Grand Test – SPP 170233



SBI PO Preliminary Grand Test – SPP-170333 HINTS & SOLUTIONS

1.(5)	2.(1)	37.(3)	From statement I,
3.(3)	4.(2)	57.(5)	Circumference = 2π r
	6.(2)		
5.(4)	8.(5)		We can find radius (r).
7.(3)			Then we can find Area = πr^2
9.(3)	10.(4)		From statement II,
11.(5)	12.(1)		Diameter = y = 2 × Radius
13.(4)	14.(5)		We can find area.
15.(2)	16.(2)	38.(5)	Let the speed of boat in still water = x km/hr.
17.(1)	18.(4)		Speed of current = y km/hr.
19.(3)	20.(5)		Therefore rate upstream = $(x - y)$ km/hr.
21.(1)	Second person agrees with a plural verb (in Present		Rate downstream = $(x + y)$ km/hr.
	simple) should be used.		From statement I,
	Hence, If you break the law should be used.		
22.(4)	To show start, from i.e. staff from the next year		$x + y = \frac{35}{5} = 7 \text{ km/hr.}$ (1)
22.(1)	should be used.	Rx.	
23.(3)	Here, there is/are no transaction/transactions		From statement II,
23.(3)			$x - y = \frac{35}{7} = 5 \text{ km/hr.}$ (2)
24 (2)	should be used.		$x - y = \frac{1}{7} = 3 \text{ km/m}.$ (2)
24.(3)	Here, understand (infinitive)/ in understanding (Gerund)		From combined statement 1 and 2, we can get the
	banking should be used.		required answer.
25.(1)	Here, not a Gerund but a Noun i.e. The power supply	39.(5)	From statement I,
	(Noun) in should be used.	37.(3)	
26.(1)	27.(3)	· //	Let the boys and girls be 5x and 6x.
28.(5)	29.(4)		From statement II,
30.(5)			$6x - 5x = 7 \Longrightarrow x = 7$
31.(5)	$117 \xrightarrow[+272]{} 389 \xrightarrow{+136} 525 \xrightarrow{+68} 593 \xrightarrow{+34} 627 \xrightarrow{+17} 644$		\Rightarrow 5x = 35 \Rightarrow 7x = 42
	+272 +272 +136 +222 +68 +34 +272 +17	40.(1)	From statement I,
32.(4)	7 11 22 51 102 197		SP = 170
	$\begin{array}{cccccccccccccccccccccccccccccccccccc$		Profit percent = 20%
	+4 +12 +28 +52 +84		1740×100
			$CP = \frac{1740 \times 100}{120} = 1450$
	+8 $+16$ $+24$ $+32$		Profit = 1740 – 1450 = 290
22 (4)	+8 +8 +8	(1)	Information in statement II is not required.
33.(4)	18 27 49 84 132 193	41.(2)	Number of complaints received per 1000 washing
		N = D	machines for various years.
	+9 +22 +35 +48 +61		For year 2008 = $\frac{1000}{40000} \times 1000 = 25$
			$\frac{101}{40000} \times 1000 = 25$
0.4.(4)	+13 +13 +13 +13		Similarly for 2009 = 33.33, 2010 = 30, 2011 = 22.5.
34.(1)	series is 6, 6*1-2=4		Clearly, it is maximum for the years 2009.
	4*2-4=4	42.(4)	End of $2008 = (0.4 \times 0.9)$ lacs
	4*3-6=6	42.(4)	
	6*4-8=16		$= 0.4 \times \frac{90}{100} = 0.36$ lacs
	16*5-10=70		100
35.(5)			End of 2009 = 0.9(0.36 + 0.6) lacs = 0.86 lacs
	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$		End of 2010 = 0.9 (1 + 0.86) = 1.67 lacs
			End of 2011 = 0.9(1.67 + 2) = 3.3 lacs
		43.(3)	Required % increase in 2010
36.(2)	From statement I,		•
	Annual income of Boss = x		$=\frac{3000-2000}{2000}\times100=50\%$
	Mr. Krishnamurthy's annual income = 70% of x		
	We do not know the value of x		And in $2011 = \frac{4500 - 3000}{3000} \times 100 = 50\%$
	From statement II,		3000
	Initial Income = 12000	44.(1)	Actual number of complaints = 0.9(4500) = 4050
	Therefore income in May		Hence, actual complaints per 1000 washing machines
	= 12000 + 10% of 12000 = 13200		
	Similarly, the income for other months can be		$=\frac{4050}{200000}\times1000=20.25$
	calculated.		200000
		1	

Grand Test – SPP 170233

45.(1) Complaints in 2008 = 1000 No. of complaints of 'fuse blowing' = 500 In 2009 = 1.2 × 500 = 600 In 2010 = 1.2 × 600 = 720 In 2011 = 1.2 × 720 = 864 % of complaints of fuse blowing in 2011 $=\frac{864}{4500}\times100=19.2\%$ Required percentage crease = $\frac{1740 - 1450}{1450} \times 100$ 46.(3) $=\frac{2900}{145}=20$ Required average = $\frac{1820 + 1840 + 1490}{3}$ 47.(4) $=\frac{5150}{3}=1716.67$ Total number of sony mobile phones sold 48.(4) = 1240 + 1100 + 1690 + 1650 + 1460 = 7140 $\therefore \text{ Required percent} = \frac{1690}{7140} \times 100 = 23.67$ 49.(5) Required percent = (1520 + 1840) - (1450 + 1620) = 3360 - 3070 = 290 50.(3) Required ratio = (1820 + 1840) : (1540 + 1480) = 3660 : 3020 = 183 : 151 51.(1) {3}A 20 LCM = 60{2}B 30 Time take to fill the tank $1/3^{rd}$ i.e. $\frac{60}{3} = 20$ $\Rightarrow \frac{20}{3+2} = 4$ hr. Efficiency of pipe after leak developed $=\frac{2}{3}(3+2)=\frac{10}{3}$ Time taken to fill the remaining $\frac{2}{3}$ rd of the tank $=\frac{40}{10}=12$ hr. i.e. Total time taken to fill the tank = 4 hr + 12 hr = 16 hrs. 52.(1) Let distance be x kmph and speed y kmph $\frac{x}{y} - \frac{x}{y+3} = \frac{40}{60}$...(1)

$$\frac{x}{y-2} - \frac{x}{y} = \frac{40}{60} \qquad \dots (2)$$

From Equation (1) and (2),
x = 40 km and y = 12 kmph.
(3) Let speed of train = x kmph
And speed of car = y kmph
$$\frac{120}{x} + \frac{480}{y} = 8 hr. \qquad \dots (1)$$

And
$$\frac{200}{x} + \frac{400}{y} = 8\frac{1}{3} hr. \qquad \dots (2)$$

From eq. (1) and (2),
$$\frac{x}{y} = \frac{3}{4}$$

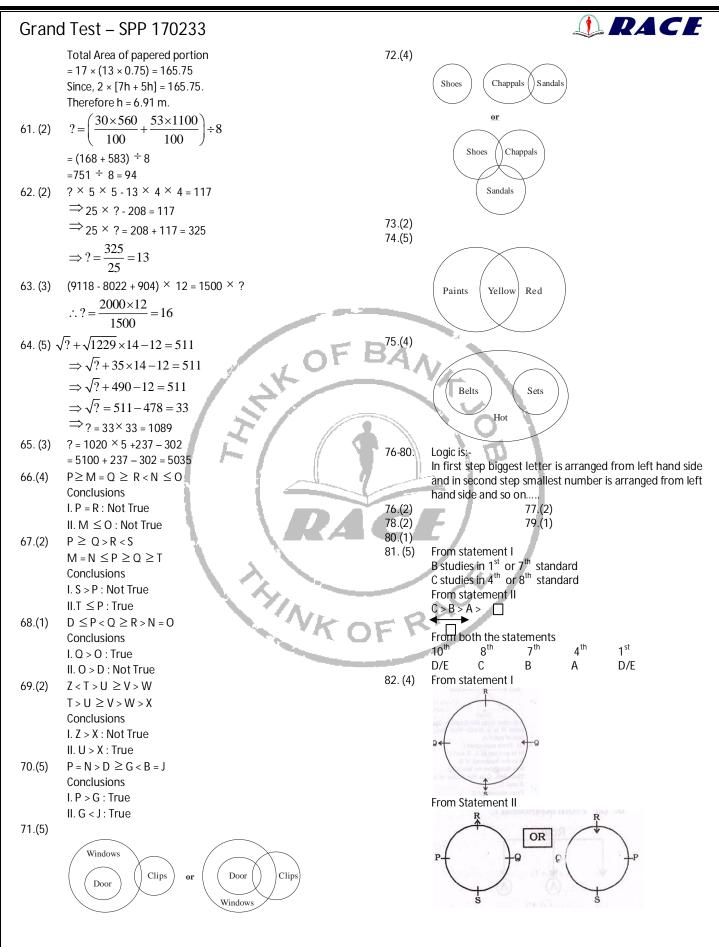
53.

The word BANANA contains 6 letter out of which A

54.(5) occurs thrice & N occurs twice. The three consonants B and N (Which occurs twice) can be arranged at the 3 even places 2, 4, & 6 i. e 3!/2! = 3 wavs. The remaining 3 odd places can be arranged with triple A in 3!/3! = 1 way. Required No of words = 3 X 1 = 3. L:B=7:5 55.(1) Breadth = $\frac{24.5}{7} \times 5 = 17.5$ = Diameter of circle Radius of circle = $\frac{17.5}{2} = 8.75$. Area of circle = $\frac{22}{7} \times 8.75 \times 8.75 = 240.625$. Area of shaded region = Area of rectangle - Area of circle = 17.5 × 24.5 – 240.625 = 188.125. 56.(2) Let initially total number of men was 'x' any 'y' no. of men reported. $\left(\frac{480}{x} + 20\right) = 480$ Or $\frac{20}{480} = \frac{1}{y} - \frac{1}{x}$ From option, only 12, 8 satisfies the above arrangement. Therefore total men initially = 12, total men reported = 8. 57.(4) Current A B C 10000 After 2000 6000 3000 + 1000 +3000 +5000 =5000 = 1000 =Ist 8000 6000 4000 3000 + 4000 + 4000 +lind 2000= 2000 = 3000 = Year 5000 6000 5500 3000 + 2500 + 2500 + IIIrd 3500 =3500 =3000 =Year 6500 6000 5500 3000 + 3250 + 3250 + Ivth 2750 = 2750 = 3000 = 5750 6000 6250 vear Hence, population of part A = 5750. 58.(2) Initial cost = $C = 0.03 \text{ ABt}^2$ Amount after changes in price and time - $C^{1} = 0.03 \times \frac{150}{100} A \times \frac{120}{100} B \times \left(\frac{70}{100} t\right)^{2}$ $C^1 = 0.882C$ Therefore % decrease in cost $=\frac{C-C^{1}}{C}\times100=\frac{C-0.882C}{C}\times100=11.8\%$ 59.(3) Let total commodity be 'x'.

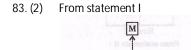
$$\therefore \left[\frac{x}{3} \times \frac{115}{100} + \frac{x}{4} \times \frac{120}{100} + \left(x - \frac{x}{3} - \frac{x}{4}\right) \times \frac{124}{100}\right] - x = 62$$
$$\Rightarrow \frac{23x}{60} + \frac{3x}{10} + \frac{31x}{60} - x = 62$$
$$\therefore x = 310$$

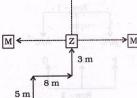
60.(4) Total No. of sheet of paper
$$=\frac{785.4}{46.2}=17$$

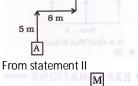


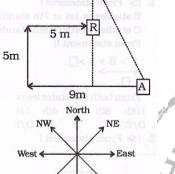
Grand Test – SPP 170233











South

It is clear from the diagram that point M is in North-West direction of point A.

SE

- 84. (1) From statement I
 - M is mother of A, B and C. B is the husband of R. R is daugnee. From statement II A, B and C are children of M and Q From statement I, R is daughter-in-law of Q. Therefore, Q is the father of A,

B and C.

SW

85. (2)







Row - 2It is clear that B faces R

86-90.

86.(2)

87.(1) 88.(5) 89.(1)

90.(3)

Persons		
Name	City	Profession (Fields)
Samir	Delhi	Advertisement
Rajesh	Mumbai	Sales
		Personal
Amit	Kolkata	Management
Ravi	Bangalore	Computer
Avinash	Chennai	Finance

(41 – 45)			
	Day	Destination	Departure Time
1.4	Monday	Madrid	10 PM
AN	Tuesday	Sydney	5 PM
	Wednesday	Dubai	9 PM
	Thursday	London	6 PM
-	Friday	Zurich	8 PM
	Saturday	Rome	4 PM
//	Sunday	Paris	7 PM

None as Paris bound flight departs on Sunday. 91.(3)

92. (4) Sydney bound flight departs at 5 PM.

- Sydney bound flight departs at 5 PM. 93. (4)
 - London bound flight departs at 6 PM.
- 94.(2) Dubai bound flight departs at 9 PM.
 - The flight would arrive in New Delhi at 11 PM.
- 95.(5) Madrid bound flight departs at 10 PM.
- 96.(1) Only assumption I is implicit in the statement. Vehicle is parked at a distance which is not far away from the destination. 97.(2)
 - Only assumption II is implicit in the statement. The use of term all in the assumption I makes it invalid.

98.(5) Clearly both the assumptions are implicit in the statement.

- 99.(5) It is mentioned in the statement that for any kind of problem. Contact help desk. It implies that help desk suggests solutions to all kinds of problems related to mobile phones. Therefore, both the assumptions are implicit in the statement.
- 100.(4) None of the assumptions is implicit in the statement.