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CBT I (Mathematics, Mental Ability, General Science & General Awareness)

Ans.1(C)	Bimbisar	Ans.36(B)	
Ans.2(D)	Hindu Land Holders	Ans.37(A)	
Ans.3(D)	Damodar and Balkrishana Chapekar	Ans.38(C)	
Ans.4(B)	Sri Aurobindo Ghosh	Ans.39(C)	
Ans.5(D)	Swami Vivekanand	Ans.40(B)	
Ans.6(A)	A National Emergency	Ans.41(C)	2010, 2016, 2015
Ans.7(D)	Nagaland -1 December 1963		Average = (Sum of 3 year) / 3 = (40 + 60 + 50) / 3 = 50
	Haryana -1 November 1966		25 + 75 + 50 = 150/3 = 50
	Sikkim- 16 May 1975	Ans.42(A)	Increase% = (Increase in price) / (Original price) × 100
Ans.8(B)	Arunachal Pradesh- 20 February 1987		Growth in 2011% = (15/25) 100 = 60%
Ans.9(D)	Yielding the floor		Growth in 2015 % = (25/50) 100 = 50%
	31st Constitutional Amendment Act, 1973 -	Ans.43(A)	Growth in 2016% = (20/45) 100 = 44.44%
	By this amendment the seats of Lok Sabha	Ans.44(A)	Increase % = (75 - 65)/65 × 100 = 15.39%
	was increased from 525 to 545 but reduced		(x) 100000 = 45335.35353535 (1)
	the representator of UT's in Lok Sabha from		(x) 1000 = 453.35353535 (2)
Ans.10(C)	25 to 20.		Sabstrae from 1 to 2 nd
	Adhering to Article 340 of the Constitution of		99000x = 44882
	India, the First Backward Classes Commis-		X = 44882/99000.
	sion was set up by a presidential order on 29	Ans.45(A)	90 km/h
	January 1953 under the chairmanship of Ka-	Ans.46(C)	Let, number is xy.
	ka Kalelkar.		Then, changed number will be yx.
Ans.11(D)	Pankaj Advani - billiards		Difference between new number and old
Ans.12(D)	Tripura State is surrounded by Bangladesh		number given
	from three sides.		=18
Ans.13(A)	If the earth's rotation increases the centrifu-		(10y + x) - (10x + y) = 18
	gal force will be acting on each body to		y - x = 2
	throw it outward, but due to gravity it will not		x + y = 4
	be thrown off. Hence the weight of he body		x = 1 and y = 3
	would decrease when rotation increases.	Ans.47(D)	New number will be 31
Ans.14(B)	Ministry of Mine		nominator = 1+1/4+5/6=25/12
Ans.15(C)	1,713 crore litres		25/12 of x =175
Ans.16(A)	Ruskin Bond	Ans.48(B)	x = 84
Ans.17(A)	Uttar Pradesh		2091
Ans.18(D)	UAE		[888+ {88+ (8+9) +99} +999]
Ans.19(B)	Journey of the Mahatma: Through His Own		= [888+ {88+ (17) +99} +999]
	Documents		= [888+ {88+ 17 +99} +999]
Ans.20(B)	Hockey		= [888+ {204} + 999]
Ans.21(B)	Manish Pandey	Ans.49(C)	= 2091
Ans.22(A)	Australia		9999.9813
Ans.23(B)	Chandrapur (Maharashtra)		99.87 × 100.13
Ans.24(A)	Arthur Holmes		(100 - 0.13) × (100 + 0.13)
Ans.25(D)	Arunachal Pradesh	Ans.50(A)	(a + b) × (a - b) = a ² - b ²
Ans.26(C)	Italy		100×100 - 0.13 × 0.13 = 9999.9831
Ans.27(A)	Altimeter is used to measure height.		HCF
	Hydrometer is a device to measure relative		24= 12 2
	density of liquids. A barometer is a scientific		108= 12× 9
	instrument used in meteorology to measure		192= 12×16
	atmospheric pressure. Galvanometer -		so, maximum capacity of vessel is 12 liter
	Measure electric currents.	Ans.51(A)	LCM
Ans.28(C)	Coffee is obtained from seeds of the plant		40 = 8 × 5
Ans.29(C)	Oncology-study of cancer		16 = 8 × 2
	Lithology- the study of the general physical		120 = 8 × 3 × 5
	characteristics of rocks.		LCM = 8 × 2 × 3 × 5 = 240 minute
	Orology- The study of mountains		So, 240 minute =4 hours. after 4 hour they
Ans.30(B)	Ornithology -the study of birds		will ring
	On Heating gypsum at 373 K, it loses water		together at 10:15
	molecules and become calcium sulphate	Ans.52(A)	100
	Hemihydrate (CaSO ₄ . 1/2H ₂ O). This is		Let, Average of Before 28th innings is x
	called Plaster of Paris.		(27x + 156) / 28 = x + 2
Ans.31(A)			x =100
Ans.32(B)	Vitamin C	Ans.53(B)	If length, breadth and height of any cube is
Ans.33(D)	Dr. Vijay Kelker		increase in
Ans.34(C)			
Ans.35(A)			

x%, y% and z%.

$$X + Y + Z + (xy + yz + zx) / 100 + (xyz/100)^2$$

But for cube $x = y = z$

Increase of 20%

$$20 + 20 + 20 + 3 \times 400/100 + 8000/10000 = 72.8\%$$

So, answer should be 13%

Ans.54(B)

$$6:7::42:x$$

$$6/7 = 42/x$$

$$X = 42 \times 7/6 = 49$$

Ans.55(C)

Ans.56(A)

$$\text{Profit} = 160 - 140 = \text{Rs. } 20$$

$$\text{profit \%} = 20/100 \times 140 = 14.28\%$$

Ans.57(A)

$$3 \text{ male} = 14 \text{ female}$$

$$\text{So, } 28 \text{ female} = 6 \text{ male}$$

then, total number of male = 12 male

If work is equal so,

$$M_1 \times T_1 = M_2 \times T_2$$

$$3M \times 12 \text{ day} = 12M \times x \text{ day}$$

$$x = 3 \text{ day}$$

Ans.58(A)

Ans.59(A)

Ans.60(A)

$$13996.8$$

$$A = P(1+R/100)^T$$

$$A = 1200000 \times 108/100 \times 108/100 = 13996.8$$

Ans.61(A)

$$0.63\% = 819$$

$$100\% = 819/0.63 \times 100 = 130000$$

Ans.62(C)

$$\text{Profit} = \text{Investment} \times \text{time}$$

$$2 \times 20 \text{ month} : 4 \times 10 \text{ month} : 5 \times 8 \text{ month}$$

$$1 : 1 : 1$$

Ans.63(C)

$$\text{Area of circle} = \pi r^2$$

$$R = 21$$

$$\text{Circumference} = 2\pi r = 132 \text{ cm}$$

Circumference of circle = Perimeter of rectangle

$$132 = 2(5x+6x)$$

$$X = 6 \text{ cm}$$

Side of rectangle is 30 and 36cm.

$$\text{Then, area of rectangle is } 30 \times 36 = 1080 \text{ cm}^2$$

Ans.64(A)

$$\text{Surface area of cuboid} = 2(LB+BH+LH)$$

Longest rod that can be placed in a cuboid

$$= \sqrt{L^2 + B^2 + H^2}$$

$$(L+B+H)^2 = L^2 + B^2 + H^2 + 2$$

$$(LB+BH+LH)$$

$$= 100 \times 100 = L^2 + B^2 + H^2 + 36$$

$$= L^2 + B^2 + H^2 = 64$$

$$= \sqrt{L^2 + B^2 + H^2} = \sqrt{64} = 8$$

Ans.65(C)

Ans.66(A)

$$50 \text{ kg}$$

$$\sin B + \sin^2 B = 1$$

$$\sin B = 1 - \sin^2 B$$

$$\sin B = \cos^2 B$$

$$\cos^4 B = \sin^2 B$$

$$\cos^2 B + \sin^2 B = 1$$

Ans.67(B)

$$-2$$

$$x + \frac{1}{x} = \sqrt{3} \text{ on cubing both the sides}$$

$$x^3 + \frac{1}{x^3} + 3\sqrt{3} = 3\sqrt{3}$$

$$x^3 + \frac{1}{x^3} = 0$$

$$x^6 = -1$$

$$\text{Now } x^{90} + x^{78} = (x^6)^{15} + (x^6)^{13}$$

(-1 raised to the odd powers will result in -1)

$$-1 - 1 = -2$$

Ans.68(B)

Sum all angle of triangle = 180

$$\text{Ratio} = 29: 7: 9$$

$$29x + 7x + 9x = 180$$

$$45x = 180$$

So, angle is 116, 28 and 36 .

it is obtuse angle because one angle is 116

Mean = Total amount of reading/number of reading

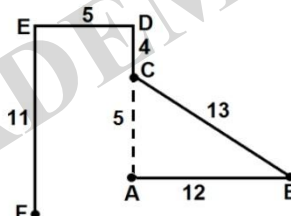
$$= 60/10 = 6$$

Mode = Highest number of reading = 7

$$25:3$$

Ans.70(A)

Ans.(71-73)



Ans.71(B)

Ans.72(C)

Ans.73(D)

Ans.74(D)

Ans.75(C)

Given word does not have two "U".

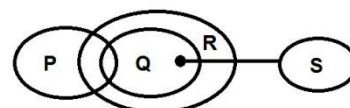
In 1st column

$$\left(\frac{23 \times 21}{3} \right) + 28 = 189$$

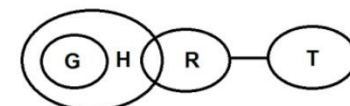
Similarly in third column

$$\left(\frac{13 \times 36}{3} \right) + 25 = 181$$

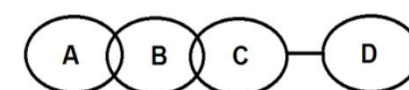
Ans.76(D)



Ans.77(C)



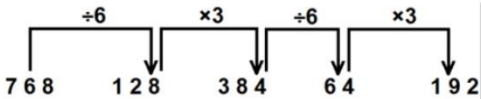
Ans.78(B)



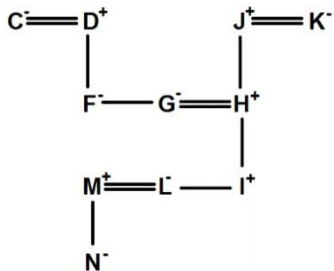
Ans.79(B)

K	U	S
+4↓	-5↓	+4↓
O	P	W
+4↓	-5↓	+4↓
S	K	A
+4↓	-5↓	+4↓
W	F	E

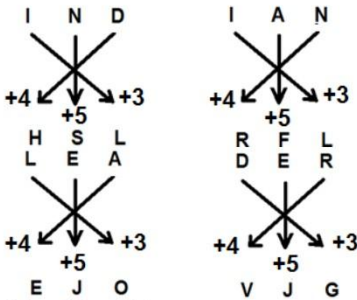
Ans.80(D)



Ans.(81-83)



Ans.81(B)
Ans.82(A)
Ans.83(D)
Ans.84(C)



Ans.85(B)

32 × 19 = 608

Ans.86(D)

39 × 19 = 741
Former is country latter is it Parliament name.

Ans.87(B)

Ans.88(B)

504 – 36 + 21 × 213 ÷ 325
After sign change
504 ÷ 36 × 21 + 213 – 325 = 182

Ans.89(A)

Ans.90(B)

Ans.91(C)

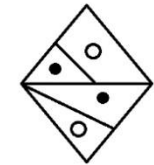
Ans.92(B)

Ans.93(D)

Ans.94(D)

Ans.95(A)

Except “D” all are divisible by “14”.
All three are present in Universe



Ans.96(B)

Ans.97(A)

Ans.98(D)

Ans.99(D)

The availability of Fruits is not mentioned in the given statement. So, I does not follow. Also, II is not directly to the statement and so it also does not follow.

Ans.100(C)

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