IBPS RRB PO PHASE - I - 110 (SOLUTION)

REASONING

(1–5) :

1. (1) 2. (4) 3. (1)
4. (4) 5. (5)

(6 – 9) :

Month	22nd	28th
January	Abhinav	Faisal
March	Biplav	Edward
June	Deepak	Chaitnya
September	Harish	Gautam

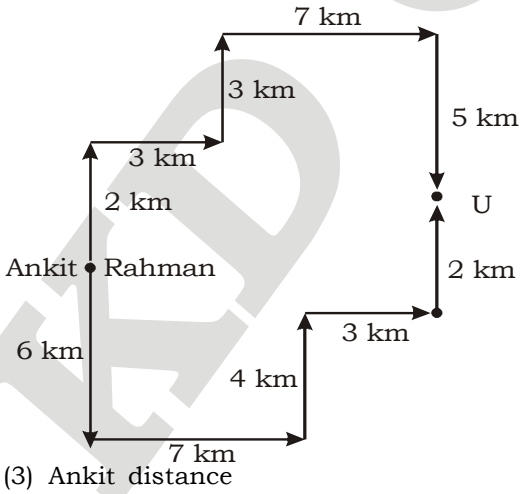
6. (2) 7. (4) 8. (1)
9. (4)

(10–14) :

Person	City	Car
P	Pune	Duster
K	Kanpur	Nano
R	Mumbai	Volkswagen
S	Patna	SUV
T	Delhi/Lucknow	WagonR/Toyota
M	Lucknow/Delhi	Toyota/WagonR
F	Chennai	Maruti
E	Bangalore	Swift

10. (5) 11. (5) 12. (5)
13. (1) 14. (4)

(15–16) :



15. (3) Ankit distance
= 2 + 3 + 3 + 7 + 5 = 20 km
Rahman distance = 6 + 7 + 4 + 3 + 2
= 22 km
Ratio of distance covered by them = 10 :11
Since time is the same
Ratio of speed is = 10 : 11

16. (3) 10 km west

(17 – 19) :

@ → $\geq$
# → >
% → =
$ → $\leq$
* → <

17. (5) A $\geq$ B > = D
I. A > C → True
II. B > D → True
Both conclusion I and II are true.

18. (4) M $\leq$ N < O = U > V
I. N > V → False
II. O $\geq$ M → False
Neither conclusion I nor II is true.

19. (1) X < Y > Z $\leq$ A = B
I. B $\geq$ Z → True
II. X > Z → False

(20–21): @ → $A^- = B^+$, © → $A^- - B$

% → $\begin{matrix} B \\ | \\ A^+ \end{matrix}$, # → $\begin{matrix} A^- \\ | \\ B \end{matrix}$

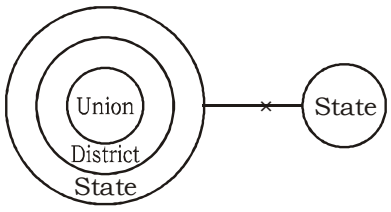
$ → $\begin{matrix} A^+ \\ | \\ B \end{matrix}$

20. (4) $\begin{matrix} X^- - Y^- = Z^+ \\ | \qquad\quad | \\ M^+ \qquad N \end{matrix}$
Z is uncle of M.

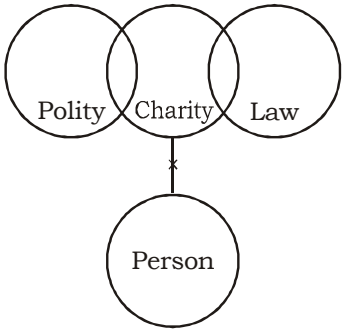
21. (3) $\begin{matrix} O^- = N^+ \\ \diagdown \quad / \\ M^+ - P \end{matrix}$

(22 – 23) :

22. (2)

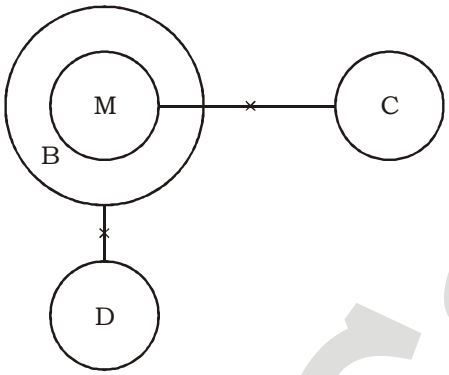


23. (3)



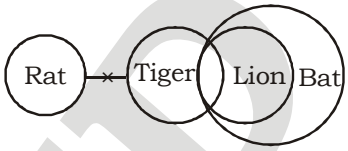
(24–26) :

24. (3)



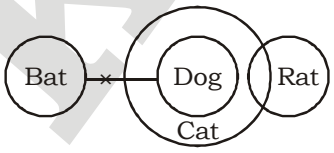
I. Follow
II. Follow
III. Follow
All conclusion I, II and III follow

25. (4)



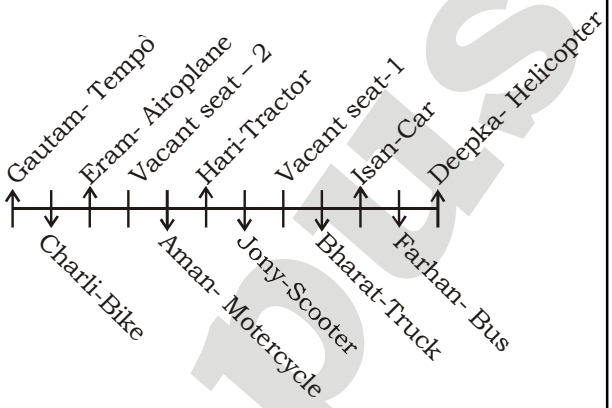
I. Follow
II. Follow
III. doesn't follow

26. (3)



I. doesn't Follow
II. Follow
III. doesn't follow
only conclusion II follow

(27–31):



27. (1) 28. (5) 29. (1)
30. (4) 31. (4)

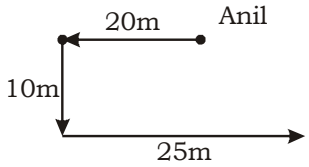
(32–36) :

Floor	Person	Mobile	Colors
8	N	Motorola	Green
7	O	Asus	Yellow
6	S	Samsung	Black
5	R	Apple	Blue
4	–	–	–
3	Q	Micromax	Orange
2	M	Redmi	Red
1	P	Lenovo	Purple

32. (1) 33. (5) 34. (4)
35. (3) 36. (5)

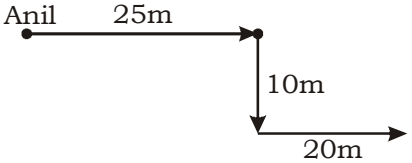
(37–40) :

37. (3) **From I** :–



Anil direction after stopped walking = East direction

From II :

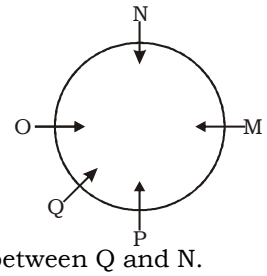


Anil direction = East direction

38. (4) **From I :** 16, 17, 18, 19, 20, 21,
From II: 14, 15, 16, 17, 18
Both statement I and II not sufficient to ansures the question

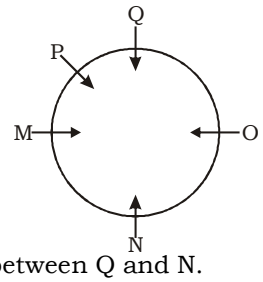
39. (3)

40. (3) **From I:**



O sit between Q and N.

From II:



O sit between Q and N.

MATHS

(41–45):

41. (2) $? = \frac{25}{9} \times \frac{16}{53} \times 91 = 76.31 \approx 75$

42. (4) $? \approx \frac{4}{9} \times 5670 - \frac{8}{15} \times 2520$

$= 2520 - 1344 = 1176 \approx 1175$

43. (1) $? = 4568.6531 + 134.675 - 2431.3178$

$= 2272.0103 \approx 2272$

44. (2) $? \approx 5680 \times \frac{25}{100} + 4300 \times \frac{45}{100}$

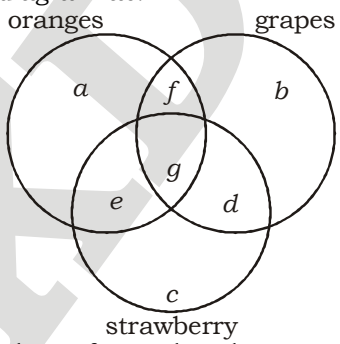
$= 1420 + 1935 = 3355$

45. (4) $? \approx 7^2 + 8^2 - \sqrt{81}$

$= 49 + 64 - 9 = 104$

(46–50) :

The question will be solved using venn diagram as:



Number of people who want to eat oranges is 4500

So, $a + e + g + f = 4500$

of which $26\frac{2}{3}\%$ people want to eat only oranges and grapes

So, $f = 26\frac{2}{3}\%$ of $4500 = 1200$

The number of people who want to eat graphes and straberry both are $33\frac{1}{3}\%$ greater than those who want to eat all the three fruits.

So, d is $33\frac{1}{3}\%$ greater than g

The number of people who want to eat strawberry but not grapes is 3700.

So, $c + e = 3700$ (means strawberry and oranges)

The number of people who want to eat only grapes is 1900 less than those who want to eat straberry but not grapes.

So, $b = (c + e) - 1900 = 3700 - 1900 = 1800$

The number of people who want to eat grapes but not oranges is 3000.

So, $b + d = 3000$

From above, $b = 1800$.

SO, $d = 3000 - 1800 = 1200$

From above d is $33\frac{1}{3}\%$ greater than g.

So, $1200 = (100 + 33\frac{1}{3})\%$ of g

Solve, $g = 900$

Now we have,

The number of people who want to eat oranges and strawberry both is 1500.

So, $e = 1500$

Now from above, we have

$a + e + g + f = 4500$

$\Rightarrow c + e = 3700$

$\Rightarrow b = 1800$

$\Rightarrow d = 1200$

$\Rightarrow f = 1200$

$\Rightarrow g = 900$

So, from $a + e + g + f = 4500$, we get

$a + e = 4500 - (900 + 1200) = 2400$

Now, $a + e = 2400$, $c + e = 3700$ and $e = 1500$

So, $a = 900$ and $c = 2200$

46. (1) Required no. of people $= b + d + f + g$

$= 1800 + 1200 + 900 + 1200 = 5100$

47. (3) Required no. of people $= f = 1200$

48. (5) Required no. of people $= a + b + c$

$= 900 + 1800 + 2200 = 4900$

49. (2) Required ratio $= c : d$

$= 2200 : 1200 = 11 : 6$

50. (5) Required no. of people $= d + e + f + g$

$= 1200 + 2400 + 1200 + 900$

$= 5700$

(51–55) :

51. (2) The pattern is :
$123 + 11 \times 14 = 123 + 154 = 277$
$277 + 13 \times 14 = 277 + 182 = 459$
$459 + 15 \times 14 = 459 + 210 = 669$
$669 + 17 \times 14 = 669 + 238 = 907$
$907 + 19 \times 14 = 907 + 266 =$ **1173**

52. (2) The pattern is :
$456.5 - 407 = 49.5$
$407 - 368.5 = 38.5$
$368.5 - 341 = 27.5$
$341 - 324.5 = 16.5$
$\therefore$? $= 324.5 - 5.5 =$ **319**

53. (1) The pattern is :
$23 + 1 \times 19.2 = 42.2$
$42.2 + 2 \times 19.2 = 80.6$
$80.6 + 4 \times 19.2 = 157.4$
$157.4 + 8 \times 19.2 = 311$
$311 + 16 \times 19.2 = 311 + 307.2 =$ **618.2**

54. (5) The pattern is :
$154 - 36 = 118$
$232 - 154 = 78$
$278 - 232 = 46$
$300 - 278 = 22$
$\therefore$? $- 300 = 6$
$\Rightarrow$? = **306**

55. (4) The pattern is ;
$24 + 8^3 = 24 + 512 = 536$
$536 - 7^2 = 536 - 49 = 487$
$487 + 6^3 = 487 + 216 = 703$
$703 - 5^2 = 703 - 25 = 678$
$678 + 4^3 = 678 + 64 =$ **742**

56. (2) Half full tank 1.2 hr.
So, Full tank will take 2.4 hr.
Now Let total work = 12 units
(P + Q)'s efficiency $= \frac{12}{2.4} = 5$ units
Now check from options
Take fastest pipe take 4 hr to fill the tank then fastest's pipe efficiency = 3 unit
Slowest's pipe efficiency = 5 – 3 = 2 unit
Time taken by slower pipe
$= \frac{12}{2} = 6$hrs.
ATQ,
$2 \times 2 + \frac{6}{3} \times 3 = \frac{5}{6} \times 12$
$\Rightarrow 4 + 6 = 10$
Condition satisfying
So, the time taken by fastest pipe = 4 hrs.

57. (1) Let the speed of Sonu in still water is x km/hr and speed of stream is y km/hr.
ATQ,
$$\frac{18}{x-y} - \frac{18}{x+y} = 9 \text{ .....(i)}$$
$$\frac{18}{2x-y} - \frac{18}{2x+y} = 1 \text{ .....(ii)}$$
Compare (i) and (ii),
$$\frac{2}{x-y} - \frac{2}{x+y} = \frac{18}{2x-y} - \frac{18}{2x+y}$$
$$\Rightarrow \frac{2x+2y-2x+2y}{x^2-y^2} = \frac{36x+18y-36x+18y}{4x^2-y^2}$$
$$\Rightarrow \frac{4y}{x^2-y^2} = \frac{36y}{4x^2-y^2}$$
$\Rightarrow 9x^2 - 9y^2 = 4x^2 - y^2$
$\Rightarrow 5x^2 = 8y^2$
$$\Rightarrow \frac{x}{y} = \frac{\sqrt{8}}{\sqrt{5}}$$
$\therefore x : y = \sqrt{8} : \sqrt{5}$

58. (1) At normal rate of interest,
$10\% = \frac{1}{10}$

10	11
10	11
10	11
1000	1331
↓×20	↓×20
₹ 20,000	₹ 26,620

Now, in the third year, rate will be
$15\% = \frac{3}{20}$

10	11
10	11
20	23
2000	2783
↓×10	↓×10
₹ 20,000	₹ 27,830

$\therefore$ Extra amount she has to pay
= 27830 – 26620 = ₹1210

59. (3) Let no. of additional men = x
ATQ,
$$\frac{105 \times 25 \times 8}{\frac{2}{5}} = \frac{(105+x) \times 25 \times 9}{\frac{3}{5}}$$
$\Rightarrow 105 \times 100 = (105 + x) \times 75$
$\Rightarrow 10500 = 7875 + 75x$

$\Rightarrow 75x = 10500 - 7875$

$\therefore x = \frac{2625}{75} = 35$ men

60. (1) (L + M)'s 2 days work

$= 2 \times \left(\frac{1}{8} + \frac{1}{12}\right)$

$= 2 \times \left(\frac{3+2}{24}\right) = \frac{10}{24}$

$= \frac{5}{12}$

Remaining work $= 1 - \frac{5}{12} = \frac{7}{12}$

Now, (N + M)'s 1day work

$= \left(\frac{1}{12} + \frac{1}{15}\right)$

$= \left(\frac{5+4}{60}\right) = \frac{9}{60}$

$\therefore$ (N + M) take to complete the $\frac{7}{12}$ work in $\frac{7}{12} \times \frac{60}{9} = \frac{35}{9}$ days

$\therefore$ Total time taken

$= 2 + \frac{35}{9}$

$= 5\frac{8}{9}$ days.

(61–65) :

61. (3) The data in statement I alone or in statement II alone are sufficient. We can find the ratio of profit sharing as ratio of amounts of investment can be determined

62. (5) Let the number be $10x + y$.
From statement I,
$x + y = 6$
Many such combinations are possible.
From statement II
$x = 2y$
Taking both the statement together,
$\therefore 3y = 6 \Rightarrow y = 2$ and hence, $x = 4$
$\therefore$ Number = 42

63. (1) From statement I alone,
Principal = ₹ x, R = ?, S.I. = ₹ x
T = 10 years.

$\therefore R = \frac{\text{S.I} \times 100}{\text{Principal} \times \text{Time}}$

$= \frac{x \times 100}{x \times 10} = 10\%$

64. (4) Statement II gives no conclusion.
From statement II,
(A + B)'s 1 day's work = $\frac{1}{12}$
A's 1 day's work is not known.

65. (5) From both the statements,

$\frac{5x+4}{x+4} = \frac{17}{5}$

$\Rightarrow 25x + 20 = 17x + 68$

$\Rightarrow 8x = 48 \Rightarrow x = 6$

$\therefore$ Mother's present age = 5 × 8 = 40 years

66. (1) Required no. of days
= 2! × 4!
= 2 × 4 × 3 × 2 = 48

67. (2) Probability that all four of them are either red or any out of the four are green

$= \frac{{}^{6}C_{4} + {}^{5}C_{2} \times {}^{14}C_{2}}{{}^{19}C_{4}}$

$= \frac{15 + 10 \times 91}{3876} = \frac{925}{3876}$

68. (3) Ratio between fare of first, second and third class
= 10 : 7 : 2
and ratio between passengers travelling in these category
= 4 : 9 : 17
New ratio between fares

$= 10 \times \frac{5}{4} : 7 \times \frac{9}{8} : 2 \times \frac{90}{100}$

$= \frac{25}{2} : \frac{63}{8} : \frac{9}{5}$

$\therefore$ New collection

$= \frac{25}{2} \times 4 + \frac{63}{8} \times 9 + \frac{9}{5} \times 17$

$= 50 + \frac{567}{8} + \frac{153}{5}$

$= \frac{2000 + 2835 + 1224}{40} = \frac{6059}{40}$

Now, $\frac{6059}{40}$ unit = ₹ 60,590

$\therefore \frac{153}{5}$ unit $= \frac{60590}{6059} \times 40 \times \frac{153}{5}$

= ₹ 12,240

69. (1) Distance between A and B

$= \frac{44}{60} \times 50 = \frac{110}{3}$ km

Now, new speed = 50 + 5
= 55 km/hr.

$\therefore$ Required time

$= \frac{110}{3 \times 55} = \frac{2}{3}$ hours

i.e. $\left(\frac{2}{3}\times 60\right)$ minutes

= 40 minutes

70. (2) Let the length of train be x meters

Required ratio = $\frac{x}{300} : \frac{x}{48}$

= 48 : 300

= 4 : 25

(71–75) :

71. (2) No. of Mobile sold in February

= 2392 × 5 – (2200 + 2350 + 2540 + 2650)

= 11960 – 9740 = 2220

No. of Mobile sold in April

= 2200 × 5 – (2250 + 2220 + 1950 + 2230)

= 11000 – 8650 = 2350

No. of Computer sold in April

= 2350 × 5 – (2300 + 2500 + 2350 + 2450)

= 11750 – 9600 = 2150

No. of Computer sold in January

= 2310 × 5 – (2650 + 2300 + 2150 + 2400)

= 11550 – 9500 = 2050

∴ Required average

= $\frac{2220+2300+2050}{3}$

= $\frac{6570}{3}$ = 2190

72. (4) No. of Fridge sold in January

= 2150 × 5 – (2050 + 2250 + 2100 + 2050)

= 10750 – 8450 = 2300

No. of Laptop sold in March

= 2242 × 5 – (2100 + 2540 + 2450 + 2070) = 11210 – 9160 = 2050

No. of Fridge sold in January and April together = 2300 + 2500 = 4800

No. of Laptop sold in March and April together = 2050 + 2450 = 4500

∴ Required%

= $\left(\frac{(4800-4500)}{4500}\times 100\right)\%$

= 6.66% ≈ 7%

73. (3) No. of Fridge sold in May

= 2404 × 5 – (2300 + 2350 + 2250 + 2500) = 12020 – 9400 = 2620

No. of TV sold in June

= $\frac{2620+2400}{2} = \frac{5020}{2}$ = 2510

No. of TV sold in March

= 2190 × 5 – (2300 + 2050 + 1950 + 2250)

= 10950 – 8550 = 2400

No. of TV sold in May

= 2374 × 5 – (2400 + 2070 + 2230 + 2620) = 11870 – 9320 = 2550

∴ Required average

= $\frac{2050+2200+2400+2300+2550+2510}{6}$

= $\frac{14010}{6}$ = 2335

74. (1) Highest sales of fridge in May = 2620

75. (5) No. of Laptop sold in March = 2050

No. of TV sold in February and May together

= 2200 + 2550 = 4750

∴ Required% = $\left(\frac{2050}{4750}\times 100\right)\%$

= 43.15% ≈ 43%

(76–80) :

76. (5) I. $5x^2 - 18x + 9 = 0$

$\Rightarrow 5x^2 - 15x - 3x + 9 = 0$

$\Rightarrow 5x(x-3) - 3(x-3) = 0$

$\Rightarrow (5x-3)(x-3) = 0$

$\Rightarrow x = \frac{3}{5}, 3$

II. $20y^2 - 13y + 2 = 0$

$\Rightarrow 20y^2 - 5y - 8y + 2 = 0$

$\Rightarrow 5y(4y-1) - 2(4y-1) = 0$

$\Rightarrow (5y-2)(4y-1) = 0$

$\Rightarrow y = \frac{2}{5}, 1$

77. (5) I. $x^2 + 29x = -210$

$\Rightarrow x^2 + 29x + 210 = 0$

$\Rightarrow x^2 + 15x + 14x + 210 = 0$

$\Rightarrow x(x+15) + 14(x+15) = 0$

$\Rightarrow x = -15, -14$

II. $y^2 + 28y = -195$

$\Rightarrow y^2 + 28y + 195 = 0$

$\Rightarrow y^2 + 15y + 13y + 195 = 0$

$\Rightarrow y(y+15) + 13(y+15) = 0$

$\Rightarrow (y+13)(y+15) = 0$

$\Rightarrow y = -13, -15$

78. (3) I. $3x^2 + 17x + 20 = 0$

$\Rightarrow 3x^2 + 12x + 5x + 20 = 0$

$\Rightarrow 3x(x+4) + 5(x+4) = 0$

$\Rightarrow (3x + 5)(x + 4) = 0$

$\Rightarrow x = \frac{-5}{3}, -4$

II. $4y^2 + 9y + 5 = 0$

$\Rightarrow 4y^2 + 4y + 5y + 5 = 0$

$\Rightarrow 4y(y + 1) + 5(y + 1) = 0$

$\Rightarrow (4y + 5)(y + 1) = 0$

$\Rightarrow y = -\frac{5}{4}, -1$

Clearly, $x < y$

79. (2) I. $2x^2 + 13x + 21 = 0$

$\Rightarrow 2x^2 + 6x + 7x + 21 = 0$

$\Rightarrow 2x(x + 3) + 7(x + 3) = 0$

$\Rightarrow (2x + 7)(x + 3) = 0$

$\Rightarrow x = \frac{-7}{2}, -3$

II. $2y^2 + 15y + 28 = 0$

$\Rightarrow 2y^2 + 8y + 7y + 28 = 0$

$\Rightarrow 2y(y + 4) + 7(y + 4) = 0$

$\Rightarrow (2y + 7)(y + 4) = 0$

$\Rightarrow y = \frac{-7}{2}, -4$

Clearly, $x \geq y$

80. (1) I. $3x^2 - 13x + 12 = 0$

$\Rightarrow 3x^2 - 9x - 4x + 12 = 0$

$\Rightarrow 3x(x - 3) - 4(x - 3) = 0$

$\Rightarrow x = \frac{4}{3}, 3$

II. $2y^2 + 17y + 33 = 0$

$\Rightarrow 2y^2 + 6y + 11y + 33 = 0$

$\Rightarrow 2y(y + 3) + 11(y + 3) = 0$

$\Rightarrow (2y + 11)(y + 3) = 0$

$\Rightarrow y = \frac{-11}{2}, -3$

Clearly, $x > y$

IBPS RRB PO PHASE - I - 110 (ANSWER KEY)

1. (1)	21. (3)	41. (2)	61. (3)
2. (4)	22. (2)	42. (4)	62. (5)
3. (1)	23. (3)	43. (1)	63. (1)
4. (4)	24. (3)	44. (2)	64. (4)
5. (5)	25. (4)	45. (4)	65. (5)
6. (2)	26. (3)	46. (1)	66. (1)
7. (4)	27. (1)	47. (3)	67. (2)
8. (1)	28. (5)	48. (5)	68. (3)
9. (4)	29. (1)	49. (2)	69. (1)
10. (5)	30. (4)	50. (5)	70. (2)
11. (5)	31. (4)	51. (2)	71. (2)
12. (5)	32. (1)	52. (2)	72. (4)
13. (1)	33. (5)	53. (1)	73. (3)
14. (4)	34. (4)	54. (5)	74. (1)
15. (3)	35. (3)	55. (4)	75. (5)
16. (3)	36. (5)	56. (2)	76. (5)
17. (5)	37. (3)	57. (1)	77. (5)
18. (4)	38. (4)	58. (1)	78. (3)
19. (1)	39. (3)	59. (3)	79. (2)
20. (4)	40. (3)	60. (1)	80. (1)

Note:- If you face any problem regarding result or marks scored, please contact 9313111777

Note:- Whatapp with Mock Test No. and Question No. at 7053606571 for any of te doubts. Join the group and you may also share your suggestions and experience of sunday Mock Test.

Note:- If your opinion differs regarding any answer, please message the mock test and question number to 8860330003