Find the duration of the project from the given table.

Activity	Duration	Predecessor
A	5	NIL
В	8	A
С	7	A
D	9	С
E	11	B, C
F	3	E
G	4	C
Н	3	D, G
I	9	H, F
J	7	H, I

- (A) 🔿 28 days
- (B) 🔿 39 days
- (C) 🔿 32 days
- (D) O 43 days (Correct Answer) (Chosen option)

Question No.2

Marks: 1.00 Bookmark

Select the INCORRECT statement.

- (A) O Comparative estimation compares the experience of two experts (Correct Answer) (Chosen option)
- (B) \bigcirc Bottom-up estimate gives results better than the top-down estimate
- (C) O Parametric model estimating method can be used to get the days-perworkstation
- (D) O Top-down estimate makes use of a high-level work breakdown structure

Question No.3

Marks: 1.00 Bookmark

The equation used for the determination of compression index for undisturbed soil is given by: $(A) \subseteq C$

(A)
$$\bigcirc C_c = 0.007(w_L - 10\%)$$

(B) 🔿

and ge and earned and the

- (A) 🔘 IS 456
- (B) O IS 1035 (Part32)
- (C) O IS 10500 (2012) (Chosen option)
- (D) O IS 1172: 1993 (Correct Answer)

Question No.5

Marks: 1.00 Bookmark

Marks: 1.00

Bookmark

Select the INCORRECT statement for the cashbook.

- (A) O Petty cash book is generally used to keep the record of small amount expenses
- (B) O Cashbook records all the payments and receipts chronologically
- (C) Cashbook performs the functions of the journal but not of the ledger (Correct Answer) (Chosen option)
- (D) O Cashbook verifies the correctness of cash in hand and bank

Question No.6

Indian Roads Congress (IRC) was formed in the year _____

- (A) 🔿 1958
- (B) 🔿 1938
- (C) 🔿 1947
- (D) O 1934 (Correct Answer) (Chosen option)

Question No.7

Marks: 1.00 Bookmark

A core cutter having volume 1000 cm^3 weighing 1000 g is used to determine the in-situ density of an embankment. The weight of core cutter full of soil is 2850 g. What is the insitu density of the soil?

- (A) \bigcirc 1.85 g/cm³ (Correct Answer) (Chosen option)
- (B) \bigcirc 1.65 g/cm³
- (C) \bigcirc 1.95 g/cm³
- (D) \bigcirc 1.90 g/cm³

Question No.8

The component of the total force in the direction of motion is called _____

- (A) O cylinder
- (B) O lift
- (C) \bigcirc drag (Correct Answer) (Chosen option)

Identify the CORRECT order of engineering surveys for highway alignment.

- (A) O Map study, Reconnaissance survey, Preliminary survey and Final location and Detailed surveys (Correct Answer) (Chosen option)
- (B) O Reconnaissance survey, Final location and detailed surveys, Map study and Preliminary survey
- (C) O Final location and detailed surveys, Map study, Reconnaissance survey, Preliminary survey
- (D) O Preliminary survey, Final location and Detailed surveys, Map study and Reconnaissance survey

Question No.11

Marks: 1.00 Bookmark

In the laboratory, the density of the soil is checked by:

- $(A) \bigcirc$ Le-chatelier apparatus
- (B) O Casagrande apparatus
- (C) O Modified Proctor Compaction (Correct Answer) (Chosen option)
- (D) O Direct Shear Test

Question No.12

The maximum shear stress at the neutral axis for the rectangular section is given by:

- (A) (А) 1.8 т_{аvg}
- (B) O 2.5 Tavg
- (C) O 2.0 Tavg
- (D) O 1.5 τ_{avg} (Correct Answer) (Chosen option)

Question No.13

Distance of an object from survey line is called:

- (A) 🔿 Chainage
- (B) Offset (Correct Answer) (Chosen option)
- $(C) \bigcirc$ Main line distance
- (D) O Base line distance

Question No.14

Marks: 1.00 Bookmark

Marks: 1.00 Bookmark

- (A) () mechanical means
- (B) O sinking wells
- (C) O gravity (Correct Answer) (Chosen option)
- (D) O pumping

Marks: 1.00 Bookmark

Which one of the following factors does the loss of headwater depend on?

- $(A) \bigcirc$ Elevation of the highest point of delivery
- (B) O The type of valves used
- (C) O Material use for service pipes
- (D) O Its length, number of bends and speed of water (Correct Answer) (Chosen option)

Question No.17

Marks: 1.00 Bookmark

What should be the span/depth ratio for simply supported beam to limit the vertical deflection?

- (A) O 20 (Correct Answer) (Chosen option)
- (B) 🔿 28
- (C) 🔿 7
- (D) 🔿 26

Question No.18

Marks: 1.00 Bookmark

Determine the factor when the hydrostatic force on one of the vertical sides of the beaker decreases when the height of the liquid column is reduced to one-fourth.

- (A) \bigcirc 1/16 (Correct Answer)
- (B) 🔿 1/8
- (C) O 1/4 (Chosen option)
- (D) 🔿 1/2

Question No.19

Marks: 1.00

Bookmark

The IS-Code which is used for the manufacture of glazed earthenware urinals in India is:

- (A) O IS 771:1979 (Correct Answer)
- (B) O IS 1172:1993
- (C) O IS 3114:1994
- (D) O IS 1742:1983 (Chosen option)

Question No.21	Marks: 1.00 Bookmark
A cantilever of length 6 m carries a point load of 48 kN at its centre. The cantilever is propped rigidity at the free end. Determine the reaction at the rigid prop. (A) \bigcirc 20 kN	BOOKINGIK
(B) O 30 kN (Chosen option)	
(C) O 15 kN (Correct Answer)	
(D) 🔿 25 kN	
Question No.22	Marks: 1.00 Bookmark
First level managers of construction projects are largely influenced by: (A) O Strategic issues (Chosen option)	BOOKMAIK
(B) O Long range issues	
(C) O Shareholder issues	
(D) O Short range issues (Correct Answer)	
Question No.23	Marks: 1.00 Bookmark
The resultant vector is formed by of the two vectors. (A) O addition (Correct Answer) (Chosen option)	Bookinark
(B) O square root	
(C) O subtraction	
(D) 🔿 square	
Question No.24	Marks: 1.00 Bookmark
Shear span is called the zone where:	Bookindik
(A) O Shear force is constant (Correct Answer) (Chosen option)	
(B) ○ Shear force is zero	
(C) O Bending moment is constant	
(D) O Bending moment changes	
Question No.25	Marks: 1.00 Bookmark
Pipes in the series network, the water level should be transferred from: (A) \bigcirc No such restrictions (Correct Answer)	BUUKIIIAIK
(B) O Higher level to lower level (Chosen option)	

(C) \bigcirc Lower level to lower level

Ques	tion No.27	Marks: 1.00 Bookmark
	_ is caused by natural rising of warmer lighter air in colder denser surroundings.	Bookmark
(A) 🔿	Frontal precipitation	
(B) 🔿	Orographic precipitation	
(C) 🔿	Cyclonic precipitation	
(D) 🔿	Convective precipitation (Correct Answer) (Chosen option)	
Ques	tion No.28	Marks: 1.00 Bookmark
In surve	eying, working from whole to part leads to:	BOOKMARK
	Minimization of errors (Correct Answer) (Chosen option)	
(B) 🔿	Maximization of errors	
(C) (Uncontrollable errors	
(D) 🔿	Complete minimization of errors	
Ques	tion No.29	Marks: 1.00 Bookmark
The ler	igth of National Highways as per 3rd 20-year (Lucknow) road plan is:	BOOKMAIK
	Area of the country/40	
(B) 🔿	Area of the country/75	
(C) 🔿	Area of the country/25	
(D) 🔿	Area of the country/50 (Correct Answer) (Chosen option)	
Ques	tion No.30	Marks: 1.00 Bookmark
	ter utilized by plants is available in soils mainly in the form of: Chemical water	BOOKMAIK
. , _	Capillary water (Correct Answer) (Chosen option)	
	Hydroscopic water	
• •	Gravity water	
Ques	tion No.31	Marks: 1.00
The ob	jective of two-point problem which is solved with the resection method is:	Bookmark
(A) (

(B) \bigcirc Locating the plane table station point (Chosen option)

Marks: 1.00

Marks: 1.00

Bookmark

Bookmark

The variable head permeability test was conducted on a soil sample of 4.2 cm diameter and 18.5 cm length. The head fell from 1.20 m to 0.60 m in 20 minutes. If the cross-sectional area of the stand pipe was 1 cm² then the coefficient of permeability is:

- (A) 1.71 x 10⁻⁴ cm/sec
- (B) \bigcirc 3.71 x 10⁻⁴ cm/sec
- (C) \bigcirc 5.71 x 10⁻⁴ cm/sec (Chosen option)
- (D) \bigcirc 7.71 x 10⁻⁴ cm/sec (Correct Answer)

Question No.34

From where did the first passenger train run in South India?

- (A) O Perambur (Chosen option)
- (B) O Royapuram (Correct Answer)
- (C) 🔘 Bengaluru
- (D) 🔿 Khopoli

Question No.35Marks: 1.00BookmarkThe short offsets in chain survey are the ones whose length is _____(A) \bigcirc 21 to 25 m(B) \bigcirc > 25 m

- (C) 🔿 15 to 20 m
- (D) O < 15 m (Correct Answer) (Chosen option)

Question No.36

Marks: 1.00 Bookmark

What is the minimum area of distribution bars required for slabs where steel Fe415 is used?

- (A) O 0.12% of gross area of slab (Correct Answer) (Chosen option)
- (B) \bigcirc 4% of gross area of slab
- (C) \bigcirc 6% of gross area of slab
- (D) \bigcirc 0.15% of gross area of slab

Question No.37

- (B) O Parabolic
- (C) O Linear (Chosen option)
- (D) O Cubic

Marks: 1.00 Bookmark

What is the content of Lime in Portland cement?

- (A) 🔿 17-25%
- (B) 🔿 20-30%
- (C) O 60-67% (Correct Answer) (Chosen option)
- (D) (D) 12-20%

Question No.40

The seepage velocity of the soil sample having porosity value 0.373 and discharge velocity 1.435×10^{-2} cm/sec is:

- (A) 2.5 x 10⁻² cm/sec
- (B) \bigcirc 1.2 x 10⁻² cm/sec
- (C) \bigcirc 0.535 x 10⁻² cm/sec
- (D) \bigcirc 3.85 x 10⁻² cm/sec (Correct Answer) (Chosen option)

Question No.41

If the irrigation efficiency is 80%, conveyance losses are 20% and the actual depth of watering is 16 cm, the depth of water required in centimeter at the canal outlet is:

- (A) 🔿 15
- (B) O 25 (Correct Answer)
- (C) O 20 (Chosen option)
- (D) 🔿 10

Question No.42

Marks: 1.00 Bookmark

When river flows in two or more channels around alluvial islands, it is known as:

- (A) \bigcirc Stable river
- (B) O Degrading river
- (C) O Braided river (Correct Answer) (Chosen option)
- (D) \bigcirc Aggrading river

Marks: 1.00 Bookmark

Bookmark

Which of the following is INCORRECT for the slow sand filter?

- $(A) \bigcirc$ Coagulation is not required for a slow sand filter
- (B) O In slow sand filter loss of head is initial 15 cm to 100 cm final
- (C) The rate of filtration for the slow sand filters is 3000 to 6000 litres per hour per m² (Correct Answer) (Chosen option)
- (D) O Method for cleaning used for rapid sand filter is scrapping of top layer

Question No.45

Marks: 1.00

Bookmark

The area of a certain district is 14000 sq.km and there are 15 towns as per 1981 census. What is the length of NH and SH respectively?

(A) O 280 km and 657.5 m (Correct Answer) (Chosen option)

(B) O ReyonId's number (Correct Answer) (Chosen option)

- (B) 🔘 250 km and 557.5 km
- (C) 🔘 290 km and 757.5 km
- (D) O 260 km and 457.5 km

Marks: 1.00
Bookmark

Question No.47	Marks: 1.00
	Bookmark
Composite sleeper index (CSI) is measured to demonstrate the timber's:	
(A) 🔿 Toughness and wear resistance	
(B) O Strength and Toughness	
(C) O Hardness and strength (Correct Answer) (Chosen option)	
(D) O Wear resistance and hardness	
Question No.48	Marks: 1.00
Pownold's model low is the low in which models are based on:	Bookmark
Reynold's model law is the law in which models are based on: (A) O Pipe flow	
(A) O Pipe flow	

Marks: 1 00 Bookmark

The minimum length of Intermediate Sight Distance (ISD) provided in hill roads is:

- (A) O 2 time the Stopping Sight Distance (Correct Answer) (Chosen option)
- (B) O 3 time the Stopping Sight Distance
- $(C) \bigcirc$ Equal the Stopping Sight Distance
- (D) (D) 4 time the Stopping Sight Distance

Question No.51

The strength of jump is commanded by:

- (A) O Downstream velocity
- (B) O Froude Number (Correct Answer) (Chosen option)
- (C) O Bed slope
- (D) O Upstream velocity

Question No.52

Marks: 1.00

Bookmark

Which level of managers is responsible for setting the goal of the company and defining the vision and mission of the organization?

$(A) \bigcirc$ Second level managers

- (B) O Middle managers
- (C) O First level managers
- (D) C Executive managers (Correct Answer) (Chosen option)

Question No.53

Marks: 1.00

Bookmark

In R.C.C. members, if a beam is over-reinforced and loaded up to destruction, the failure will occur due to _____

- (A) O buckling
- (B) O cracks
- (C) O shrinkage of concrete
- (D) O crushing of concrete (Correct Answer) (Chosen option)

Question No.54

Principal plane is independent of stress.

Marks: 1.00 Bookmark

(C) O IS: 800–2007 (D) O IS: 383–1970 Question No.56 Marks: 1 00 Bookmark The first experimental slow sand filter was constructed by John Gibb at Paisley in Scotland in the year _____ (A) 🔿 1821 (B) () 1800 (C) (C) 1823 (D) (D) 1804 (Correct Answer) (Chosen option) **Question No.57** Marks: 1.00 Bookmark The width of carriageway of two lanes, without raised kerbs is (A) 🔿 7.5 m (B) 🔿 3.75 m (C) O 7.0 m (Correct Answer) (Chosen option) (D) 🔿 5.5 m **Question No.58** Marks: 1.00 Bookmark aggregates provide good durability to concrete. (A) O Friction (B) O Plastic (C) O Inelastic (D) O Elastic (Correct Answer) (Chosen option) **Question No.59** Marks: 1.00 Bookmark Additional transverse reinforcement is provided at faces if depth of member subjected to torsion exceeds mm. (A) (A) (Correct Answer) (Chosen option) (B) O 300 (C) 🔿 750 (D) 🔿 700

Question No.60

A plan or map represents:

- (A) O Area on a horizontal plane (Correct Answer) (Chosen option)
- (B) \bigcirc Area on a curved plane
- (C) O Area on a vertical plane
- $(D) \bigcirc$ Area on an inclined plane

Question No.62

Which of the following techniques makes a great effort to measure the quality for near perfection?

Marks: 1.00

Marks: 1.00

Bookmark

Bookmark

- $(A) \bigcirc$ Design of experiments
- (B) O Six Sigma (Correct Answer) (Chosen option)
- (C) O Benchmarking
- (D) O Control Charts

Question No.63

The primary objective of surveying is:

- $(A) \bigcirc$ Measurement of angles
- (B) O Levelling (Chosen option)
- (C) O Fixing boundaries
- (D) O Preparation of plan or map (Correct Answer)

Question No.64	Marks: 1.00
Continuity equation and Bernoulli's equation are based on law of conservation of respectively.	Bookmark
(A) \bigcirc momentum and mass	
(B) 🔿 momentum and energy	
(C) \bigcirc mass and momentum	
(D) O mass and energy (Correct Answer) (Chosen option)	
Question No.65	Marks: 1.00 Bookmark
What percentage of magnesia is allowed in ordinary Portland cement?	BOOKMAIK
(A) () 8%	
(B) 〇 3%	
(C) 🔿 10%	
(D) O 6% (Correct Answer) (Chosen option)	

The ratio of the square root of inertia force to surface tension force is known as:

- $(A) \bigcirc$ Froude number
- (B) \bigcirc Euler number (Chosen option)
- (C) O Weber number (Correct Answer)
- (D) O Reyonld's number

Question No.68

Who is known as the father of Indian Railways?

- (A) O Lord Lytton
- (B) O Lord William Bentinck (Chosen option)
- (C) O Lord Curzon
- (D) O Lord Dalhousie (Correct Answer)

Question No.69

A ladder network is useful in case of ______ works.

- (A) O small
- (B) O continuous (Chosen option)
- (C) O repetitive (Correct Answer)
- (D) 🔘 large

Question No.70

Marks: 1.00 Bookmark

Marks: 1.00

Bookmark

Which of the following statements about Activity-based costs (ABC) is INCORRECT?

- (A) ABC is more likely to end up with a big difference from traditional pricing systems if the company produces a single product instead of many. (Correct Answer)
- (B) \bigcirc ABC is beneficial for the distribution of marketing and distribution costs.
- (C) O ABC differs from traditional pricing systems in that the products are not split between them. (Chosen option)
- (D) \bigcirc In ABC, cost drivers are what cause costs to be incurred.

Question No.71

If 'v' is the discharge velocity and 'n' is porosity, then seepage velocity is given by: (A) \bigcirc



Bookmark

Marks: 1.00 Bookmark

Shear reinforcement spacing is given as: (A) \bigcirc

(\(\)) U	Sv =	As0.91fy 0.4B	7
(B) 🔿	Sv =	As0.45fy 0.4B	
(C) ()	Sv	As0.25f 0.4B	y
(D) 🔿	Sv	As0.87fy 0.4B	(Correct Answer) (Chosen option)

Question No.73

A beaker contains water up to a height of h/3. Find the location of centre of pressure.

- (A) 🔿 h/4
- (B) O 18h/4
- (C) O h/18
- (D) O 2h/9 (Correct Answer) (Chosen option)

Question No.74

The actual penetration of penetrometer needle for the bitumen grade of 30/40 is:

- (A) \bigcirc 3 cm to 4 cm
- (B) O 3 mm to 4 mm (Correct Answer)
- (C) 🔿 30 mm / 40 mm
- (D) O 30 mm to 40 mm (Chosen option)

Question No.75

For serviceability limit states, what is partial factor of safety for concrete?

Marks: 1.00 Bookmark

Marks: 1.00 Bookmark

(C) 🔿 12-15%	
(D) 🔿 50-60%	
Question No.77	Marks: 1.00
 Which of the following techniques is NOT a demand forecasting method? (A) O Rolling average method (B) O Critical path method (Correct Answer) (Chosen option) (C) O Exponential smoothing method (D) O Weighted average moving method 	Bookmark
Question No.78	Marks: 1.00 Bookmark
Penetration value of Bitumen is expressed in:	Dookiilaik
(A) O 1/10 th mm (Correct Answer) (Chosen option)	
(B) 🔿 cm	
(C) ○ mm ²	
(D) O cm ²	
Question No.79	Marks: 1.00 Bookmark
The porosity(n) of a given soil sample is defined as the ratio of volume of the voids to the of the given soil mass.	
(A) O total volume (Correct Answer) (Chosen option)	
(B) \bigcirc volume of solids	
(C) ○ volume of air	
(D) ○ volume of water	
Question No.80	Marks: 1.00 Bookmark
The given table lists the project's activities, precedence relationships and duration. Find the critical path of the project.	

- (A) 🔿 P-R-U-V
- (B) 🔿 P-R-T-U
- (C) 🔘 Q-S-T-U
- (D) O Q-S-U-W (Correct Answer) (Chosen option)

Question No.81	Marks: 1.00 Bookmark
The ratio of the actual discharge from an orifice to the theoretical discharge from the orifice is known as:	
(A) \bigcirc Co-efficient of viscocity	
(B) O Co-efficient of discharge (Correct Answer) (Chosen option)	
(C) O Co-efficient of contraction	
(D) O Co-efficient of velocity	
Question No.82	Marks: 1.00 Bookmark
Calculate the base width of gravity dam for no tension condition if height of dam is 150 meter, specific gravity of dam material 2.4. (Consider zero uplift pressure) (A) \bigcirc 96.82 meter (Correct Answer) (Chosen option)	
(B) ○ 150 meter	
(C) ○ 100 meter	
(D) 〇 95.82 meter	

Marks: 1.00 Bookmark

For a slab size 3.5×4.5 m subjected to live load 4.5 KN/m² and effective thickness as 150 mm, determine the short span moment when edges of slab are simply supported and corners are not held down and moment coefficients for short span and long span are 0.0912 and 0.0558. Use M30 concrete and Fe15 steel.

- (A) 🔿 10 KNm/m
- (B) O 15 KNm/m (Correct Answer) (Chosen option)
- (C) 🔿 5 KNm/m
- (D) 🔿 2.75 KNm/m

Question No.84

The gradual closure of valve condition is _____

days?

- (A) 🔿 25.39 GPa
- (B) O 10.53 GPa (Correct Answer) (Chosen option)
- (C) 🔿 15.53 Gpa
- (D) 🔿 27.39 MPa

Question No.86

Marks: 1.00

Bookmark

In a sewer, why the main circular circumferential reinforcement has been provided near the inner surface of the pipes?

- (A) O To withstand the internal force causing Hoops tension (Correct Answer) (Chosen option)
- (B) O To withstand the flexural force
- (C) 🔘 To resist erosion and abrasion
- (D) O To withstand the longitudinal stresses

Question No.87

Jet distance measurement is expressed as:

(A)
$$\bigcirc C_v = \frac{x}{4}$$

$$\bigcirc \qquad \mathcal{C}_{v} - \frac{x}{2h} \quad \text{(Chosen option)}$$

(C)
$$\bigcirc C_v = \frac{x}{h}$$

(B)

(D) $\bigcirc C_{\nu} = \frac{x}{\sqrt{4y\hbar}}$ (Correct Answer)

Question No.88

GOLF technique of inventory control is mainly based on:

- (A) O Benefit/Cost ratio (Chosen option)
- (B) O Materials (Correct Answer)
- (C) O Profit
- (D) 🔿 Loss

Question No.89

A vertical line which is perpendicular to the level line is called:

Marks: 1.00 Bookmark

Marks: 1.00 Bookmark

- (B) O 0.669
- (C) O 0.318 (Correct Answer) (Chosen option)
- (D) 🔿 0.728

Deflection along longer span of one way slab is:

- (A) O kinematics
- (B) O kinetics
- (C) O statics (Correct Answer) (Chosen option)
- (D) O dynamics

Question No.92

Marks: 1.00

Bookmark

A beam of span 10 m is carrying a point load of 200 N force at a distance of 4 m from A. Determine the beam reactions.

- (A) O RA= 80 N and RB= 120 N
- (B) O RA= 60 N and RB= 100 N
- (C) O RA= 120 N and RB= 80 N (Correct Answer) (Chosen option)
- (D) O RA= 100 N and RB= 60 N

Question No.93

Which is NOT a property of vector quantity?

- (A) \bigcirc It has both magnitude and direction
- (B) \bigcirc It can be resolved in any direction
- (C) O It is only one dimensional (Correct Answer) (Chosen option)
- $(D) \bigcirc$ It is used to represent the motion of an object

Question No.94

Continuity equation and Bernoulli's equation are based on law of conservation of ______ respectively.

- (A) 🔿 major
- (B) O minor
- (C) O primary
- (D) O principal (Correct Answer)

Marks: 1.00 Bookmark

Marks: 1.00 Bookmark

Bookmark

The efficiency and effectiveness of a trap will depend upon which one of the following?

- $(A) \bigcirc$ The layout of the house plumbing system
- (B) O Depth of the water seal (Correct Answer) (Chosen option)
- $(C) \bigcirc$ Ventilation of house drain
- (D) O The size of the lateral sewers

Question No.97	Marks: 1.00
	Bookmark
In a tacheometry survey of distance formula, the additive constant is expressed as:	
(A) (Focal length of objective lens) + (Distance from objective lens to vertical axis) (Correct Answer) (Chosen option)	
(B) (Focal length of objective lens) - (Distance from objective lens to vertical axis)	
(C) (Distance from objective lens to vertical axis) / (Focal length of objective lens)	
(D) \bigcirc (Focal length of objective lens) / (Distance from objective lens to vertical axis)	

Question No.98

What is the permissible tensile stress for high concrete gravity dam under worst conditions?

- (A) \bigcirc 50 kg/cm² (Chosen option)
- (B) 500 kg/m²
- (C) \bigcirc 500 KN/m² (Correct Answer)
- (D) O 5000 KN/m²

Question No.99

Marks: 1.00

Marks: 1.00

Bookmark

Bookmark

The ratio of the weight density of a fluid to the weight density of a standard fluid is known as:

- $(A) \bigcirc$ Kinematic viscosity
- (B) \bigcirc Specific volume
- (C) O Specific gravity (Correct Answer) (Chosen option)
- (D) O Viscosity

Question No.100

Shear centre is also known as centre of _____

- (A) O section
- (B) O twist (Correct Answer) (Chosen option)

(D) O spacing (Correct Answer)

Question No.102

Which of the following fluid properties has no dimensions?

- (A) 🔿 Volume
- (B) O Specific gravity (Correct Answer) (Chosen option)
- (C) O Viscosity
- (D) O Specific weight

Question No.103

As per IS code method of two-way slab design with continuous edges, positive moment coefficient is how much times of corresponding negative moment coefficient?

- (A) 🔿 4/3
- (B) 🔿 0
- (C) 🔿 2/3
- (D) O 3/4 (Correct Answer) (Chosen option)

Question No.104

When was the first train started from Indian to Pakistan?

- (A) O 1951 (Correct Answer) (Chosen option)
- (B) 🔿 1947
- (C) 🔿 1957
- (D) 🔿 1960

Question No.105

For Kharif season, the capacity factor usually varies from:

- (A) 🔘 0.6 0.8
- (B) O 0.6 0.7 (Chosen option)
- (C) 🔿 0.3 0.4
- (D) O 0.9 0.95 (Correct Answer)

Question No.106

Gravitational law of attraction is given by:

Marks: 1.00 Bookmark

Marks: 1.00 Bookmark

Marks: 1.00 Bookmark

Marks: 1.00 Bookmark

- (B) (B) (B) There are vertical curves
- (C) O Steel sleepers are used
- $(D) \bigcirc$ There are horizontal curves

What is the permissible maximum annual average concentration of SO₂ for residential areas, as per the new revised Indian ambient air quality standard?

- $(A) \bigcirc 0.019 \text{ ppm at } 20^{\circ}\text{C}$ (Correct Answer)
- (B) \bigcirc 0.029 ppm at 24°C (Chosen option)
- (C) 0.79 ppm at 20°C
- (D) 0.19 ppm at 15°C

Question No.109

Marks: 1.00

What is the major drawback of steel pipes?

- $(A) \bigcirc$ These pipes cannot withstand high negative (or vacuum) pressures (Correct Answer) (Chosen option)
- $(B) \bigcirc$ To some extent these pipes are flexible and therefore they can be laid easily on curves
- (C) O Withstand high internal pressure
- (D) O Light in weight

Question No.110

When was the first passenger train run in India?

- (A) (A) 17 April 1853
- (B) O 16 April 1853 (Correct Answer)
- (C) O 8 April 1853
- (D) O 15 April 1853 (Chosen option)

Question No.111

Which one of the following is NOT the main purpose of road side shoulder?

- (A) \bigcirc Shoulders act as service lanes for vehicles
- $(B) \bigcirc$ To provide structural stability and support to the edges
- $(C) \bigcirc$ Shoulders serve as emergency lanes for vehicles
- (D) C Eliminate the protection of pavement edges from traffic damage (Correct

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Marks: 1.00

- 3. Finishing
- 4. Super-structure
- (C) \bigcirc 1. Sub-structure
 - 2. Design
 - 3. Super-structure
 - 4. Finishing
- (D) O 1. Design
 - 2. Sub-structure
 - 3. Super-structure
 - 4. Finishing (Correct Answer) (Chosen option)

Which of the following devices is used to transfer the wagons/locomotives from parallel tracks without any necessity of shunting?

- (A) 🔿 Triangle
- (B) 🔿 Turn table
- (C) O Traverser (Correct Answer) (Chosen option)
- (D) O Scotch block

Question No.114

Marks: 1.00 Bookmark

The compacted soil sample has 250 g mass and 1.89 g/cm³ density using 12% water content. If the specific gravity of the soil is 2.74 and density of water is 1 g/cm³, the degree of saturation is approximately _____

- (A) 🔿 47%
- (B) 🔿 71%
- (C) O 53% (Correct Answer)
- (D) O 39% (Chosen option)

Question No.115

Marks: 1.00 Bookmark

When a river starts meandering, the sediment carrying capacity _____

- (A) O First increases and ultimately decreases (Chosen option)
- (B) \bigcirc Remains unaffected as the plan shape changes continuously
- (C) O First decreases and ultimately increases (Correct Answer)
- (D) O Changes erratically all-time leaving permanent braids

Question No.116

Marks: 1.00 Bookmark

is 400 r	the depth of neutral axis for a beam whose width is 200 mm and effective depth mm have tension reinforcement of 2-20 mm dia bars of Fe415 and concrete of M25. (Use LSM)?	
(A) 🔿	200 mm	
(B) 🔿	192 mm (Correct Answer) (Chosen option)	
(C) 🔿	184 mm	
(D) 🔿	126 mm	
Ques	tion No.118	Marks: 1.00 Bookmark
In Sexa	gesimal system, one circumference is equal to	BOOKMAIK
(A) 🔿	90°	
(B) 🔿	360 ^o (Correct Answer)	
(C) 🔿	270 ^o (Chosen option)	
(D) 🔿	180 ^o	
Ques	tion No.119	Marks: 1.00
For pre	stressed concrete, which code is to be used?	Bookmark
•	IS 10262:1982	
(B) 🔿	IS 3370-1965	
(C) 🔿	IS 456:2000	
(D) 🔿	IS 1343:1980 (Correct Answer) (Chosen option)	
Ques	tion No.120	Marks: 1.00 Bookmark
Heel di	vergence is:	Dookinark
(A) 🔿	Equal to width of rail head	
(B) 🔿	Always less than flangeway clearance	
(C) 🔿	Equal to flangeway clearance	
(D) 🔿	Always greater than flangeway clearance (Correct Answer) (Chosen option)	