



# PRESENTS

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# **Coal India Limited paper - 3**

1.	Asia's first and longest cycle highway runs		(D) Lever
	between:		
	(A) Hyderabad and Secunderabad in Telangana	6.	Who among the following won the Dronacharya Award in Gymnastics for the
	(B) Etawah and Agra in Uttar pradesh		year 2016 ?
	(C) Mumbai and Pune in Maharashtra		(A) Bishweshwar Nandi
	(D) Bengaluru and Mysuru in Karnataka		(B) Rajendra Pralhad Shelke
Sol.	<b>(B)</b>		(C) Deepa Karmakar
			(D) Lalita Babar
2.	Who is the current Speaker of Lok Sabha?	Sol.	(A)
	(A) Meira Kumar		
	(B) S.M. Krishna	7.	What type of Energy does "a batsman hitting a
	(C) Mohammad hamid Ansari		ball" use?
	(D) Sumitra Mahajan		(A) Kinetic Energy
Sol.	( <b>D</b> )		(B) Potential Energy
			(C) Gravitational Energy
3.	Who became the first woman to win the		(D) Frictional Energy
	jnanpitch Award in 1976 for her 1965 - novel	Sol.	(A)
	Pratham Pratisruti (The First Promise)?	1	
	(A) Amrita Pritam (B) Mahasweta Devi	8.	All executive action of the Government of
	(C) Ashopoorna Devi (D) Lily Ray		India is taken in the name of the
Sol.	(C)	2	(A) Prime Minister of India
			(B) President of India
4.	What does RAM in a computer stands for?		(C) Speaker of Lok Sabha
	(A) Rapid Action machine	08	(D) Vice President of india
	(B) Random Access Memory	Sol.	(B)
	(C) Random Application Mapping		
	(D) Rapid Applied Memory	9.	Who is the Chief Justice of India as of
Sol.	( <b>B</b> )		February 2017?
			(A) Justice Jagdish Singh khehar
5.	A physical balance is an example of:		(B) justice C.S. Karnan
	(A) Wedge		(C) Justice T.S. Thakur
	(B) Composite machine		(D) Justice H.L. Dattu
	(C) Inclined palne	Sol.	(A)
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10.	Which of the following Governor Generals of	14.	गोबी रेगिस्तान के बारे	में निम्नलिखित में से
	India earned the title, "Maker of the Modern		कौन मा कथन मही न	हीं है?
	India"?		(A) गोबी की भधिकांश बारिश	हिसालय दवारा रोकी जाती है।
	(A) Lord Dalhousie			¥.
	(B) Lord Canning		(B) allel for osl flat	स्तान हा
	(C) Lord Mountbatten		(C) गोबी रेगिस्तान में ब	गरिश नहीं होती है।
	(D) Lord Bentick		(D) गोबी रेगिस्तान एशिया का	सबसे विस्तृत शुष्क क्षेत्र है।
Sol.	(A)			1
		15.	Which of the following	countries first invented
11.	Who wrote the medieval - era epic poem		the idea of "Gross Nati	onal Happiness" to use
	"Padmavat"?		happiness as a measure	of good governance?
	(A) Abu'l – Fazl ibn Mubarak		(A) Bhutan	(B) Norway
	(B) Mulla Daud		(C) Taiwan	(D) Great Britain
	(C) Malik Muhammad "Jayasi"	Sol.	(A)	
	(D) Amir Khusro			· · · · · · ·
Sol.	(C)	16	भारत का सबसे बडा क	ोयला भंडार में है।
		10.		क प्रश्निम तंत्राच
12	गौ-वंश की आबादी के मामले में विश्व का	1		(B) पारंचन बंगाल
14.		A.	(C) ओडिशा	(D) झारखंड
	कान सा दरा सबस जाग ह?			
	(A) डनमाक	17.	Whom did Chandragup	ta Maurya overthrow to
	(B) <del></del>		take over the reins of th	e Magadha Empire?
	क संयक्त राज्य अमेरिका	-	(A) Ajatshatru	
	(C) 3		(B) Mahapadma Nanda	a
		0	(C) Bimbisara	1000
Sol	(D) 150 9001:200	Ø	(D) Dhana Nanda	IED
13.	Which film won the 70 <sup>th</sup> British Academy of	18.	Whom among the follo	owing stepped down as
	Film and Television Arts (BAFTA) Award in		the Chairman of Intern	ational Cricket Council
	the Best Special Visual Effects category ?		(ICC) on 15 <sup>th</sup> March 20	17?
	(A) Manchester by the Sea		(A) N.Srinivasan	
	(B) Lion		(B) David Richardson	
	(C) La La Land		(C) Zaheer Abbas	
	(D) The Jungle book		(D) Shashank Manohar	r
Sol.	( <b>D</b> )			
			_	

19. श्री रेइडी उप-राष्ट्रपति पद का चुनाव लड़ रहे हैं। निम्नलिखि	<sub>(C)</sub> (i) और (ii) दोनों
में से कौन सा गूण श्री रेइडी को भारत के उप-राष्ट्रपति 🛛	<sub>(D)</sub> (i), (ii) और (iii) सभी
पद का चुनाव लड़ने हेतु अयोग्य उम्मीदवार बनाता है?	Sol. (D)
(A) श्री रेइडी राज्य सभा के सदस्य का चुनाव लड़ने के योग्य हैं।	
(B) श्री रेड्डी भारत के नागरिक हैं।	<b>23.</b> Who has been awarded the 2016 IAAF World
(C) श्री रेड्डी गुंटूर के जिला आयुक्त हैं जो, आंध्र प्रदेश	Athlete of the year Award in male category for sixth time?
सरकार के अधीन लाभ का पद है।	(A) Patrik Sjoberg (B) Michael Phelps
(D) श्री रेइडी ने पैंतीस वर्ष की आयु पूरी कर ली है।	(C) Andre De Grasse (D) Usain Bolt
	Sol. (D)
20. निम्न में से क्या बायोमास सामग्री का उदाहरण नहीं है?	
(A) पशु अपशिष्ट	24. Who won the Men's Final Australian Open
(B) कचरा	(A) Novak Diokovic
(C) लकडी	(B) Rafael Nadal
क कोयला	(C) Stanislas Wawrinka
(D) 444(1	(D) Roger Federer
21 What does IDBI in IDBI Bank stand for?	Sol. (D)
<ul><li>21. What does IDBI in IDBI Bank stand for?</li><li>(A) Infrastructure and Development Board of</li></ul>	Sol. (D)
<ul><li>21. What does IDBI in IDBI Bank stand for?</li><li>(A) Infrastructure and Development Board of India</li></ul>	<ul><li>Sol. (D)</li><li>25. Who is the Chief Executive Officer (CEO) of</li></ul>
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21. What does IDBI in IDBI Bank stand for? (A) Infrastructure and Development Board of India (B) industrial Divestment Board of India (C) Industrial Development Bank of India (D) Investment Development Board of India Sol. (C) ISO 9001:200 22. भारतीय संविधान की सातवीं अनुसूची	<ul> <li>Sol. (D)</li> <li>25. Who is the Chief Executive Officer (CEO) of the Wipro Group?</li> <li>(A) Rishad Premji</li> <li>(B) Abidali Z. Neemuchwala</li> <li>(C) Azim h. Premji</li> <li>(D) Vishal Sikka</li> <li>Sol. (B)</li> </ul>
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# ONLINE CLASSES AEJE GATEJESE SSC [RRB



### Numerical Ability

- 1. If the sum of 2 numbers is 175, their LCM is 300 and HCF is 25. Then the difference between 2 numbers is:
  - (A) 20 (B) 15
  - (C) 10 (D) 25

### Sol. (D)

- If three sides of the triangle are given as 32 cm, 34 cm and 34 cm, then the area of the triangle is:
  - (A)  $500 \text{ cm}^2$  (B)  $450 \text{ cm}^2$
  - (C)  $480 \text{ cm}^2$  (D)  $475 \text{ cm}^2$
- For a positive integer n, 3<sup>6n</sup> 6<sup>3n</sup> is divisible by:
  (A) 513
  (B) 3
  - (C) 500 (D) 6

**Sol.** (**B**)

A train 130 meters long travelling at 36 km/hr crosses the bridge in 30 sec. Then the length of the bridge is:

(B) 125 meters

(D) 196 meters

(A) 170 meters(C) 175 meters

Sol. (A)

- Ms. Shivangi invests Rs. 4000 for six months at 20% per annum compounded quarterly. The total amount she gets after 6 months is:
  - (A) Rs. 4440(B) Rs. 4411(C) Rs. 4401(D) Rs. 4410

Sol. (D)

- 6. A can finish the work in 25 days and b in 25 days. They both work together for 5 days and then B leaves. How many days will A take to complete the remaining work?
  - (A) 17 days (B) 15 days
  - (C) 20 days (D) 18 days

Sol. (B)

- 7. In a chemistry lab two breakers A and B contain 62% and 84% of spirit respectively. If two liters from A is mixed with 4 litres of B, the ratio of sprit and water in the resulting mixture is:
  - (A) 58:19
    (B) 23:7
    (C) 17:21
    (D) 17:19

**Sol.** (**B**)

- 8. Pipe a can fill the tank 2 times faster than pipeB. If pipe A and B together fill the tank in 24 minutes, the pipe B alone can fill the tank in:
  - (A) 75 minutes(B) 70 minutes(C) 71 minutes(D) 72 minutes

If two is added to the denominator of a rational number it becomes  $\frac{1}{3}$  and if 4 is added to the **CERT** numerator it becomes  $\frac{1}{2}$ . Then the sum of the numerator and the denominator of the rational number is:

- (A) 18 (B) 38
- (C) -18 (D) -38

 यदि समीकरण x<sup>2</sup> + 2x - 15 = 0 के मूल x<sub>1</sub> और x<sub>2</sub> हैं, तो वह द्विधात समीकरण क्या है जिसके मूल

	$\frac{1}{x_1}$ और $\frac{1}{x_2}$ हैं?			अधिक अंडे खरीद सकती हैं। तं	ो प्रति दर्जन कम हुई कीमत है:
				(A) \$3.25	(B) \$3.5
	(A) $-15x^2 - 2x - 1 = 0$	)		(C) \$4	(D) 3.75
	(B) $15x^2 - 2x - 1 = 0$		Sol.	( <b>D</b> )	
	(C) $15x^2 + 2x - 1 = 0$				
	(D) $15x^2 - 2x + 1 = 0$		16.	The curved surface are	a of a hemisphere is $8\pi$
				cm <sup>2</sup> , then its radius is :	
11.	Mr. Vijay rows a boa	t with the stream in 8		(A) 2 cm	(B) 3 cm
	km/hr and against the s	team in 4 km/hr. In still		(C) 2.5 cm	(D) 1 cm
	water, his rate of rowing	g in km/hr is:	Sol.	(B)	10
	(A) 2	(B) 4			
	(C) 1	(D) 3	17.	Mr. Shiva invested equ	al amount of money in
				two private firms wh	ich gives 15% simple
12.	If $-5 \le x \le 1$ and $-$	$1 \le y \le 5$ , then the		interest per annum for	3.5 years and 5 years
	minimum value of 2y –	3x is:		respectively. If the diff	ference in their interests
	(A) – 9	(B) –5		is Rs. 270. The amoun	t invested by Mr. Shiva
	(C) – 8	(D) –10		is:	1
				(A) Rs. 1250	(B) Rs. 1500
13.	Find x, given $5(\sqrt{5})^{x+5}$	$=(\sqrt{5})^{2x+7}$ :		(C) Rs. 1200	(D) Rs. 1205
		(**)	Sol.	(C)	
	(A) $x = -2$	(B)  x = 0			B
	(C) $x = 1$	(D) $x = -1$	18	श्री टीप 1833 रुपए को	इस प्रकार से विधानित करते हैं
		UZF	10.	जा दाने 1000 रनर का	उस प्रकार सामकाजित करत ह
14.	In a bio gas plant th	e population of yeast		ाक पहल माग का 4 गूना	, दूसर माग का तान गूना तथा
	bacteria increases at a	rate of 9% per annum,	0	तीसरे भाग का दोगुना बर	राबर है, तो दूसरे भाग का मान है:
	but there is an addition	nal annual increase of	0	(A) Rs. 654	(B) Rs. 546
	1% in population due to	o various other inputs in		(C) Rs. 560	(D) Rs. 564
	the system. The perce	entage increase in the	Sol.	( <b>D</b> )	
	yeast population after 2	years is:			
	(A) 21%	(B) 20%	19.	The average of 7 num	bers is 29. The average
	(C) 22%	(D) 25%		of first three of them is	23 and the last three of
				them is 42. Then the for	urth number is:
15.	आर्थिक तेजी के कारण अंडे	की कीमत में अचानक 40%		(A) 9	(B) 12
	तक कमी हो जाती है। इस	से एक महिला \$ 50 में 64		(C) 8	(D) 10
	the second se		Sol.	( <b>C</b> )	

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		<b>Sol. (D)</b>
20.	An army post with 1800 men has pro- food for 50 days. After 10 days, som men go back to the base camp due to The remaining food is now enough for 50 days for the remaining men. Wh number of men who went back to camp? (A) 310 Men (B) 350 Men (C) 360 Men (D) 250 Men	ovision of me of the o injuries.23. A flight has to travel between 2 cities A and B, 3000 km apart. The flight was slowed down due to bad weather. Its average speed for the trip reduced by 200 km/hr and the time of flight increased by 30 min. The duration of the flight with original speed is: (A) 2.25 hrsn(A) 2.25 hrs(B) 2.6 hrs (D) 2.75 hrs
Sol.	(C)	Sol. (C)
21.	यदि y, x से 10% अधिक है, तो x, y से कितने प्रतिश         (A) $9\frac{1}{12}$ (B) $9\frac{1}{11}$ (C) $9\frac{1}{14}$ (D) $9\frac{1}{13}$	ात कम है? 24. $2^5 \times 3^3 \times 5^2$ के विषम गुणनखण्डों की कुल संख्या है: (A) 10 (B) 15 (C) 6 (D) 12 Sol. (D)
Sol.	(B)	25. श्रेणी 5, 20, 80, 320,
22.	श्रेणी 20, 25, 30,, 150 में पदों की द         (A) 23       (B) 22         (C) 26       (D) 27	संख्या है: (A) 7 (B) 8 (C) 9 (D) 6 Sol. (B)
	ISO 9001:	2008 CERTIFIED

### REASONING

Identify the diagram that best represents the 1. relationship among classes given below. Boys, Students, Athletes





कथनों का अनुसरण करता है।

सभी केले लाल हैं।

Sol. (C)

2.

(D) सभी ताले चाबियां हैं। कछ गेंद चाबियां हैं। इसलिए, सभी ताले गेंद हैं।

Sol. (A)

3. Shyam walked 20 metres towards south. Then he turned to his left and walked 15 metres. He again turned to his left and walked 20 metres. He then turned to his right and walked 10 metres. How far and in which direction is shyam from the starting point? (A) 35 Metres, West (B) 25 Metres, North

(C) 25 Metres, East (D) 35 Metres, East Sol. (C)

- जिस तरह 'दया' से 'क़रता' संबंधित है, 4. उसी तरह 'साहस' से क्या संबंधित है? वीरता (B) डर (A) (D) निभेयता कायरत (C) Sol. (C) तीन कथनों के चार सेट नीचे दिए गए हैं। मान लीजिए कि यह कथन सही हैं भले ही वह सामान्य उस शब्द को पहचानें जो दिए गए शब्दों 5. के वर्ग के अंतर्गत आता है। जात तथ्यों से भिन्न हों। उस विकल्प का का चयन करें जिसमें तीसरा कथन पहले। ग्राम, किलोग्राम, क्विटल (B) लीटर (A) टन (A) सभी सेब लाल हैं। सभी केले सेब हैं। इसलिए, (D) याडे (C) किलोमीटर Sol. (A) (B) सभी टेबल कर्सियाँ हैं। सभी अलमारियाँ टेबल हैं। इसलिए, सभी कुर्सियाँ अलमारियाँ हैं। 6. In the given letter series, which one set of letters when sequentially placed in the gaps
- (C) सभी J, K हैं। सभी K, M हैं। इसलिए, सभी M. J हैं।

 $P_nnm_pmn_mp_mn_mp$ (A) nmnpp

(B) npmpn

shall complete it?

	(C) m p n p n (D) m n p n p		(A) 24 (B) 12
Sol.	(C)		(C) 20 (D) 28
		Sol.	( <b>D</b> )
7.	Select the related number from the given		
	alternatives.	11.	Select the related letter from the given
	23:34::47:?		alternatives.
	(A) 62 (B) 72		CXFU : AZBY :: GTNM : ?
	(C) 69 (D) 65		(A) EVJQ (B) EROP
Sol.	(A)		(C) RIIP (D) IRRD
		Sol.	(A)
8.	Three positions of a cube are shown below.		R
	Which number will be opposite to the face	12.	Seven friends – A, B, C, D, E, F and G are
	containing 3?		sitting in a circle facing at the centre. 'E is
	1 $6$ $5$		neighbor of A and D, 'G is not between 'F'
	2 5 4 1 2 3		and 'C'. 'F' is to the immediate right of 'A'.
			Who is sitting the right of 'G'?
	(A) 6 (B) 4		(A) C (B) F
	(C) 1 (D) 5		(C) A (D) D
Sol.	(C)	Sol.	(D)
		10	
9.	'R', 'P' का चाचा है। 'P', 'N' की पुत्री है। और 'N'	13.	In a certain code language CARPET is Written
	'M' ਦੀ ਕਰ ਹੈ। 'P' 'M' ਜੇ ਦਿਜ ਸ਼ਹਾ ਜੰਗੀਆ ਹੈ?		that and language 2
	ाण का बहू हा त, ाग स किस प्रकार संबाधत हा		(A) DRWKHU (B) DEUTOM
	(A) पुत्र (B) दामाद		(C) PRWHUK (D) OPLIES
	(C) भाई 🚫 (D) चचेरा / ममेरा भाई 🚺	Sol	(b)  (b)
Sol.	(A)	501.	
		14	मां की भाग उमकी पत्री की भाग में टोगली है।
10.	How many triangles are there in the following	14.	पत्र, पत्री से एक वर्ष बडा है और पिता, मां से
	figure?		ਤੂਜ ਤੁਸ ਦੇ ਦੇਸ਼ ਦੇ
			गय यथ बड़ा हा गरि एस की अपन 19 जर्ह से सर्द है से पिस
			414 3 m 314 10 44 81 15 8 11 1411
			का आयु जात कर।
	$\times$		<sub>(A)</sub> 41 वर्ष <sub>(B)</sub> 42 वर्ष
	$\checkmark$		

EDUZPHERE PUBLICATIONS

- (C) 39 বর্ষ <sub>(D)</sub> 40 বর্ষ
- Sol. (C)
- **15.** Alok is older than Malvika, Gyan is older than Malvika but younger than Alok. Kamal is younger than Rashmi and Malvika. Malvika is older than Rashmi. Whose age is exactly in the middle of the five?
  - (A) Rashmi (B) Malvika
  - (C) Alok (D) Gyan
- Sol. (B)
- **16.** Select the figure from the alternatives which will complete the pattern in given question figure.



17. कुछ समीकरण एक निश्चित प्रणाली के आधार पर हल कि गए हैं। उस आधार पर बिना हल किए गए समीकरण ब सही उत्तर जात कीजिए। 8 + 6 = 28, 11 + 5 = 96, 15 + 7 = ?

(B) 105

- (C) 147 (D) 208
- **18.** In a row of boys, Vivek stands thirteenth from the left and Ravi is thirteenth from the right. If they interchange their places, Ravi would be eithteenth from the right. How many boys are there in the row?
- (A) 32 (C) 30 Sol. (C) (B) 29 (D) 31
- **19.** Find the missing number from the given alternatives.



**Sol.** (**D**)

**20.** From the given alternatives select the word which cannot be formed using the letters of the given word.

ORGANISATION

(A) GRANT(B) STRONG(C) ORGAN(D) REASON

21. If '+' mean '×', '-' means '+', '×' means '-' and '÷' mean '+', then what will be the value of 16÷36–6 × 2 + 3 = 3?

(A) 16 (B) 14

- (C) 26 (D) 20
- Sol. (A)

(A) 176



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<ul> <li>1. Select the word that best expresses the meaning of the given word.</li> <li>(A) Detest (B) Hide (C) Deceive (D) Free</li> <li>2. In the following sentence, four words or phrases have been underlined. One of them is</li> <li>phrase from the given options.</li> <li>This is one of the five books that was launched yesterday at the Vigyan Bhawan.</li> <li>(A) that was (B) This</li> <li>(C) one of the (D) at</li> <li>6. Select the phrase that best expresses the meaning of the underlined word. I am grateful to my teacher who persistently scolded me for</li> </ul>		GENERAL ENGLISH		incorrect. Select the INCORRECT word or
<ol> <li>Select the word that best expresses the meaning of the given word.</li> <li>(A) Detest</li> <li>(B) Hide</li> <li>(C) Deceive</li> <li>(D) Free</li> <li>(C) ne of the five books that was launched yesterday at the Vigyan Bhawan.</li> <li>(A) that was</li> <li>(B) This</li> <li>(C) one of the</li> <li>(D) at</li> </ol> 6. Select the phrase that best expresses the meaning of the underlined word. I am grateful to my teacher who persistently scolded me for				phrase from the given options.
meaning of the given word.       yesterday at the Vigyan Bhawan.         (A) Detest       (B) Hide         (C) Deceive       (D) Free         Sol. (B)       (D) Free         2. In the following sentence, four words or phrases have been underlined. One of them is       6. Select the phrase that best expresses the meaning of the underlined word. I am grateful to my teacher who persistently scolded me for	1.	Select the word that best expresses the		This is one of the five books that was launched
<ul> <li>(A) Detest (B) Hide (A) that was (B) This</li> <li>(C) Deceive (D) Free (C) one of the (D) at</li> <li>Sol. (B)</li> <li>2. In the following sentence, four words or phrases have been underlined. One of them is</li> </ul>		meaning of the given word.		yesterday at the Vigyan Bhawan.
<ul> <li>(C) Deceive (D) Free (C) one of the (D) at</li> <li>Sol. (B)</li> <li>2. In the following sentence, four words or phrases have been underlined. One of them is</li> <li>(C) one of the (D) at</li> <li>(C) one of the (D) at</li> <li>(D) at</li> <li>(E) and (D) at&lt;</li></ul>		(A) Detest (B) Hide		(A) that was (B) This
<ul> <li>Sol. (B)</li> <li>6. Select the phrase that best expresses the meaning of the underlined word. I am grateful to my teacher who persistently scolded me for</li> </ul>		(C) Deceive (D) Free		(C) one of the (D) at
<ul><li>6. Select the phrase that best expresses the meaning of the underlined word. I am grateful to my teacher who persistently scolded me for</li></ul>	Sol	. (B)		
2. In the following sentence, four words or phrases have been underlined. One of them is to my teacher who persistently scolded me for			6.	Select the phrase that best expresses the
phrases have been underlined. One of them is to my teacher who persistently scolded me for	2.	In the following sentence, four words or		meaning of the underlined word. I am grateful
		phrases have been underlined. One of them is		to my teacher who persistently scolded me for
incorrect. Select the INCORRECT word or poor spelling.		incorrect. Select the INCORRECT word or		poor spelling.
phrase from the given options. (A) Pulled me through (B) pulled me up		phrase from the given options.		(A) Pulled me through (B) pulled me up
You <u>can be</u> exempted <u>from</u> games <u>only while</u> (C) pulled me out (D) pulled me off		You can be exempted from games only while		(C) pulled me out (D) pulled me off
you <u>produce</u> a medical certificate.		you <u>produce</u> a medical certificate.		
(A) Only while (B) from <b>7.</b> Select the ANTONYM of the given word.		(A) Only while (B) from	7.	Select the ANTONYM of the given word.
(C) produce (D) can be STRAIGHT		(C) produce (D) can be		STRAIGHT
(A) Weak (B) Crooked				(A) Weak (B) Crooked
3. Find The appropriate meaning of the (C) Long (D) Short	3.	Find The appropriate meaning of the		(C) Long (D) Short
underlined idiom. Sol. (B)		underlined idiom.	Sol.	. (B)
A true friend will stand by you through thick		A true friend will stand by you through thick		
and thin. 8. Select the word that is spelt INCORRECTLY.		and thin.	8.	Select the word that is spelt INCORRECTLY.
(A) at the last moment (A) faucet (B) favaur		(A) at the last moment		(A) faucet (B) favaur
(B) in difficult times (C) fault (D) fauna		(B) in difficult times	1	(C) fault (D) fauna
(C) under all circumstances Sol. (B)		(C) under all circumstances	Sol.	. (B)
(D) during summer time		(D) during summer time	0	CEDTIEIED
Sol. (C) 9. Select the option that completes the sentence	Sol	.(c) 150 9001:200	9.	Select the option that completes the sentence
CORRECTLY.				CORRECTLY.
<b>4.</b> Select the ANTONYM of the given word. If you have an y queries to raise please	4.	Select the ANTONYM of the given word.		If you have an y queries to raise please
DESPAIR let me known now.		DESPAIR		let me known now.
(A) Reject (B) Hope (A) up (B) no word required		(A) Reject (B) Hope		(A) up (B) no word required
(C) Detest (D) Abandon (C) about (D) along		(C) Detest (D) Abandon		(C) about (D) along
Sol. (B) Sol. (B)	Sol	. (B)	Sol.	. (B)
5. In the following sentence, four words or 10. Select the phrase that best expressed the	5.	In the following sentence, four words or	10.	Select the phrase that best expressed the
phrases have been underlined. One of them is meaning of the underlined word.	_	phrases have been underlined. One of them is		meaning of the underlined word.

	It was a serious offence	e but he <u>was allowed to</u>	Sol.	(A)	
	<u>go</u> with a warning.				
	(A) Let off	(B) let out	15.	Select the option that	completes the sentence
	(C) let down	(D) let aside		CORRECTLY.	
Sol.	(A)			Next Week I to y	visit my cousin.
				(A) intended	(B) intend
11.	Select the word that	t best expresses the		(C) will intend	(D) intending
	meaning of the given w	ord.	Sol.	(B)	1
	TRANQUIL			$\langle \rangle$	2
	(A) Tired	(B) Active	16.	Select the word that is s	spelt INCORRECTLY.
	(C) Silent	(D) Calm		(A) Excess	(B) Expell
Sol.	( <b>D</b> )			(C) Access	(D) Excel
			Sol.	( <b>B</b> )	
12.	Select the ANTONYM	of the given word.			
	PRECIOUS		17.	In the following ser	ntence, four words or
	(A) Valued	(B) Worthless		phrases have been und	erlined. One of them is
	(C) Costly	(D) Loved	16	incorrect. Select the	INCORRECT word or
Sol.	<b>(B)</b>		1	phrase from the given of	options.
			ſĽ.	If Antarctica has a ver	y cold climate <u>a variety</u>
13.	Select the option that	completes the sentence		of sea birds is <u>found</u> the	ere.
	CORRECTLY.			(A) is found	(B) a variety
	My cousin felt annoye	d with when he		(C) has	(D) If
	saw what had happened	l due to his ignorance.	Sol.	( <b>D</b> )	
	(A) himself	(B) itself			
	(C) oneself	(D) myself	18.	Select the word that is a	spelt INCORRECTLY.
Sol.	(A)	0011200	0	(A) moist	(B) molecule
	<b>T</b> . 1 . 6 11 . 1		a 1	(C) moltest	(D) moltan
14.	In the following sen	tence, four words or	Sol.	( <b>D</b> )	
	incorrect. Select the	NCORDECT word or	10	Calast the oution that	completes the contenas
	mbroos from the given of	ntions	19.	COPPECTLY	completes the sentence
	A time come when C	puolis. auto Buddha hagan ta		UKKEUILI.	hove difficulty in
	feel weary with the luve	unin Duduna <u>Degan 10</u>		obtaining your driving	license
	(A) With	(B) began to		(A) many	(R) a great deal
	$(\mathbf{C})$ came	(D) when		$(\mathbf{C})$ some	(D) a great usat $(D)$ any

### **Sol.** (**D**)

**20.** Select the word that best expresses the meaning of the given word.

### COMPLIMENT

- (A) Criticize (B) Admire
- (C) Please (D) Agree

**Sol.** (**B**)

### **Comprehension Passage:**

Read the following passage and answer the given questions.

A desert is basically a wilderness or a wasteland. There is little moisture and poor soil such as sand gravel or rock. There are few plants to offer shade. Deserts can be described as harsh places. Many are burning hot by day and cold by night.

Every continent has deserts. Much of the western United States is a desert. A desert region called The Outback covers Central Australia. The southern tip of South America is largely desert. Northern Africa is covered by the Sahara, a desert as big as the mainland United States. The Arabian Peninsula., between the Persian Gulf and the Red Sea, is almost entirely desert. A large part of central Asia, from

cover 1/8 of our planet.

The popular belief is that a desert is dry, hot, waterless and without shelter. But this is not entirely correct. For those who have studied it, the desert can be a beautiful place. It is home to a variety of people, animals and plants that have learnt to live under hot and any conditions. A desert **Sol.** (A) is not always a flat, unchanging wasteland of dry sand. It may have mountains and hills. It may have

an oasis, big or small. An oasis is like a green island in the middle of a desert where a spring of a well gives plants and trees a better chance to grow.

All living things need water in order to survive. The few plants and animals that live in deserts have developed the ability to require less water than most plants and animals. Desert plants have adapted to heat and dryness of the desert. Plants such as cacti have special means of storing and conserving water. They often have few or no leaves. Some plants have gotten used to arid environments by growing extremely long roots, allowing them to acquire moisture at or by the water table.

The desert animals also have found a way to solve heat and water problems the dessert the environment creates. Camels can drink a lot of water at one time. They can live without water for day together. The reason is they sweat because we must keep out body temperature constant. We sweat because we must keep out body temperature constant. We sweat when it gets hot, and this cools the body temperature. They don't need to sweat and can therefore retain the water they drink for long periods of time.

China to the Caspian Sea, is mostly desert. Deserts 21. Certain plants are able to survive in deserts because they:

> (A) have adapted to survive in hot and dry climate.

- (B) develop especially long roots.
- (C) require less water than animals.
- (D) have thick stems and few leaves.

- 22. The desert region called 'The outback' is located in:
  - (A) North Africa (B) South America
  - (C) Central (D) Central Asia
- Sol. (C)
- conditions of a desert?
  - (A) A variety of animals and plants live there.
  - (B) It is sandy where no rain falls and no vegetation grow.
  - (C) It has vast land which is used for cultivation of flowers.
  - (D) It is a region surrounded by mountains and hills.

24. Why has an oasis been called 'green' island?

(A) The sand here is conducive for the Sol. (A) vegetation.

- (B) It is in the middle of a vast desert.
- (C) It is surrounded by green hills and mountains.
- (D) It has a source of water that supports vegetation.
- 23. What is the popular belief about the climatic 25. Which of the following statements is not true according to the passage?

(A) The Arabian Peninsula between the Persian Gulf and Caspian Sea is entirely desert.

(B) Camels can retain water for a long time because they do not sweat.

(C) In a desert region there is little moisture and poor soil.

(D) About 1/8 area of the earth is covered by deserts.

# **ISO 9001:2008 CERTIFIED**

	Professional Knowledge		(C) Tandem	(D) Rubber tyred
		Sol.	<b>(B)</b>	
1.	The reciprocal theorem of Maxwell is valid for			
	structures:	6.	Which of the following	g spillway gates cannot
	(A) that are plastic		be seen from a distance	, when lowered?
	(B) irrespective of their type		(A) Roller gate	(B) USBR drum gate
	(C) having linear force –displacement relation		(C) Sliding gate	(D) Tainter gate
	(D) that are elastic	Sol.	(B)	1
Sol.	(C)		1	2
		7.	Which of the following	g joints are provided in
2.	The shape factor of structural steel sections		cement concrete pa	wements to address
	primarily depends on:		shrinkage cracking?	
	(A) cross sectional geometry		(A) Contraction joints	
	(B) loading conditions		(B) Construction joints	3
	(C) proof stress of the material		(C) Pin Joints	
	(D) Poisson's ratio		(D) Expansion joints	
Sol.	(A)	Sol.	(A)	
3.	The timber whose moisture content has been	8.	What is the IRC reco	ommended width of a
	reduced to the specified minimum under more		single lane carriageway	?
	or less controlled processes of drying is called:		(A) 3.75 m	(B) 2.50 m
	(A) Sleeper (B) Seasoned timber		(C) 3.50 m	(D) 3.00 m
	(C) Shingle (D) Shook	Sol.	(A)	
Sol.	( <b>B</b> )			
4.	Which of the following is NOT a fully non-	8	If the undisturbed stren 50 units while the ren	ngth of a soil sample is noulded strength is 20
	destructive testing of concrete?		units, then what is the s	ensitivity of this soil?
	(A) Profometer for rebar		(A) 2	(B) 0.4
	(B) Core		(C) 2.5	(D) 1.25
	(C) Rebound hammer	Sol.	( <b>C</b> )	
	(D) Ultrasonic pulse velocity			
Sol.	( <b>B</b> )			
5.	Which of the following roller types is the most	10.	For sewage disposal in	a water body without
	suitable for compacting fatty clay in field?		any treatment, the mini	mum available dilution
	(A) Vibratory (B) Sheepfoot		level should be 1 in:	
	suitable for compacting fatty clay in field?(A) Vibratory(B) Sheepfoot		any treatment, the mini level should be 1 in:	mum available dilution

	(A) 200	(B) 500		(A) M50 (B) M 30
	(C) 300	(D) 150		(C) M60 (D) M40
Sol.	<b>(B)</b>		Sol.	. (D)
11.	Which of the following	g is NOT a method of	16.	In case of unconfined aquifer, the specific
	conducting Origin & De	estination studies?		yield is:
	(A) Return post card m	ethod		(A) greater than porosity
	(B) Tag on car method			(B) not related to porosity of the ground mass
	(C) Road side interview	N		(C) less than porosity
	(D) Trapezoidal rule m	ethod		(D) equal to porosity
Sol.	( <b>D</b> )		Sol.	l. (C)
12.	What is the maximum	width of all vehicles	17.	The net intensity of loading which the
	limited by the Indian Ro	oads Congress?		foundation will carry without undergoing
	(A) 2.5 m	(B) 2.8 m		settlement in excess or the permissible value
	(C) 1.75 m	(D) 2.0 m		for the structure under consideration but not
Sol.	(A)		11	exceeding net safe bearing capacity is termed
				as:
13.	What will be the mi	nimum yield strength	AV.	(A) Safe bearing capacity
	(MPa) of Fe500 steel u	sed as reinforcement in		(B) Ultimate bearing capacity
	concrete?			(C) Net loading intensity
	(A) 500	(B) 415		(D) Allowable bearing capacity
	(C) 550	(D) 250	Sol.	. (D)
Sol.	(A)			
14.	If the plastic index of	a soil is 45%, then the	18.	Ass per IS 800, what is the maximum allowable effective slenderness ratio for
	soil will be:			structural steel that is always under tension?
	(A) Will medium plast	icity		(A) 180 (B) 350
	(B) With low plasticity	7		(C) 250 (D) 400
	(C) non-plastic		Sol.	. (D)
	(D) with high plasticity	7		
Sol.	( <b>D</b> )		19.	If the Euler load for a column is 1000 kN and
15.	According to the Inc	lian Roads Congress,		crushing load is 1200 kN, then the Rankine
	which of the following	is the minimum grade		load will approximately be:
	of cement concrete for h	nighways?		(A) 1200 (B) 545

	(C) 900 (D) 600	Sol.	( <b>B</b> )
Sol.	(B)		
		24.	Web stiffeners are to be provided where a
20.	Under the beam loading condition, if the		concentrated load, which exceeds x percent of
	bending moment is constant over a certain		the shear capacity of the member, is applied
	span length, then the shear force would be:		within $D/2$ of a plastic hinge location. What is
	(A) Zero		x?
	(B) Constant and non –zero value		(A) 10 (B) 20.0
	(C) increasing		(C) 15.0 (D) 25.0
	(D) decreasing	Sol.	(A)
Sol.	(A)		R
		25.	Which of the following is a primary cause of
21.	What is the minimum number of longitudinal		flexural collapse in over -reinforced beams?
	bars required to be provided in a circular		(A) Relative movement between steel and
	column, when designed according to IS 456?		concrete
	(A) 8 (B) 4		(B) Failure of bond
	(C) 10 (D) 6		(C) Primary compression failure
Sol.	(D)		(D) Primary tension failure
		Sol.	(C)
22.	According to the basic considerations of		
	working Stress method for reinforced concrete	26.	What value of flow is usually considered for
	design, the stress- strain relationship of steel		designing sewage treatment units?
	and concrete under working loads is taken as:	-	(A) Average (B) Maximum
	(A) Quadratic (B) logarithmic		(C) Minimum (D) Harmonic mean
Sol.	(C) parabolic (D) linear (D)	Sol.	CERTIFIED
	Autority and the source statistic to the	27.	In case of sewer design, on which of the
23.	In regard to structural steel design and		following the velocity of flow does not
	analysis, which of the following conditions		depend?
	should be satisfied in order to do elastic and		(A) Grade of the sewer
	plastic analysis?		(B) Roughness of sewer material
	(A) Yield condition		(C) Length of the sewer
	(B) Equilibrium condition		(D) hydraulic mean depth
	(C) Plastic moment condition	Sol.	(C)
	(D) Visco-elastic condition		

28.	Which of the following is	an expansive soil?		
	(A) Loess (	B) Lateritic soil	33.	The in-plane shear deformation effect by
	(C) Dune sand (	D) Black cotton soil		which concentrated forces tangential to the
Sol.	( <b>D</b> )			surface of a plate get distributed over the entire
				section perpendicular to the load over a finite
29.	Under compression load	ing, what would the		length of the plate along the direction of the
	area under the stress-strai	n curve represent?		load is called:
	(A) Fatigue			(A) Shear lag
	(B) Breaking stress of th	e material		(B) Point of contraflexure
	(C) Energy required to c	ause failure		(C) Shear force
	(D) Elasticity of the mate	erial		(D) Angle of repose
Sol.	( <b>C</b> )		Sol.	(A)
30.	On a single lane road in	one direction, if the	34.	Usually, what is the maximum permissible Los
	average spacing between	vehicles is 10m, then		Angles abrasion value (%) for dense
	what is the jam density (n	umber/km)?		bituminous macadam?
	(A) 10 (	B) 100		(A) 25 (B) 55
	(C) 1 (	D) 0.1		(C) 45 (D) 35
Sol.	<b>(B)</b>		Sol.	(D)
31.	Which of the following	soil types is suitable	35.	If a compression member of length L is
	for sprinkler irrigation ?			restrained in rotation and translation at both the
	(A) When soil of low per	meability is used		ends, then what is its effective length?
	(B) When land is stee	o and soil is easily		(A) 1.0 L (B) 0.65 L
	erodible SOLQ	001:200	8	(C) 1.2 L (D) 0.80 L
	(C) when water table is v	ery low	501.	
Gal	(D) when the crops are (	leeply rooted	26	Creative dama are designed with the
501.	(B)		30.	Gravity dams are designed with the
37	In rainforced concrete	construction the		consideration of main overturning force as that
52.	structures in which mar	kad changes in plan		(A) uplift proscure (B) dead weight
	dimensions take place	abruptly shall be		(C) wind pressure (D) water pressure
	nrovided with	aorupuy, shan be	Sal	(D) water pressure (D) water pressure
	(A) construction joints (	B) expansion joints	501.	
	(C) contraction joints (	D) vertical cut	37	Cable as a structural element resists load by
	(c) contraction joints (	by vertical cut	51.	Cuore, as a subclurar crement, resists road by.

(A) torsion (B) compression 41. A series of wells were dug in a confined (C) bending (D) tension aquifer. The surface obtained by connecting **Sol.** (**D**) the static water levels would be called as: (A) Perched water table **38.** Which of the following is a reason for using (B) Piezometric surface pile caps over a group of piles? (C) Phreatic line (D) cone of depression (A) For protecting piles from rising up (B) for enhancing the load bearing capacity of **Sol. (B)** each pile (C) For protecting piles from displacing 42. If the radius of curvature on a road is 600m and the allowable speed is 75 kmph, then what laterally (D) For spreading vertical and horizontal will be the required super elevation? (A) 0.04 loads to all piles (B) 0.02 (D) 0.03 (C) 0.06 **39.** As compared to lime soda process, the zeolite **Sol.** (A) process: (A) is bulky **43.** Which of the following is NOT an ideal figure (B) leads to large quantity of sludge formation for triangulation survey? (C) requires careful and skilled supervision (A) Equilateral triangle of sufficient length (D) is costlier (B) Regular polygons (C) Braced quadrilaterals with squares 40. Which of the following is NOT a method (D) Triangle with one of the angle as  $25^{\circ}$ recommended by IS 800 for assessing the Sol. (D) period of structural adequacy of structure steel design? 44. In case of statically indeterminate beam. What (A) By direct application of single test is the limiting value of redistribution of (B) Methods given in specialist literature moments (%) as per Is 456, while using limit (C) By calculating the limiting temperature of state method? (A) 20 steel (B) 40 (D) Based on previous case studies in the (C) 30 (D) 10 Sol. (C) local area Sol. (D) **45.** When time to completion of a project is reduced, it usually results in:

(A) a decrease in indirect cost	(C) centre to centre of the support + twice the	
(B) an increase in indirect cost	eccentricity	
(C) a decrease in taxes	(D) diametrically opposite ends of the support	
(D) a decrease in resource deployment		
<b>Sol.</b> (A)	<b>50.</b> Which of the following is NOT an assumption	
	in Terzaghi's one-dimensional consolidation	
46. What shall be the minimum effective throat	theory?	
thickness of a fillet weld in case of structural	(A) Soil is fully saturated.	
steel design?	(B) Darcy's law is applicable	
(A) 4 mm (B) 3 mm	(C) Soil is heterogeneous	
(C) 2 mm (D) 5 mm	(D) Soil is laterally confined.	
Sol. (B)	Sol. (C)	
47. In construction project planning, free float can	<b>51.</b> Which of the following equals the number of	
affect which of the following?	unknowns to be determined, in stiffness	
(A) Overall completion	method of structural analysis?	
(B) Succeeding activity	(A) Sum of static and kinematic	
(C) Preceding activity	indeterminacy	
(D) Preceding activity	(B) Kinetic indeterminacy	
Sol. (C)	(C) Static indeterminacy	
	(D) Kinematic indeterminacy	
48. A simply supported reinforced cement	Sol. (D)	
concrete beam shall be deemed to be a deep	PEERE	
beam, if its effective span to depth ratio is less	<b>52.</b> In reinforced cement concrete construction, lap	
than:	splices are not recommended to be used for	
(A) 2.00 SO 9(B) 1.50 ZUU	rebars when the bar diameter is more than:	
(C) 3.00 (D) 2.50	(A) 32 mm (B) 36 mm	
<b>Sol.</b> (A)	(C) 25 mm (D) 30 mm	
	Sol. (B)	
49. According to IS 800, in case of structural steel		
design, the span length of a flexural member in	<b>53.</b> Which of the following human organs is badly	
a continuous frame system shall be taken as	impacted with unbearable levels of Carbon	
the distance between:	monoxide in air?	
(A) edge to edge of the support	(A) Eyes (B) Ears	
(B) centre to centre of the support	(C) Hair (D) heart	
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### Sol. (D)

- 54. A hydrological study conducted in a small town revealed that the intensity of rainfall is more than the infiltration capacity of soil. The infiltration rate in this case will be:
  - (A) = infiltration capacity
  - (B) > infiltration capacity
  - (C) = rate of rainfall
  - (D) > rate of rainfall

Sol. (A)

- 55. Which of the following is NOT applicable in contracts as far as security deposit is concerned?
  - (A) Necessary before entering into a contract
  - (B) Refundable after maintenance period
  - (C) Amount depends on tendered amount
  - (D) Amount can be withheld from any other contract with the same client
- 56. While designing a pile, negative skin friction is Sol. (B) considered when the pile is constructed in:
  - (A) Black cotton soil
  - (B) Fill material (C) Dense coarse sand
  - (D) Dense fine sand

**Sol.** (**B**)

- 57. Which of the following does NOT cause depletion of ozone layer?
  - (A) Methyl bromide (B) HCFCs
  - (C) CFCs (D)  $H_2SO_4$
- **Sol. (D)**

- 58. In photogrammetric surveying, the stereoscopic view in which the overlaps are kept outwards and in which natural order is reversed is called:
  - (A) Pseudoscopic view (B) Perspective view

(C) Parallitic view (D) Orthoscopic view Sol. (A)

- निम्नलिखित में से कौन सी रबी की एक फसल नहीं है? 59.
  - प्याज (Onion) (A)
  - जौ (Barley) **(B)**
  - मंगफली (Groundnut) (C)
  - तिल (Sesame) (D)
- 60. The horizontal angle that a line makes with the magnetic meridian is called:
  - (A) Grid Meridian
  - (B) Magnetic Meridian
  - (C) Arbitrary Meridian
  - (D) True Meridian

61. In case of a strong hydraulic jump, the Froude

(D) 1.0

Number is minimum of: (A) 9.0  $(\mathbf{B})$ 

Sol. (A)

(C) 4.5

62. What is the nominal cover to rebar in reinforced cement concrete exposed to very sever conditions?

- (A) 75 mm (B) 60 mm
- (C) 50 mm (D) 40 mm

Sol.	( <b>C</b> )		(A) Extreme (B) Severe
			(C) Very severe (D) Moderate
63.	If Rankine's criteria is applied for failure of	Sol.	(C)
	brittle material, then which of the following		
	will be a necessary condition?	68.	Which of the following assumptions is
	(A) Maximum strain energy		wrongly stated in regard to the Rankine's
	(B) Maximum shear stress		theory of earth pressure?
	(C) Maximum shear strain energy		(A) The back of the wall is not smooth.
	(D) Maximum principal stress		(B) The soil mass is semi-infinite and
Sol.	( <b>D</b> )		homogeneous
			(C) The retaining wall yields about the base.
64.	For which of the following purposes can the		(D) The ground surface is plane.
	Geographic Information systems not be used?		
	(A) Disaster and business continuity planning	69.	Which of the following is NOT an indirect
	(B) Studying the relative motions of planets		method of estimating the permeability of soil
	(C) Development of public infrastructure		in field?
	facilities		(A) Horizontal capillary tests
	(D) Deforestation	1	(B) Pumping out test
		RV.	(C) Calculations from grain size and specific
65.	When assessing the strength of a structure or		surface
	structural member for the limit state of		(D) Consolidation of test data
	collapse, the partial factor of safety for	Sol.	(B)
	concrete is taken as:	1	
	(A) 1.15 (B) 1.75	70.	A surface tangential to the level surface at any
	(C) 1.5 (D) 2.25	0	point is known as:
Sol.	(C) 150 9001:200	0	(A) Datum surface
			(B) Collimation surface
66.	What is the acceptable limit for pH of drinking		(C) Horizontal surface
	water?		(D) Mean sea level
	(A) 5.5 – 7.5 (B) 9.5 – 10.5	Sol.	(C)
	(C) $6.5 - 8.5$ (D) $7.5 - 9.5$		
Sol.	( <b>C</b> )		
67.	Concrete exposed to severe freezing - thawing		
	condition shall be classified as exposed to:		

71.	Each term in Bernoulli's equation for flow	75.	If the engineer's scale of a drawing is stated as
	through a pipeline represents energy per unit		1  cm = 5 m, then the friction scale would be
	·		1: x, where x is:
	(A) weight (B) mass		(A) 5.0 (B) 500.0
	(C) volume (D) flow length		(C) 50.0 (D) 0.5
Sol.	(A)	Sol.	<b>(B)</b>
72.	A regard to pre-stressed concrete design, the	76.	In shallow foundation design, the correction
	final deflection, due to all loads including the		factor for water table correction in case of
	effects of temperature, creep and shrinkage and		water table permanently remaining at or below
	measure from the as-cast level of the supports		a depth of (depth + width) of the foundation is
	of floors, roofs and all other horizontal		taken as:
	members, should not normally exceed span/X.		(A) 0.50 (B) 0.75
	Where X is:		(C) 1.00 (D) 0.25
	(A) 350 (B) 250	Sol.	(C)
	(C) 300 (D) 200		
Sol.	<b>(B)</b>	77.	What does the plate load test help in estimating?
73.	What will be the estimated value of modulus	A.	(A) Depth of foundation
	of elasticity (GPa) for a concrete of		(B) Lateral movement of foundation
	compressive strength 25 MPa?		(C) Saturation in foundation
	(A) 27.5 (B) 25		(D) Settlement of foundation
	(C) 32.5 (D) 30	-	
Sol.	(B)	78.	An engineer is designing a two – phase traffic
74.	Which of the following is NOT a limitation of	8	signal system with an all -red time for pedestrian crossing as 15s. If Webster's
	the California Bearing Ratio (CBR) used for		method is used, then what will be the total lost
	designing flexible pavement?		time?
	(A) It is an empirical test for assessing		(A) 19s (B) 17s
	strength of subgrade.		(C) 15s (D) 13s
	(B) Specified soaking period of 4 days may	Sol.	(A)
	not be sufficient in some soils.		
	(C) Ease and simplicity	79.	Which of the following contract types is
	(D) Test cannot stress on subgrades.		usually followed by Railway Department for
			construction purposes?

	(A) Lump – sum	(B) Item rate	84.	What will be the load carrying capacity (kN)
	(C) percentage rate	(D) Piece work		of a group of 6 piles, if the individual load
Sol.	<b>(B)</b>			carrying capacity is 150 kN and group
				efficiency is 75% ?
80.	Which of the following i	s NOT a test for		(A) 542 (B) 675
	estimating the workability	of fresh cement		(C) 621 (D) 500
	concrete?		Sol.	(B)
	(A) Kelly – ball test			
	(B) Slump flow		85.	Which of the following is NOT a distress in
	(C) compaction factor			cement concrete pavements?
	(D) Rapid chloride penetra	tion test		(A) Spalling (B) Ravelling
Sol	. (D)			(C) Rutting (D) Shrinkage cracking
			Sol.	(C)
81.	The velocity of a satellite	e to be attained to		
	move along its elliptical	orbit at which it	86.	Which of the following curves is usually NOT
	escapes the earth's gravity	and leaves the orbit		adopted for transitioning in horizontal
	is called:		16	alignment?
	(A) Second astronautically	velocity	1	(A) Reverse (B) Spiral
	(B) Initial velocity		P.Z.	(C) Cubic parabola (D) Lemniscate
	(C) First astronautically ve	locity	Sol.	(A)
	(D) Radial Speed			
			87.	Which of the following properties of water is
82.	What is the Poisson's ratio	for structural steel		determined using ethylene diamine tetra acetic
	as recommended in IS 800?			acid solution?
	(A) $0.3$ (B)	0.2	2	(A) Turbidity (B) BOD
	(C) 0.15 (D)	0.25	0	(C) Hardness (D) Chlorine
Sol.	(A)		Sol.	(C)
83.	The fertility of soil sta	arts getting badly	88.	On which of the following parameter are the
	impacted when pH of soil e	xceeds:		slow sand filters better than rapid sand filters?
	(A) 11 (B)	10		(A) Flexibility in meeting the demand
	(C) 13 (D)	9		(B) Land requirement for constructing a unit
Sol.	(A)			(C) Ease of construction
				(D) Rate of filtration
			Sol.	(C)

89.	In regard to waste water treatment, the characterization of non – biodegradable	93.	What is the major pollutant present in photochemical smog?
	organic content is usually done in terms of:		(A) Carbon dioxide (B) Sulphur dioxide
	(A) total oxygen demand		(C) Hydrocarbon (D) nitrogen oxide
	(B) chemical oxygen demand		
	(C) biological oxygen demand	94.	Which of the following is NOT a recognized
	(D) dissolved oxygen		failure type of soil as support beneath the
Sol.	<b>(B)</b>		foundations, depending upon the deformations associated with the load and the extent of
90.	Which of the following is used in removing the		development of failure surface?
	dust particles from a gaseous medium using		(A) General shear (B) Local shear
	electrostatic forces?		(C) Bending (D) Punching shear
	(A) Filter	Sol.	(C)
	(B) Cyclone scrubber		
	(C) Dust collector	95.	What is the maximum allowable water
	(D) Electrostatic precipitator		absorption (%) of Indian burnt brick of class
Sol.	(D)		20?
			(A) 15 (B) 5
91.	Which of the following combinations of	R.	(C) 20 (D) 10
	factors is used for determining allowable	Sol.	(A)
	bearing capacity of a foundation?		
	(A) Settlement, tensile failure	96.	The travel time per unit length of road is
	(B) Settlement, shear failure	-	proportional to the speed.
	(C) Settlement, bond failure		(A) Inversely (B) directly
	(D) Tensile failure, compression failure	Q	(C) logarithmically (D) cubically
Sol.	(B) 130 9001.200	Sol.	
92.	For making reinforced cement concrete, the pH	97.	While designing reinforced cement concrete
	of water is restricted to minimum of:		wall carrying inplane loads. What is the
	(A) 5 (B) 7		permissible ratio of effective height to
	(C) 6 (D) 4		thickness?
Sol.	(C)		(A) 35 (B) 25
		_	(C) 20 (D) 30
		Sol.	(D)















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