19 (1) (b)
 - ☐ D. Article 19 (1) (a)

Q.13 Biomedical waste handlers in a hospital are at risk of occupational hazards. The most effective way to protect them from exposure to infectious materials is:

- Ans
- ☐ A. Segregation of waste into color-coded bins
 - ☐ B. Vaccination against common infections
 - ☐ C. Regular medical check-ups
 - ☒ D. Use of protective equipment and safe handling

Q.14 Which of the following best describes how sound travels through air?

- Ans
- ☒ A. The air particles vibrate back and forth parallel to the direction of the wave
 - ☐ B. The air particles move in circular paths as the wave passes
 - ☐ C. The air particles vibrate up and down perpendicular to the direction of the wave
 - ☐ D. The air particles remain stationary while the wave moves through

Q.15 Which of the following rivers forms a delta along the eastern coastal plains?

- Ans
- ☐ A. Tapi
 - ☐ B. Narmada
 - ☐ C. Ganga
 - ☒ D. Godavari

Q.16 Which of the following options must be DISABLED before manually setting the date and time in Windows?

- Ans
- ☒ A. Set time automatically
 - ☐ B. Enable multiple clocks
 - ☐ C. Night Light
 - ☐ D. Set time zone globally

Q.17 Match the following columns.

Pardoning power	Function
1. Commutation	a. Removes both sentence and the conviction.
2. Reprieve	b. Lesser sentence than originally given, in special cases
3. Respite	c. Reducing the period of sentence without changing t of the sentence.
4. Remission	d. Temporary stay on the execution of a sentence.
5. Pardon	e. Substitution of one form of punishment to a lighter o

- Ans
- ☐ A. 1-c, 2-e, 3-b, 4-a, 5-d
 - ☒ B. 1-e, 2-d, 3-b, 4-c, 5-a
 - ☐ C. 1-a, 2-c, 3-d, 4-e, 5-b
 - ☐ D. 1-d, 2-b, 3-e, 4-c, 5-a

Q.18 When was the 11th National Handloom Day celebrated across India under the coordination of the Ministry of Textiles?

- Ans
- ☐ A. September 7, 2025
 - ☒ B. August 7, 2025
 - ☐ C. November 7, 2025
 - ☐ D. October 7, 2025

Q.19 Which function returns the smallest value?

- Ans
- ☒ A. MIN()
 - ☐ B. MAX()
 - ☐ C. COUNT()
 - ☐ D. AVERAGE

Q.20 Which of the following is a primary mission under India's National Action Plan on Climate Change (NAPCC)?

- Ans
- ☒ A. National Solar Mission
 - ☐ B. National Highway Development Project
 - ☐ C. National Rural Livelihood Mission
 - ☐ D. National Nutrition Mission

Q.21 A construction worker needs to lift a heavy metal beam using a lever but has a limited length of plank. Which adjustment would allow the worker to lift the beam with the least effort if the position of the fulcrum can be changed but the plank length remains constant?

- Ans
- ☐ A. Keep the fulcrum fixed at any point
 - ☐ B. Move the fulcrum closer to the worker
 - ☒ C. Move the fulcrum closer to the beam
 - ☐ D. Place the fulcrum at the center of the plank

Q.22 If cell A1 = 10 and B1 = 20, what will `=A1+B1` return?

- Ans
- ☒ A. 30
 - ☐ B. 200
 - ☐ C. Error
 - ☐ D. 1020

Q.23 A field exposed to excessive pesticide use shows a sharp decline in earthworm population. The resulting effect on soil is:

- Ans
- ☐ A. Enhanced decomposition
 - ☒ B. Reduced soil fertility
 - ☐ C. Improved aeration
 - ☐ D. Increased water retention

Q.24 You want to automatically advance slides with narration and animations during a presentation. Which MS PowerPoint feature should you use to achieve this?

- Ans
- ☐ A. Presenter View
 - ☒ B. Rehearse Timings
 - ☐ C. Slide Sorter
 - ☐ D. Action Buttons

Q.25 Which Quick Style type is applied only to selected words or individual characters within a paragraph in MS Word 2010?

- Ans
- ☐ A. Linked styles
 - ☒ B. Character styles
 - ☐ C. Page styles
 - ☐ D. Paragraph styles

Q.26 Consider the following statements regarding chemical reactions and choose the correct option.

Statement I: Every reaction in which two or more reactants combine to form a single product is classified as a combination reaction regardless of heat change.

Statement II: The reaction $\text{CaO(s)} + \text{H}_2\text{O(l)} \rightarrow \text{Ca(OH)}_2\text{(aq)} + \text{heat}$ is both a combination reaction and an exothermic reaction.

- Ans
- ☐ A. Both statements are incorrect
 - ☐ B. Only Statement II is correct
 - ☐ C. Only Statement I is correct
 - ☒ D. Both statements are correct

Q.27 If 10 grams of salt are dissolved in 100 mL of water, which component is the solute?

- Ans**
- ☐ A. Water only
 - ☒ B. Salt only
 - ☐ C. Neither
 - ☐ D. Both salt and water

Q.28 A farmer applies large amounts of chemical fertilizers over several years. Which consequence most likely results from this practice leading to soil pollution?

- Ans**
- ☐ A. Increase in earthworm population
 - ☒ B. Accumulation of toxic substances in soil
 - ☐ C. Faster plant growth every season
 - ☐ D. Erosion of surface soil layers

Q.29 Which of the following statements best describes how the power of accommodation enables the human eye to focus on both near and distant objects?

- Ans**
- ☐ A. The cornea provides all the focusing power required for clear vision
 - ☒ B. The eye lens changes its focal length by altering its shape through ciliary muscle action
 - ☐ C. The retina moves forward and backward to adjust the focus
 - ☐ D. The iris controls the amount of light entering and helps to focus

Q.30 The Mappila Uprisings of the 19th century occurred mainly in which region of India?

- Ans**
- ☐ A. Coromandel Coast of Tamil Nadu
 - ☐ B. Sunderbans region of West Bengal
 - ☒ C. Malabar region of Kerala
 - ☐ D. Konkan region of Maharashtra

Q.31 The Atal Bhujal Yojana 2020 focused on improving water resources management of how many states?

- Ans**
- ☒ A. seven
 - ☐ B. ten
 - ☐ C. eight
 - ☐ D. five

Q.32 Which type of computer virus attaches itself to executable files and gets activated when the file is run?

- Ans**
- ☐ A. Macro Virus
 - ☐ B. Boot Sector Virus
 - ☐ C. Worm
 - ☒ D. File Infector Virus

Q.33 On which date is National Handloom Day observed in India?

- Ans**
- ☐ A. 18 August
 - ☒ B. 7 August
 - ☐ C. 2 October
 - ☐ D. 5 September

Q.34 Which condition is required for a displacement reaction between a metal and salt solution?

- Ans**
- ☐ A. Salt must be insoluble in water
 - ☐ B. Reaction must be endothermic
 - ☒ C. Metal must be higher in reactivity series
 - ☐ D. Metal must be same as salt constituent

- Q.35** In a real-life scenario, a chemist discovers a compound with the formula $\text{CH}_3\text{CH}_2\text{CH}(\text{CH}_3)\text{CH}_2\text{CH}_2\text{OH}$. What is the correct IUPAC name for this compound?
- Ans**
- ☐ A. 2-methylhexanol
 - ☐ B. 3-methylhexanol
 - ☒ C. 3-methylpentan-1-ol
 - ☐ D. 4-methylpentanol
- Q.36** Which of the following best describes the velocity-time graph for an object moving with uniform velocity?
- Ans**
- ☐ A. A line starting from the origin and sloping upwards
 - ☐ B. A straight line sloping upwards from the time axis
 - ☐ C. A curved line above the time axis
 - ☒ D. A straight horizontal line parallel to the time axis
- Q.37** A factory plans to install a powerful electromagnet for lifting metal scraps. To maximize the magnetic field strength around the coil, which of the following combinations would be most effective?
- Ans**
- ☐ A. Using an air core, decreasing coil turns, and keeping current constant
 - ☐ B. Using a steel core, decreasing coil turns, and lowering current
 - ☒ C. Using a soft iron core, increasing coil turns, and increasing current through the coil
 - ☐ D. Using a copper core, increasing coil turns, and lowering current
- Q.38** The pollutant group commonly associated with oil spills in oceans is _____.
- Ans**
- ☐ A. agricultural pesticides
 - ☐ B. synthetic detergents
 - ☒ C. petroleum products
 - ☐ D. chemical fertilizers
- Q.39** Which pair of sectors is commonly addressed together in State Action Plan on Climate Change (SAPCC) adaptation planning?
- Ans**
- ☒ A. Water resources and health systems
 - ☐ B. Information technology and space research
 - ☐ C. Textile design and fashion marketing
 - ☐ D. Heavy industry and entertainment
- Q.40** The atmospheric component that remains largely unreactive is _____.
- Ans**
- ☐ A. Methane
 - ☐ B. Oxygen
 - ☒ C. Argon
 - ☐ D. Carbon dioxide
- Q.41** The primary goal of the Pradhan Mantri Gram Sadak Yojana (PMGSY) is to:
- Ans**
- ☐ A. Enhance telecommunication services in cities
 - ☐ B. Develop urban infrastructure
 - ☒ C. Provide rural connectivity through road construction
 - ☐ D. Promote renewable energy usage
- Q.42** A student pushes a heavy box that is already moving across a rough floor. If the force applied by the student is exactly equal to the frictional force opposing the motion, what will happen to the box?
- Ans**
- ☒ A. The box will move at a constant speed
 - ☐ B. The box will move at increasing speed
 - ☐ C. The box will accelerate forward
 - ☐ D. The box will gradually come to rest

Q.43 What is the general formula of alkenes?

- Ans ☒ A. C_nH_{2n}
☐ B. C_nH_{2n+2}
☐ C. C_nH_n
☐ D. C_nH_{2n-2}

Q.44 The Kol Rebellion (1831–32) mainly affected which plateau region?

- Ans ☐ A. Deccan Plateau
☒ B. Chotanagpur Plateau
☐ C. Malwa Plateau
☐ D. Meghalaya Plateau

Q.45 A student accidentally spills some hydrochloric acid on a table. Which substance should be used to neutralise the acid safely?

- Ans ☐ A. Vinegar
☐ B. Lemon juice
☐ C. Sugar solution
☒ D. Baking soda solution

Q.46 How can we locate a file with a known extension but an unknown name in a large directory?

- Ans ☐ A. Using the dir command
☐ B. Through File Explorer
☐ C. Checking the Recycle Bin
☒ D. Using the Search box in File Explorer with *.ext

Q.47 Which British colonial building in Mumbai, completed in 1888, showcases a blend of Victorian Gothic and Indian architectural elements?

- Ans ☐ A. Gateway of India
☐ B. Rajabai Clock Tower
☒ C. Chhatrapati Shivaji Maharaj Terminus
☐ D. Bombay Town Hall

Q.48 Which new warship was commissioned by the Indian Navy in November, 2025, to strengthen anti-submarine and coastal defence capabilities?

- Ans ☐ A. INS Vikrant
☐ B. INS Arnala
☐ C. INS Ikshak
☒ D. INS Mahe

Q.49 Which of the following satellites was launched on November 2, 2025, to enhance the Indian Navy's secure communication network and maritime surveillance capabilities?

- Ans ☐ A. GSAT-6A
☐ B. Cartosat-3
☒ C. CMS-03 (GSAT-7R)
☐ D. RISAT-2B

Q.50 Which experimental discovery contradicted Thomson's model of the atom and led to its rejection?

- Ans ☐ A. Discovery of the neutron by James Chadwick
☐ B. Measurement of atomic radius using X-ray diffraction
☐ C. Observation of line spectra of hydrogen by Bohr
☒ D. Alpha particle scattering showing deflection at large angles

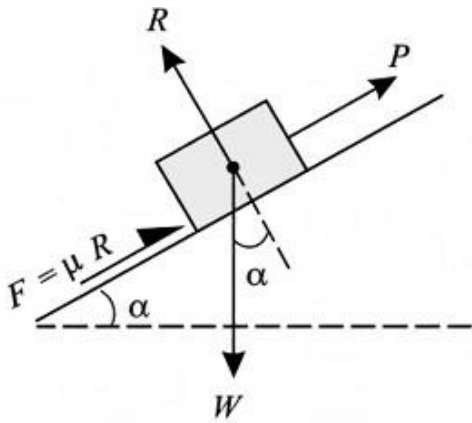
Q.51 Which layer of soil is compacted to increase its bearing strength and reduce settlement in construction work?

- Ans
- ☐ A. Base layer
 - ☐ B. Topsoil layer
 - ☒ C. Subgrade layer
 - ☐ D. Surface layer

Q.52 The fineness of cement is generally expressed in terms of specific surface, which is measured in:

- Ans
- ☐ A. $\text{cm}^2\text{-g}$
 - ☐ B. $\text{m}^2\text{-g}$
 - ☒ C. m^2/kg
 - ☐ D. kg/cm^2

Q.53 A block of weight (W) rests on a rough inclined plane with an angle of inclination α shown in the figure. The coefficient of friction between the block surface and the plane is μ , R is the normal reaction perpendicular to the inclined plane. A force (P) is applied parallel to the plane to prevent the block from sliding down. Which of the following represents the minimum value of (P) required to maintain equilibrium?

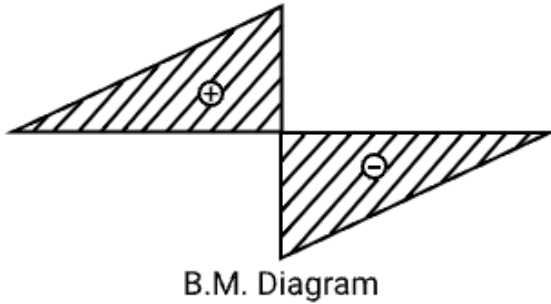


- Ans
- ☐ A. $P = W (\cos \alpha - \tan \alpha)$
 - ☒ B. $P = W (\sin \alpha - \mu \cos \alpha)$
 - ☐ C. $P = W (\sin \alpha + \mu \cos \alpha)$
 - ☐ D. $P = W (\cos \alpha - \mu \sin \alpha)$

Q.54 Which type of stone is laid with its length perpendicular to the face of the wall so that it extends into the thickness of the wall in stone masonry?

- Ans
- ☐ A. Stretcher
 - ☒ B. Header
 - ☐ C. Bed
 - ☐ D. Tail

- Q.55** The following bending moment diagram corresponds to a simply supported beam. The diagram shows a sudden jump (discontinuity) in bending moment at a point between the supports. Which of the following loading conditions produces this type of bending moment diagram?



- Ans**
- ☐ A. A concentrated load acting at the midpoint of the beam
 - ☐ B. Equal and opposite vertical forces acting at the supports
 - ☒ C. A couple acting at a point between the supports
 - ☐ D. A uniformly distributed load acting over the entire span
- Q.56** As per Indian Railways standards, what is the degree of curvature for a railway curve with a radius of 875 m?
- Ans**
- ☐ A. 1°
 - ☐ B. 4°
 - ☒ C. 2°
 - ☐ D. 3°
- Q.57** Which statement correctly distinguishes administrative approval from technical sanction in civil engineering estimation?
- Ans**
- ☐ A. Administrative approval authorizes procurement, while technical sanction approves staffing requirements
 - ☒ B. Administrative approval accepts project necessity, while technical sanction verifies design and estimates
 - ☐ C. Administrative approval checks material quality, while technical sanction determines project duration
 - ☐ D. Administrative approval controls work execution, while technical sanction manages contractor payments
- Q.58** For compression members, the I-section is preferred because it ____.
- Ans**
- ☐ A. is more flexible compared to other sections
 - ☒ B. has a lower weight for the same strength
 - ☐ C. has better resistance to lateral-torsional buckling
 - ☐ D. requires more material to provide equivalent strength
- Q.59** According to Euler's theory, the design load for a column depends on:
- Ans**
- ☒ A. The column's length and radius of gyration
 - ☐ B. The moment of inertia and shear stress
 - ☐ C. The bending moment applied at the column's base
 - ☐ D. The material's ultimate tensile strength
- Q.60** Which modelling method in CAD is used for creating and manipulating the external, visible surfaces of a 3D object, focusing on the shape, aesthetics, and form rather than its internal structure?
- Ans**
- ☒ A. Surface modelling
 - ☐ B. Solid modelling
 - ☐ C. Isometric projection
 - ☐ D. Parametric modelling

Q.61 Which statement best describes the primary structural function of pile caps in foundation systems?

- Ans ☒ A. Distributing structural loads among supporting piles
☐ B. Protecting exposed pile surfaces from environmental damage
☐ C. Providing waterproof protection around foundation piles
☐ D. Connecting foundation piles directly to floor beams

Q.62 Which of the following automatic rain gauges gives a continuous graph of rainfall vs. time?

- Ans ☒ A. Float type recording gauge
☐ B. Tipping bucket gauge
☐ C. Symons gauge
☐ D. Non-recording gauge

Q.63 Which type of engineering contract involves payment for actual quantities of work done at agreed rates?

- Ans ☐ A. Cost-plus contract
☐ B. Turnkey contract
☐ C. Lump sum contract
☒ D. Item rate contract

Q.64 In considering thermosetting plastics versus thermoplastics for a high-heat application, which type should be chosen and why?

- Ans ☐ A. Thermoplastics, because they are heat resistant
☐ B. Thermosetting plastics, because they get remoulded upon heating
☐ C. Thermoplastics, because they do not soften on heating
☒ D. Thermosetting plastics, because they do not soften on heating

Q.65 What is the primary risk of placing concrete in cold weather?

- Ans ☐ A. Higher heat of hydration
☒ B. Increased setting time
☐ C. Increased air content
☐ D. Increased hydration rate

Q.66 What is an effective way to limit settlement due to subsoil moisture movement?

- Ans ☐ A. Increasing the height of the masonry wall structure
☐ B. Adding additional reinforcement within the foundation system
☐ C. Reducing the thickness of the foundation wall structure
☒ D. Providing plinth protection and proper compaction

Q.67 Which of the following is a direct health effect of prolonged exposure to high levels of noise pollution?

- Ans ☐ A. Improved memory
☒ B. High blood pressure
☐ C. Increased appetite
☐ D. Skin irritation

Q.68 How does a barrage differ from a dam?

- Ans ☐ A. A dam controls only floods, while a barrage is used for irrigation.
☐ B. A barrage is used for hydroelectric power generation, whereas a dam is not.
☐ C. A dam is always smaller in height compared to a barrage.
☒ D. A barrage regulates river flow using gates, while a dam stores water in a reservoir.

Q.69 In a micro-optic theodolite, the optical path used for reading angles is typically:

- Ans**
- ☒ A. Optical and magnified via micrometer eyepiece
 - ☐ B. Interferometric
 - ☐ C. Satellite via micrometer eyepiece
 - ☐ D. Manual and scale-based

Q.70 In urban planning, GIS is commonly used to:

- Ans**
- ☒ A. analyse traffic patterns and optimise signal timings
 - ☐ B. determine the color scheme of buildings
 - ☐ C. measure the weight of vehicles directly
 - ☐ D. calculate the cost of concrete per cubic meter

Q.71 What is the importance of the narrower bottom in oval-shaped sewers during low-flow conditions?

- Ans**
- ☐ A. Reduced construction cost
 - ☐ B. Enhanced structural strength
 - ☒ C. Maintained higher flow velocity
 - ☐ D. Easier maintenance access

Q.72 During a rapid field test for identifying fine-grained soil, a wetted sample is shaken vigorously in the palm of the hand. If the surface quickly becomes glossy or wet (exhibits 'quicker' behavior), and the gloss disappears immediately upon squeezing the sample, which soil type is the sample most likely to be?

- Ans**
- ☐ A. Highly plastic clay (CH)
 - ☐ B. Lean clay (CL)
 - ☐ C. Organic clay (OH)
 - ☒ D. Inorganic silt (ML)

Q.73 In fluid mechanics, zero absolute pressure corresponds to which condition?

- Ans**
- ☐ A. Superheated steam
 - ☒ B. Perfect vacuum
 - ☐ C. Atmospheric pressure
 - ☐ D. Gauge pressure

Q.74 A door designed with inclined slats to permit ventilation while restricting direct visibility is classified as which type?

- Ans**
- ☐ A. Collapsible door
 - ☒ B. Louvered door
 - ☐ C. Panel door
 - ☐ D. Flush door

Q.75 In a multi-story portal frame, how does increasing the number of stories affect the moment distribution in the frame?

- Ans**
- ☐ A. The moment at the base of the frame decreases as more stories are added
 - ☒ B. The moments in the lower stories increase, while the upper stories experience lesser moments
 - ☐ C. The moments are uniformly distributed across all stories
 - ☐ D. The number of stories does not affect the moment distribution

Q.76 The amber signal in traffic control is meant to:

- Ans**
- ☐ A. Indicate that vehicles must continue moving without interruption for same movement
 - ☐ B. Indicate that crossing traffic has the right of way
 - ☒ C. Indicate transition between stop and go, warning drivers to clear or prepare to stop
 - ☐ D. Function as a flashing warning light during off-peak hours

Q.77 Which of the following RCC elements transfers the Floor finish load to supporting beams?

- Ans
- ☐ A. Parapet wall
 - ☐ B. Lintel
 - ☒ C. Slab
 - ☐ D. Column

Q.78 In energy recovery systems, which of the following pollutants is/are carefully monitored due to health hazards during incineration?

- Ans
- ☐ A. Oxygen
 - ☒ B. Dioxins
 - ☐ C. Methane
 - ☐ D. Nitrogen

Q.79 Which of the following flooring is most suitable for a luxurious appearance in a high-end hotel lobby?

- Ans
- ☐ A. Cement concrete flooring
 - ☒ B. Marble flooring
 - ☐ C. PVC flooring
 - ☐ D. Linoleum flooring

Q.80 The cut section in the method of sections must satisfy which of the following conditions? (Consider that not more than two members are meeting at a joint.)

- Ans
- ☐ A. It should pass through at least four members.
 - ☒ B. It should pass through at most three members of a truss.
 - ☐ C. It should be taken only at the midpoint of the truss.
 - ☐ D. It should be made parallel to the support reactions.

Q.81 The minimum slope for an accessible ramp as per most building codes is ____.

- Ans
- ☐ A. 1 : 20
 - ☐ B. 1 : 25
 - ☒ C. 1 : 12
 - ☐ D. 1 : 15

Q.82 A drafter needs to create a parallel copy of an existing line at a specified distance while keeping the original line unchanged. Which AutoCAD command is most suitable for this task?

- Ans
- ☐ A. Stretch
 - ☐ B. Extend
 - ☒ C. Offset
 - ☐ D. Break

Q.83 In disaster management, GIS plays an important role mainly because it:

- Ans
- ☐ A. calculates settlement in shallow foundations for hazard mapping
 - ☐ B. determines tensile strength of steel reinforcement for hazard mapping
 - ☒ C. integrates spatial and attributes data for hazard mapping
 - ☐ D. measures permeability of soil samples for hazard mapping

Q.84 The primary function of the switch rails in a turnout is to:

- Ans
- ☐ A. Maintain proper gauge
 - ☐ B. Provide structural stability
 - ☐ C. Provide a smooth passage through the crossing
 - ☒ D. Guide wheels from main line to turnout line

Q.85 Which of the following sets of details is typically shown in a building section drawing?

- Ans**
- ☐ A. Location of furniture, electrical switch positions, drainage lines, and door numbers
 - ☐ B. Site boundaries, north direction, plot dimensions, and road access information
 - ☒ C. Plinth height, storey heights, thickness of walls, and sizes of structural members
 - ☐ D. Carpet area, number of rooms, exterior color, and type of flooring used

Q.86 The short piece that connects the ledger to the structure itself in single-frame scaffolding is called ____.

- Ans**
- ☐ A. Brace
 - ☐ B. Guardrail
 - ☒ C. Putlog
 - ☐ D. Toe board

Q.87 Which type of soil requires deeper excavation to avoid structural damage due to swelling and shrinkage?

- Ans**
- ☐ A. Loamy soil
 - ☒ B. Black cotton soil
 - ☐ C. Sandy soil
 - ☐ D. Gravelly soil

Q.88 When reactions are found graphically for a simply supported beam with vertical point loads, the length of the reaction vector is proportional to:

- Ans**
- ☒ A. The magnitude of reaction force at the support
 - ☐ B. The beam's deflection at mid span
 - ☐ C. The span length of the beam only
 - ☐ D. The distance between loads

Q.89 Which material is preferred for railway track ballast?

- Ans**
- ☒ A. Crushed stone
 - ☐ B. Sand
 - ☐ C. Lime
 - ☐ D. Gravel

Q.90 The maximum stress induced in a member is always:

- Ans**
- ☐ A. zero in tension
 - ☒ B. greater than or equal to the average stress
 - ☐ C. less than the average stress
 - ☐ D. equal to the minimum stress

Q.91 A body is resting on a rough inclined plane. If the frictional force is equal to the component of weight along the plane, the body is in:

- Ans**
- ☐ A. uniform motion
 - ☐ B. free fall
 - ☒ C. equilibrium
 - ☐ D. acceleration

Q.92 Which of the following best explains why timber with straight grains is often preferred for structural use?

- Ans**
- ☐ A. Straight grains reduce the weight of the timber.
 - ☒ B. Straight grains provide uniform strength.
 - ☐ C. Straight grains make the timber more flexible.
 - ☐ D. Straight grains increase the hardness significantly.

- Q.93** What is a common shape of steel fibers used in fiber-reinforced concrete?
- Ans** ☒ A. Cylindrical
☒ B. Hooked-end
☐ C. Cubic
☐ D. Round
- Q.94** As per IRC:SP:90-2010, the minimum vertical clearance requirement for road underpasses is:
- Ans** ☐ A. 4.5 m in all cases
☒ B. 5.0 m in general and 5.5 m in urban areas
☐ C. 6.25 m above railway track level
☐ D. 3.5 m for minor roads only
- Q.95** The assumption in pure bending that plane sections remain plane after bending leads to which stress distribution?
- Ans** ☐ A. Exponential stress variation
☐ B. Uniform stress throughout the depth
☒ C. Linear stress variation
☐ D. Parabolic stress variation
- Q.96** A summit curve is provided on a road profile where:
- Ans** ☐ A. Two ascending gradients intersect smoothly
☒ B. An ascending gradient meets a falling one
☐ C. Two descending gradients come together
☐ D. A descending gradient meets a level section
- Q.97** If the calculated nominal shear stress τ_v in a reinforced concrete beam exceeds the maximum permissible shear stress in concrete $\tau_{c, \max}$ as per IS 456:2000, what is the appropriate course of action?
- Ans** ☐ A. Provide additional shear reinforcement only
☐ B. Increase the beam width only
☒ C. Increase the effective depth of the beam or redesign the section
☐ D. Use a lower grade of concrete to reduce stress
- Q.98** Which equipment is most suitable for tunnel excavation in medium-strength rock where precise profiling is required?
- Ans** ☒ A. Tunnel Boring Machine (TBM)
☐ B. Explosives
☐ C. Dragline excavator
☐ D. Hydraulic hammer
- Q.99** Which of the following is a limitation of the Direct Shear Test?
- Ans** ☒ A. The failure plane is predetermined and may not be the weakest plane in the soil specimen.
☐ B. It can only be used for clayey soils and not for sandy soils.
☐ C. It requires a very long time to conduct, making it unsuitable for quick analysis.
☐ D. The test cannot measure shear strength parameters like cohesion and angle of internal friction.

Q.100 Removal of topsoil, grading to formation level, and forming cuttings or embankments during earthworks is most effectively carried out using which of the following equipment?

- Ans**
- ☐ A. Pile driver
 - ☒ B. Tractor shovel with a 4-in-1 bucket
 - ☐ C. Tower crane
 - ☐ D. Concrete mixer

Q.101 What is the primary purpose of pressure grouting in building foundation treatment work?

- Ans**
- ☐ A. Applying protective surface coating for improving appearance of foundation surfaces
 - ☐ B. Increasing thermal insulation performance within external foundation wall assemblies
 - ☒ C. Improving soil strength and reducing water penetration below foundation structures
 - ☐ D. Supporting internal wall finishes against mechanical damage during building service

Q.102 A louvered door is ideal for which type of location within a building?

- Ans**
- ☐ A. Emergency exit
 - ☐ B. Main entrance
 - ☒ C. Laundry room
 - ☐ D. Garage door

Q.103 As per IS 17953 : 2023 (uPVC Profiles for Windows and Doors — Specification), for the determination of resistance to weathering, the range of the radiant exposure wavelength used is ____.

- Ans**
- ☐ A. 150 nm to 300 nm
 - ☐ B. 200 nm to 500 nm
 - ☐ C. 50 nm to 150 nm
 - ☒ D. 300 nm to 800 nm

Q.104 A water pipe has a smooth interior. Over the time, scaling increases the roughness. What happens to the frictional head loss for the same flow rate?

- Ans**
- ☐ A. Remains same
 - ☒ B. Increases
 - ☐ C. Decreases
 - ☐ D. Becomes zero

Q.105 In a building drawing, a sectional elevation is prepared by imagining a vertical cut through the structure from top to bottom. Which additional information is mainly obtained from a sectional elevation compared to a front elevation?

- Ans**
- ☐ A. External appearance of walls, front architectural style, and side view details
 - ☐ B. Plot boundaries, setback distances, and site alignment details
 - ☒ C. Cut portions of structural elements, plinth levels, and foundation details
 - ☐ D. Location of rooms, circulation passages, and furniture arrangement details

Q.106 In a homogenous and prismatic continuous beam under uniformly distributed load, the bending moment at an intermediate support is:

(Consider that the length of each intermediate span measures the same.)

- Ans**
- ☐ A. zero
 - ☐ B. equal to the midspan moment
 - ☒ C. hogging
 - ☐ D. sagging

Q.107 Which roof type is most suitable for covering spans greater than 9 m?

- Ans
- ☐ A. King post truss
 - ☐ B. Aisle Roof
 - ☒ C. Queen post truss
 - ☐ D. Couple Roof

Q.108 Pipes of different diameters and lengths connected end to end to form a pipe line are called _____.

- Ans
- ☐ A. Branched pipes
 - ☐ B. Equivalent pipes
 - ☒ C. Compound pipes
 - ☐ D. Pipes in parallel

Q.109 In a reinforced concrete beam, the development length is provided to prevent ____.

- Ans
- ☒ A. slipping of reinforcement
 - ☐ B. crushing of concrete
 - ☐ C. torsional failure
 - ☐ D. excessive deflection

Q.110 Which of the following is the function of a head regulator in a barrage?

- Ans
- ☐ A. To serve as one side wall of fish ladder
 - ☒ B. To admit water into the off taking canal
 - ☐ C. To prevent erosion of riverbanks
 - ☐ D. To prevent the river from outflanking the barrage

Q.111 During maintenance, a valve in a water supply system needs to be shut. To avoid water hammer, the valve should be:

- Ans
- ☐ A. Closed immediately
 - ☒ B. Closed gradually
 - ☐ C. Left open
 - ☐ D. Closed halfway

Q.112 Higher water absorption in coarse aggregates indicates:

- Ans
- ☐ A. higher durability of concrete
 - ☐ B. increased workability of concrete
 - ☒ C. higher porosity and lower strength
 - ☐ D. better bonding with cement

Q.113 A uniform bar is heated uniformly but prevented from expanding in any direction. What type of internal stress develops as a result?

- Ans
- ☒ A. Compressive stress
 - ☐ B. Bending stress
 - ☐ C. No stress
 - ☐ D. Tensile stress

Q.114 Which of the following is a necessary condition for plane table surveying?

- Ans
- ☐ A. All the stations must be established on a slope of the terrain
 - ☒ B. The plane table must be levelled and properly oriented at each station
 - ☐ C. Contours must be measured and plotted before starting the survey
 - ☐ D. Only a single station is required for the entire survey

Q.115 The primary purpose of a seal coat in bituminous pavement construction is to:

- Ans
- ☐ A. strengthen the granular base
 - ☒ B. provide skid resistance and waterproofing
 - ☐ C. replace the bituminous binder layer
 - ☐ D. improve the compaction of subgrade soil

Q.116 Which material in section is represented by the hatch shared below as per IS 982 (1989)?



- Ans
- ☐ A. Wood
 - ☐ B. Earth
 - ☐ C. Brick
 - ☒ D. Concrete

Q.117 Which of the following types of flooring is preferably used in dancing halls and in auditoriums?

- Ans
- ☐ A. Ceramic Tile flooring
 - ☒ B. Timber Flooring
 - ☐ C. Brick Flooring
 - ☐ D. Porcelain Tile flooring

Q.118 For a column with both ends hinged (pinned–pinned), the effective length L_{eff} is _____ times the actual length of the column.

- Ans
- ☐ A. equal to 2
 - ☒ B. equal to 1
 - ☐ C. equal to 1.5
 - ☐ D. equal to 0.5

Q.119 In the context of brick masonry, what distinguishes modular bricks from traditional bricks?

- Ans
- ☐ A. Traditional bricks are produced in larger standard sizes
 - ☐ B. Traditional bricks are manufactured using lightweight materials
 - ☒ C. Modular bricks are produced with standardized dimensions
 - ☐ D. Modular bricks are manufactured mainly by manual methods

Q.120 What is the recommended sequence for setting CAD software on a computer without operating system (OS)?

- Ans
- ☐ A. Download drawing - Start drawing - Install CAD
 - ☒ B. Install OS - Install CAD software - Configure settings
 - ☐ C. Launch Software - Install key drivers - Install OS
 - ☐ D. Create layers - Save file - Install OS

Q.121 Identify the correct statement(s) about a change point in a levelling operation.

Statement I : It is also known as turning point.

Statement II : The plus sight is taken on the change point on one set of instrument to ascertain the elevation of the point.

Statement III : The minus sight is taken on the change point to establish the new height of the instrument.

- Ans**
- ☐ A. Statement I and II only
 - ☐ B. Statement III only
 - ☒ C. Statement I and III only
 - ☐ D. Statement I only

Q.122 Which of the following is NOT a type of clay tile for roofing?

- Ans**
- ☐ A. Mangalore pattern tile
 - ☐ B. Spanish tile
 - ☐ C. Allahabad tile
 - ☒ D. Terracotta Jali

Q.123 In geometric design of highways, while on rolling terrain, design speeds are generally:

- Ans**
- ☐ A. Higher than plain terrain
 - ☐ B. Unrelated to terrain type
 - ☐ C. Same as mountainous terrain
 - ☒ D. Lower than plain terrain

Q.124 Which method is primarily used to fill cracks, voids, and fissures in loose gravels and rocky strata?

- Ans**
- ☐ A. Guniting
 - ☐ B. Cavity wall construction
 - ☒ C. Grouting
 - ☐ D. Surface treatment

Q.125 In soil mechanics, the seepage velocity is related to the discharge velocity and porosity of the soil. Which of the following statements is correct?

- Ans**
- ☐ A. Seepage velocity is independent of soil porosity.
 - ☐ B. Seepage velocity is equal to discharge velocity multiplied by porosity.
 - ☐ C. Seepage velocity is always less than discharge velocity.
 - ☒ D. Seepage velocity is equal to discharge velocity divided by porosity.

Q.126 Which of the following advanced technologies is commonly used to ensure uniform compaction of concrete in modern construction projects?

- Ans**
- ☒ A. Vibratory compaction equipment
 - ☐ B. High-pressure water jets
 - ☐ C. Laser levelling devices
 - ☐ D. Manual tamping methods

Q.127 Which of the following correctly represents the concrete contribution to shear strength V_c in Limit State Method (LSM) design?

- Ans**
- ☒ A. V_c is calculated based on concrete grade (f_{ck})
 - ☐ B. V_c is always taken equal to the total applied shear force
 - ☐ C. V_c depends only on the tensile strength of concrete
 - ☐ D. V_c is neglected entirely in shear design

Q.128 Which type of glass is commonly used in doors and windows?

- Ans
- ☐ A. Borosilicate glass
 - ☐ B. Lead glass
 - ☐ C. Flint glass
 - ☒ D. Soda-lime glass

Q.129 The layout for substructure work must consider nearby underground based utilities because:

- Ans
- ☐ A. They make excavation operations easier on site
 - ☒ B. Existing underground services may get damaged during excavation
 - ☐ C. They reduce need for detailed site survey work during excavation
 - ☐ D. They improve overall appearance of building layout during excavation

Q.130 Which layer prevents leachate migration in landfills?

- Ans
- ☒ A. Impermeable Liner
 - ☐ B. Gas Vent
 - ☐ C. Waste Layer
 - ☐ D. Soil Cover

Q.131 Which is the most appropriate definition of the origin point in an AutoCAD 2D co-ordinate system?

- Ans
- ☐ A. Effective diameter of the cursor on screen
 - ☐ B. Measured distance from a fixed reference point
 - ☐ C. Measured distance from the cursor to previous location
 - ☒ D. 0,0 location

Q.132 For a symmetrical channel section with a moment of inertia $I_{xx} = 9.45 \times 10^7 \text{ mm}^4$ and an area $A = 4500 \text{ mm}^2$, what is its radius of gyration k_{xx} ?

- Ans
- ☐ A. 116.34 mm
 - ☐ B. 175.48 mm
 - ☐ C. 159.56 mm
 - ☒ D. 144.92 mm

Q.133 Which of the following should be minimized in the design of a tension member?

- Ans
- ☐ A. Gross sectional area
 - ☐ B. Net sectional area
 - ☒ C. Deduction for rivet and bolt holes
 - ☐ D. Allowable stress in tension

Q.134 Which type of shoring is used when a building needs to be temporarily supported due to excavation nearby?

- Ans
- ☐ A. Dead shoring
 - ☐ B. Flying shoring
 - ☒ C. Raking shoring
 - ☐ D. Underpinning

Q.135 The quantity estimation of structural timber work (wooden beams) is generally calculated based on:

- Ans
- ☒ A. Volume of timber used
 - ☐ B. Floor area of building
 - ☐ C. Number of rooms
 - ☐ D. Weight of timber used

Q.136 Which of the following is the non-recording type of rain gauge prescribed by the India Meteorological Department?

- Ans
- ☐ A. Weighted bucket rain gauge
 - ☐ B. Tipping bucket rain gauge
 - ☒ C. Symon's rain gauge
 - ☐ D. Float type rain gauge

Q.137 Which of the following is an essential component commonly included in a construction tender document?

- Ans
- ☒ A. Technical specifications describing project requirements
 - ☐ B. Financial records of all participating contractors
 - ☐ C. Project drawings prepared without technical specifications
 - ☐ D. Promotional brochures issued for project advertisement

Q.138 A simply supported beam has a span of 6 m with an overhang of 4 m. A uniformly distributed load (UDL) of 6 kN/m acts over the overhang length of 4 m. What is the reaction at the nearest support?

- Ans
- ☒ A. 32 kN
 - ☐ B. 6 kN
 - ☐ C. 10 kN
 - ☐ D. 24 kN

Q.139 With respect to shear strength of soils, refer to the following Assertion and Reason and select the correct statement from the options given.

Assertion (A): For cohesionless soils, the failure does not occur on the plane of maximum shear stress.

Reason (R): Failure in soil takes place due to shear failure when compressive load is applied.

- Ans
- ☐ A. A is true and R is false.
 - ☐ B. A is false and R is true.
 - ☒ C. Both A and R are true and R is not the correct explanation of A.
 - ☐ D. Both A and R are true and R is the correct explanation of A.

Q.140 Under which of the following types of the dampness-checking materials categories, does cement concrete fall?

- Ans
- ☐ A. grout
 - ☐ B. flexible
 - ☐ C. temporary
 - ☒ D. rigid

Q.141 The bending moment diagram (BMD) for a simply supported beam carrying a uniformly distributed load over its entire span is:

- Ans
- ☐ A. rectangular in shape
 - ☐ B. triangular in shape
 - ☒ C. parabolic in shape
 - ☐ D. linear in shape

Q.142 Soda-lime glass is predominantly utilised in architectural construction for:

- Ans
- ☐ A. structural load-bearing components
 - ☐ B. fire-resistant partitions
 - ☐ C. thermal insulation boards
 - ☒ D. transparent window panes and glazing

Q.143 Which of the following statements is NOT correct about working drawings?

- Ans**
- ☐ A. They are detailed drawings of the building.
 - ☐ B. They are fully dimensioned.
 - ☒ C. They do not include schedule of openings.
 - ☐ D. They are drawn to a suitable scale.

Q.144 The property of timber which enables it to absorb sudden shocks or impact loads is called ____.

- Ans**
- ☐ A. Tenacity
 - ☐ B. Elasticity
 - ☐ C. Hardness
 - ☒ D. Toughness

Q.145 Which of the following types of welds is primarily designed to transmit shear forces in a connection?

- Ans**
- ☒ A. Fillet weld
 - ☐ B. Slot weld
 - ☐ C. Groove weld
 - ☐ D. Butt weld

Q.146 According to IS 1892:2021, for a compact building site of about 0.4 hectare area, what is the recommended minimum number and location of boreholes or test pits for soil investigation?

- Ans**
- ☐ A. Boreholes spaced uniformly every 50 meters over the site
 - ☐ B. One borehole or test pit at the center of the site only
 - ☒ C. One borehole or test pit at each corner and one at the center
 - ☐ D. At least ten boreholes evenly spaced regardless of site size

Q.147 The friction factor used in geometric design of highways is provided by the:

- Ans**
- ☒ A. Indian Road Congress (IRC)
 - ☐ B. National Highways Authority
 - ☐ C. Bureau of Indian Standards (BIS)
 - ☐ D. Ministry of Railways

Q.148 Which types of piles are typically used in areas with expansive soils?

- Ans**
- ☐ A. Sheet piles
 - ☐ B. Friction piles
 - ☐ C. Screw piles
 - ☒ D. Under-reamed piles

Q.149 _____ formwork is used for continuous vertical structures like chimneys, silos, and towers.

- Ans**
- ☐ A. Timber
 - ☐ B. Plastic
 - ☒ C. Slip
 - ☐ D. Steel

Q.150 Which combination of factors is most likely to result in cracks due to shrinkage in plaster?

- Ans**
- ☐ A. Thin coat with slow drying conditions
 - ☒ B. Application of thick coat and rapid drying
 - ☐ C. Thin coat and moist curing process
 - ☐ D. Thick coat with slow drying conditions