

Resultant of row 1 is 84.

In row 2,

According to step 1, $28-6=22$

Then step 2, $22/11=2$

Resultant of row 2 is 2.

Addition of resultant of both row is $84+2=86$

11). C

Solution:

In row 1,

According to step 2, $16-8=8$

Then step 2, $12-8=4$.

Resultant of row 1 is 4.

In row According to step 4, 3, 8 higher numbers is 8.

Then step 5, 8, 17 lower number is 8

Resultant of row 2 is 8.

So difference of resultant of both rows is $8-4=4$.

12). B

Solution:

In row 1,

According to step 5, (8, 5) lower number is 5

Then step 3, $5*3=15$.

Resultant of row 1 is 15.

In row According to step 4, (7, 14) higher number is 14.

Then step 5, (14 37) lower number is 14.

Resultant of row 2 is 14.

So multiplication of resultant of both rows is

$14*15=210$.

13). D

Solution:

In row 1,

According to step 3, $9*23=207$

Then step 4, (207, 18) higher number is 207

Resultant of row 1 is 207.

In row 2

According to step 4, (45, 58) higher number is 58.

Then step 2, $58-8=50$

Resultant of row 2 is 50.

So addition of resultant of both rows is $207+50=257$

14). C

Solution:

In row 1,

According to step 1, $27+33=60$

Then step 5, (60, 2) lower number is 2

Resultant of row 1 is 2.

In row 2, X is 2

According to step 5, (22, 7) lower number is 7.

Then step 4, (7, 2) so higher number is 7

Resultant of row 2 is 7.

So resultant of 2nd row is 7.

15). A

Solution:

In row 1,
According to step 4, (37 86) higher number is 86
Then step 5, (86 31) lower number is 31
Resultant of row 1 is 31.

In row 2
According to step 2, 18-6=12
Then step 5, (12, 23) lower number is 12
Resultant of row 2 is 12.

So addition of resultant of both rows is 12+31=43.

16). D

Solution:

In row 1,
According to step 3, $1 \times 16 = 16$
Then step 1, subtraction $16 - 8 = 8$
Resultant of row 1 is 8.

In row 2
According to step 5, $3 + 13 = 16$
Then step 4, (16, 9) higher number is 16
Resultant of row 2 is 16.

So $\text{row2/row1} = 16/8 = 2$

17). B

Solution:

In row 1,
According to step 2, $27 + 8 = 35$

Then step 5, $35 + 4 = 39$

Resultant of row 1 is 39.

In row According to step 4, (16, 9) higher number is 16.

Then step 1, $125 - 16 = 109$.

Resultant of row 2 is 109.

So difference of resultant of both rows is 109-39=70.

18). C

Solution:

In row 1,
According to step 1, $27 - 8 = 18$

Then step 5, $18 + 81 = 99$

Resultant of row 1 is 99.

In row 2

According to step 2, $1 + 8 = 9$

Then step 4, (9, 25) higher number is 25

Resultant of row 2 is 25.

So addition of resultant of both rows is 99+25=124

19). C

Solution:

In row 1,
According to step 3, $216 \times 4 = 864$

Then step 5, $864 + 1 = 865$

Resultant of row 1 is 865.

In row 2, X is 865

According to step 1, $125 - 81 = 44$

Then step 5, $44+865=909$

Resultant of row 2 is 909.

Difference resultant of both rows, $909-865=44$

20).A

Solution:

In row 1,

According to step 4, (100, 121) higher number is 121

Then step 1, $125-121=4$

Resultant of row 1 is 4.

In row 2

According to step 4, (16, 4) higher number is 16

Then step 5, $16+23=39$

Resultant of row 2 is 39.

So division of resultant of row 2 by row 1 is $39/4=9$ times exactly divided & **3 is remainder.**

21). C

Solution:

In row 1,

According to step 2, $16/8=2$

Then step 2, $2/2=1$

Resultant of row 1 is 1.

In row 2

According to step 1, $6*5=30$

Then step 1, $30*3=90$

Resultant of row 2 is 90.

So addition of resultant of row 1 and row 2 is

1+90=91

22). C

Solution:

In row 1,

According to step 3, $25+9=34$

Then step 2, $34/2=17$

Resultant of row 1 is 17.

In row 2

According to step 2, $18/6=3$

Then step 4, $12-3=9$

Resultant of row 2 is 9.

So difference between resultant of row 1 and row 2 is

17-9=8

23). C

Solution:

In row 1,

According to step 1, $25*4=100$

Then step 2, $100/10=10$

Resultant of row 1 is 10.

In row 2

According to step 3, $11+13=24$

Then step 1, $24*15=360$

Resultant of row 2 is 360.

So product of resultant of row 1 and row 2 is

$10*360=3600$

24). B

Solution:

In row 2,

According to step 4, $17-8=9$

Then step 4, $14-9=5$

Resultant of row 2 is 5.

In row 1

X is 5.

According to step 2, $36/4=9$

Then step 3, $9+5=14$

Resultant of row 1 is 14.

So division of resultant of row 1 by row 2 is $14/5=2$ times exactly divided and **4 remainder.**

25). E

Solution:

In row 1,

According to step 3, $89+121=210$

Then step 1, $210*5=1050$

Resultant of row 1 is 1050.

In row 2

According to step 2, $24/4=6$

Then step 1, $6*67=402$

Resultant of row 2 is 402.

So difference of resultant of row 1 and row 2 is 1050-402=648

26). D

Solution:

In row 1

, Here 6 is multiple of 2 and 3, so according to step 5 we will take it as multiple of 2.

According to step 2, $4+6=10$

Then step 2, $10+8=18$

Resultant of row 1 is 18.

In row 2

According to step 4, $15+9=24$

According to step 5 we will take 24 as multiple of 2.

Then step 2, $24+4=28$

Resultant of row 2 is 28

So addition of resultant of row 1 and row 2 is 28+18=46

27). B

Solution:

In row 1

According to step 2, $22+16=38$

Then step 2, $38+26=64$

Resultant of row 1 is 64.

In row 2

According to step 4, $21+27=48$

According to step 5, we will take 48 as a multiple of 2.

Then step 2, $48+2=50$

Resultant of row 2 is 50

So difference between resultant of row 1 and row 2 is

64-50=14

28). B

Solution:

In row 1

According to step 4, 15+33=48

According to step 5, we will take 48 as a multiple of 2.

Then step 1, 48-39=9.

Resultant of row 1 is 9.

In row 2

According to step 5, we will take 24 as a multiple of 2.

According to step 3, 33-24=9

Then step 4, 9 +51=60

Resultant of row 2 is 60

So sum of resultant of row 1 and row 2 is 9+60=69

29). C

Solution:

In row 1

According to step 2, 10+2=12

According to step 5, we will take 12 as a multiple of 2.

Then step 1, 12-9=3.

Resultant of row 1 is 3.

In row 2

According to step 5, 6 will take as multiple of 2.

According to step 1, 6-3=3

Then step 3, 14-3=11

Resultant of row 2 is 11

So multiplication of both rows result is 3*11=33

30). E

Solution:

In row 1

According to step 5, we will take 12 as a multiple of 2.

According to step 2, 16+12=28

According to step 5, we will take 102 as a multiple of 2.

Then step 1, 102+28=130.

Resultant of row 1 is 130.

In row 2

According to step 4, 3+9=12

According to step 5, we will take 12 as a multiple of 2.

Then step 1, 21-12=9

Resultant of row 2 is 9

The difference between row one and row two is 130-9=121

31). A

Solution:

In row 1

(2, 3) no conditions satisfied, lowest number is 2.

(2, 7) no conditions satisfied, lowest number is 2.

Resultant of row 1 is 2.

In row 2

According to step 2, $40-21=19$

According to step 2, $19-16=3$

Resultant of row 2 is 3.

Difference between row 1 and row 2 is $3-2=1$

32). B

Solution:

In row 1

(7, 6) no conditions satisfied, lowest number is 6.

Two conditions satisfied as follows (6, 8)

According to step 3, $6*8=48$

According to step 6, (6, 8), followed number is 8.

Among two conditions 48 is the highest result.

Resultant of row 1 is 48.

In row 2

According to step 4, $13-12=1$

Y is half of Resultant of row 1, $48/2=24$

According to step 2, $24-1=23$

Resultant of row 2 is 23.

33). B

Solution:

In row 1

According to step 3, $27*4=108$

According to step 4, $108-13=95$

Resultant of row 1 is 95.

In row 2

According to step 5, (7, 5) preceded number is 7.

According to step 1, $7+19=26$

Resultant of row 2 is 26.

Difference between Resultant of row 1 and row 2 is $95-26=69$

34). E

Solution:

In row 1

According to step 1, $11+23=34$

According to step 3, $27*34=918$

Resultant of row 1 is 918.

In row 2

(36, 9) According to step 3, 334

(334, 22)no conditions satisfied, lowest number is 22

Resultant of row 2 is 22

Sum of Resultant of row 1 and row 2 is $918+22=940$

35). D

Solution:

In row 1

According to step 4, $64*10=640$

(640, 5) no conditions satisfied, lowest number is 5

Resultant of row 1 is 5.

In row 2

According to step 4, $21-16=5$

According to step 5, (5, 3) preceded number is 5.

Resultant of row 2 is 5.

Division of Resultant of row 1 and row 2 is $5/5=1$ times exactly divided.

So remainder is 0.

36). D

Solution:

In row 1

Three conditions satisfied as follows (4, 16)

According to step ii, $16-4=12$

According to step iii, $16*4=64$

According to step iv, $16-4=12$

Among three conditions, 12 is the lowest result.

According to step i, $12/6=2$.

Resultant of row 1 is 2.

In row 2

According to step i, $20/5=4$

According to step ii, $4-3=1$

Resultant of row 2 is 1.

Difference of resultant of row 1 and row 2 is $2-1=1$

So double of 1 is $1*2=2$

37). C

Solution:

In row 2

According to step i, $42/7=6$

Two conditions satisfied as follows (6, 18)

According to step ii, $18-6=12$

According to step iii, $6*18=108$

Among two conditions, 12 is the lowest result.

Resultant of row 2 is 12.

In row 1

Z is half of resultant of row 2, $12/2=6$

According to step ii, $15-7=8$

According to step ii, $8-6=2$

Resultant of row 1 is 2.

Difference between row 2 and row 1 is $12-2=10$

38). B

Solution:

In row 1

Three conditions satisfied as follows (10, 100)

According to step ii, $100-10=90$

According to step iii, $10*100=1000$

According to step iv, $100-10=90$

Among three conditions, 90 is the lowest result.

Two conditions satisfied as follows (90, 90)

According to step i, $90/90=1$

According to step iii, $90*90=8100$

Among two conditions, 1 is the lowest result.

Resultant of row 1 is 1

In row 2

According to step ii, $24-16=8$

Three conditions satisfied as follows (8, 64)

According to step ii, $64-8=56$

According to step iii, $8*64=512$

According to step iv, $64-8=56$

Among three conditions, 56 is the lowest result.

Resultant of row 2 is 56.

Sum of the resultant of row 1 and row 2 is $1+56=57$.

39). D

Solution:

In row 1

According to step ii, $41-11=30$

According to step i, $30/5=6$

Resultant of row 1 is 6.

In row 2

According to step i, $36/18=2$

Three conditions satisfied as follows (2, 4)

According to step ii, $4-2=2$

According to step iii, $2*4=8$

According to step iv, $4-2=2$

Among three conditions, 2 is the lowest result.

Resultant of row 2 is 2.

product of resultant of row 1 and row 2 is $6*2=12$

Square of product 12 is 144.

40).D

Solution:

In row 1

Two conditions satisfied as follows (7, 14)

According to step ii, $14-7=7$

According to step iii, $7*14=98$

Among two conditions, 7 is the lowest result.

Again three conditions satisfied as follows (7, 49)

According to step ii, $49-7=42$

According to step iii, $7*49=343$

According to step iv, $49-7=42$

Among three conditions, 42 is the lowest result.

Resultant of row 1 is 42

In row 2

According to step ii, $19-6=13$

Two conditions satisfied as follows (13, 13)

According to step i, $13/13=1$

According to step iii, $13*13=169$

Among two conditions, 1 is the lowest result.

Resultant of row 2 is 1.

Division of Resultant of row 1 and row 2 is $42/1=42$ times exactly divided.

So remainder is 0.

41). C

Solution:

In row 1

According to step iii, $25+4=29$

According to step v, $29+29=58$

Resultant of row 1 is 58.

In row 2

According to step iv, 27

According to step i, $729/27=27$.

Resultant of row 2 is 27.

Difference between resultant of row 1 and row 2 is $58-27=31$

So square of this is 961.

42). D

Solution:

In row 1

According to step ii, $125-5=120$

According to step iii, $120+4=124$

Resultant of row 2 is 124.

In row 2

Z is resultant of row 1, 124

According to step i, $49/7=7$

According to step v, $124+7=131$

Resultant of row 2 is 131.

Difference between row 2 and Z is $131-124=7$

43). A

Solution:

In row 1

According to step iii, $2+9=11$

According to step iii, $11+81=92$

Resultant of row 1 is 92

In row 2

According to step i, $144/12=12$

According to step iii, $12+16=28$

Resultant of row 2 is 28.

Division of resultant of row 1 and row 2 $92/24= 3$ times exactly divided

Remainder is 8.

Double of remainder is $8*2=16$

44). D

Solution:

In row 1

According to step v, $8+48=56$

According to step iii, $56+49=105$

Resultant of row 1 is 105

In row 2

According to step iv, 216

According to step iv, $216+100=316$

Resultant of row 2 is 316.

Difference between resultant of row 2 and row 1 is $316-105=211$

45). E

Solution:

In row 1

According to step v, $1131+11=1142$

According to step iii, $1142+49=1191$

Resultant of row 1 is 1191

In row 2

According to step i, $4/2=2$

According to step ii, $8-2=6$

Resultant of row 2 is 6.

Sum of resultant of row 1 and row 2 is $1191+6=1197$

46). C

Solution:

In row 1

According to step i, $81+6=87$

According to step v, $87*2=174$

Resultant of row 1 is 174.

In row 2

According to step ii, $25-16=9$

According to step i, $9+14=23$

Resultant of row 2 is 23.

Difference between Resultant of row 1 and row 2 is $174-23=151$

47). C

Solution:

In row 1

According to step iii, (1 34) resultant is 1

According to step v, $1*7=$

Resultant of row 1 is 7.

In row 2

Z is of resultant of row 1, 7

According to step i, $121+48=169$

According to step i, $169+7=177$

Resultant of row 2 is 176.

Addition of row 2 and Z is $7+176=183$

Double of addition of row 2 and Z is 380.

48).E

Solution:

In row 1

According to step iv, (216, 27) resultant is 27

According to step iii, (27, 84) resultant is 27

Resultant of row 1 is 27.

In row 2

According to step ii, $64-15=49$

According to step v, $49*15=735$

Resultant of row 2 is 735.

Difference between resultant of row 1 and row 2 is $735-27=708$

Double of difference between resultant of row 1 and row 2 is 1416.

49). D

Solution:

In row 1

According to step iv, (512, 125) resultant is 125

According to step iii, (125, 74) resultant is 125

Resultant of row 1 is 125.

In row 2

According to step i, $49+56=105$

According to step v, $105*121=12705$

Resultant of row 2 is 12705

Difference between resultant of row 2 and row 1 is

$12705-125=12580$

50). B

Solution:

In row 1

According to step v, $11*7=77$

According to step v, $77*49=3773$

Resultant of row 1 is 3773.

In row 2

According to step iii, (343, 4) resultant is 343

According to step iii, (343, 56) resultant is 343

Resultant of row 2 is 343

Sum of resultant of row 1 and row 2 is

$3773+343=4116$

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Quantity Based Questions

Directions(1-50): In the following question, two statements numbered I and II are given. On solving them we get two quantities, quantity I and quantity II respectively. Solve for both the quantities and choose the correct option.

1. **Quantity I:** Boat A travels in a stream and takes 6.4 hrs to complete a round trip, going 78 km in each direction. If the ratio of speed in still water of the boat to the stream speed is 8:5, what is the speed in still water of the boat?

Quantity II: Amrit travels at the speed of 42 km/hr for 3 hrs and 36 km/hr for 2 hrs, what is his average speed for the journey of 5 hrs?

- a) Quantity I > Quantity II
- b) Quantity I < Quantity II
- c) Quantity I \geq Quantity II
- d) Quantity I \leq Quantity II

e) Quantity I = Quantity II or a relation can't be established

2. **Quantity I:** A sum of money Rs. 12000 is invested into compound interest at 5% per annum for 2 years, then what will be amount earned at the end of two years?

Quantity II: A sum of money Rs. 15000 is invested into simple interest at 8% per annum for two years, then what will be the amount earned at the end of two years?

a) Quantity I \geq Quantity II

b) Quantity I > Quantity II

c) Quantity I < Quantity II

d) Quantity I \leq Quantity II

e) Quantity I = Quantity II or no relation can be established.

3. **Quantity I:** Mohan purchased two articles at same price at Rs. 2550 and he sold one article at 24% of profit and another at 42% of profit, then what is the difference between the selling price of both articles?

Quantity II: Karim purchased an article and marked up 10% above its cost price while selling the article he gave discount of 5%, then what is the cost price of the article if he earned Rs. 18 as profit?

a) Quantity I > Quantity II

b) Quantity I \geq Quantity II

c) Quantity I < Quantity II

d) Quantity I = Quantity II or no relation can be established.

e) Quantity I \leq Quantity II

4. **Quantity-I:** 30 men working 5 hours a day can complete 80% of a work in 16 days. 24 men working 5

hours a day can complete the remaining work in how many days.

Quantity-II: 'A' can complete a work alone in 12 days and takes 4 days more than 'B' to complete the work. Both of them worked together for 4 days and after that 'A' completed the remaining work along with 'C' in 1 day. Find the time taken by 'C' to complete 50% of the work alone.

- a) Quantity-I > Quantity-II
- b) Quantity-I < Quantity-II
- c) Quantity-I \leq Quantity-II
- d) Quantity-I = Quantity-II or No relation
- e) Quantity-I \geq Quantity-II

5. Quantity-I: Subham invested $\frac{1}{4}^{\text{th}}$ of a sum in scheme 'A' offering 25% p.a. simple interest, for 3 years. He invested the remaining sum in scheme 'B' offering 20% p.a. compound interest, compounded annually for 2 years. The amount received from scheme 'B' is Rs. 1542 more than that from scheme 'A'. Find the total sum Subham had.

Quantity-II: 'A' invested Rs. 'x' for 2 years while 'B' invested Rs. (x - 600) for 3 years. If the ratio of the profits received by them is 8:9, respectively, then find the sum invested by 'A'.

- a) Quantity-I > Quantity-II
- b) Quantity-I < Quantity-II
- c) Quantity-I \leq Quantity-II
- d) Quantity-I = Quantity-II or No relation
- e) Quantity-I \geq Quantity-II

6. Quantity A: The curved surface area of the cone whose slant height is 16 cm and diameter of the base is 14 cm

Quantity B: The curved surface area of the hemisphere whose diameter is 28 cm

- a) Quantity A > Quantity B
- b) Quantity A < Quantity B
- c) Quantity A \geq Quantity B
- d) Quantity A \leq Quantity B
- e) Quantity A = Quantity B or no relation

7. Quantity A: In how many ways can a group of 4 boys and 5 girls be selected from 8 boys and 6 girls?

Quantity B: In how many ways can a group of 4 boys and 5 girls be selected from 6 boys and 8 girls?

- a) Quantity A > Quantity B
- b) Quantity A < Quantity B
- c) Quantity A \geq Quantity B
- d) Quantity A \leq Quantity B
- e) Quantity A = Quantity B

8. Quantity A: A train running at a speed of 45 km/hr crosses a 90 m long platform in 20 seconds. In how much time will it cross a 140 m long platform?

Quantity B: A 150 m long train crosses a standing man in 20 seconds. In how much time will it cross another man running at a speed of 9 km/hr in the opposite direction?

- a) Quantity A > Quantity B
- b) Quantity A < Quantity B
- c) Quantity A \geq Quantity B

d) Quantity A \leq Quantity B

e) Quantity A = Quantity B

9. **Quantity A:** In what ratio should flour costing Rs. 20 per kg be mixed with flour costing Rs. 25 per kg, such that the mixture costs Rs. 22 per kg?

Quantity B: In what ratio should sugar costing Rs. 27 per kg be mixed with that costing Rs. 30 per kg, so as to earn a profit of 15% after selling the mixture for Rs. 32.2 per kg?

a) Quantity A > Quantity B

b) Quantity A < Quantity B

c) Quantity A \geq Quantity B

d) Quantity A \leq Quantity B

e) Quantity A = Quantity B

10. **Quantity A:** A man covered 158 km in 3 hrs. 18 min. and completed the remaining journey at a speed of 45 km/hr. Find the average speed of his journey.

Quantity B: A train completes a journey of 480 km in 10 hrs. 45 min. If the train halted for a total time of 30 min. in the whole journey, find the average speed of the train.

a) Quantity A > Quantity B

b) Quantity A < Quantity B

c) Quantity A \geq Quantity B

d) Quantity A \leq Quantity B

e) Quantity A = Quantity B

11. A solid sphere of radius 9 cm is melted and one cylinder and one cone is formed from it. Ratio of the volume of cylinder to the cone is 4: 5.

Quantity I: What is the flat surface area of the base of the cone whose base radius and height are in the ratio 9: 20?

Quantity II: What is the flat surface area of the base of the cylinder whose base radius and height are in the ratio 1: 2?

a) Quantity I > Quantity II

b) Quantity I < Quantity II

c) Quantity I \geq Quantity II

d) Quantity I \leq Quantity II

e) Quantity I = Quantity II or relation cannot be established.

12. **Quantity I:** The difference between the Compound interest and simple interest earned on equal sums of money over 2 years is Rs 480, what is the Principal if the rate of interest is 20%

Quantity II: The difference between the Compound interest and simple interest earned on equal sums of money over 3 years is Rs 3250, what is the Principal if the rate of interest is 25%

a) Quantity I > Quantity II

b) Quantity I < Quantity II

c) Quantity I \geq Quantity II

d) Quantity I \leq Quantity II

e) Quantity I = Quantity II or a relation can't be established.

13. **Quantity I:** Out of 300 students in a graduation college, the ratio of fit to that of non-fit is 8: 7. 25% among fit are occasional exercise doers and rest are daily exercise doers. 60% of the total number of students do gym and 20% of the total number of occasional exercise

doers do gym. If 50% of the total number of non - fit do gym, then what is the number of students who are daily exercise doers as well as do gym?

Quantity II: 100

- a) Quantity I > Quantity II
- b) Quantity I < Quantity II
- c) Quantity I \geq Quantity II
- d) Quantity I \leq Quantity II

e) Quantity I = Quantity II or relationship can't be established

14. **Quantity I:** 8 men and 10 women can complete a piece of work in 5 days. 6 men and 15 women can complete the work in 4 days. Find the number of days taken by 10 men and 15 women to complete the piece of work.

Quantity II: 20 workers started a work and completed $\frac{1}{3}^{\text{rd}}$ of the work in 5 days. If 5 more workers joined them on the sixth day, in how many more days they will complete the remaining part of the work?

- a) Quantity I > Quantity II
- b) Quantity I < Quantity II
- c) Quantity I \geq Quantity II
- d) Quantity I \leq Quantity II

e) Quantity I = Quantity II or no relation can be established.

15. Speed of boat A in still water is 10% more than the speed of boat B in still water. Boat A can go 144 Km downstream in 9 hours and boat B can go 75 Km upstream in 15 hours in the same river.

Quantity I: Find the upstream distance travelled by boat A in 12 hours.

Quantity II: Find the downstream distance travelled by boat B in 6 hours.

- a) Quantity I > Quantity II
- b) Quantity I < Quantity II
- c) Quantity I \geq Quantity II
- d) Quantity I \leq Quantity II

e) Quantity I = Quantity II or no relation can be established.

16. **Quantity A:** Income of A is 25% more than the income of B. If income of A is increased in the ratio 5 : 6 while the income of B increased in the ratio 4 : 5. Then what percent income of A is more than the income of B?

Quantity B: Price of a commodity has increased by 25%. By what percent must a consumer reduce its consumption to maintain the expenditure?

- a) Quantity A \geq Quantity B
- b) Quantity A \leq Quantity B
- c) Quantity A < Quantity B
- d) Quantity A > Quantity B
- e) Quantity A = Quantity B or No relation

17. **Quantity-I:** The square of the sum of the digits of a two-digit positive number is 144. When 36 is added to the original number, the digits of the number get reversed. Find the number.

Quantity-II: The ratio of the two numbers is 4:3. When 8 is added to both the numbers, the smaller number becomes 22.5% less than the larger number. Find the smaller number.

- a) Quantity-I > Quantity-II

b) Quantity-I < Quantity-II

c) Quantity-I \leq Quantity-II

d) Quantity-I = Quantity-II or No relation

e) Quantity-I \geq Quantity-II

18. Quantity I: A panel has 6 men and 'x' women. Two persons are to be selected from the panel for leading panel. If the probability that the selected persons are 1 woman and 1 man is 48/91, then find the value of 'x'.

Quantity II: Two pipes P and Q alone can fill an empty tank in 'x' and '2x' hours respectively. Pipe R alone can empty the full tank in 4x hours. Find the value of 'x', if pipes P, Q and R together can fill the empty tank in 8 hours.

a) Quantity-I > Quantity-II

b) Quantity-I < Quantity-II

c) Quantity-I \leq Quantity-II

d) Quantity-I = Quantity-II or No relation

e) Quantity-I \geq Quantity-II

19. Rs. 'A' is invested in a scheme which offers 10% compound interest, compounded annually and the interest earned after two years is Rs. 2625.

Quantity I: Find the rate of interest if Rs. 2A is invested in a scheme at simple interest and interest earned after two years is Rs. 8000.

Quantity II: Find the rate of interest if Rs. (A + 7500) is invested in a scheme which offers compound interest compounded annually, and interest received after 2 years is Rs. 6450.

a) Quantity-I > Quantity-II

b) Quantity-I < Quantity-II

c) Quantity-I \leq Quantity-II

d) Quantity-I = Quantity-II or No relation

e) Quantity-I \geq Quantity-II

20. Quantity-I: The selling price of article 'A' and 'B' are equal. The cost price of article 'A' and 'B' is Rs. 1200 and Rs. 800 respectively. The percentage by which article 'B' is marked up above its cost price is twice that of article 'A'. The discount offered on article 'A' and 'B' is Rs. 500 and Rs. 200 respectively. Find the selling price of article A.

Quantity-II: The amount received on certain sum when invested at 15% simple interest for 4 years is invested again at 20% p.a. simple interest for 3 years gives Rs. 1152 as interest. Find the sum invested at 15% simple interest.

a) Quantity-I > Quantity-II

b) Quantity-I < Quantity-II

c) Quantity-I \leq Quantity-II

d) Quantity-I = Quantity-II or No relation

e) Quantity-I \geq Quantity-II

21. Quantity-I: The ratio of the length to breadth of a rectangle is 7:6, respectively. If the perimeter of the field is 520 metres, then find the cost of cultivating $\frac{1}{8}$ th of the field at the rate of Rs. 0.5/m².

Quantity-II: There are two persons, 'A' and 'B'. The sum invested by 'B' is Rs. 500 more than that by 'A'. 'A' invested for 1 year and 4 months while 'B' invested his sum for 1 year. The ratio of the profit received by 'A' and 'B' is Rs. 8:9, respectively. Find the sum invested by 'A'

a) Quantity-I > Quantity-II

b) Quantity-I < Quantity-II

c) Quantity-I \leq Quantity-II

d) Quantity-I = Quantity-II or No relation

e) Quantity-I \geq Quantity-II

22. Quantity-I: A shopkeeper bought two articles. He marked the first and second article 60% and 75% above its cost price respectively and sold them after giving single discount of 20% and 40%, respectively. On overall transaction, he made a profit of 18.8%. If cost price of first is Rs. 500 more than cost price of the second then find the sum of cost price of both the articles.

Quantity-II: A certain sum of money when invested at a rate of 40% p.a. compound interest amounts to Rs. 4320 after 18 months when the interest is compounded half yearly. Find the certain sum of money.

a) Quantity-I > Quantity-II

b) Quantity-I < Quantity-II

c) Quantity-I \leq Quantity-II

d) Quantity-I = Quantity-II or No relation

e) Quantity-I \geq Quantity-II

23. Quantity-I: Abhishek marked his goods 40% above cost price and sold it after two consecutive discount of x% and (x + 5)% and incurred overall loss of 16%. Find the value of x.

Quantity-II: A 720 ml of mixture contains milk and water in the ratio of 17:19 respectively. A certain amount of mixture is taken out and then 45 ml of milk and 15 ml of water is added into the remaining mixture so that the quantity of milk and water in the resultant mixture becomes same. Find the percentage of mixture taken out.

a) Quantity-I > Quantity-II

b) Quantity-I < Quantity-II

c) Quantity-I \leq Quantity-II

d) Quantity-I = Quantity-II or No relation

e) Quantity-I \geq Quantity-II

24. Quantity I: A bag contains 8 red, some green and some yellow balls. Probability of drawing one green ball from the bag is $\frac{2}{9}$. Number of yellow balls in the bag is two more than the number of green balls in the bag. Find the probability of drawing two red balls and one yellow ball from the bag.

Quantity II: $\frac{3}{4}$

a) Quantity I > Quantity II

b) Quantity I < Quantity II

c) Quantity I \geq Quantity II

d) Quantity I \leq Quantity II

e) Quantity I = Quantity II or no relation can be established.

25. Quantity I: Sita invested Rs. 32000 on compound interest at 20% per annum for two years. What will be interest earned after two years?

Quantity II: Ritika invested Rs. 39000 on simple interest at 18% per annum for two years. What will be the interest earned after two years?

a) Quantity I < Quantity II

b) Quantity I \geq Quantity II

c) Quantity I > Quantity II

d) Quantity I = Quantity II or relationship cannot be established

e) Quantity I \leq Quantity II

26. An article was sold at a profit of Rs 144 such that a discount of 25% was allowed while selling. The article was marked up at Rs 432 more than its cost price.

Quantity I: The selling price of the article

Quantity II: If the article was marked up at Rs 140 more than its cost price, what would have been the marked price of the article?

- a) Quantity I > Quantity II
- b) Quantity I < Quantity II
- c) Quantity I \geq Quantity II
- d) Quantity I \leq Quantity II
- e) Quantity I = Quantity II or a relation can't be established

27. Pipe 'A' takes 16 hrs to fill a tank and pipes 'B' and 'C' take 40 hrs to fill the tank together where pipe 'B' fills the tank while pipe 'C' empties the tank.

Quantity I: The time taken by pipe 'B' to fill half of the tank if pipes 'A' and 'C' together can fill 60% of the tank in 16 hrs.

Quantity II: The time taken by pipe 'D' to fill the tank if pipes 'B', 'C' and 'D' together can fill the tank in 6 hrs 40 minutes.

- a) Quantity I > Quantity II
- b) Quantity I < Quantity II
- c) Quantity I \geq Quantity II
- d) Quantity I \leq Quantity II
- e) Quantity I = Quantity II or relationship cannot be established

28. The difference between the present ages of 'L' and 'M' is 12 years. Four years ago, the ratio of the ages of 'M' and 'N' was 3:2 respectively.

Quantity I: The age of 'L' if the ratio of the present ages of 'M' and 'N' is 7:5 respectively.

Quantity II: The age of 'L' if the average age of 'L', 'M' and 'N' is 24 years.

- a) Quantity I > Quantity II
- b) Quantity I < Quantity II
- c) Quantity I \geq Quantity II
- d) Quantity I \leq Quantity II
- e) Quantity I = Quantity II or relationship cannot be established

29. Sonal and Sajal started a business with the capital of Rs. 15000 and Rs. 16500 respectively. The ratio of the time period of the investment of Sonal to Sajal is 5:4.

Quantity-I: Find the profit share of Sonal out of the total profit of Rs. 28200.

Quantity-II: Find the profit share of Sajal out of the total profit of Rs. 30550.

- a) Quantity-I > Quantity-II
- b) Quantity-I < Quantity-II
- c) Quantity-I \leq Quantity-II
- d) Quantity-I = Quantity-II or No relation
- e) Quantity-I \geq Quantity-II

30. **Quantity-I:** 'X' men can complete a work in 20 days working 6 hours a day, while 96 men can complete the same work in 15 days working 10.5 hours a day. Find the value of X.

Quantity-II: Find the value of $(X - Y)$, If 45% of 120% of $\frac{5}{9}$ of X is 192, and 65% of 80% of $\frac{8}{13}$ of Y is 160.

- a) Quantity-I > Quantity-II
- b) Quantity-I < Quantity-II
- c) Quantity-I \leq Quantity-II
- d) Quantity-I = Quantity-II or No relation
- e) Quantity-I \geq Quantity-II

31. Which of the following pair of symbols will define the relation between Quantity I and Quantity II and between Quantity II and Quantity III respectively?

- A. =
- B. >
- C. <
- D. \geq
- E. \leq
- F. # (relation cannot be established)

Ananya invested Rs. 7750 for three years. Calculate total interest obtained.

Quantity-I: At the rate of interest of 20% per annum compound interest, compounded annually.

Quantity-II: At the rate of interest of 24% per annum simple interest.

Quantity-III: Ananya invested 60% of amount in scheme A offering rate of interest of 24% per annum simple interest and rest in scheme B offering rate of interest of 20% per annum compound interest compounded annually.

- a) B, C
- b) B, B

- c) A, B
- d) B, A
- e) C, A

32. Which of the following pair of symbols will define the relation between Quantity I and Quantity II and between Quantity II and Quantity III respectively?

- A. =
- B. >
- C. <
- D. \geq
- E. \leq
- F. # (relation cannot be established)

Quantity I: The sum of the present ages of 'A' and 'B' is 68 years. The age of 'B' 18 years hence will be 25% more than the age of 'A' 4 years hence. Find the difference between the present ages of 'A' and 'B'.

Quantity II: Prashank invested Rs. 4200 in a business. Shivam invested Rs. 600 less than Prashank in the same business. The time for which Shivam invested his sum is 1.5 years more than that by Prashank. If the ratio of the profit received by Prashank and Shivam after their respective time of investment is 14:15, respectively then find the time for which Shivam invested his sum.

Quantity III: The monthly income of 'A' is Rs. 42000. He spends 75% of his income every month. After 't' years his total savings is Rs. 252000. Find the value of 't'.

- a) A, D
- b) C, B
- c) C, A

- d) A, B
- e) B, C

33. Which of the following pair of symbols will define the relation between Quantity I and Quantity II and between Quantity II and Quantity III respectively?

- A. =
- B. >
- C. <
- D. \geq
- E. \leq
- F. # (relation cannot be established)

Quantity I: A man deposits Rs. 5000 in a bank at compound interest compounded annually. Bank offers 10% rate of interest per annum for first year and then increases rate by 5% after every year. What will be the total amount received by him after 3 years?

Quantity II: Marked price of an article is 25% more than its cost price. If the article is sold at 13% profit for Rs. 6780 then find the marked price of the article.

Quantity III: Virat and Rohit started a business with investments of Rs. 1200 and Rs. 1600, respectively. After a year, Virat increased his investment by 20% and Rohit decreased his investment by 30%. Find the profit share of Virat out of total profit of Rs. 14740 in 2 years.

- a) A, B
- b) C, F
- c) C, C
- d) B, E
- e) B, B

34. Which of the following pair of symbols will define the relation between Quantity I and Quantity II and between Quantity II and Quantity III respectively?

- A. =
- B. >
- C. <
- D. \geq
- E. \leq
- F. # (relation cannot be established)

Quantity I: A container contains 432 litres of mixture of water and milk in the ratio 5:13, respectively. 90 litres of mixture is taken out and 'x' litres of water is mixed and then ratio of water to milk in the container becomes 9:19. Find the value of 'x'.

Quantity II: There are 'x' students in a class out of which 10 are boys. 2 students are chosen for Independence Day speech. If the number of ways of choosing either 2 boys or 2 girls is 111 then find the value of 'x'.

Quantity III: Ratio of present age of Aditya and Arjun is 3:4, respectively. After 10 years, ratio of age of Aditya to Arjun will become 5:6, respectively. Rajiv is 9 years older than Aditya and his present age is 'x' years. Find the value of 'x'.

- a) C, E
- b) C, B
- c) A, C
- d) A, B
- e) B, C

35. Which of the following pair of symbols will define the relation between Quantity I and Quantity II and between Quantity II and Quantity III respectively?

A. =

B. >

C. <

D. \geq

E. \leq

F. # (relation cannot be established)

Quantity I: Amogh sold some boxes. The profit received by him on each box is 20%. If all the boxes together would have sold for Rs. 600 more, the overall profit received on this transaction will be 40%. Find the selling price of 10 boxes at 20% profit if the number of boxes sold initially was 12.

Quantity II: Two friends A and B together started a business with some investment. The amount invested by A is Rs. 2000 more than that of B. A invested for 4 months less than that of B. C joined business with Rs. 16000 after 'A' has left and invested his amount till B invested his amount in the business. A invested Rs. 12000 and B invested his amount for 12 months. Find the profit received by B if total profit earned is Rs. 7000.

Quantity III: The savings of A is 30% more than that of B and the expenditure of B is 20% more than that of A. If the total income of A and B is Rs. 17100 and Rs. 18000, respectively then find the savings of B.

a) A, B

b) A, D

c) A, C

d) B, D

e) B, C

36. Which of the following pair of symbols will define the relation between Quantity I and Quantity II and between Quantity II and Quantity III respectively?

A. =

B. >

C. <

D. \geq

E. \leq

F. # (relation cannot be established)

Quantity I: The downstream speed of boat B is 10% less than that of boat A. The downstream speed of boat A is 100% more than the speed of boat B in still water. The speed of the current is 4 km/hr. Boat A takes 'x' hours to cover 24 km upstream, find the value of 'x'.

Quantity II: 'A' can complete 20% of a work in 5 hours. 'B' takes 60% more time than 'A' while C takes 60% less time than B to complete the same work. 'A' and 'B' started the work together and A left after working for 5 hours. 'B' left 6 hours before the completion of the work and then C completed the remaining work. If B worked for 'y' hours then find the value of 'y'.

Quantity III: There are two persons 'A' and 'B'. The ratio of number of words that A and B can type in an hour is 3:2, respectively. 'A' started to type a book which he completed in 5 days. The total number of words the book contained is 216000. Find the time taken by 'B' to type 6000 words.

a) A, B

b) C, B

c) B, A

d) B, D

e) B, C

37. Three quantities I, II and III are given and then a main statement is given along with three statements (A), (B) and (C). You have to determine which of the following three statements are correct and choose your answer accordingly.

Quantity I: A man covered certain distance between his home and office. 20% of the distance, he travelled with a speed of 15 km/h, 30% of the rest journey with a speed of 12 km/h, 50% of the rest of the journey with a speed of 21 km/h and rest journey with a speed of 14 km/h. Find the average speed of the man during the whole journey, if the distance between his home and office is 600 km.

Quantity II: Two man running in the opposite direction with the speed of 'x' km/h and (x + 6) km/hr, meet each other after 2.5 hours. If the distance between them is 105 km, then find the value of 'x'.

Quantity III: If a driver increases his speed by 6 km/h then he takes 3 hours 30 minutes less to reach to a destination which is 252 km away from the source. Find the original speed of the driver.

Main Statement: Sourav is running with a speed of 'P' km/h and he can travel 117 km in 6.5 hours. Find the value of P.

(A) $P < \text{Quantity I}$

(B) $P = \text{Quantity II}$

(C) $P > \text{Quantity III}$

a) Only A

b) Only B

c) Both A and B

d) All A, B and C

e) Both B and C

38. Three quantities I, II and II are given and then a main statement is given along with three statements (A), (B) and (C). You have to determine which of the following three statements are correct and choose your answer accordingly.

Quantity I: The radius and height of the cylinder A is 36 cm and 40 cm, respectively. If the radius and height of the cylinder B is 25% more and 37.5% less respectively than the radius and height of the cylinder A, then find the difference between the total surface area of cylinder A and cylinder B. [Use $\pi = 3$]

Quantity II: The ratio of perimeter of a rectangle and perimeter of a square is 25:21, respectively. Find the area of the rectangle, if area of the square is 1764 cm^2 and difference between length and breadth of the rectangle is 8 cm.

Quantity III: If the curved surface area and total surface area of the cone is 1107 cm^2 and 1350 cm^2 , then find the total surface area of a hemisphere having diameter 20% less than the height of cone. [Use $\pi = 3$]

Main Statement: A circular path of width 12 cm is formed around a circular field of radius 28.5 cm. Find the area (Q) of the path.

(A) $Q = \text{Quantity I}$

(B) $Q < \text{Quantity III}$

(C) $Q = \text{Quantity II}$

a) Only A

b) Only B

c) Only A and B

d) All A, B and C

e) Only A and C

39. Three quantities I, II and II are given and then a main statement is given along with three statements (A), (B) and (C). You have to determine which of the following three statements are correct and choose your answer accordingly.

Quantity I: A man sold an article A of marked price Rs. 2400 at two successive discounts of 'x'% and 10%. He sells the article A for Rs. 1836. If he sells another article B for Rs. 1881 at '(x + 9)%' discount, then find the marked price of article B.

Quantity II: Saaho invested his capital in scheme A offering compound interest of 20% compounded annually for 2 years and in Scheme B offering 12% simple interest for one more year than that of scheme A. Total amount invested by Saaho in both schemes is Rs. 5000. Find the amount invested in scheme A, if interest received from scheme A is Rs. 180 more than interest received from scheme B.

Quantity III: Cost prices of two laptops are equal. One laptop is sold at a profit of 40% and other one for Rs 1300 less than the first one. If overall profit earned after selling both the laptops is 14%, what is the cost price of each laptop?

Main statement: A and B entered into a business investing their capitals in the ratio of 15:16, respectively. After one year, A added Rs. 50 more while B added Rs. 220. At the end of 2 years, the ratio of their profit is 10:11 respectively. If initial investment made by A is Rs. 'R', then find the value of R.

(A) $R = \text{Quantity I}$

(B) $R = \text{Quantity II}$

(C) $R < \text{Quantity III}$

a) Only A

b) Only B

c) Only A and B

d) All A, B and C

e) Only A and C

40. Which of the following pair of symbols will define the relation between Quantity I and Quantity II and between Quantity II and Quantity III respectively?

A. =

B. >

C. <

D. \geq

E. \leq

F. # (relation cannot be established)

Quantity I: Ratio of present ages of Kanika to Drishti is 4:7. After 5 years, ratio of ages of Drishti and Nikunj will become 2:3 respectively. Nikunj's wife is 5 years older than him, and his son is 25 years younger than him. If average of age of all the five persons is 40 years then find the present age of Nikunj's wife.

Quantity II: After 8 years, ratio of ages of Shobhit to Mohit will become 2:3. Present age of Mohit is 10% more than present age of Manu. Ratio of present ages of Manu to Manu's father is 4:9. Mr. Kailash who is Manu's father's colleague is 15 years older than Manu's father. Find the age of Kailash if average age of Shobhit, Mohit and Manu is 18 years.

Quantity III: There are four persons in a car, A, B, C, and D. A who is 20 years older than C is driving the car. Ratio of ages of C to D is 6:11, and after 36 years, ratio of ages of A to B will become 5:6. If average of ages of all the four persons is 43 years, then find the present age of B.

- a) A, B
- b) B, C
- c) A, A
- d) C, A
- e) F, A

41. A, B and C together can complete a piece of work in $8\frac{8}{11}$ days and B and D together can complete the same work in $9\frac{3}{5}$ days. B is thrice as efficient as A and efficiency of C is 50% more than that of the efficiency of A.

Quantity I: In how many days A, C and D together can complete the work?

Quantity II: In how many days C, B and D together can complete the work?

- a) Quantity I > Quantity II
- b) Quantity I \leq Quantity II
- c) Quantity I = Quantity II or no relation can be established.
- d) Quantity I < Quantity II
- e) Quantity I \geq Quantity II

42. Ratio of petrol to spirit in gallon X and Y is 5: 2 and 3: 5 respectively. Mixture from gallon X and Y are mixed in the ratio 7: 8 to form a final mixture and quantity of petrol in final mixture is 12 liters more than quantity of spirit in that mixture.

Quantity I: What is the quantity of mixture in gallon X?

Quantity II: What is the quantity of mixture in gallon Y?

- a) Quantity I < Quantity II

b) Quantity I \geq Quantity II

c) Quantity I > Quantity II

d) Quantity I \leq Quantity II

e) Quantity I = Quantity II or no relation can be established.

43. **Quantity I:** A sum of Rs. 12000 is invested on compound interest at 10% per annum for two years. After two years the total amount invested on simple interest for five more years at 15% rate of interest. Find the interest earned by him in last five years.

Quantity II: Rs. 10580

a) Quantity I < Quantity II

b) Quantity I \geq Quantity II

c) Quantity I \leq Quantity II

d) Quantity I = Quantity II or no relation can be established.

e) Quantity I > Quantity II

44. **Quantity I:** The number of people who watch both TV shows 'P' and 'Q', if 59% of the people watch 'Q', 62% people watch 'P' and 246 people watch only 'P'. Each person watches at least one of the shows.

Quantity II: The speed of a train (in km/hr), if it crosses a platform of length 540 m in 28 sec. The length of the train is 440 m.

a) Quantity I > Quantity II

b) Quantity I < Quantity II

c) Quantity I \geq Quantity II

d) Quantity I \leq Quantity II

e) Quantity I = Quantity II or relationship cannot be established

45. Quantity I: A and B invest their capital in the ratio of 11:10, respectively and decides to give 16% of the total profit to charity and remaining profit is distributed between them in the ratio of their capital investment. Find total profit earned, if A gets Rs. 1540 profit.

Quantity II: Freya and Davina entered into a business with initial investment of Rs. $(18x + 150)$ and Rs. $(20x + 500)$. After 5 months, Freya invested Rs. 600 more while Davina withdrew Rs. 500. At the end of 9 months, profit share of Freya out of total profit of Rs. 29400 is Rs. 14400. Find the initial investment made by Davina.

a) Quantity-I > Quantity-II

b) Quantity-I < Quantity-II

c) Quantity-I \leq Quantity-II

d) Quantity-I = Quantity-II or No relation

e) Quantity-I \geq Quantity-II

46. Quantity I: Rajan has Rs. 8750 with him. He invested some amount in scheme A at 12% simple interest and rest in scheme B at a rate of 20% p.a. compounded annually. If the interest received from scheme B after 3 years is Rs. 1746 more than the interest received from scheme A after 3 years. Find the amount invested in scheme B.

Quantity II: Anil invested a certain sum of money at simple interest of 12.5% and received a total amount of Rs. 7800 after 5 years. Find the certain amount of sum invested by Anil?

a) Quantity-I > Quantity-II

b) Quantity-I < Quantity-II

c) Quantity-I \leq Quantity-II

d) Quantity-I = Quantity-II or No relation

e) Quantity-I \geq Quantity-II

47. Quantity-I: The ratio of the two numbers is 6:7. When the smaller number is increased by 25% and 5 is added to it and the greater number is decreased by 50% and 4 is added to it then the ratio of the numbers becomes 2:1. Find the difference between the two numbers.

Quantity-II: The square of the sum of the digits of a three-digit number is 81. The digit at 100 place is 40% less than at unit place. If the ten's digit is 1, then find $1/45^{\text{th}}$ of the number

a) Quantity-I > Quantity-II

b) Quantity-I < Quantity-II

c) Quantity-I \leq Quantity-II

d) Quantity-I = Quantity-II or No relation

e) Quantity-I \geq Quantity-II

48. Quantity-I: 120 litres of a mixture contains 75% milk and rest water. 50% of the mixture is taken out and 'x' litres of water is added to it such that the ratio of the milk to water in the mixture taken out becomes 9:5. Find the value of 'x'.

Quantity-II: The speed of a boat in still water is 'y' km/hr. The speed of the current is $1/3^{\text{rd}}$ of the speed of boat in still water. If the boat can cover 136 km downstream in 8.5 hours, then find the value of 'y'.

a) Quantity-I > Quantity-II

b) Quantity-I < Quantity-II

c) Quantity-I \leq Quantity-II

d) Quantity-I = Quantity-II or No relation

e) Quantity-I \geq Quantity-II

49. **Quantity-I:** In a college (which consist of students and teachers only), the ratio of the number of males to females is 8:9. If the total number of teachers is excluded which consist of 40 males and 30 females, then the ratio of the number of male students to female students becomes 6:7. Find $\frac{1}{10}^{\text{th}}$ of the number of females in the college.

Quantity-II: When 377 is subtracted from 867, then the resultant is 40 more than x% of 1800. Find the value of ‘x’.

- a) Quantity-I > Quantity-II
- b) Quantity-I < Quantity-II
- c) Quantity-I ≤ Quantity-II
- d) Quantity-I = Quantity-II or No relation
- e) Quantity-I ≥ Quantity-II

50. **Quantity I:** Ram travelled from his home to office with an average speed 10 km/h and he reached his office 10 minutes late. If Ram travelled from his home to office with an average speed of 15 km/h, then he would reach his office 20 minutes early. Find the distance between his home and office.

Quantity II: A boat can cover a distance of 21 km upstream and 21 km downstream in 10 hours. If upstream speed of the is 40% less than the speed of the boat in still water, then find the distance travelled by the boat in still water in 3 hours.

- a) Quantity-I < Quantity-II
- b) Quantity-I > Quantity-II
- c) Quantity-I ≤ Quantity-II
- d) Quantity-I = Quantity-II or No relation
- e) Quantity-I ≥ Quantity-II

Solution and Detailed Explanation

1. **Answer: A)**

Quantity I:

Let the speed in still water of the boat and the stream speed be 8k km/hr and 5k km/hr.

$$\text{So, } 78/(8k + 5k) + 78/(8k - 5k) = 6.4$$

$$6/k + 26/k = 6.4$$

$$32/k = 6.4$$

$$k = 5$$

$$\text{Speed of the boat in still water} = 8 \times 5 = 40 \text{ km/hr}$$

Quantity II:

$$\text{Average speed of Amrit} = (42 \times 3 + 36 \times 2)/5 = 39.6 \text{ km/hr}$$

2. **Answer: C)**

Quantity I:

$$P = \text{Rs. } 12000$$

$$R = 5\% \text{ per annum}$$

$$\text{And } T = 2 \text{ years}$$

$$\text{So, amount} = P(1 + R/100)^T = 12000 * (1 + 5/100)^2 = \text{Rs. } 13230$$

Quantity II:

$$P = \text{Rs. } 15000$$

$$R = 8\% \text{ per annum}$$

$$\text{And, } T = 2 \text{ years}$$

$$\text{So, amount} = P + (P * R * T)/100 = 15000 + (15000 * 8 * 2)/100 = \text{Rs. } 17400$$

Hence, Quantity I < Quantity II

3. Answer: A)

Quantity I:

C.P of first article = C.P of second article = Rs. 2550

So, S.P of first article = $2550 \times 124/100 = \text{Rs. } 3162$

And, S.P of second article = $2550 \times 142/100 = \text{Rs. } 3621$

So, difference = $3621 - 3162 = \text{Rs. } 459$

Quantity II:

Let C.P = Rs. $100x$

M.P = $100x \times 110/100 = \text{Rs. } 110x$

And, S.P = $110x \times 95/100 = \text{Rs. } 104.5x$

So, profit = $104.5x - 100x = 4.5x$

$\Rightarrow 18 = 4.5x$

$\Rightarrow x = 18/4.5$

$\Rightarrow x = 4$

So, C.P = Rs. 400

Hence, Quantity I > Quantity II

4. Answer: B)

Quantity I:

Let the total work be 'w' units

According to the question,

$$(30 \times 16 \times 5)/0.80w = (24 \times D \times 5)/0.20w$$

Or, $D = 5$ days

Quantity II:

Time taken by 'B' to complete the work = $12 - 4 = 8$ days

Let the total work = 24 units

Efficiency of 'A' = $24/12 = 2$ units/day

Efficiency of 'B' = $24/8 = 3$ units/day

Work completed in 4 days = $4 \times (2 + 3) = 20$ units

Remaining work = $24 - 20 = 4$ units

Let the efficiency of 'C' be 'x' units/day

According to the question,

$$(2 + x) = 4$$

Or, $x = 2$ units/day

Time taken by 'C' to complete 50% of the work alone = $0.5 \times 24/2 = 6$ days

5. Answer: D)

Quantity I:

Let the total sum Subham had be Rs. $4a$

According to the question,

$$(a \times 25 \times 3)/100 + a - 3a(1 + 20/100)^2 = -1542$$

$$\text{Or, } 7a/4 - 4.32a = -1542$$

$$\text{Or, } a = (1542/10.28) \times 4 = \text{Rs. } 600$$

Total sum Subham had = Rs. $4a = \text{Rs. } 2400$

Quantity II:

According to the question,

$$2x : \{(x - 600) \times 3\} = 8:9$$

$$\text{Or, } 6x = 8x - 4800$$

$$\text{Or, } x = \text{Rs. } 2400$$

6. Answer: B)

For Quantity A,

Curve surface area of cone = πrl

Where, r = radius of cone = $14/2 = 7$ cm

l = slant height of cone = 16 cm

Area = $22/7 \times 7 \times 16 = 352$ cm²

For Quantity B,

Curve surface area of hemisphere = $2\pi r^2$

Where, r = radius of hemisphere = $28/2 = 14$ cm

Area = $2 \times 22/7 \times 14 \times 14 = 1232$ cm²

\therefore Quantity A < Quantity B

7. Answer: B)

Quantity A:

(4 out of 8 boys) and (5 out of 6 girls) are to be chosen

\Rightarrow Required no. of ways = ${}^8C_4 \times {}^6C_5 = 70 \times 6 = 420$

\Rightarrow Quantity A = 420

Quantity B:

(4 out of 6 boys) and (5 out of 8 girls) are to be chosen

\Rightarrow Required no. of ways = ${}^6C_4 \times {}^8C_5 = 15 \times 56 = 840$

\Rightarrow Quantity B = 840

\therefore Quantity A < Quantity B

8. Answer: A)

Solving for **Quantity A:**

Speed of train = 45 km/hr = $45 \times (5/18) = 12.5$ m/sec

Now, time taken to cross the platform = sum of lengths of train and platform/speed of train

$\Rightarrow 20 = (\text{length of train} + 90)/12.5$

\Rightarrow Length of train = $(20 \times 12.5) - 90 = 250 - 90 = 160$ m

Time taken to cross 140 m long platform = $(160 + 140)/12.5 = 300/12.5 = 24$ sec.

\Rightarrow Quantity A = 24 sec.

Solving for **Quantity B:**

Speed of train = length of train/time taken to cross standing man = $150/20 = 7.5$ m/sec.

Speed of running man = 9 km/hr = $9 \times (5/18) = 2.5$ m/sec.

As the man is running in opposite direction,

Relative speed of train w.r.t. man = $7.5 + 2.5 = 10$ m/sec.

Time taken to cross the running man = length of train/relative speed = $150/10 = 15$ sec.

\Rightarrow Quantity B = 15 sec.

\therefore Quantity A > Quantity B

9. Answer: B)

Quantity A:

Let the ratio be $x : y$

Cost price of 1 kg mixture = $20x + 25y = 22(x + y)$

$\Rightarrow 22x - 20x = 25y - 22y$

$\Rightarrow 2x = 3y$

$\Rightarrow x : y = 3 : 2$

\Rightarrow Quantity A = 1.5

Quantity B:

Cost price of 1 kg mixture + profit = Selling price of 1 kg mixture

\Rightarrow Cost price of 1 kg mixture + 15% of Cost price = Selling price

\Rightarrow Cost price of 1 kg mixture = $32.2/1.15 = \text{Rs. } 28$

Let the ratio be $x : y$

$\Rightarrow 27x + 30y = 28(x + y)$

$\Rightarrow 28x - 27x = 30y - 28y$

$\Rightarrow x = 2y$

$\Rightarrow x : y = 2 : 1$

\Rightarrow Quantity B = 2

\therefore Quantity A < Quantity B

10. Answer: B)

Solving for **Quantity A:**

Speed in the first part = $158/(3 + 18/60) = 47.88 \text{ km/hr.}$

The average speed of two speeds 'x' km/hr and 'y' km/hr = $2xy/(x + y) \text{ km/hr}$

Required average speed = $(2 \times 45 \times 47.88)/(45 + 47.88) = 46.4 \text{ km/hr.}$

\Rightarrow Quantity A = 46.4 km/hr

Solving for **Quantity B:**

Distance travelled = 480 km

Time travelled = $10 + (45/60) - (30/60) = 10.25 \text{ hrs.}$

Average speed = $480/10.25 = 46.8 \text{ km/hr}$

\Rightarrow Quantity B = 46.8 km/hr

\therefore Quantity A < Quantity B

11. Answer: A)

Volume of the sphere = $(4/3)\pi(9)^3 = 972\pi \text{ cm}^3$

Quantity I:

Let base radius and height of cone $9x$ and $20x$ respectively.

Volume of the cone = $972\pi * (5/9) = 540\pi \text{ cm}^3 = (1/3)\pi(9x)^2(20x)$

$540\pi = 540\pi x^3$

$\Rightarrow x = 1$

Flat surface area of the cone = $\pi(R)^2 = \pi(9x)^2 = 81\pi \text{ cm}^2$

Quantity II:

Let the base radius and height of cylinder y and $2y$ respectively.

Volume of cylinder = $972\pi * (4/9) = 432\pi \text{ cm}^3 = \pi(y)^2(2y)$

$432 = 2y^3$

$y = 6$

Flat surface area of cylinder = $2\pi(R)^2 = 2\pi(y)^2 = 72\pi \text{ cm}^2$

Quantity I > Quantity II

12. Answer: B)

Let the Principal be Rs 'P'

Quantity I:

Given, $P(r/100)^2 = 480$

$\Rightarrow P(20/100)^2 = 480$

$\Rightarrow P = 480 * 25 = 12,000$

Quantity II:

$$\text{Given, } P(r/100)^2((300 + r)/100) = 3250$$

$$\Rightarrow P(25/100)^2(325/100) = 3250$$

$$\Rightarrow P = 3250 \times 16 \times 100 / 325 = 16,000$$

13. Answer: A)

$$\text{Quantity I: the number of fit} = 300 \times 8/15 = 160$$

$$\text{The number of non - fit} = 300 - 160 = 140$$

$$\text{The number of occasional exercise doers} = 25\% \text{ of } 160 = 40$$

$$\text{The number of daily exercise doers} = 160 - 40 = 120$$

$$\text{The total number of students who do gym} = 60\% \text{ of } 300 = 180$$

$$\text{The number of occasional exercise doer who do gym} = 20\% \text{ of } 40 = 8$$

$$\text{The total number of non - fit who do gym} = 50\% \text{ of } 140 = 70$$

$$\text{The number of students who are daily exercise doer as well as do gym} = 180 - 70 - 8 = 102$$

$$\text{Quantity II: } 100$$

$$\text{Therefore, } Q1 > Q2$$

14. Answer: B)**Quantity I:**

$$(8m + 10w) \times 5 = (6m + 15w) \times 4$$

$$\Rightarrow 40m + 50w = 24m + 60w$$

$$\Rightarrow 40m - 24m = 60w - 50w$$

$$\Rightarrow 16m = 10w$$

$$\Rightarrow 8m = 5w \text{ ----- (i)}$$

$$\text{Let required number of days} = n$$

$$(8m + 10w) \times 5 = (10m + 15w) \times t$$

$$\Rightarrow (8m + 16m) \times 5 = (10m + 24m) \times t \text{ [From equation (i)]}$$

$$\Rightarrow 24m \times 5 = 34m \times t$$

$$\Rightarrow t = 24 \times 5/34$$

$$\Rightarrow t = 60/17 \text{ days}$$

Quantity II:

$$\text{Let, required number of days} = t$$

$$\text{We know that}$$

$$(M1 \times D1)/W1 = (M2 \times D2)/W2$$

$$\Rightarrow (20 \times 5)/1/3 = (25 \times t)/2/3$$

$$\Rightarrow 100 = 25t/2$$

$$\Rightarrow t = 200/25$$

$$\Rightarrow t = 8 \text{ days}$$

$$\text{Hence, Quantity I} < \text{Quantity II}$$

15. Answer: B)

$$\text{Let, speed of boat B in still water} = k \text{ Km/h}$$

$$\Rightarrow \text{Speed of boat A in still water} = k \times 110/100 = 11k/10 \text{ Km/h}$$

$$\text{And speed of the stream} = y \text{ Km/h}$$

$$144/(11k/10 + y) = 9$$

$$\Rightarrow 144 = 99k/10 + 9y$$

$$\Rightarrow 1440 = 99k + 90y$$

$$\Rightarrow 99k + 90y = 1440 \text{ ----- (i)}$$

$$75/(k - y) = 15$$

$$\Rightarrow 5 = k - y$$

$$\Rightarrow k - y = 5 \text{ ----- (ii)}$$

Equation (i) - 99 x Equation (ii)

$$99k + 90y - 99k + 99y = 1440 - 495$$

$$\Rightarrow 189y = 945$$

$$\Rightarrow y = 945/189$$

$$\Rightarrow y = 5$$

From (ii)

$$k - 5 = 5$$

$$\Rightarrow k = 10$$

Speed of boat B in still water = 10 Km/h

Speed of boat A in still water = $10 \times 110/100 = 11$ Km/h

Speed of the stream = 5 Km/h

Quantity I:

Upstream distance travelled by boat A in 12 hours = $(11 - 5) \times 12$

$$= 6 \times 12$$

$$= 72 \text{ Km}$$

Quantity II:

Downstream distance travelled by boat B in 6 hours = $(10 + 5) \times 6$

$$= 15 \times 6$$

$$= 90 \text{ Km}$$

Hence, Quantity I < Quantity II

16. Answer: E)

Quantity A:

Income of A = $100x \times (125/100) = 125x$

After increment income of A = $125x \times 6/5 = 150x$

After increment income of B = $100x \times 5/4 = 125x$

Income of A is more than the income of B by = $(150x - 125x/125) \times 100 = 20\%$

Quantity B:

Let, the expenditure on the product be Rs x.

Let, the earlier price of the commodity be Rs y/kg.

\therefore Price of the commodity now = $y + y \times 25/100 = 1.25y$

\therefore Earlier consumption = x/y kg

\therefore Consumption now = $x/1.25y$ kg

\therefore Reduction in consumption = $x/y - x/1.25y = x/5y$ kg

\therefore Required percentage = $(x/5y)/(x/y) \times 100\% = 20\%$

\therefore Quantity A = Quantity B

17. Answer: B)

Quantity I:

Let the ten's digit and unit digit of the number be x and y respectively.

According to the question,

$$(x + y)^2 = 144$$

Therefore, $x + y = 12 \dots\dots\dots (1)$

Also, $10x + y + 36 = 10y + x$

$$\text{Or, } 9x - 9y = -36$$

$$\text{Or, } x - y = -4 \dots\dots\dots (2)$$

On solving equation (1) and (2), we get

$$x = 4 \text{ and } y = 8$$

Therefore, the number is $= 10x + y = 48$

Quantity II:

Let the two numbers be $4x$ and $3x$ respectively.

According to the question,

$$(3x + 8) = 0.775(4x + 8)$$

$$\text{Or, } 3x + 8 = 3.1x + 6.2$$

$$\text{Or, } 0.1x = 1.8$$

$$\text{Or, } x = 18$$

Therefore, smaller number is $3x = 54$

19. Answer: A)

$$A + 2625 = A(1 + 10/100)^2$$

$$A + 2625 = A \times 121/100$$

$$121A/100 - A = 2625$$

$$21A/100 = 2625$$

$$A = \text{Rs. } 12500$$

Quantity I:

Principal = Rs. 25000

$$8000 = 25000 \times r\% \times 2$$

$$r = 16\%$$

Quantity II:

Principal = Rs. 20000

$$26450 = 20000(1 + r/100)^2$$

$$529/400 = (1 + r/100)^2$$

$$23/20 = 1 + r/100$$

$$3/20 = r/100$$

$$r = 15\%$$

So, Quantity-I > Quantity-II.

20. Answer: B)

Quantity I:

Let the percentage by which article 'A' is marked up above its cost price be $y\%$

Therefore, percentage by which article 'B' is marked up above its cost price is $2y\%$

Therefore, marked price of article 'A' = Rs. $(1200 + 12y)$

Marked price of article 'B' = Rs. $(800 + 16y)$

According to the question,

$$1200 + 12y - 500 = 800 + 16y - 200$$

$$\text{Or, } 4y = 100$$

$$\text{Or, } y = 25\%$$

Therefore, selling price of article 'A' = $1200 + 12y - 500$
= Rs. 1000

Quantity II:

Let the sum invested at 15% p.a. simple interest be Rs. x

$$\text{Amount received} = (x \times 15 \times 4)/100 + x = \text{Rs. } 8x/5$$

According to the question,

$$(8x \times 20 \times 3)/500 = 1152$$

$$\text{Or, } 24x/25 = 1152$$

$$\text{Or, } x = 1200$$

21. Answer: A)

Quantity I:

Let the length and breadth of the rectangle be $7x$ metres and $6x$ metres respectively

According to the question,

$$2 \times (7x + 6x) = 520$$

$$\text{Or, } 13x = 260$$

$$\text{Or, } x = 20$$

Therefore,

$$\text{Cost of cultivating } 1/8^{\text{th}} \text{ of the field} = 0.5 \times (7x \times 6x)/8 = \text{Rs. } 1050$$

Quantity II:

Let the sum invested by 'A' be Rs. x

Therefore, sum invested by 'B' = Rs. $(x + 500)$

According to the question,

$$(x \times 16)/\{(x + 500) \times 12\} = 8/9$$

$$\text{Or, } 3x = 2x + 1000$$

$$\text{Or, } x = \text{Rs. } 1000$$

22. Answer: D)

Quantity I:

Let cost price of first and second article is Rs. $(x + 500)$ and Rs. x respectively.

$$\text{Marked price of first article} = 1.6 \times (x + 500) = \text{Rs. } (1.6x + 800)$$

$$\text{Selling price of first article} = 0.8 \times (1.6x + 800) = \text{Rs. } (1.28x + 640)$$

$$\text{Marked price of second article} = \text{Rs. } 1.75x$$

$$\text{Selling price of second articles} = 1.75x \times 0.6 = \text{Rs. } 1.05x$$

According to question,

$$1.28x + 640 + 1.05x = 1.188 \times (x + x + 500)$$

$$2.33x + 640 = 2.376x + 594$$

$$0.046x = 46$$

$$x = 1000$$

$$\text{Total cost price of both the articles} = 2x + 500 = \text{Rs. } 2500$$

$$\text{Quantity I} = \text{Rs. } 2500$$

Quantity II:

Let the certain sum of money is Rs. ' x '

According to question,

$$x \times [(1.2)^3] = 4320$$

$$1.728 \times x = 4320$$

$$x = 2500$$

$$\text{So, Quantity II} = \text{Rs. } 2500$$

$$\text{Therefore, Quantity II} = \text{Quantity I}$$

23. Answer: B)

Quantity I:

Let cost price of the goods be Rs. 100

$$\text{Marked price of the goods} = 1.4 \times 100x = \text{Rs. } 140$$

$$\text{Selling price of the goods} = 140 \times \{(100 - x)/100\} \times \{(100 - x - 5)/100\} = 0.84 \times 100$$

$$(100 - x)(95 - x) = 6000$$

$$9500 - 195x + x^2 = 6000$$

$$x^2 - 195x + 3500 = 0$$

$$x^2 - 175x - 20x + 3500 = 0$$

$$x(x - 175) - 20 \times (x - 175) = 0$$

$$(x - 20)(x - 175) = 0$$

$$x = 20 \text{ or } x = 175$$

Since, x cannot be more than 100.

$$\text{So, } x = 20\%$$

$$\text{Quantity I} = 20\%$$

Quantity II:

$$\text{Amount of milk in the mixture} = 17/36 \times 720 = 340 \text{ ml}$$

$$\text{Amount of water in the mixture} = 720 - 340 = 380 \text{ ml}$$

Let amount of mixture taken out be ' x ' ml

$$\text{Amount of milk taken out} = 17x/36 \text{ ml}$$

$$\text{Amount of water taken out} = 19x/36 \text{ ml}$$

According to question

$$(340 - 17x/36 + 45) = (380 - 19x/36 + 15)$$

$$x/18 = 40 - 30$$

$$x = 180$$

$$\text{Desired percentage} = 180/720 \times 100 = 25\%$$

$$\text{So, Quantity II} = 25\%$$

Therefore, Quantity II > Quantity I

24. Answer: B)

Quantity I:

$$\text{Red} = 8$$

$$\text{Let, Green} = n$$

$$\Rightarrow \text{Yellow} = n + 2$$

$$\text{Total number of balls in the bag} = 8 + n + n + 2 = 10 + 2n$$

$$n/(10 + 2n) = 2/9$$

$$\Rightarrow 9n = 20 + 4n$$

$$\Rightarrow 9n - 4n = 20$$

$$\Rightarrow 5n = 20$$

$$\Rightarrow n = 4$$

$$\text{Hence, Green} = 4, \text{Yellow} = 4 + 2 = 6$$

$$\text{Total number of balls in the bag} = 10 + 2n = 10 + 2 \times 4 = 18$$

$$\text{Required probability} = ({}^8C_2 \times {}^6C_1)/{}^{18}C_3$$

$$= (28 \times 6)/816$$

$$= 7/34$$

Quantity II:

$$3/4$$

Hence, Quantity I < Quantity II

25. Answer: C)

Quantity I:

$$\text{Compound interest earned after 2 years} = 32000 * [(1 + 20/100)^2 - 1] = 14080$$

Quantity II:

$$\text{Simple Interest earned after 2 years} = (39000 * 18 * 2)/100 = 14040$$

Hence, Quantity I > Quantity II

26. Answer: A)

Let the Cost Price of the article be Rs ' x '

$$\text{So, Marked Price of the article} = \text{Rs } (x + 432)$$

Selling Price of the article = $(x + 432) * (75/100) = \text{Rs } ((3x/4) + 324)$

So, $(3x/4) + 324 - x = 144$

$x/4 = 180$

$x = 720$

Quantity I:

Selling Price of the article = $(3/4) * 720 + 324 = \text{Rs } 864$

Quantity II:

Marked Price of the article = $720 + 140 = \text{Rs } 860$

Hence Quantity I > Quantity II

27. Answer: A)

Let the total capacity of the tank be 80 units.

Work done by A = $80/16 = 5$ units/hr

Work done by B and C together = $80/40 = 2$ units/hr

Quantity I:

60% of 80 = 48 units

Let work done by C per hr be 'w' units.

Work done by A and C in 16 hrs = 48

$48 = 16 * (5 + w) = 80 + 16w$

$w = -32/16 = -2$

Hence, work done by B in 1 hr = $2 - (-2) = 4$ units/hr

Time taken by pipe 'B' to fill half of the tank = $40/4 = 10$ hrs

Quantity II:

Let work done by D in 1 hr be 'd' units.

6 hr 40 minutes = $20/3$ hrs

So, $(d + 2) * 20/3 = 80$

$d = 10$

Hence, time taken by pipe 'D' to fill the tank = $80/10 = 8$ hrs

Quantity I > Quantity II

28. Answer: E)

Let the present ages of L, M and N be a, b and c respectively.

$a - b = 12$ or $b - a = 12$

$(b - 4):(c - 4) = 3:2$

$2b - 8 = 3c - 12$

$2b = 3c - 4$.. (i)

Quantity I:

$b:c = 7:5$

$b = 7c/5$

So, (i) becomes:

$14c/5 = 3c - 4$

$14c = 15c - 20$

$c = 20$

$b = 28$

$a = 16$ or 40

Quantity II:

$a + b + c = 3 * 24 = 72$

From (i), we get:

$3a + 3b + 2b + 4 = 216$

$3a + 5b = 212$

If $a - b = 12$, then

$$36 + 3b + 5b = 212$$

$$b = 22$$

If $b - a = 12$, then

$$3b - 36 + 5b = 212$$

$$b = 31$$

Hence, a, b, c can be $(34, 22, 16)$ or $(19, 31, 22)$

So, $a = 19$ or 34

In either case, relationship cannot be established.

29. Answer: A)

Profit share ratio of Sonal to Sajal = $(15000 \times 5):(16500 \times 4) = 25:22$

Quantity I:

Profit share of Sonal = $28200 \times 25/47 = \text{Rs. } 15000$

Quantity II:

Profit share of Sajal = $30550 \times 22/47 = \text{Rs. } 14300$

So, Quantity-I > Quantity-II.

30. Answer: B)

Quantity I:

According to the question,

$$X \times 20 \times 6 = 96 \times 15 \times 10.5$$

$$X = 126$$

Quantity II:

$$45\% \text{ of } 120\% \text{ of } 5/9 \text{ of } X = 192$$

$$X \times 45/100 \times 120/100 \times 5/9 = 192$$

$$X = 640$$

$$65\% \text{ of } 80\% \text{ of } 8/13 \text{ of } Y = 160$$

$$Y \times 65/100 \times 80/100 \times 8/13 = 160$$

$$Y = 500$$

$$\text{Required value} = 640 - 500 = 140$$

So, Quantity-I < Quantity-II

31. Answer: A)

Quantity I:

$$\text{Compound interest earned} = 7750 \times [(1.2)^3 - 1] = 7750 \times 0.728 = \text{Rs. } 5642$$

Quantity II:

$$\text{Simple interest earned} = 7750 \times 0.24 \times 3 = \text{Rs. } 5580$$

Quantity III:

$$\text{Amount invested in scheme A} = 0.60 \times 7750 = \text{Rs. } 4650$$

$$\text{Amount invested in scheme B} = 7750 - 4650 = \text{Rs. } 3100$$

$$\text{Interest obtained from scheme A} = 4650 \times 0.24 \times 3 = \text{Rs. } 3348$$

$$\text{Interest obtained from scheme B} = 3100 \times [(1.2)^3 - 1] = \text{Rs. } 2256.8$$

$$\text{Total interest obtained} = 3348 + 2256.8 = \text{Rs. } 5604.8$$

Therefore, Quantity I > Quantity II and Quantity II < Quantity III

32. Answer: B)

Quantity I:

Let the present age of 'A' be 'x' years

Therefore, present age of 'B' = $(68 - x)$ years

According to the question,

$$(68 - x + 18) = 1.25(x + 4)$$

$$\text{Or, } 86 - x = 1.25x + 5$$

$$\text{Or, } x = 81/2.25 = 36 \text{ years.}$$

$$\text{Required difference} = 2x - 68 = 4 \text{ years}$$

Quantity II:

Let the time for which Prashank invested his sum be 'x' years

Therefore, time for which Shivam invested his sum = (x + 1.5) years

Ratio of the profits received by Prashank and Shivam

$$= (4200 \times x) : \{(3600 \times (x + 1.5))\} = 14/15$$

$$\text{Or, } 15x = 12x + 18$$

$$\text{Or, } x = 6 \text{ years}$$

Therefore, time for which Shivam invested his sum = (x + 1.5) = 7.5 years

Quantity III:

According to the question,

$$0.25 \times 12 \times t \times 42000 = 252000$$

$$\text{Or, } t = 2 \text{ years}$$

So, Quantity I < Quantity II and Quantity II > Quantity III

33. Answer: E)

Quantity I:

$$\text{Amount after one year} = 5000 + 5000 \times 0.1 \times 1 = \text{Rs. } 5500$$

$$\text{Amount after two years} = 5500 + 5500 \times 0.15 \times 1 = \text{Rs. } 6325$$

$$\text{Amount after three years} = 6325 + 6325 \times 0.2 \times 1 = \text{Rs. } 7590$$

Quantity II:

$$\text{Selling price of the article} = 6780/1.13 = \text{Rs. } 6000$$

$$\text{Marked price of the article} = 1.25 \times 6000 = \text{Rs. } 7500$$

Quantity III:

$$\text{Ratio of profit share of Virat to Rohit} = (1200 + 1.2 \times 1200) : (1600 + 0.7 \times 1600) = 2640 : 2720 = 33 : 34$$

$$\text{Profit share of Virat} = 33/67 \times 14740 = \text{Rs. } 7260$$

So, Quantity I > Quantity II and Quantity II > Quantity III.

34. Answer: C)

Quantity I:

$$\text{Quantity of water in container} = 432/18 \times 5 = 120 \text{ litres}$$

$$\text{Quantity of milk in container} = 432/18 \times 13 = 312 \text{ litres}$$

According to question,

$$(120 - 90/18 \times 5 + x) / (312 - 90/18 \times 13) = 9/19$$

$$(120 - 25 + x) / (312 - 65) = 9/19$$

$$(95 + x) / 247 = 9/19$$

$$(95 + x) / 13 = 9$$

$$95 + x = 117$$

$$x = 117 - 95 = 22$$

Quantity II:

$$\text{Number of girls} = x - 10$$

$$\text{So, } {}^{10}C_2 + {}^{x-10}C_2 = 111$$

$$45 + \{(x - 10) \times (x - 11)\}/2 = 111$$

$$(x^2 - 21x + 110)/2 = 66$$

$$x^2 - 21x + 110 = 132$$

$$x^2 - 21x - 22 = 0$$

$$x^2 - 22x + x - 22 = 0$$

$$x(x - 22) + 1(x - 22) = 0$$

$$x = 22$$

Quantity III:

Let, present age of Aditya and Arjun be '3y' years and '4y', respectively.

$$\text{So, } (3y + 10)/(4y + 10) = 5/6$$

$$18y + 60 = 20y + 50$$

$$y = 10/2 = 5$$

$$\text{Present age of Aditya} = 3y = 15 \text{ years}$$

$$\text{Present age of Rajiv} = 'x' \text{ years} = 15 + 9 = 24 \text{ years}$$

$$x = 24$$

So, Quantity I = Quantity II and Quantity II < Quantity III.

35. Answer: C)

Quantity I:

Let the cost price of each box sold be Rs. x.

$$\text{Selling price of all the boxes} = 1.2 \times 12 \times x = \text{Rs. } 14.4x$$

According to the question,

$$14.4x + 600 = 1.4 \times 12x$$

$$\text{Or, } 16.8x - 14.4x = 600$$

$$\text{Or, } 2.4x = 600$$

$$\text{Or, } x = 600/2.4 = \text{Rs. } 250$$

Therefore, required selling price of 10 boxes = $10 \times 1.2x$
= Rs. 3000

Quantity II:

Ratio of profits received by A, B and C

$$= (12000 \times 8):(10000 \times 12):(16000 \times 4) = 12:15:8$$

Therefore, profit received by B = $7000 \times 15/35 = \text{Rs. } 3000$

Quantity III:

Let the savings of B be Rs. x

Therefore, savings of A = Rs. $1.3x$

Let the expenditure of A = Rs. y

Therefore, expenditure of B = Rs. $1.2y$

According to the question,

$$1.3x + y = 17100 \dots (1)$$

$$x + 1.2y = 18000 \dots (2)$$

On solving equation (1) and (2), we get

Savings of B = x = Rs. 4500

36. Answer: B)

Quantity I:

Let the downstream speed of boat A be $2x$ km/hr

Therefore, downstream speed of boat B = $0.9 \times 2x = 1.8x$ km/hr

Speed of boat B in still water = x km/hr

According to the question,

$$1.8x - x = 4$$

$$\text{Or, } 0.8x = 4$$

$$\text{Or, } x = 4/0.8 = 5 \text{ km/hr}$$

$$\text{Speed of boat A in upstream} = 10 - 4 - 4 = 2 \text{ km/h}$$

$$\text{Therefore, time taken by boat A to cover 24 km upstream} \\ = 24/2 = 12 \text{ hours}$$

Quantity II:

$$\text{Time taken by A to complete the whole work alone} = \\ 5/0.20 = 25 \text{ hours}$$

$$\text{Therefore, time taken by B to complete the whole work} \\ \text{alone} = 1.6 \times 25 = 40 \text{ hours}$$

$$\text{Time taken by C to complete the whole work alone} = 0.4 \\ \times 40 = 16 \text{ hours}$$

$$\text{Let the total work} = 400 \text{ units (L.C.M of 25, 40 and 16)}$$

$$\text{Efficiency of A} = 400/25 = 16 \text{ units/hr}$$

$$\text{Efficiency of B} = 400/40 = 10 \text{ units/hr}$$

$$\text{Efficiency of C} = 400/16 = 25 \text{ units/hr}$$

$$\text{Amount of work done by A and B in 5 hours} = (16 + 10) \\ \times 5 = 130 \text{ units}$$

$$\text{Amount of work done by C in 6 hours} = 25 \times 6 = 150 \\ \text{units}$$

$$\text{Therefore, remaining work} = (400 - 130 - 150) = 120 \\ \text{units}$$

$$\text{Time taken by B to complete 120 units of work} = 120/10 \\ = 12 \text{ hours}$$

$$\text{Total time for which B worked} = y = 5 + 12 = 17 \text{ hours}$$

Quantity III:

Let the number of words that A and B can type in 1 hour be $3x$ and $2x$ respectively.

$$\text{In 5 days the number of words that 'A' can type} = 3x \times \\ 24 \times 5 = 360x$$

According to the questions,

$$360x = 216000$$

$$\text{Or, } x = 216000/360 = 600$$

$$\text{Therefore, time taken by 'B' to type 6000 words} = \\ 6000/2x = 5 \text{ hours}$$

37. Answer: B)

Quantity I:

$$\text{Distance travelled with 15 km/h speed} = 0.2 \times 600 = 120 \\ \text{km}$$

$$\text{Time taken to cover 120 km with 15 km/h speed} = \\ 120/15 = 8 \text{ hours}$$

$$\text{Distance travelled with 12 km/h speed} = 0.3 \times (600 - \\ 120) = 0.3 \times 480 = 144 \text{ km}$$

$$\text{Time taken to cover 144 km with 12 km/h speed} = \\ 144/12 = 12 \text{ hours}$$

$$\text{Distance travelled with a speed of 21 km/h} = 0.5 \times (480 \\ - 144) = 0.5 \times 336 = 168 \text{ km}$$

$$\text{Time taken to cover 168 km with 21 km/h speed} = \\ 168/21 = 8 \text{ hours}$$

$$\text{Remaining distance} = 336 - 168 = 168 \text{ km}$$

$$\text{Time taken to cover 168 km with 14 km/h speed} = \\ 168/14 = 12 \text{ hours}$$

$$\text{Average speed during the whole journey} = 600/(8 + 12 + \\ 8 + 12) = 600/40 = 15 \text{ km/h}$$

$$\text{Quantity I} = 15 \text{ km/h}$$

Quantity II:

According to question,

$$105/(x + x + 6) = 2.5$$

$$42 = 2x + 6$$

$$x = 18 \text{ km/h}$$

So, quantity II = 18 km/h

Quantity III:

Let the initial speed of the driver is 'x' km/h.

Increased speed of the driver = (x + 6) km/h

According to question,

$$252/x - 252/(x + 6) = 3.5$$

$$252 \times [1/x - 1/(x + 6)] = 3.5$$

$$252 \times [(x + 6 - x)/x(x + 6)] = 3.5$$

$$252 \times 6/(x^2 + 6x) = 3.5$$

$$3.5x^2 + 21x - 1512 = 0$$

$$\text{So, } x = 18$$

Hence, original speed of the driver is 18 km/h.

So, quantity III = 18 km/h

$$P = 117/6.5 = 18 \text{ km/h}$$

38. Answer: E)

Quantity I:

For cylinder A:

Radius = 36 cm

Height = 40 cm

$$\text{Total surface area of cylinder A} = 2\pi rh + 2\pi r^2 = 2\pi r(r + h) = 2 \times 3 \times 36 \times (36 + 40) = 16416 \text{ cm}^2$$

For cylinder B:

$$\text{Radius} = 1.25 \times 36 = 45 \text{ cm}$$

$$\text{Height} = 0.625 \times 40 = 25 \text{ cm}$$

$$\text{Total surface area of cylinder B} = 2\pi rh + 2\pi r^2 = 2\pi r(r + h) = 2 \times 3 \times 45 \times (45 + 25) = 18900 \text{ cm}^2$$

$$\text{Required difference} = 18900 - 16416 = 2484 \text{ cm}^2$$

$$\text{Quantity I} = 2484 \text{ cm}^2$$

Quantity II:

Let perimeter of rectangle and square be 25x and 21x cm, respectively.

$$\text{Side of square} = (21x/4) \text{ cm}$$

According to question,

$$(21x/4) \times (21x/4) = 1764$$

$$x^2 = 64$$

$$x = 8$$

$$\text{Perimeter of rectangle} = 25 \times 8 = 200 \text{ cm}$$

Let breadth of the rectangle is 'a' cm.

$$\text{Length of the rectangle} = (a + 8) \text{ cm}$$

$$\text{So, } 2 \times (a + a + 8) = 200$$

$$2a + 8 = 100$$

$$2a = 92$$

$$a = 46$$

$$\text{Area of the rectangle} = 46 \times 54 = 2484 \text{ cm}^2.$$

$$\text{Quantity II} = 2484 \text{ cm}^2$$

Quantity III:

Let the radius, height and slant height of the cone be 'r', 'h' and 'l' cm, respectively.

Given, curved surface area of the cone = 1107 cm^2

$$\pi \times r \times l = 1107 \text{ -----(1)}$$

Total surface area of the cone = Curved surface area of cone + area of the circular base of cone

$$1350 = 1170 + \pi r^2 \text{ (Using (1))}$$

$$\pi r^2 = 243$$

$$3r^2 = 243$$

$$r^2 = 81$$

$$r = 9 \text{ cm}$$

Putting the value of r, in eq (1), we get

$$l = 41 \text{ cm}$$

Using Pythagoras theorem,

$$h = (41^2 - 9^2)^{0.5}$$

$$h = 40 \text{ cm}$$

$$\text{Diameter of the hemisphere} = 0.8 \times 40 = 32 \text{ cm}$$

$$\text{Radius of the hemisphere} = 32/2 = 16 \text{ cm}$$

$$\text{Total surface area of the hemisphere} = 3\pi r^2 = 3 \times 3 \times 16 \times 16 = 2304 \text{ cm}^2$$

For Q:

$$\text{Outer radius (R)} = 28.5 + 12 = 40.5 \text{ cm}$$

$$\text{Inner radius (r)} = 28.5 \text{ cm}$$

$$\text{Desired area (Q)} = \pi(R^2 - r^2) = 3 \times 69 \times 12 = 2484 \text{ cm}^2$$

39. Answer: D)

Quantity I:

Marked price of article A = Rs. 2400

Selling price of article A = Rs. 1836

$$\text{Overall discount} = (2400 - 1836)/2400 \times 100 = 23.5\%$$

Since, there is two successive discounts of x% and 10%.

$$\text{So, } x + 10 - (x \times 10)/100 = 23.5$$

$$100x - 10x = 1350$$

$$90x = 1350$$

$$x = 15\%$$

Selling price of article B = Rs. 1881

$$\text{Marked price of article B} = 1881/(0.76) = \text{Rs. } 2475$$

Quantity I = 2475

Quantity II:

Let amount invested in scheme A and Scheme B be Rs. x and Rs. (5000 - x)

According to question,

$$x \times [(1.2)^2 - 1] - (5000 - x) \times 0.12 \times 3 = 180$$

$$0.44x - 0.36 \times (5000 - x) = 180$$

$$0.44x - 1800 + 0.36x = 180$$

$$0.8x = 1980$$

$$x = 2475$$

Quantity II = Rs. 2475

Quantity III:

Let the cost price of each laptop be Rs. x

Selling price of one laptop = Rs. 1.4x

Selling price of another laptop = Rs. $1.4x - 1300$

Overall selling price of both laptops = $(x + x) \times 114/100$
 $= 1.14 \times 2x = \text{Rs. } 2.28x$

Hence, $1.4x + 1.4x - 1300 = 2.28x$

$2.8x - 2.28x = 1040$

$0.52x = 1300$

$x = \text{Rs } 2500$

For R:

Let initial investment made by A and B be Rs. $15x$ and Rs. $16x$ respectively.

According to question,

$(15x + 15x + 50)/(16x + 16x + 220) = 10/11$

$(30x + 50)/(32x + 220) = 10/11$

$330x + 550 = 320x + 2200$

$10x = 1650$

$x = 165$

So, $R = 165 \times 15 = \text{Rs. } 2475$

40. Answer: C)

Quantity I:

Let, present age of Kanika and Drishti be ' $4x$ ' years and ' $7x$ ' years respectively.

Age of Nikunj after 5 years = $(7x + 5)/2 \times 3 = '10.5x + 7.5'$ years

Present age of Nikunj = ' $10.5x + 2.5$ ' years

Age of Nikunj's wife = ' $10.5x + 7.5$ ' years

Age of Nikunj's son = ' $10.5x - 22.5$ ' years

So, $4x + 7x + 10.5x + 2.5 + 10.5x + 7.5 + 10.5x - 22.5 = 40 \times 5$

$42.5x - 12.5 = 200$

$42.5x = 212.5$

$x = 5$

Present age of Nikunj's wife = ' $10.5x + 7.5$ ' = 60 years

Quantity II:

Let, age of Shobhi and Mohit after 8 years be ' $2x$ ' years and ' $3x$ ' years, respectively.

Present age of Shobhi = ' $2x - 8$ ' years

Present age of Mohit = ' $3x - 8$ ' years

Present age of Manu = $(3x - 8)/1.1$ years

So, $2x - 8 + 3x - 8 + (3x - 8)/1.1 = 18 \times 3$

$2.2x - 8.8 + 3.3x - 8.8 + 3x - 8 = 59.4$

$8.5x = 85$

$x = 10$

Present age of Manu = $22/1.1 = 20$ years

Present age of Manu's father = $9/4 \times 20 = 45$ years

Present age of Kailash = $45 + 15 = 60$ years

Quantity III:

Let, age of C and D be ' $6x$ ' years and ' $11x$ ' years, respectively.

Age of A = ' $6x + 20$ ' years

Age of B after 36 years = $(6x + 56)/5 \times 6 = '7.2x + 67.2'$ years

Age of B = ' $7.2x + 31.2$ ' years

$$\text{So, } 6x + 11x + 6x + 20 + 7.2x + 31.2 = 43 \times 4$$

$$30.2x = 120.8$$

$$x = 4$$

$$\text{Age of B} = 7.2x + 31.2 = 60 \text{ years}$$

So, Quantity I = Quantity II and Quantity II = Quantity III.

41. Answer: A)

$$\text{Ratio of efficiency of A and B} = 1:3 = 2:6$$

$$\text{And, ratio of efficiency of A and C} = 100:150 = 2:3$$

$$\text{So, ratio of efficiency of A, B and C} = 2:6:3$$

$$\text{Thus, ratio of time taken by A, B and C} = 1/2:1/6:1/3 = 3:1:2$$

$$\text{Let A} = 3x \text{ days, B} = x \text{ days and C} = 2x \text{ days}$$

$$1/A + 1/B + 1/C = 11/96$$

$$\Rightarrow 1/3x + 1/x + 1/2x = 11/96$$

$$\Rightarrow (2 + 6 + 3)/6x = 11/96$$

$$\Rightarrow x = 16$$

$$\text{So, D alone can complete the work in} = 1/(5/48 - 1/16) = 24 \text{ days}$$

Quantity I:

$$\text{A, C and D together can complete the work in} = 1/(1/48 + 1/32 + 1/24) = 32/3 \text{ days}$$

Quantity II:

$$\text{C, B and D together can complete the work} = 1/(1/32 + 1/16 + 1/24) = 96/13 \text{ days}$$

Hence, Quantity I > Quantity II

42. Answer: A)

Let amount of mixture in gallons X and Y are 7a and 8a respectively.

$$\text{Amount of petrol in gallon X} = 5a$$

$$\text{Amount of spirit in gallon X} = 2a$$

$$\text{Amount of petrol in gallon Y} = 3a$$

$$\text{Amount of spirit in gallon Y} = 5a$$

According to question-

$$(5a + 3a) - (2a + 5a) = 12$$

$$\Rightarrow a = 12$$

Quantity I:

$$\text{Quantity of mixture in gallon X} = 7a = 7 \times 12 = 84 \text{ liters}$$

Quantity II:

$$\text{Quantity of mixture in gallon Y} = 8a = 8 \times 12 = 96 \text{ liters}$$

Hence, Quantity I < Quantity II

43. Answer: E)

Quantity I:

We know that

$$\begin{aligned} \text{Amount on CI} &= P \times (1 + r/100)^t = 12000 \times (1 + 10/100)^2 \\ &= 12000 \times 11/10 \times 11/10 = \text{Rs. } 14520 \end{aligned}$$

$$\text{So, SI} = (P \times r \times t)/100 = (14520 \times 15 \times 5)/100 = \text{Rs. } 10890$$

Quantity II:

$$\text{Rs. } 10580$$

Hence, Quantity I > Quantity II

44. Answer: E)

Quantity I:

Let the total number of people be 'N'.

No. of people who watch Q and both P and Q = $0.59N$

Hence, no. of people who watch only P = $N - 0.59N = 0.41N$

So, $0.41N = 246$

$N = 600$

No. of people who watch both = $0.62N - 0.41N = 0.21N$
 $= 0.21 \times 600 = 126$

Quantity II:

Let speed of train be 'v' m/s

$540 + 440 = 28v$

$v = 980/28 = 35 \text{ m/s}$

$35 \text{ m/s} = 35 \times (18/5) \text{ km/hr} = 126 \text{ km/hr}$

Quantity I = Quantity II

45. Answer: A)

Quantity I:

Let total profit be Rs. $100x$

Amount of profit given in charity = Rs. $16x$

Remaining profit = $100x - 16x = \text{Rs. } 84x$

Share of A in the profit = $(11/21) \times 84x = \text{Rs. } 44x$

According to question,

$44x = 1540$

$x = 35$

Total profit = $100x = 100 \times 35 = \text{Rs. } 3500$

So, Quantity I = Rs. 3500

Quantity II:

Ratio of profit share of Freya and Davina = $[(18x + 150) \times 5 + (18x + 150 + 600) \times 4] : [(20x + 500) \times 5 + (20x + 500 - 500) \times 4] = (90x + 750 + 72x + 3000) : (100x + 2500 + 80x) = (162x + 3750) : (180x + 2500)$

According to question,

$(162x + 3750)/(180x + 2500) = 14400/15000 = 24/25$

$5 \times (81x + 1875) = 12 \times (36x + 500)$

$405x + 9375 = 432x + 6000$

$27x = 3375$

$x = 125$

Initial investment made by Davina = $20 \times 125 + 500 = \text{Rs. } 3000$

Quantity II = Rs. 3000

So, Quantity I > Quantity II.

47. Answer: B)

Quantity I:

Let amount invested in scheme B be Rs. x

Amount invested in scheme A = Rs. $(8750 - x)$

According to question,

$0.728x - 0.36 \times (8750 - x) = 1746$

$0.728x - 3150 + 0.36x = 1746$

$1.088x = 4896$

$x = 4500$

Quantity I = Rs. 4500

Quantity II:

Let the certain amount of sum be Rs. P

$$\text{So, } P + (P \times 0.125 \times 5) = 7800$$

$$P + 0.625P = 7800$$

$$P = 7800/1.625 = \text{Rs. } 4800$$

$$\text{Quantity II} = \text{Rs. } 4800$$

Therefore, Quantity II > Quantity I.

47. Answer: B)

Quantity I:

Let the numbers be $6x$ and $7x$ respectively

According to the question,

$$(7.5x + 5)/(3.5x + 4) = 2/1$$

$$\text{Or, } 7.5x + 5 = 7x + 8$$

$$\text{Or, } 0.5x = 3$$

$$\text{Or, } x = 3/0.5 = 6$$

$$\text{Therefore, smaller number} = 6x = 36$$

$$\text{Greater number} = 7x = 42$$

$$\text{Required difference} = 42 - 36 = 6$$

Quantity II:

Let the unit digit of the 3 – digit number be ‘ y ’

$$\text{Therefore, digit at 100 place} = 0.6y$$

According to the question,

$$(0.6y + 1 + y)^2 = 81$$

$$\text{Therefore, } 1.6y + 1 = 9$$

$$\text{Or, } y = 8/1.6 = 5$$

$$\text{Also, } 1.6y + 1 = -9$$

$$\text{Or, } 1.6y = -10 \text{ (not possible)}$$

$$\text{Therefore, number at unit digit} = 5$$

$$\text{Number at } 100^{\text{th}} \text{ place} = 0.6y = 3$$

$$\text{Therefore, number} = 315$$

$$\text{Required number} = 315/45 = 7$$

48. Answer: B)

Quantity I:

$$\text{Ratio of milk to water in the mixture} = 0.75:0.25 = 3:1$$

$$\text{Therefore, quantity of milk in the mixture} = 120 \times 3/4 = 90 \text{ litres}$$

$$\text{Quantity of water in the mixture} = 120 - 90 = 30 \text{ litres}$$

According to the question,

$$45/(15 + x) = 9/5$$

$$\text{Or, } 225 = 135 + 9x$$

$$\text{Or, } 9x = 90$$

$$\text{Or, } x = 10$$

Quantity II:

According to the question,

$$(y + y/3) = 136/8.5$$

$$\text{Or, } 4y/3 = 16$$

$$\text{Or, } y = 12 \text{ km/hr}$$

$$\text{Therefore, speed of boat in still water} = 12 \text{ km/hr}$$

49. Answer: A)

Quantity I:

Let the total number of males and females be $8x$ and $9x$ respectively.

According to the question,

$$(8x - 40)/(9x - 30) = 6/7$$

$$\text{Or, } 56x - 280 = 54x - 180$$

$$\text{Or, } 2x = 100$$

$$\text{Or, } x = 50$$

$$\text{Total number of females in the college} = 9x = 450$$

$$\text{Required number} = 450/10 = 45$$

Quantity II:

According to the question,

$$867 - 377 - 40 = x\% \text{ of } 1800$$

$$\text{Or, } 450 = x\% \text{ of } 1800$$

$$\text{Or, } x = 450/18 = 25$$

50. Answer: D)

Quantity I:

Time difference between both the trips = $10 + 20 = 30$ minutes = $1/2$ hours

Distance between home and office = $\{(15 \times 10)/(15 - 10)\} \times 1/2 = 150/10 = 15$ km

Quantity II:

Let the speed of the boat in still water = x km/h

Upstream speed of the boat = $0.6x$

Downstream speed of the boat = $1.4x$

According to question: $21/0.6x + 21/1.4x = 10$

$$35/x + 15/x = 10$$

$$x = 5$$

So the distance travelled by the boat in still water in 3 hours = $5 \times 3 = 15$ km

So Quantity I = Quantity II

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Questions Asked in SBI Clerk Mains 2019 Held on 10th August

Shift-2:

1). Kawal Tiger Reserve was located at?

Ans: Telangana

2). Balphakram National Park was located at?

Ans: Meghalaya

3). Nokrek National Park was located at?

Ans: Meghalaya

4). Hanoi is the capital of?

Ans: Vietnam

5). What is the first installment amount for PM Matra Vandana Yojana?

Ans: Rs.1000

6). Pradhan Mandri Lal Bhator shastri Status?

Ans: Varanasi

7). Who is the AIFF women's Player of 2019?

Ans: Ashalata Devi

8). Soyuz 2.1 Launched by which agency?

Ans: Russian Space Agency

9). A Market condition were the future price of the commodity is higher than the spot price?

Ans: Contango

10). SFIO Full Form?

Ans: Serious Fraud Investigation Office

11). In which stadium, Cricket World Cup final match was held?

Ans: Lord's Stadium in London

12). An Elephant Bond is a Rupee denominated bond with 25 years maturity; and its fund is to be used exclusively for _____

Ans: Infrastructure Projects

13). 15th August is celebrated as?

Ans: Sankalp Parv

14). Who won men's single Wimbledon 2019?

Ans: Novak Djokovic defeated Roger Federer

15). Which sport is associated with Ajay Singh?

Ans: Boxing

16). What is the constituency of Arjun Munda?

Ans: Khunti

17). UGC

Ans: University Grants Commission

18). PCR

Ans: Public Credit Registry

19). What is the Headquarters of National Cricket Academy?

Ans: Bangalore

20). Sinouk Helicopter made by which company?

Ans: Boeing

21). 3 to 4 Questions were asked from Union Budget?

22). Civil Aviation Training Center (CATC) was located at?

Ans: Iran

23). Anshula Kant is the MD and CFO of ?

Ans: World Bank

24). India has signed a deal of Rs.200 Crore to acquire Strum Ataka with which of the following countries?

Ans: Russia

25). Which of the following has launched STRIDE scheme recently, aimed at strengthening research culture and innovation in universities and colleges of the country?

Ans: UGC - University Grants Commission

26). Bharat Financial Inclusion Limited BFIL is a?

Ans: Non-banking finance company (NBFC), licensed by the Reserve Bank of India. It was founded in 1997 by Vikram Akula. Head Quarters – Hyderabad

27). Housing finance companies (HFCs) were regulated by?

Ans: RBI

28). Dutee Chand becomes the first Indian to win a gold medal at the Summer Universiade which was held at?

Ans: Napoli, Italy

29). Pradhan Mantri Karam Yogi Maandhan (PM-KYM) Scheme All PM Karam Yogi Maan Dhan Scheme beneficiaries must have annual turnover less than ____.

Ans: Rs. 1.5 crore

30). Every women in Self-Help Group (SHG) was eligible for a loan up to _____ under the MUDRA Scheme.

Ans: Rs. 1 lakh

31). BRICS Summit 2019 was held at?

Ans: Brazil

32). The Solar Charkha Mission comes under which ministry?

Ans: Ministry of Micro Small & Medium Enterprises (MSME)

33). Name the first foreign bank to set up unit in Gujarat International Finance Tec-City (GIFT)?

Ans: Standard Chartered Bank

34). Which of the following bank has reportedly drawn up plans for a radical restructuring that will involve the creation of a “bad bank”?

Ans: Deutsche Bank

35). One Questions related to NABARD RIDF (Rural Infrastructure Development Fund)

36). 5th September was celebrated as?

Ans: International Day of Charity

37). The 2023 ICC Cricket World Cup will be held at?

Ans: India

38). One Related to UAE Finance Minster

39). Name the organization works to eradicate poverty and reduce inequalities through the sustainable development of nations?

Ans: UNDP - United Nations Development Programme

40). One Question related to Risk Can't Avoid.

41). Who is Vijaya Nirmala?

Ans: Telugu Actress

42). Hemis is a village located at?

Ans: Leh district of Jammu and Kashmir, India

43). Budget 2019 has proposed to levy tax deduction at source (TDS) of 2 per cent on the cash withdrawal of more than _____ from a bank account.

Ans: Rs 1 crore

44). The Reserve Bank of India (RBI)-appointed committee to review the economic capital framework. What is the name of the committee?

Ans: Bimal Jalan Committee

45). T.N. Manoharan Committee was launched by?

Ans: RBI (Purpose: on the development of secondary market for corporate loans.)

46). One Question Related to Pradhan Mantri Swasthya Suraksha Yojana?

Shift-1:

1). Amrabad Tiger Reserve was located at?

Ans: Telangana

2). First state to setup Elephant rehabilitation centre?

Ans: Kerala

3). In DPCR, "C" Stands for?

Ans: Digital Public Credit Registry

4). Kaziranga National Park was located at?

Ans: Assam

5). Where was the SCO Summit 2019 held?

Ans: Kyrgyzstan

6). Male is the capital of which country?

Ans: Maldives

7). 19th August is celebrated as?

Ans: World Photography Day & Humanitarian Day

8). Sadananda Gowda is from which ministry?-

Ans: Chemical and Fertilizer

9). Questions about Tapan Ray Committee

Ans: This committee was formed to review regulatory guidelines and supervisory framework applicable to core investment companies (CICs).

10). In FBA, “A” stands for?

Ans: Financial Benchmark Administrator

12). Who represented India at G20 Ministerial Meeting?

Ans: Piyush Goyal

13). Questions about Basant Kumar Birla?

14). Arinjeeta Dey was related to which sports?

Ans: Karate

15). Who wrote the Book “War Over Words”

Ans: Devika Sethi

16). Questions about SBI 1.5 Trillion Loan

18). Where is the Headquarters of National Institute of Rural Development and Panchayati Raj (NIRDPR) is located?

Ans: Hyderabad.

19). Jawaharlal Nehru indoor Stadium was located at?-

Ans: Chennai

20). Which city has recently been included in UNESCO World Heritage City?

Ans: Jaipur

21). National Museum of Indian Cinema was held in where?

Ans: Mumbai

22). World Economic Situation Prospect report is published by?

Ans: UN

23). India International Cooperative Trade Fair was held at? –

Ans: New Delhi

24). which bank has the highest wilful defaulter?

Ans: SBI

25). Damanganga-Pinjal river linking project which city?

Ans: Mumbai

26). Tax deduction if aggregate cash withdrawal from one or more accounts exceeds Rs 1 crore?

27). Question Based on Unclaimed amount in LIC?

28). Who accounts for 1/3rd NPA out of total NPA?

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words are printed in bold to help you locate them while answering some of these.

The education sector in India is in a ferment, hit by a storm long waiting to happen. The butterfly that happed its wings was the much-reiterated statement in a much-publicised report that difficultly a fourth of graduating engineers, and an even smaller percentage of other graduates, was of employable quality for IT-BPO jobs. This triggered a cyclone when similar views were echoed by other sectors and led to widespread debate. Increased industry-academia interaction, "finishing schools", and other efforts were initiated as immediate measures to bridge skill deficits. These, however, did not work as some felt that these are but band-aid solutions; instead, radical systemic reform is necessary. Yet, there will be serious challenges to overdue reforms in the education system. In India-as in many countries education is treated as a holy cow; sadly, the administrative system that oversees it has also been deceived. Today, unfortunately, there is no protest against selling drinking water or paying to be cured of illness, or for having to buy food when one is poor and starving; nor is there an outcry that in all these cases there are commercial companies operating on a profit making basis. Why, then, is there an instinctively adverse reaction to the formal entry of for-profit institutes in the realm of education? Is potable water, health or food, less basic a need, less important a right, than higher education? While there are strong arguments for free or subsidized higher education, we are not writing on a blank page. Some individuals and businessmen had entered this sector long back and found **devious** ways of making money, though the law stipulates that educational institutes must be 'not-for-profit' trusts or societies. Yet, there is opposition to the entry of for-profit' corporates, which would be more transparent and accountable. As a result, desperately needed investment in **promoting** the wider reach of quality education has been stagnated at a time when financial figures indicate that the allocation of

be far better than the so-called trusts which barring some **noteworthy** exceptions-are a blot on education. However, it is not necessarily a question of choosing one over the other: different organisational forms can coexist, as they do in the health sector. A regulatory framework which creates competition, in tandem with a rating system, would automatically ensure the quality and relevance of education. As in sectors like telecom, and packaged goods, organisations will quickly expand into the hinterland to tap the large unmet demand. Easy Loan/scholarship arrangements would ensure affordability and access. The only real structural reform in higher education was the creation of the institutes for technology and management. They were also given autonomy and freedom beyond that of the universities. However, in the last few years, determined efforts have been underway to curb their autonomy. These institutes, however, need freedom to decide on recruitment, salaries and admissions, so as to compete globally. However, such institutes will be few. Therefore, we need a regulatory" framework that will enable and encourage States and the Centre, genuine philanthropists and also corporates to set up quality educational institutions. The regulatory system needs only to ensure transparency, accountability, competition and widely available independent assessments or ratings. It is time for radical thinking, bold experimentation and new structures; it is time for the government to bite the bullet.

Source: <https://timesofindia.indiatimes.com>

1. Why, according to the author, did the efforts such as increased industry-academia interaction and "finishing schools" did not help bridge the skill deficit?
 - A. These steps were only superficial remedies and the problem could be answered only by reforming the entire education system.
 - B. These initiatives operated on a profit-making basis rather than aiming at any serious systemic reforms.
 - C. The allocation of funds to such initiatives was only one-fourth of the need.

1. Which of the following suggestions have been made by the author to improve the condition of education in India?
- Allowing the corporate organizations to enter the education sector.
 - Easy availability of loans and scholarships for making education more affordable.
 - A rating system for all the organizations to ensure quality.
- Only A
 - Only A and B
 - Only A and C
 - All A, B and C
 - None of these
3. According to the author, which of the following was the only step taken in order to reform the higher education?
- Allowing organisations to enter the education sector on a 'for-profit' basis
 - Creation of autonomous institutes for management and technology which were not under university control
 - Setting up the regulatory framework for all the existing universities
 - Making the availability of educational loans and scholarships easier
 - None of the above
4. What does the author mean when he/ she states, "...we are not writing on a blank page"?
- Corporates would never enter education if they are forced to function on a non-profit making basis
 - The commercialization of education has already started in India
 - Education has been reduced to a profit making sector by some corporate organisations
 - Government will not allow corporates to enter education as India can't afford to have costly education
 - None of the above
5. Which of the following is not true in context of the given passage?
- According to the law, education institutes should not be run for profit
 - There has been no protest against the selling of drinking water and paying for the health services
 - There have been cases where some profit mongers have entered the education sector

6. Which of the following is the MOST OPPOSITE in meaning to the given word?
- NOTEWORTHY**
- Unnoticed
 - Insignificant
 - Indefinite
 - Remarkable
 - Obsolete
7. Which of the following is the MOST SIMILAR in meaning to the given word?
- DEVIOUS**
- Dishonest
 - Different
 - Severe
 - Various
 - Trivial
8. Which of the following is the MOST OPPOSITE in meaning to the given word?
- PROMOTING**
- Demolition
 - Delaying
 - Postponing
 - Broadening
 - Hampering
- Direction (9-16):** Read the following passage and answer the questions that follow. Certain words are printed in bold to help you locate them while answering some of the questions.

Among those who call themselves socialists, two kinds of persons may be distinguished. There are, in the first place, those whose plans for a new order of society, in which private property and individual competition are to be superseded and other motives to action substituted, are on the scale of a village community or township and would be applied to an entire country by the multiplication of such self-acting units; of this character are the systems of Owen, of Fourier, and the more thoughtful and philosophic socialists generally. The other class, which is more a product of the continent than of Great Britain and may be called the revolutionary socialists, has people who propose to themselves a much bolder stroke. Their scheme is the management of the whole productive resources of the country by one central authority, the general government. And with this view, some of them **avow** as their purpose that the working classes, or somebody on their behalf, should take possession of all the property of the country, and administer it for the general benefit.

many more; the former, too, has the great advantage that it can be brought into operation progressively, and can prove its capabilities by trial. It can be tried first on a select population and extended to others as their education and cultivation permit. It need not, and in the natural order of things would not, become an engine of subversion until it had shown itself capable of being also a means of reconstruction. It is not so with the other; the aim of that is to substitute the new rule for the old at a single stroke, and to exchange the amount of good realised under the present system, and its large possibilities of improvement, for a **plunge** without any preparation into the most extreme form of the problem of carrying on the whole round of the operations of social life without the motive power which has always hitherto worked the social machinery. It must be acknowledged that those who would play this game on the strength of their own private opinion, unconfirmed as yet by any experimental verification — who would forcibly deprive all who have now a comfortable physical existence of their only present means of preserving it, and would brave the frightful bloodshed and misery that would ensue if the attempt was resisted — must have a **serene** confidence in their own wisdom on the one hand and the recklessness of other people's sufferings on the other, which Robespierre and St. Just, hitherto the typical instances of those united attributes, scarcely came up to. Nevertheless, this scheme has great elements of popularity which the more cautious and reasonable form of socialism has not; because what it professes to do, it promises to do quickly, and holds out hope to the enthusiastic of seeing the whole of their aspirations realised in their own time and at a blow.

Source: <https://books.google.co.in>

9. What according to the author is the difference between the two kinds of socialists?
- One of them consists of thinkers and the other comprises active people.
 - The first have a definite philosophy and the second don't have any definite philosophy.

the others are products of Russia.

E. The first kind have a unique psychology while the second tend to follow them.

10. Which of the following were characteristics of St. Just and Robespierre?
- Unconcern for other's suffering
 - Full confidence in their own wisdom
 - Concern for other's suffering
 - Only A
 - Both (A) and (B)
11. Which of the following according to the author, may not be the result of not verifying the desirability of socialism experimentally first?
- Bloodshed
 - Deprivation of current comfortable existence
 - Corruption in high places
 - Misery caused by resisting the change
 - None of these
12. Which of the following is true with reference to the philosophy of revolutionary socialism?
- The government takes over the villages first, and then gradually the whole country.
 - The government takes over all productive resources of the country at one stroke.
 - The government declares a police state and rules by decree.
 - There is no government as such: the people rule themselves by the socialist doctrine.
 - The government takes over one place in one rule.
13. The author's sympathies are with which of the two groups of socialists?
- Neither of the two
 - The side of the socialist doctrine
 - The second type of socialism
 - The first type of socialism
 - The author's sympathy shifts according to the situation
14. Which of the following is the MOST SIMILAR in meaning to the given word?

Avow

- | | |
|-------------|--------------|
| A. Proclaim | B. Censure |
| C. Dissent | D. Repudiate |
| E. Abjure | |

- A. Spree B. Duck
C. Swoop D. Ascent
E. Tumble

16. Which of the following is the MOST SIMILAR in meaning to the given word?

Serene

- A. Placid B. Agitated
C. Clamorous D. Turbulent
E. Annoyed

17. **Direction:** In the following question, a part of the sentence is bold. Five alternatives to the bold part are given at (A), (B), (C) and (D) which may improve the sentence. Choose the correct alternative. In case the given sentence is correct, your answer is (E) i.e. No correction required.

In 2013 the rupee was at an all-time low of 68.85 against the dollar and the central bank had asked commercial banks **to risen the foreign currency deposit** to shore up reserves.

- A. to raises of the foreign currency deposits
B. to raise the foreign currency deposits
C. raised of the foreign currency deposit
D. to raise with the foreign currency deposit
E. No correction Required

18. **Direction:** In the following question, a part of the sentence is bold. Four alternatives to the bold part are given at (A), (B), (C) and (D) which may improve the sentence. Choose the correct alternative. In case the given sentence is correct, your answer is (E) i.e. No correction required.

In the last couple of years, **for developers saddled with unsold inventory** and the equity markets taking off, the Indian property market has transitioned from a seller's market into a buyer's one.

- A. with developers saddled with unsold inventory
B. for developers saddled at unsold inventory
C. for developers saddled with unsold inventories
D. for developers saddled about unsold inventory
E. No correction required

which may improve the sentence. Choose the correct alternative. In case the given sentence is correct, your answer is (E) i.e. No correction required.

In a democracy **anyone fulfilled the eligibility criteria** laid for Election Commission can contest parliamentary elections without any restrictions.

- A. Anyone determining the eligibility criteria
B. Calculating the eligibility criteria
C. Anyone fulfilling the eligibility criteria
D. Filling the eligibility criteria
E. No correction required

20. **Direction:** In the following question, a part of the sentence is bold. Five alternatives to the bold part are given at (A), (B), (C) and (D) which may improve the sentence. Choose the correct alternative. In case the given sentence is correct, your answer is (E) i.e. No correction required.

The poor stork could not have any soup with its long bill, but **the fox easily to licked up the** soup from the plate.

- A. the fox easy licked up the
B. the fox easily licked up the
C. a fox easily licking up the
D. to the fox easily licked up the
E. No correction required

21. **Direction:** In the given question, a part of the sentence is printed in bold. Below the sentence alternatives to the bold part are given at (A), (B), (C) and (D) which may help improve the sentence. Choose the correct alternative. In case the given sentence is correct, your answer is (E) i.e. No correction required.

We use our ears to listen to calumnies, profanity, or impure conversation; our tongues to speak falsely, or taste intoxicating drinks, or tobacco, **or to saying something we should being** ashamed of.

- A. Or in saying something we should being
B. Or to say something we should being
C. Or in say something we could being
D. Or in saying anything we should be
E. No correction required

Dr Hansen believes "a gap has opened between what is understood about global warming by the _____ scientific community and what's known by the people who need to _____ - and that's the public."

- A. relevant, know
- B. notable, notice
- C. important, perceive
- D. supreme, understand
- E. vital, notify

23. **Direction:** A sentence with two blanks is given, each blank indicating that something has been omitted. Choose the words that best fit the meaning of the sentence as a whole.

In the _____ of its journey of 139 years, this newspaper has remained contemporary yet classic by effecting periodic design changes and taking a lead to _____ new technology without compromising its core values that are intrinsically wedded to the cardinal principles of journalism.

- A. beauty, follow
- B. totality, adapting
- C. era, grab
- D. entirety, embrace
- E. whole, clasp

24. **Direction:** A sentence with two blanks is given, each blank indicating that something has been omitted. Choose the words that best fit the meaning of the sentence as a whole.

First aid experts stress that _____ what to do for an _____ victim until a doctor or other trained person gets to the accident scene can save a life.

- A. knowing, injured
- B. before, inquiring
- C. regarding, efficient
- D. knowing, inquiring
- E. regarding, injured

25. **Direction:** A sentence with two blanks is given, each blank indicating that something has been omitted. Choose the words that best fit the meaning of the sentence as a whole.

Under the strategic concept of marketing, the _____ of marketing shifts from the product to the customer in the _____ of the broader external environment.

- A. efficiency, topic
- B. focus, context
- C. aim, subject
- D. power, discourse
- E. objective, issue

Globalization is a _____ factor in competitive world that _____ and mobilizes cultural values of people at global level.

- A. key, discriminate
- B. major, change
- C. significant, integrates
- D. top-level, jumble
- E. prime, join

Direction (27-36): In the following passage, there are blanks each of which has been numbered. These numbers are printed below the passage and against each five words have been suggested, one of which fills the blanks appropriately.

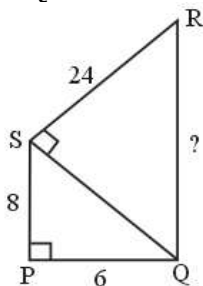
It has been a November of unending agony for Chennai, a month that saw a century-old rainfall record being broken. Of a city of about 8 million people, more than half are (###Q1###) the ravages of water, many dislocated from their homes and taking (###Q2###) in makeshift shelters; some on rooftops, waiting to be rescued, as the swilling flood waters menacingly lick their way up. The entire city is marooned — trucks cannot enter with food stocks, nor can its citizens easily flee. Trains and flights are (###Q3###), and the few buses that somehow manage to leave are desperately (###Q4###). The city, in better days a throbbing automobile and IT hub, has (###Q5###) damages worth ₹15,000 crore, according to Assocham estimates. Apart from Chennai, at least four neighbouring districts in Tamil Nadu, apart from Nellore and Tirupati in Andhra Pradesh, have (###Q6###) far in excess of their usual quota of winter rain. An estimated 270 people have lost their lives in Tamil Nadu, and the toll could mount. This has been a/an (###Q7###) prodigious north-east monsoon, excessive even by the standards of an El Nino year, leaving forecasters the world over flummoxed. The weathermen have (###Q8###) a few more days of rain of reduced intensity. Amidst prolonged despair, the people of the State have (###Q9###) great fortitude, ingenuity and generosity. The State government has come under flak for not

- A. A
C. C
E. F
- B. B
D. D

Direction (37-40): Rearrange the following seven sentences (A), (B), (C), (D), (E) (F) and (G) in a proper sequence to form a meaningful paragraph, then answer the questions that follow.

or the question mark (?) in the following number series?

41. 17, 12, 29, 92, 373, ?.
 A. 1966 B. 1870
 C. 1654 D. 1442
 E. None of these
42. 114, 115, 107, ?, 134, 70, 195
 A. 143 B. 124
 C. 134 D. 133
 E. None of these
43. 12, 22, 69, 272, 1365
 A. 262 B. 22
 C. 12 D. 69
 E. None of these
44. 15, 21, 39, 77, 143, ?
 A. 243 B. 250
 C. 253 D. 245
 E. None of these
45. 5 8 16 31 55 ?
 A. 72 B. 96
 C. 90 D. 76
 E. None of these
46. A man can row a distance of 30 km downstream and return in a total of 8 hours. If the speed of the boat in still water is four times the speed of the current, find the speed of the current (in kmph).
 A. 8 B. 3
 C. 7 D. 2
 E. None of these
47. A garden is 24 m long and 14 m wide. There is a path 1 m wide outside the garden along its sides. If the path is to be constructed with square marble tiles 20 cm a 20 cm, then find the number of tiles required to cover the path:
 A. 1700 B. 3000
 C. 2000 D. 1500
 E. None of these
48. Find length of QR



49. P, Q and R started a business with investment in the ratio 5 : 6 : 8 respectively. After 1 yr, R withdrew 50% of his capital and P increased his capital by 60% of his investment. After 2 yr, in what ratio should the earned profit be distributed among P, Q and R respectively?
 A. 12:13:13
 B. 14:13:12
 C. 13 : 12 : 12
 D. Cannot be determined
 E. None of the above
50. Mr Ram spends 20% of his monthly income on household expenditure. Out of the remaining 25% he spends on children's education, 15% on transport, 15% on medicine and 10% on entertainment. He is left with Rs. 5600 after incurring all these expenditures. What is his monthly income?
 A. Rs. 20000 B. Rs. 25000
 C. Rs. 35000 D. Rs.28400
 E. None of these
51. A box contains 2 blue marker, 4 red marker, 5 green marker and 1 yellow marker. If four marker are picked at random, what is probability that none is green?
 A. 7/99 B. 13/99
 C. 1/12 D. 11/12
 E. None of these
52. **Direction:** In the following question, two equations are given. You have to solve these equations and give the answer:
 1) $6x^2 + 31x + 33$
 2) $y^2 - 32y + 247$
 A. $x > y$ B. $x \geq y$
 C. $y > x$ D. $y \geq x$
 E. $x = y$ or relationship cannot be establish
53. **Direction:** In the following question, two equations are given. You have to solve these equations and give the answer:
 1) $3x^2 + 13x + 14 = 0$
 2) $8y^2 + 26y + 21 = 0$
 A. $x > y$ B. $x \geq y$
 C. $y > x$ D. $y \geq x$
 E. $x = y$ or relationship cannot be establish

$$2y^2 - 21y + 52 = 0$$

- A. $x > y$
 B. x
 C. $x \geq y$
 D. $x \leq y$
 E. $x = y$ OR No relation can be established (CND)

55. **Direction:** In the following question, there are two equations. Solve the equations and answer accordingly.

I. $12x^2 - 40x - 32 = 0$

II. $2y^2 + 21y + 54 = 0$

- A. $x > y$
 B. $x < y$
 C. $x \geq y$
 D. $x \leq y$
 E. $x = y$ or relationship cannot be determined

56. **Direction:** Two equations (I) and (II) are given in each question. On the basis of these equations you have to decide the relation between 'x' and 'y' and give answer.

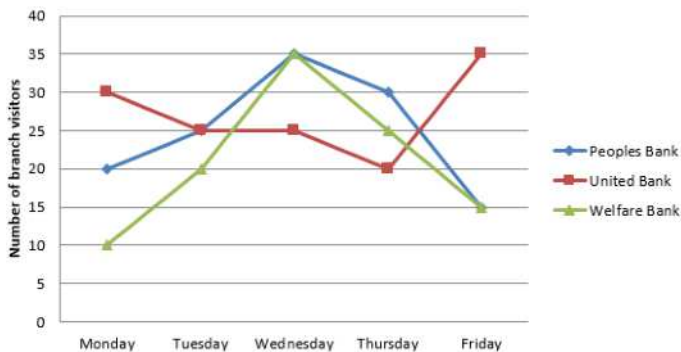
I. $4x + 3y = (1600)^{1/2}$

II. $6x - 5y = (484)^{1/2}$

- A. $x > y$
 B. $x \geq y$
 C. $y > x$
 D. $y \geq x$
 E. $x = y$ or relationship cannot be establish

Direction (57-61) : Use the data provided in the Line graph to answer these questions. The graph shows average number of customers ('00) visiting their bank branches on different days of a week.

Branch visitors on weekdays



57. On an average which bank gets the maximum visitors during a week?
- A. Peoples and United Bank
 B. Welfare and Peoples Bank
 C. Welfare Bank
 D. Peoples Bank
 E. United Bank

- A. Friday, United bank
 B. Wednesday, Welfare bank
 C. Wednesday, Peoples bank
 D. Tuesday, Welfare bank
 E. Tuesday, Peoples bank

59. After a massive push to go Digital by the central government, 10% of United, 15% of Welfare and 12% of Peoples banks' customers started banking activities online and, thus, stopped coming to branches. For the week in line graph, the number of visitors who stopped coming to United bank was what percentage of same number for Welfare bank?

- A. 85%
 B. 90%
 C. 95%
 D. 105%
 E. 117%

60. A bank's efficiency is measured by the amount of time it takes to resolve a customer's issues – lesser the time, more efficient is the bank. The following table shows total time taken by a bank per day to resolve the issues of all of its customers-

	Mon	Tue	Wed	Thu	Fri
Peoples	40	75	70	45	30
United	45	50	25	60	70
Welfare	20	30	105	75	30

Which is the most efficient bank and on which day? (Use the number of customers from the line graph)

- A. Welfare bank, Wednesday
 B. United bank, Wednesday
 C. Peoples bank, Thursday
 D. Welfare bank, Tuesday
 E. United bank, Monday

61. On an average United's customers use 40 deposit slips per 100 customers, Peoples' customers use 60 deposit slips per 100 customers, and Welfare's customers use 55 deposit slips per 100 customers. What is the ratio of deposit slips used by Peoples' customers on Monday, Tuesday, & Wednesday combined, to that of United's on Thursday & Friday?

- A. 24/11
 B. 23/11
 C. 19/11
 D. 11/24
 E. 11/23

861/1029 statements is sufficient to answer the question or not and mark your answer accordingly.

The ages of Pradumn and Gunit are in the ratio of 7: 5. What is the age of Pradumn?

I. The ages of Pradumn and Nandini are in the ratio of 4:3.

II. After 7 years the ratio of Pradumn's and Aviral's ages will be 4: 3.

A. if the statement I alone is sufficient to answer the question, but the statement II alone is not sufficient.

B. if the statement II alone is sufficient to answer the question, but the statement I alone is not sufficient.

C. if both statements I and II together are needed to answer the question.

D. either the statement I alone or statement II alone is sufficient to answer the question.

E. Data is insufficient.

63. **Direction:** A question along with two statements, is given below. You have to decide whether the data provided in the two statements is sufficient to answer the question or not and mark your answer accordingly.

Train 'A' running at a certain speed crosses another train 'B' running at a certain speed in the opposite direction in 24 seconds. What is the length of train 'B'?

I. The length of both the trains together is 450 meters.

II. Train 'A' is slower than train 'B'.

A. The data in Statement I alone are sufficient to answer the question, while the data in statements II alone are not sufficient to answer the question.

B. The data in statement II alone are sufficient to answer the questions, while the data in statement I alone are not sufficient to answer the question.

C. The data either in statement I alone or in statement II alone are sufficient to answer the question.

D. The data even in both the statements I and II together is not sufficient to answer the question.

E. The data in both the statements I and II together are necessary to answer the question.

statements is sufficient to answer the question or not and mark your answer accordingly.

What percent of families in the U.P have an annual expenses of over 1,50,000 and own a Bungalow? The number of families is 1,50,000.

I. 28% of the families in U.P have an expenses of 1,50,000.

II. 40% of the families in U.P have an annual expenses over 1,50,000 and own a Bungalow.

A. Statements I is sufficient to answer the question, but statement II by itself is not sufficient to answer the question.

B. Statements II by itself is sufficient to answer the question, but statement I alone is not sufficient to answer the question.

C. Statements either I or II is sufficient to answer the question.

D. Both the statements I and II taken together are not sufficient to answer the question.

E. Both the statements I and II taken together are sufficient to answer the question.

65. **Direction:** A question along with two statements, is given below. You have to decide whether the data provided in the two statements is sufficient to answer the question or not and mark your answer accordingly.

What is the age of the son?

1) 4 years ago the average age of the family including father, mother and son is 27year

2) 5 years hence the average age of the father and mother will be 40

A. if the data provided in statement 1 is sufficient while the data provided in statement 2 is not sufficient

B. if the data provided in statement 2 is sufficient while the data provided in statement 1 is not sufficient

C. if the data provided in either of the statements alone is sufficient to answer the question

D. if the data provided in both of the statements together is sufficient to answer the question

862 / 1029 66. Direction: A question along with two statements, is given below. You have to decide whether the data provided in the two statements is sufficient to answer the question or not and mark your answer accordingly.

A 540m-long plot of rectangular land is to be fenced. Find the cost of fencing per square metre.

I. Breadth of the rectangular plot is 60 m.

II. Length of the rectangular plot is 120 m.

A. If the data in statement I alone are sufficient to answer the question, while the data in statement II alone are not sufficient to answer the question.

B. If the data in statement II alone are sufficient to answer the question, while the data in statement I alone are not sufficient to answer the question.

C. If the data either in statement I alone or in statement II alone are sufficient to answer the question.

D. If the data even in both the statements I and II together are not sufficient to answer the question.

E. If the data in both the statements I and II together are necessary to answer the question.

67. Two taps X and Y can fill a Tank in 30 and 60 minutes respectively. There is a third exhaust tap Z at the bottom of tank. If all taps are opened at the same time, the Tank will be full in 50 minutes. In what time can exhaust tap Z empty the cistern when full?

A. 33.33 Min B. 22.34 Min

C. 12 Min D. 18 Min

E. 21 Min

68. A merchant sells his two mobiles – one at 15% loss and another at 10% profit. If the cost prices of the two mobiles are in the ratio of 1:2, what is his percent profit or loss?

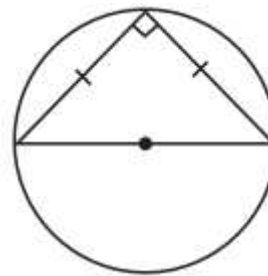
A. 1.66% profit B. 2.33% loss

C. 1.33% profit D. 1.25% loss

E. None of these

69. A and B together can complete a work in 10 days while A is 50% more efficient than B then find in how many days the work will be complete if they work on alternative days starting with A?

70. Circumference of circle is 66 metres. Find the area of triangle.



A. 196

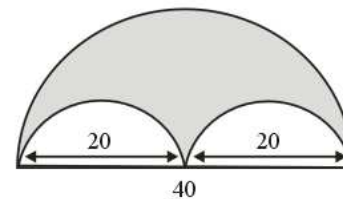
B. 200

C. 100

D. 150

E. 180

71. Find area of shaded region?



A. 100π

B. 200π

C. 500π

D. 300π

E. 400π

Direction (72-76): These questions are based on the table given regarding the fruits with five shopkeepers – M, N, O, P, Q.

Shopkeeper	No. of Plums	% spoiled	Avg weight (gms)	No. of kiwi	% spoiled	Avg weight (gms)	No. of Guava	% spoiled	Avg weight (gms)
M	200	20	200	150	20	60	600	10	60
N	250	30	160	100	27	75	800	20	85
O	160	15	300	80	30	50	1000	35	40
P	300	50/3	180	200	15	100	1200	50/3	38
Q	180	10	200	240	25	90	900	20	50

72. There are total 5 shopkeepers from 5 different district. Calculate the number of the rotten plums with all the five shopkeepers if we put together ?

A. 192

B. 170

C. 207

D. 136

E. None of these

73. Among the 5 shopkeepers which shopkeeper has the highest number of unspoiled guava ?

A. M

B. Q

C. O

D. P

E. None of these

74. Find the weight of all the kiwi fruit which the five shopkeepers have when put together ?

A. 62.1 kg

B. 69.7 kg

C. 58.4 kg

D. 65.4 kg

E. None of these

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75. Which is kept with shopkeeper O?
A. 47.34% B. 48.57%
C. 51.23% D. 53.53%
E. None of these
76. Find out approximately, what is the total weight of the kiwi kept by the shopkeepers M, N, O when put together as a percentage of the total weight of the guava with all the five shopkeepers when put together ?
A. 5.5% B. 6%
C. 7.5% D. 9%
E. None of these
77. Average weight of 20 girls in a class is 25 kg, when the age of a teacher is included the average weight increased by 2 then find out the weight of the teacher.
A. 50 kg B. 66 kg
C. 67 kg D. 47 kg
E. None of these
78. If Aman borrowed same amount from Babu as Babu from Arun at the same rate of interest for 3 Years at simple interest while Babu borrowed at compound interest compounded annually at same rate and time period and the difference Between their interest is Rs. 992.25 then find the Rate pcpa if Aman borrowed Rs. 14,000.
A. 17% B. 15%
C. 6% D. 19%
E. None of these
79. Out of 5 women and 4 men a committee of three members is to be formed in such a way that at least one member is a women. In how many different ways can it be done?
A. 96 B. 76
C. 84 D. 80
E. None of these
80. 3 men and 7 women can complete a piece of work in 12 days. 7 men and 3 women can complete the same work in 8 days. In how many days can 3 women complete the work alone?
A. 36 B. 64
C. 100 D. 84
E. 56
81. A train reaches on a destination in time with an average speed of 40 Kmph. If it goes with an average speed of 35 Kmph it is late by 15 minutes. The length of the total journey is -

82. 80 litres mixture of alcohol and water contain 20% water. How much water must be added to the above mixture to make water $23\frac{17}{21}\%$ of the resulting mixture?
A. 7.5 litres B. 5 litres
C. 8 litres D. 4 litres
E. None of these
83. Two pipes X and Y can fill a cistern in 24 minutes and 32 minutes respectively. If both the pipes are opened together, then after how much time (in minutes) should Y be closed so that the tank is full in 18 minutes?
A. 10 B. 8
C. 6 D. 5
E. 4
84. The ratio between the ages of a father and a son at present is 5 : 2, respectively. Four years hence, the ratio between the ages of the son and his mother will be 1 : 2, respectively. What is the ratio between the present ages of the father and the mother respectively?
A. 7 : 9
B. 3 : 4
C. Cannot be determined
D. 4 : 3
E. None of these
85. The daily work of 2 men is equal to that of 3 women or that of 4 youngsters. By employing 14 men, 12 women and 12 youngsters a certain work can be finished in 24 days. If it is required to finish it in 14 days and as an additional labour, only men are available, how many of them will be required?
A. 20 men B. 18 men
C. 48 men D. 28 men
E. None of these
86. The breadth of a rectangular floor is half of its length. If Rs 972 is required to paint the floor at Rs. 6 per square meter then what is the area of the circle whose perimeter is 22 times the length of the rectangular floor?
A. 12474 B. 16224
C. 14634 D. 15724
E. None of these

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17. The number of those getting a fee exemption is 1700, find the total number of students getting 75% concession if it is given that 40% of those not getting a fee exemption are eligible to get 75% concession?
- A. 6000 B. 3320
C. 2000 D. 1500
E. 7000
88. Two trains A and B leave stations P and Q simultaneously and travel towards Q and P respectively on the same route. After meeting en route, A takes one hour to reach Q and B takes 4 hours to reach P. How long did A take to cover the entire Distance?
- A. 6 hours B. 4 hours
C. 2 hours D. 3 hours
E. none of these
89. The ratio of monthly salaries of X and Y is 6 : 5, If the salary of X is increased by 25% and that of Y by 15%, what will be the new ratio of their resulting salaries?
- A. 18 : 19 B. 15 : 13
C. 30 : 23 D. 30 : 46
E. None of these
90. A car and bike dealer bought 30 second hand cars and bikes for Rs. 472500. He bought 8 cars and the rest were bikes. Find the price at which he should sell each of the cars such that by selling bikes at $\frac{3}{4}$ th of this price he makes a profit of 40%.
- A. Rs. 18000 B. Rs. 24000
C. Rs. 24600 D. Rs. 27000
E. Rs. 32000

Reasoning Ability

Direction (91-95) : Study the information given below and answer the questions based on it.

Arun, Bhavna, Chetan, Diksha, Elena, Fatima, Gauri and Hemant lives in an eight storey building and are going to different places.

(i) Hemant lives on the 5th floor and there are two people living between Hemant and Chetan. Hemant is going to Chennai.

(ii) Elena lives on an odd numbered floor but not the first floor and is not an immediate neighbour of Chetan or Hemant. Fatima lives second to the floor of Elena. The one who visits to Delhi is an immediate neighbour of Elena.

(iv) Only one person lives between the one who visits to Mumbai and Gauri. The one who visits to Kolkata and Lucknow are immediate neighbours of each other.

(v) Chetan neither visits to Kolkata nor to Lucknow. Only one person lives between Arun and the one who visits to Punjab. Two people lives between the one from Rajasthan and Arun.

(vi) Arun neither visits to Mumbai nor to Kolkata. Bhavna does not visit to Mumbai.

91. Which of the following is true regarding Fatima?
- A. Fatima Visits to Punjab.
B. Diksha and Gauri are immediate neighbours of Fatima.
C. One person lives between Fatima and the one who visits to Lucknow.
D. There is one floor between Fatima and Arun
E. None is true
92. Who among the following visits to Kolkata?
- A. Chetan B. Fatima
C. Arun D. Bhavna
E. Cannot be determined
93. How many persons live between Diksha and the one who visits to Lucknow?
- A. One B. Two
C. Three D. Four
E. Five
94. Which of the following is true?
- A. Only one person lives between Bhavna and Elena?
B. Diksha visits to Mumbai.
C. The one who visits to Kolkata is an immediate neighbour of Gauri
D. One person lives between Hemant and Diksha
E. None of these
95. Who are the immediate neighbours of Gauri?
- A. Arun, Bhavna
B. Elena and the one who visits to Mumbai
C. Hemant and the one who visits to Rajasthan
D. Elena and Fatima
E. Arun, Diksha

Eight friends L, M, N, O, P, Q, R and S are sitting in a straight line but not necessarily in the same order. Four of them are not facing north.

N is not facing north. P faces south and both the immediate neighbours of P faces north. S sits second to the right of P and M sits third to left of P. O is not facing south but both the immediate neighbours of O do not face north. R sits second to the left of L. M sits fifth to the right of S. Q is an immediate neighbours of O. M, the immediate neighbor of N, is not facing south. L is not facing north.

96. Who among the following is on the immediate right of S?
- A. P B. L
C. R D. N
E. None of these
97. Who among the following sits third to the left of L?
- A. P B. L
C. S D. R
E. None of these
98. How many persons are there between P and N?
- A. Two B. Three
C. None D. One
E. None of these
99. Four of the following five are alike in a certain way and hence form a group. Which is the one that does not belong to that group?
- A. L,P B. S,L
C. R,N D. P,O
E. S,Q
100. Who among the following sit at the extreme ends of the line?
- A. S,L B. R,S
C. N,M D. L,N
E. None of these

Direction (101-105): A group of digits/symbols is given by four combinations of letters numbered (1), (2), (3) and (4). You have to find out which of the combinations (1), (2), (3) and (4) correctly represents the group of digit/symbols based on the following coding system and the conditions those follow and mark the number of that combination as

Digit/Symbol	5	9	@	©	3	8	1	\$	%	4	2	6	*	7	δ	#
Letter Code	B	E	P	A	K	D	F	H	Q	I	R	J	U	M	V	T

Conditions:

(i) If the first unit in the group is an even digit and the last unit is a symbol, both these are to be coded as the code for the symbol.

(ii) If the first unit in the group is an odd digit and the last unit is an even digit, their codes are to be interchanged.

(iii) If both the first and the last units in the group are symbols, both these are to be coded as 'X'.

101. @91\$26
- A. JEFHRP B. PEFHRP
C. XEFHRX D. PEFHRJ
E. None of these
102. 387# ©9
- A. KMDTAE B. KDMATE
C. EDMTAK D. KDMTAK
E. None of these
103. 4@312δ
- A. VPKFRV B. VPKFRI
C. XPKFRX D. IPKFRV
E. None of these
104. %4187*
- A. QIFDMU B. UIFDMQ
C. XIFDMX D. UIFDMU
E. None of these
105. 9124 δ 6
- A. EFRIVJ B. JFRIVE
C. EFRIVE D. XFRIVX
E. None of these

Direction (106-110): In the given questions, the symbols &, %, *, \$ and © are used with the following meaning as illustrated below.

'P % Q' means 'P is not smaller than Q'

'P * Q' means 'P is neither greater than nor equal to Q'.

'P & Q' means 'P is neither smaller than nor equal to Q'.

'P \$ Q' means 'P is neither greater than nor smaller than Q'.

'P © Q' means 'P is not greater than Q'.

Now in each of the given questions assuming the given statements to be true, find which of the two conclusions I and II given below them is/are definitely true.

- A. Only conclusion I is true
- B. Only conclusion II is true
- C. Either conclusion I or II is true
- D. Neither conclusion I nor II is true
- E. Both conclusions I and II are true

107. **Statement:**

$B * K, K \$ N, N \% R$

Conclusion:

I. $R \$ K$

II. $R * K$

- A. Only conclusion I is true
- B. Only conclusion II is true
- C. Either conclusion I or II is true
- D. Neither conclusion I nor II is true
- E. Both conclusions I and II are true

108. **Statement:**

$H \% F, F * W, W \$ E$

Conclusion:

I. $E \& F$

II. $H \& W$

- A. Only conclusion I is true
- B. Only conclusion II is true
- C. Either conclusion I or II is true
- D. Neither conclusion I nor II is true
- E. Both conclusions I and II are true

109. **Statement:**

$Z \& D, D \odot K, K \& M$

Conclusion:

I. $M * D$

II. $Z \& K$

- A. Only conclusion I is true
- B. Only conclusion II is true
- C. Either conclusion I or II is true
- D. Neither conclusion I nor II is true
- E. Both conclusions I and II are true

110. **Statement:**

$W \odot B, N \& B, N \odot F$

Conclusion:

I. $F \& B$

II. $W * N$

- A. Only conclusion I is true
- B. Only conclusion II is true
- C. Either conclusion I or II is true
- D. Neither conclusion I nor II is true
- E. Both conclusions I and II are true

the data provided in the statements are sufficient to answer the question.

How is 'always' written in a code language?

I. 'rain is always good' is written as '5397' in that code language.

II. 'he is always there' is written as '3 6 8 5' in that code language.

A. The data in statement I alone are sufficient to answer the question, while the data in statement II alone are not sufficient to answer the question.

B. The data in statement II alone are sufficient to answer the question, while the data in statement I alone are not sufficient to answer the question.

C. The data either in statement I alone or in statement II alone are sufficient to answer the question.

D. The data given in both the statements I and II together are not sufficient to answer the question.

E. The data in both the statements I and II together are necessary to answer the question.

112. **Direction:** Each of the questions below consists of a question and two statements numbered I and II given below it. You have to decide whether the data provided in the statements are sufficient to answer the question. Read both the statements.

P, Q, R, S and T are seated around a circular table facing the centre, such that there is equal space between each of the adjacent members. Who sits to the immediate right of T?

I. Q sits second to the right of T and S sits second to the left of T.

II. R is not an immediate neighbor of either P or Q

A. if the data in statement I alone are sufficient to answer the question, while the data in statement II alone are not sufficient to answer the question

B. if the data in statement II alone are sufficient to answer the question, while the data in statement I alone are not sufficient to answer the question

C. if the data either in statement I alone or in statement II alone are sufficient to answer the question

113. If the data in both statements I and II together are necessary to answer the question

113. **Directions:** Each of the questions below consists of a question and two statements numbered I and II given below it. You have to decide whether the data provided in the statements are sufficient to answer the question.

Who is the heaviest among G, H, I, J, K and L?

I. G is heavier than I and K but not as heavy as L, who is heavier than H and J.

II. I is third in weight in the ascending order and not as heavy as L, G and H, H is heavier than G but not the heaviest.

A. The data in statement I alone are sufficient to answer the question, while the data in statement II alone are not sufficient to answer the question.

B. The data in statement II alone are sufficient to answer the question, while the data in statement I alone are not sufficient to answer the question.

C. The data either in statement I alone or in statement II alone are sufficient to answer the question.

D. The data in both the statements I and II together are not sufficient to answer the question.

E. The data in both the statements I and II together are necessary to answer the question.

114. **Direction:** The question below consists of a question and two statements numbered I and II given below it. You have to decide whether the data provided in the statements are sufficient to answer the question.

Six friends Gaurav, Hemant, Ishika, Jagan, Kumar and Love live on six different floors of a building. Ground floor is numbered one and top floor is numbered six. Who among them lives on the ground floor?

I. Exactly two persons live between the floors on which Gaurav and Ishika live. Gaurav lives on an odd-numbered floor but not on the lowest floor. Kumar lives either on the lowest floor or on the highest floor but does not live above Ishika.

room Jagan lives on an odd-numbered floor but he lives above Hemant.

A. The data in Statement I alone is sufficient to answer the question, while the data in Statement II alone is not sufficient to answer the question.

B. The data in Statement II alone is sufficient to answer the question, while the data in Statement I alone is not sufficient to answer the question.

C. The data in either Statement I alone or Statement II alone is sufficient to answer the question.

D. The data in both the statements I and II together are necessary to answer the question.

E. The data in both the statements I and II together are not necessary to answer the question.

115. **Direction:** The question below consists of a question and two statements numbered I and II given below it. You have to decide whether the data provided in the statements are sufficient to answer the question.

Six persons Abhay, Deepak, Neha, Manik, Poorvi and Hitesh are sitting in a straight line facing north. Who are sitting at the extreme ends?

I. Poorvi is sitting fourth to the right of Deepak. Abhay is sitting third to the left of Neha. Either Abhay or Neha is sitting at an extreme end.

II. Only one person sits between Poorvi and Abhay. Poorvi is third to the right of Manik. Neha is sitting to the immediate right of Poorvi. Neither Abhay nor Poorvi is sitting on the extreme end.

A. The data in Statement I alone is sufficient to answer the question, while the data in Statement II alone is not sufficient to answer the question.

B. The data in Statement II alone is sufficient to answer the question, while the data in Statement I alone is not sufficient to answer the question.

C. The data in either Statement I alone or Statement II alone is sufficient to answer the question.

If the data in both the statements I and II together are not necessary to answer the question.

Direction (116-120): Study the following information carefully and answer the given questions:

Twelve people are sitting in two parallel rows containing six people each, in such a way that there is equal distance between the two rows and between adjacent people. In row 1, P, Q, R, S, T, V are seated and all of them are facing south. In row 2, A, B, C, D, E, F are seated and all of them are facing north.

A sits third to the right of D. Neither A nor D sits at any of the extreme ends. T faces D. V does not face A and V does not sit at any of the extreme ends. B sits at one of the extreme ends. Only two people sit between B and E. E does not face V. Two people sit between R and Q. R is not an immediate neighbour of T. C does not face V. P is not an immediate neighbour of R. V is not an immediate neighbour of T.

116. Who amongst the following sits at extreme ends of the row?
 A. B, E
 B. S, T
 C. P, R
 D. B, F
 E. None of these
117. Who amongst the following faces A?
 A. R
 B. T
 C. P
 D. Q
 E. S
118. How many people are seated between T and S?
 A. One
 B. Two
 C. Three
 D. Four
 E. None
119. P is related to V in the same manner in which C is related to F. To which of the following is E related to in the same manner?
 A. B
 B. D
 C. C
 D. A
 E. None of these
120. Which of the following is true regarding F?
 A. F sits second to the right of C
 B. F is not an immediate neighbour of A
 C. F sits third to the left of D
 D. F sits at one of the extreme ends of the line
 E. F faces V

In a certain coded language, the symbol for '0' is '*' and for '1' is 'Δ'. There are no other symbols for numbers greater than one. The numbers greater than one are to be written only by using the two symbols given above. The value of symbol for '1' doubles every time it shifts one place to the left. Study the following examples:

0 is written as *,

1 is written as Δ,

2 is written as Δ*,

3 is written as ΔΔ,

4 is written as Δ** and so on

Length of a rectangle is 20% more than its breadth. If its area is 480m² then answer the following questions

121. What would be code for the area of rectangle
 A. Δ*Δ*ΔΔ*
 B. ΔΔ**Δ*Δ*Δ
 C. ΔΔΔΔ*****
 D. ΔΔΔΔ*Δ
 E. None of these
122. What would be the code for the length of rectangle?
 A. ΔΔΔΔΔ
 B. ΔΔΔ***Δ*
 C. ΔΔΔΔ***
 D. ΔΔ***
 E. None of these
123. What would be the code for the length of rectangle?
 A. ΔΔΔΔΔ
 B. ΔΔΔ***Δ*
 C. ΔΔΔΔ***
 D. ΔΔ***
 E. None of these

Direction (124-126) : Study the information given below and answer the questions based on it.

'A \$ B' means 'A is brother of B'

'A + B' means 'B is sister of A'

'A & B' means 'B is wife of A'

'A @ B' means 'A is mother of B'

'A ^ B' means 'A is father of B'

124. In expression 'K & L @ M + N + O', how is O related to K?
 A. Daughter-in-law
 B. Son-in-law
 C. Son
 D. Daughter
 E. Uncle

C. Daughter D. Granddaughter
E. Can't be determined

126. Which of the following indicates that P is the daughter-in-law of K?

A. $K \wedge M + P \$ T$ B. $K \wedge R \$ T \& P$
C. $R \wedge K \& T \& P$ D. $P \wedge T \$ R \& K$
E. None

Direction (127-130): A word and number arrangement machine when given an input line of words and numbers rearranges them following a particular rule in each step. The following is an illustration of input and rearrangement.

Input: work 14 game happy 21 11 life 18 stand 26

Step I: game work 14 happy 21 life 18 stand 26 13

Step II: happy game work 14 life 18 stand 26 13 23

Step III: life happy game work 18 stand 26 13 23 20

Step IV: stand life happy game work 26 13 23 20 24

Step V: work stand life happy game 13 23 20 24 32

Step V is the last step of the above input, as the desired arrangement is obtained.

As per the rule followed in the above steps, find out in each of the following questions the appropriate step for the given input.

Input: story final 28 welcome 13 25 dance 11 clap 12 16 page

127. In step I, "story" is related to "28" and in step II, "dance" is related to "story" then which of the following element is related to "page" in the last step?

A. Welcome B. Final
C. Story D. 11
E. Clap

128. What is the difference between the element which is 2nd from the right end and the element which is 3rd from the right end in step IV?

A. 10 B. 12
C. 14 D. 11
E. 15

C. Both 12 and 13 D. Only 12
E. Only "clap"

130. Which of the following element is 4th from the left end in step II?

A. Story B. Final
C. Clap D. 28
E. None of these

Direction (131-135) : Study the following information carefully and answer the questions.

There are six people - J, K, L, M, N and O - each having different weight. J is heavier than O but lighter than K. N is heavier than L but lighter than J. K is lighter than M. L is not the lightest. The second lightest person weighs 62 kilogram while the third heaviest is of 74 kilogram.

131. Who is the third lightest?

A. P B. M
C. Q D. N
E. None of these

132. What should be the possible weight of C?

A. 90 kg B. 20 kg
C. 110 kg D. 95 kg
E. None of these

133. If A's weight is 125kg; he would be lighter than how many persons?

A. Can't be determined
B. Three
C. Two
D. One
E. More than three

134. Who among the following may be of 68 kilogram in weight?

A. J B. K
C. N D. L
E. O

135. How many persons are heavier than L?

A. None B. One
C. Two D. Three
E. More than three

Direction (136-140) : Study the information given below and answer the questions based on it.

In a certain code,

'we are best friends' is written as 'sa na ta ca'

'we good are player' is written as 'ba ca ka na'

'friends best good more' is written as 'ba sa pa ta'

'are best own aim' is written as 'qa sa ra na'

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137. What is the code for 'friends'?
- A. ta B. sa
C. pa D. ba
E. pa or na
138. What is the code for 'best friends'?
- A. ta pa B. sa ta
C. pa ka D. ba ta
E. pa na
139. Which of the following may represent 'own are good player'?
- A. ta na ka ra B. ca na ka sa
C. qa na ka ca D. ba na ka sa
E. ba na ka ra
140. What is the code for 'we'?
- A. ca B. sa
C. na D. ta
E. Cannot be determined

General Awareness

141. The NACH system provides a robust, secure and scalable platform to the participants with both transaction and file-based transaction processing capabilities. What does 'NACH' stand for?
- A. National Account Clear Home
B. National Automatic Clear House
C. National Automated Clearing House
D. National Account Clearing House
E. National Auto Clear House
142. 'Wings of Fire' is the autobiography of ____.
- A. John Bunyan B. R.N. Tagore
C. APJ Abdul Kalam D. Sunil Gavaskar
E. None of these
143. The International Development Association (IDA), a member of the World Bank Group is headquartered in ____.
- A. New York B. The Hague
C. Washington, DC D. Geneva
E. None of these
144. Maximum Loan amount under MUDRA Bank's Shishu Scheme is?
- A. Rs. 25000 B. Rs. 50000
C. Rs. 75000 D. Rs. 100000
E. Rs. 200000
145. Which of the following is the overall female literacy rate in India as per recent census? Approximately –

146. Government introduced MCLR in place of Base Rate. In MCLR, 'L' stands for?
- A. Loan B. Lending
C. Legal D. Liquidity
E. Leverage
147. Cash Reserve Ratio (CRR) and Statutory Liquidity Ratio (SLR) are deposited in which form respectively?
- A. Liquidity & Cash B. Cash & Liquidity
C. Assets & Cash D. Assets & Liquidity
E. Other than the given options
148. Neeraj Chopra is associated with which of the following games?
- A. Archery B. Wrestling
C. Shooting D. Javelin throw
E. None of these
149. Federal Reserve is the Central Bank of ____.
- A. Britain B. U.S.A.
C. Japan D. Canada
E. China
150. The headquarter of Bank of India is in ____.
- A. Chennai B. Kolkata
C. New Delhi D. Mumbai
E. Bengaluru
151. Federation of Indian Chambers of Commerce and Industry (FICCI) will fund construction of as many as 250 toilets in government high schools in which state?
- A. Andhra Pradesh B. Kerala
C. Karnataka D. Tamil Nadu
E. Uttar Pradesh
152. What is the State Aquatic Animal of Assam?
- A. Saltwater crocodile B. Olive ridley turtle
C. Gharial D. Gangetic dolphin
E. None of these
153. What is the extended date for BASEL III Norms which was earlier 31st March 2018?
- A. 31st March, 2022
B. 31st March, 2019
C. 31st March, 2020
D. 31st March, 2021
E. 31st March, 2024
154. 'HPCA' cricket stadium is located in which state?
- A. Kerala B. Himachal Pradesh
C. Tamil Nadu D. Maharashtra
E. West Bengal

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- C. Madhya Pradesh D. Rajasthan
E. West Bengal
156. In which of the following states of India is the Lokpriya Gopinath Bordoloi International Airport is situated?
A. Tripura B. Meghalaya
C. Manipur D. Assam
E. Arunachal Pradesh
157. The PIDF was set up for financing ongoing rural Infrastructure projects. What does 'I' stand for in 'RIDF'?
A. Income B. Infrastructure
C. Interest D. Immediate
E. Interbank
158. KSE - 100 is the index of which stock exchange?
A. Karachi Stock Exchange
B. Japan Stock Exchange
C. Singapore Stock Exchange
D. China Stock Exchange
E. Vietnam Stock Exchange
159. What does 'A' stand for in 'NACH'?
A. Application B. Arbitrage
C. Automated D. Adjustment
E. Assets
160. What does 'G' stands for in 'DICGC'?
A. Guarantee B. Growth
C. Gratuity D. Global
E. Gross
161. What is the capital of Cambodia?
A. Sofia B. Phnom Penh
C. Pyongyang D. Moscow
E. None of these
162. Barabati Stadium is located in which of the following which states?
A. Odisha B. Maharashtra
C. Haryana D. West Bengal
E. Karnataka
163. Where is Lok Nayak Jayaprakash Airport located?
A. Madhya Pradesh B. Bihar
C. Odisha D. Uttar Pradesh
E. West Bengal
164. What is the currency of Indonesia?
A. Rufiyaa B. Rial
C. Yen D. Rupiah
E. None of these

- C. Xinjiang D. Hong Kong
E. Xian
166. The International Criminal Justice Day has been celebrated throughout the world on _____.
A. 20th July B. 17th July
C. 12th July D. 15th July
E. None of these
167. Chinnar Wildlife Sanctuary is located in which state of India?
A. Punjab B. Haryana
C. Kerala D. Bihar
E. None of these
168. Where is the headquarter of United Bank of India?
A. Mumbai B. Chennai
C. Delhi D. Hyderabad
E. Kolkata
169. What is the constituency of Union Agriculture Minister Radha Mohan Singh?
A. Hajipur, Bihar
B. Patna Sahib, Bihar
C. Purvi Champaran, Bihar
D. Vaishali, Bihar
E. Darbhanga, Bihar
170. Which of the following is an asset reconstruction company?
A. CIBIL B. DICGC
C. BCSBI D. ARCIL
E. IRDA
171. What does 'PMFBY' stands for?
A. Pradhan Mantri Fasal Bachat Yojana
B. Pradhan Mantri Finance Bima Yojana
C. Pradhan Mantri Fasal Bima Yojana
D. Pradhan Mantri Fasal Bhandaran Yojana
E. Pradhan Mantri Finance Bachat Yojana
172. What is the limitation imposed by RBI on the denominations of the Indian currency to be issued?
A. Rs. 2000 B. Rs. 500
C. Rs. 1000 D. Rs. 10,000
E. Rs. 5,000
173. SEBI launched a centralized web based complaints redress system. What is the name of this complaint redressal system?
A. INSTANT B. SCORES
C. QUICK D. SATISFACTION
E. None of these

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175. Which power station is the largest nuclear power station in India?
A. Kudankulam B. Kakrapar
C. Narora D. Tarapur
E. None of these
176. Valmiki national park is located in which of the following state?
A. Maharashtra B. Madhya Pradesh
C. Chhattisgarh D. Bihar
E. None of these
177. On which day World Hepatitis Day is being observed every year around the globe?
A. May 25 B. June 26
C. July 28 D. August 28
E. None of these
178. Who among the following is the chief minister of Kerala?
A. Shri Okram Ibobi Singh
B. Shri Virbhadr Singh
C. Shri Pinarayi Vijayan
D. Selvi J. Jayalalithaa
E. None of these
179. Ahmedabad is situated on the bank of which river?
A. Mahi B. Krishna
C. Luni D. Sabarmati
E. Son
180. The Indian Financial System Code (IFS Code) is an alphanumeric code that uniquely identifies a bank-branch participating in the two main Electronic Funds Settlement Systems in India. IFSC code consists of how many alphanumeric codes?
A. 12 B. 11
C. 10 D. 9
E. 8
181. Name the largest freshwater lake in India.
A. Wular Lake B. Chandra Taal
C. Dal Lake D. Pandoh Lake
E. Chilka Lake
182. Which is the world's highest mountain?
A. Mount Everest
B. Mount Kilimanjaro
C. Kangchenjunga
D. Mount Fuji
E. K2

183. ECGC, is a company wholly owned by the Government of India based in Mumbai, Maharashtra. What does 'G' stands for in 'ECGC'?
A. Group B. Gross
C. Global D. Growth
E. Guarantee
184. The capital of Kenya is _____.
A. Belgrade B. Cape town
C. Vienna D. Nairobi
E. Tehran
185. Which is the largest desert in Asia?
A. Karakum Desert B. Thar Desert
C. Gobi Desert D. Takla Makan Desert
E. The Great Victoria Dessert
186. Payment banks are not allowed to
1) Give loans
2) Issue credit cards
3) Accept Deposit
A. 1 only B. 2 only
C. Both 1 and 2 D. 1, 2 and 3
E. None of these
187. Chabahar port is situated in which country?
A. Pakistan B. Afganistan
C. Iran D. India
E. None of these
188. The Govt. of India has decided to build a Nuclear Power Plant in which of the following North Eastern States?
A. Manipur B. Assam
C. Meghalaya D. Arunachal Pradesh
E. None of these
189. Which of the following States has become first State in India to offer a Govt. Job to a HIV positive candidate?
A. Kerala
B. Aandhra Pradesh
C. Uttar Pradesh
D. Maharashtra
E. None of the above

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According to the first paragraph, "These, however, did not work as some felt that these are but band-aid solutions; instead, radical systemic reform is necessary." Band-aid solutions mean non-permanent or superficial remedies which would never reform the entire education system. The other two statements are either inconsistent with the ideas in the passage, or have not been mentioned at all. Hence, option A is the correct response.

2. Ans. D.

All the given suggestions (A, B and C) have been made by the author to improve the state of education in India:

A- "Well-run corporate organisations, within an appropriate regulatory framework, would be far better than the so-called trusts which-barring some noteworthy exceptions-are a blot on education."

B- "Easy Loan/scholarship arrangements would ensure affordability and access."

C- "A regulatory framework which creates competition, in tandem with a rating system, would automatically ensure the quality and relevance of education."

Hence, option D is correct.

3. Ans. B.

According to the author, creation of autonomous institutes for management and technology which were not under university control was the only step taken in order to reform the higher education: "They were also given autonomy and freedom beyond that of the universities."

Hence, option B is correct.

4. Ans. B.

The phrase as mentioned is a metaphorical reference to the fact that the commercialisation of important aspects of life is already in the scene and thus the commercialisation of higher education is not a new phenomenon. Hence, option B is correct.

5. Ans. E.

All the given (A, B, C and D) are true in the context of the given passage.

A- "though the law stipulates that educational institutes must be 'not-for-profit' trusts or societies"

B- "Today, unfortunately, there is no protest against selling drinking water or paying to be cured of illness, or for having to buy food when one is poor and starving."

the sector long back and found various ways of making money."

D- "there is opposition to the entry of for-profit corporates, which would be more transparent and accountable."

Hence, option E is correct.

6. Ans. B.

Noteworthy means worth paying attention to; interesting or significant. Thus, 'insignificant' is most opposite in meaning. Hence, option B is correct.

Obsolete- useless

7. Ans. A.

Devious means showing a skilful use of underhand tactics to achieve goals; 'dishonest' is most similar in meaning. Hence, option A is correct.

8. Ans. E.

'Promoting' means to support or actively encourage (a cause, venture, etc.); further the progress of. 'Hampering' means to obstruct the progress of something, and is the correct antonym for the question word.

9. Ans. C.

The difference is in their attitude towards change which can be inferred from the first paragraph.

10. Ans. E.

It can be inferred from the following lines of the passage, 'must have a serene confidence in their own wisdom on the one hand and the recklessness of other people's sufferings on the other, which Robespierre and St. Just, hitherto the typical instances of those united attributes, scarcely came up to.'

11. Ans. C.

Corruption in high places has not been mentioned in the passage.

12. Ans. B.

According to the passage, 'It is not so with the other (revolutionary socialism); the aim of that is to substitute the new rule for the old at a single stroke.'

13. Ans. A.

After reading the passage, we realise that the author does not sympathize with either of the two sides and is critical about both of them.

Censure- condemnation, criticism

Reclaim- recover

Repudiate- reject

Abjure- reject

Thus, option A is the correct answer.

15. Ans. D.

'Plunge' means a quick drop. Contrary to that, 'ascent' is the most suitable response. All the other words carry meanings similar to "plunge".

16. Ans. A.

'Serene' means calm, undisturbed. Corresponding to that, 'placid' is the most suitable response. The other words are antonyms.

17. Ans. B.

'Risen' is the past participle form of the verb 'rise', while we need the verb 'raise' as the usage is in the infinitive form which always takes the first form of the verb after 'to'.

18. Ans. A.

The highlighted segment in the above context has an error of preposition. Instead of using "for developers" in the segment, it should be "with developers". "For" is used with a period of time to express the duration or 'how long' something has happened. "With" is used to add something in a given context to provide extra information. Hence A is grammatically correct.

19. Ans. C.

In the given statement a tense verb disagreement occurs if we use the word "fulfilled" as the verb in the latter part of the statement is in simple present tense. However, if the word "fulfilling" is used, the sentence becomes correct.

20. Ans. B.

The use of the preposition 'of' is superficial in the boldened part and it needs to be omitted to make the sentence grammatically correct.

21. Ans. D.

There are several errors in the given sentence. the infinitive "to" cannot be followed by a gerund, therefore, "to saying" is incorrect. Another mistake is in the usage of 'being' is incorrect and 'be' is correct. Out of the available alternatives, only option D considers and addresses by also replacing 'something' with 'anything'.

The correct response will be option D.

multiple options seem to make sense in the context of the blank, it is important to note that both the blanks need to be filled in such a way that they give almost opposite qualities to two different sets of people.

On the basis of these filters, only option A qualifies for filling the blanks and thus is the correct response.

23. Ans. D.

The sentence is about a newspaper journey of 139 years. During these years the newspaper has changed with upcoming trends by adapting and embracing the new technological changes yet it never compromised with its core value. The first word must mean 'the whole'. The second word must mean 'to accept and adapt'. Therefore, option D is apt. 'Entirety' means the whole of something and embraces means to an act of accepting something willingly or enthusiastically.

24. Ans. A.

The trick here is to look into the structure of the statement around the blanks. 'Inquiring' or 'efficient' makes no sense in context of the 'victims'; this leaves us with only two possible options, A and E. Now, if we put 'regarding' in the first blank, then the sentence makes no sense, So, the correct response is option A.

25. Ans. B.

Option A is incorrect because 'shift in efficiency' makes no sense.

Option C is incorrect because the second blank is followed by 'of', which makes 'subject' idiomatically inappropriate.

Option D is incorrect because 'power' being related to 'product' does not make any sense. 'Discourse' means 'written or spoken communication or debate'.

Option E is incorrect because of 'issue' being incorrect in the context of the statement.

26. Ans. C.

This is an easy question as it does not even require the knowledge about the exact meaning of the words. The statement considers a singular subject 'globalisation' and thus the verb associated with it should be singular as well i.e. should take a verb in '-s/es' form for the second blank. Out of the available options, only option C suits this criteria and thus is the correct response.

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Squandering means to waste (something, especially money or time) in a reckless and foolish manner. Battling means struggle tenaciously to achieve or resist something. Squatting means unlawfully occupy an uninhabited building or settle on a piece of land. The context here is of the people of Chennai trying to fight the issues caused by rain and thus a synonym of 'struggling' needs to be used. Thus, 'Battling' is the correct response.

28. Ans. A.

The context is of seeking shelter under some camps organized for those stranded in rain. 'Taking refuge' is a phrase that represents this and thus option A is the correct response.

29. Ans. B.

Surrounded means be all round (someone or something). Grounded means to be in immobile condition. Zeroed means to pay attention: concentrate, focus. Flooded means fill or suffuse completely. fill or suffuse completely. Evacuated means remove (someone) from a place of danger to a safer place. The reference is of the vehicles not being able to move because of the flood and thus option B is the correct response.

30. Ans. D.

The context here is of the public transport being completely filled with passengers and thus 'packed' is the most appropriate response.

31. Ans. B.

The context here is of damages caused due to the excess rain and thus 'suffered' shall be the most appropriate response in this regard.

32. Ans. A.

The context is of getting extra rain. Option B is incorrect because it gives the idea that the districts in question are providing the rain, which is incorrect. Option C is incorrect as rain is something which can't be achieved. Option D is incorrect as the rain caused damages and thus 'gained' will make no sense. Option E is incorrect as 'levied' is generally used in the monetary context, which is not the case here. So,, the correct response is option A.

suitably means in a way that is right or appropriate for a particular purpose or situation. Alarming means in a worrying or disturbing way. Seriously means in a solemn or considered manner. Nearly means very close to; almost. The idea conveyed here is of an extreme climatic situation, thus, "alarmingly" is the best-fit word.

34. Ans. E.

The tense needs to be simple past as the statement is about an action that has taken place in the past. This leaves only options D and E as the possible choices. Now, when talking about whether we use the verb 'forecasted' or 'predicted'. Thus, option E is the most appropriate response.

35. Ans. D.

The tense of the statement is present perfect and thus the third form of the verb needs to be used. Out of the available options, only option D is in third form and thus is the correct response.

36. Ans. A.

The context here is of the government way of response to the disaster and thus it is very obvious that the required trait will be how promptly and quickly can the authorities respond. Thus option A is the correct response.

37. Ans. D.

Refer to the last question of the series.

38. Ans. A.

Refer to the last question of the series.

39. Ans. E.

Refer to the last question of the series.

40. Ans. C.

A is invariably the first statement as it opens the discussion by introducing the decision taken by RBI. C is the next statement as it begins to talk about one particular entity, about which most of the latter discussions are about. C mentions the application of the the final license, and G reports the same thing as stated by the executive vice president of the concerned company. G and B form a mandatory pair as these statements contain the information from one particular individual. E follows B because another important entity in the concerned company is talked about. E and F also form a mandatory pair as both of them talk about K Paul Thomas. The word 'lender' in F refers to him. D is the last sentence as it talks about two other companies which haven't been mentioned so far. Thus, the correct sequence after rearrangement is ACGBEFD.

$$876 / 9224 + 5 = 373$$

$$373 \times 5 + 5 = 1870$$

42. Ans. C.

$$+1^3, -2^3, +3^3, -4^3, +5^3$$

43. Ans. A.

$$*2-2, *3+3, *4-4, *5+5$$

44. Ans. D.

The series is $15+6, 21+18, 39+38, 77+66, 143+102$.

The inner series is $6+12, 18+20, 38+28, 66+36$.

Again the inner series is $12+8, 20+8, 28+8$.

45. Ans. C.

$$5,$$

$$8 = 5 + 2^2 - 1,$$

$$16 = 8 + 3^2 - 1,$$

$$31 = 16 + 4^2 - 1,$$

$$55 = 31 + 5^2 - 1,$$

$$\text{Next number} = 55 + 6^2 - 1 = 90$$

46. Ans. D.

$$\begin{array}{r} 30 \quad 30 \\ \hline \end{array}$$

$$v+x + v-x = 8$$

Where v and x are speed of the boat and water current respectively.

$$V = 4x$$

$$\begin{array}{r} 30 \quad 30 \\ \hline \end{array}$$

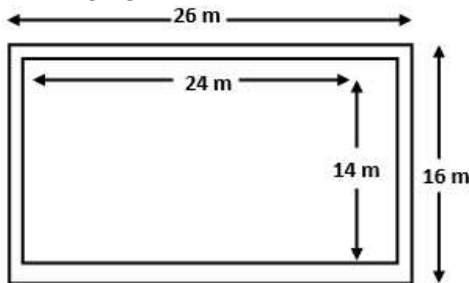
$$5x + 3x = 8$$

$$\begin{array}{r} 6 \quad 10 \\ \hline \end{array}$$

$$x + x = 8$$

$$X = 2 \text{ kmph}$$

47. Ans. C.



$$\text{Area of garden} = 24 \times 14 = 336 \text{ m}^2$$

$$\text{Area of the (garden + path)} = 26 \times 16 = 416 \text{ m}^2$$

$$\text{Area of the path} = 416 - 336 = 80 \text{ m}^2$$

$$\text{Area of 1 tile} = 20 \times 20 = 400 \text{ cm}^2 = 0.04 \text{ m}^2$$

$$\text{Number of tiles required} = 80 / 0.04 = 2000.$$

48. Ans. B.

$$SQ^2 = 8^2 + 6^2$$

$$= 64 + 36$$

$$= 100$$

$$QR = \sqrt{676}$$

$$= 26$$

49. Ans. C.

Let the investments of P, Q and R be $5x, 6x$ and $8x$ respectively

Total equivalent capital of P

$$= 5x \times 12 + 8x \times 12$$

$$= 60x + 96x = \text{Rs. } 156x$$

Total equivalent capital of Q

$$= 6x \times 24 = 144x$$

Total equivalent capital of R

$$= 8x \times 12 + 4x \times 12$$

$$= 96x + 48x = \text{Rs. } 144x$$

Required earned profit ratio

$$= 156x : 144x : 144x$$

$$= 13 : 12 : 12$$

50. Ans. A.

Let Mr Ram monthly income be Rs. 100

Then, money spent on household expenditure

$$= 100 \times 20/100 = \text{Rs. } 20$$

$$\text{Remaining amount} = 100 - 20 = \text{Rs. } 80$$

Money spent on children's education =

$$80 \times \frac{25}{100} = \text{Rs. } 20$$

$$\text{Money spent on transport} = 80 \times 15/100 = \text{Rs. } 12$$

$$\text{Money spent on medicine} = 80 \times 15/100 = \text{Rs. } 12$$

$$\text{Money spent on entertainment} = 80 \times 10/100 = \text{Rs. } 8$$

$$\text{Last remaining amount} = 100 - (20 + 20 + 12 + 12 + 8)$$

$$= 100 - 72 = \text{Rs. } 28$$

Now, Rs. 28 is left, when total income is Rs. 100

Rs. 1 is left, when total income = $100/28$

Rs. 9800 is left, when total income

$$= 100/28 \times 5600$$

$$= \text{Rs. } 20000$$

51. Ans. A.

Total marker = 12

$$n(S) = {}^{12}C_4 = 12! / (4! \times 8!) = 5 \times 99$$

$n(E1)$ = out of 5 marker, no. of ways to not pick

$$\text{Green marker} = {}^5C_0 = 1$$

$n(E2)$ = out of 7 marker, no. of ways to pick 4

$$\text{markers} = {}^7C_4 = 35$$

$$p(E) = \frac{n(E1) \cdot n(E2)}{n(S)} = \frac{1 \times 35}{5 \times 99} = \frac{7}{99}$$

52. Ans. C.

$$6x^2 + 9x + 22x + 33 = 0$$

$$3x(2x + 3) + 11(2x + 3) = 0$$

$$(2x + 3)(3x + 11) = 0$$

$$x = -11/3, -3/2$$

$$y^2 - 19y - 13y + 247 = 0$$

$$y(y - 19) - 13(y - 19) = 0$$

$$(y - 19)(y - 13) = 0$$

$$y = 19, 13$$

54. Ans. E.

$$2x^2 - 19x + 44 = 0$$

$$2x^2 - 11x - 8x + 44 = 0$$

$$x(2x - 11) - 4(2x - 11) = 0$$

$$(x - 4)(2x - 11) = 0$$

$$x - 4 = 0 \text{ or } 2x - 11 = 0$$

$$x - 4 = 0 \text{ or } 2x = 11$$

$$x = 4 \text{ or } x = 11/2$$

$$x = 4 \text{ or } x = 5.5$$

$$2y^2 - 21y + 52 = 0$$

$$2y^2 - 8y - 13y + 52 = 0$$

$$2y(y - 4) - 13(y - 4) = 0$$

$$(y - 4)(2y - 13) = 0$$

$$y - 4 = 0 \text{ or } 2y - 13 = 0$$

$$y = 4 \text{ or } 2y = 13$$

$$y = 4 \text{ or } y = 13/2$$

$$y = 4 \text{ or } y = 6.5$$

Relationship cannot be established

55. Ans. A.

$$x = -2/3, 4$$

$$y = -6, -9/2$$

Put all values on number line and analyze the relationship

$$-6 \dots \dots -9/2 \dots \dots -2/3 \dots \dots 4$$

56. Ans. A.

$$4x + 3y = 40$$

$$6x - 5y = 22$$

By solving the two equations we get

$$x = 7, y = 4$$

57. Ans. E.

Bank	Number of visitors in week (x100)	Average (Total/7)
Peoples	125	18
Welfare	105	15
United	135	19

We don't have to calculate the average per se as we can just find the maximum visitors amongst the 3 banks, since the denominator for all is 7.

58. Ans. D.

If we just find the percentage rise for each option, we can find the right answer:

$$\text{Option 1 - Friday, United bank} = [(35 - 20)/20] * 100 = 75\%$$

$$\text{Option 2 - Wednesday, Welfare bank} = [(35 - 20)/20] * 100 = 75\%$$

$$\text{Option 3 - Wednesday, Peoples bank} = [(35 - 25)/25] * 100 = 40\%$$

$$\text{Option 4 - Tuesday, Welfare bank} = [(20 - 10)/10] * 100 = 100\%$$

Number of visitors who stopped coming to United bank = 10% of total United visitors in a week =

$$10\% \text{ of } 13500 = 1350$$

Number of visitors who stopped coming to Welfare

$$\text{bank} = 15\% \text{ of total Welfare visitors in a week} =$$

$$15\% \text{ of } 10500 = 1575$$

$$\text{Percentage} = (1350/1575) * 100 = 85\%$$

60. Ans. B.

We can find average time per customer for all days of all banks, but we can narrow it down and find the average time per customer of the 5 options-

$$\text{Option 1 - Welfare bank, Wednesday} = 105/35 = 3\text{h}/100 \text{ customers}$$

$$\text{Option 2 - United bank, Wednesday} = 25/25 = 1\text{h}/100 \text{ customers}$$

$$\text{Option 3 - Peoples bank, Thursday} = 45/30 = 1.5\text{h}/100 \text{ customers}$$

$$\text{Option 4 - Welfare bank, Tuesday} = 30/20 = 1.5\text{h}/100 \text{ customers}$$

$$\text{Option 5 - United bank, Monday} = 45/30 = 1.5\text{h}/100 \text{ customers}$$

Therefore, United bank, on Wednesday, is the most efficient bank.

61. Ans. A.

$$\text{Number of deposit slips used in Peoples bank on Monday, Tuesday and Wednesday combined} = (20 + 25 + 35) * 60 = 4800$$

$$\text{Number of deposit slips used in United bank on Thursday and Friday combined} = (20 + 35) * 40 = 2200$$

$$\text{Required ratio} = 4800/2200 = 24/11$$

62. Ans. E.

We cannot get the answer even from the statements I and II together,

We cannot form a solvable equation with the help of I and II, as data is not sufficient.

63. Ans. D.

Given that, Train 'A' running at a certain speed crosses another train 'B' running at a certain speed in the opposite direction in 24 seconds. A train crosses another train running in opposite direction when the whole length of the train crosses the other train.

From first statement,

Length of both train is given but until we don't have information about length of Train A or speed of both trains, we cannot calculate length of train B.

Thus, the data in statement I alone are not sufficient to answer the question.

From second statement,

Even on combining both statements, we don't have enough data to calculate the speed of trains.

64. Ans. D.

$${}^4C_1 \times {}^3C_1 \times {}^2C_2 = 12$$

65. Ans. D.

From 1 we can get the sum of present age of the family members

From 2 we can get sum of ages of the couple so answer is (D)

66. Ans. D.

Cost of fencing per square meter is not given. So, even combined both the statements together, total cost of fencing can't be determined.

67. Ans. A.

Let tap C will empty the tank in 't' minutes

Here, X = 30, Y = 60 and Total time to fill tank = 50 minutes

C can empty the full tank in = 50 Minutes

$$= (1/30 + 1/60 - 1/t) = 1/50$$

$$1/30 + 1/60 - 1/50 = 1/t$$

$$T = 100/3 \text{ minutes}$$

$$= 33.33 \text{ minutes}$$

68. Ans. A.

Given that CPs are in the ratio 1:2

Therefore let the CPs be Rs.100 & Rs. 200 respectively,

$$1^{\text{st}} \text{ SP} = 100 - 15\% \text{ of } 100 = \text{Rs. } 85.$$

$$2^{\text{nd}} \text{ SP} = 200 + 10\% \text{ of } 200 = \text{Rs. } 220.$$

$$\text{Total CP} = \text{Rs. } 300. \text{ Total SP} = 85 + 220 = \text{Rs. } 305.$$

$$\text{Profit} = \text{Rs. } 305 - 300 = \text{Rs. } 5.$$

$$\text{Profit percent} = 5 \times 100 / 300 = 1.66\% \text{ profit.}$$

69. Ans. B.

Let the number of days A can finish be x

$$B = 2x$$

So,

$$1/x + 1/2x = 1/10$$

$$2 + 1/2x = 1/10$$

$$2x = 30$$

$$x = 15 \text{ days}$$

$$A = 15 \text{ days}$$

$$B = 30 \text{ days}$$

$$\text{Total units of work} = 30 \text{ units}$$

$$A's \text{ one day work} = 2 \text{ units}$$

$$B's \text{ one day work} = 1 \text{ unit}$$

$$\text{Work done in 2 days} = 2 + 1 = 3 \text{ units}$$

$$\text{Work done in 20 days} = 3 \times 10 = 30 \text{ units}$$

Work will be completed in 20 days.

$$\text{Area of triangle} = \frac{1}{2} \sqrt{2}r \cdot \sqrt{2}r = r^2$$

$$= 14^2 = 196$$

71. Ans. B.

$$\text{Area} = n(20)^2 - (n(10)^2 + n(10)^2)$$

$$= 400n - 200n$$

$$= 200n$$

72. Ans. C.

First find out the total number of rotten plums with

$$\text{Shopkeeper M} = 200 \times 20 / 100 = 40$$

$$\text{Shopkeeper N} = 250 \times 30 / 100 = 75$$

$$\text{Shopkeeper O} = 160 \times 15 / 100 = 24$$

$$\text{Shopkeeper P} = 300 \times 16.66 / 100 = 50$$

$$\text{Shopkeeper Q} = 180 \times 10 / 100 = 18$$

$$\text{Total number of plums spoiled} = 207$$

73. Ans. D.

Unspoiled guava with shopkeepers

$$M = 600 \times 90\% = 540$$

$$N = 800 \times 80\% = 640$$

$$O = 1000 \times 65\% = 650$$

$$P = 1200 \times 83.33\% = 1000$$

$$Q = 900 \times 80\% = 720$$

Hence, P has the highest number of unspoiled bananas

74. Ans. A.

Weight of kiwi with

$$M = 150 \times 60 = 9000 \text{ gm,}$$

$$N = 100 \times 75 = 7500 \text{ gm}$$

$$O = 80 \times 50 = 4000 \text{ gm}$$

$$P = 200 \times 100 = 20000 \text{ gm}$$

$$Q = 240 \times 90 = 21600 \text{ gm}$$

$$\text{Hence, total weight of all kiwi} = 62.1 \text{ kg}$$

75. Ans. B.

$$\text{Unspoiled kiwi with E} = 240 \times 75 / 100 = 180$$

$$\text{Spoiled guava with C} = 1000 \times 35 / 100 = 350$$

$$\text{Required percentage} = 350 - 180 / 350 = 48.57\%$$

76. Ans. D.

$$\text{Weight of kiwi with M, N, O} = 20.5 \text{ kg}$$

$$\text{Weight of guava with vendors M, N, O, P, Q} =$$

$$234.6 \text{ kg}$$

$$\text{Required \%} = 20.5 / 234.6 \% = 8.73\%$$

So Answer 9% approx.

77. Ans. C.

It is given that average weight of 20 girls is 25 kg, let the teacher's weight is X kg

$$\frac{879}{1029} = \frac{500 + X}{21}$$

$$X = 67 \text{ kg}$$

Hence (III) is the correct answer.

78. Ans. B.

$$992.25 = 14000 (r/100)^2 (300 + r/100)$$

$$567/8 = r^2 (300 + r/1000)$$

$$\text{Or, } 70875 = r^2 (300 + r)$$

By moving through options we find that

$r = 15\%$ will satisfy the above equation.

79. Ans. D.

$$\text{No. of ways when none is women} = {}^4C_3 = 4$$

$$\text{Total possible way} = {}^9C_3 = 84$$

$$\text{Required ways} = 84 - 4 = 80$$

80. Ans. B.

In time work we all know that, more man power means less time.

M = men

W = women

$$3m + 7w = 12 \text{ ----(i)}$$

$$7m + 3w = 8 \text{ -----(ii)}$$

The two equations will be equal after some manipulations.

$$1/4 (3m + 7w) = 48 = 1/6 (7m + 3w)$$

$$\Rightarrow 18m + 42w = 28m + 12w$$

$$\Rightarrow 10m = 30w$$

$$\Rightarrow 1m = 3w$$

Now putting this into equation (i),

$$3*3w + 7w = 12$$

$$\Rightarrow 16w = 12$$

$$\Rightarrow 1w = 192$$

$$\text{Therefore, 3 women will take} = 192/3 = 64 \text{ days}$$

81. Ans. A.

The trains need to travel 15 min. extra @ 35 Kmph so it is behind by 8.75 Km.

Rate of losing distance is 5 Kmph hence the train must be travelled for $8.75/5 = 1$ Hour 45 minutes @ 40 kmph $\rightarrow 70$ Km

Alternative Approach:

Since distance is constant, therefore

$$s_1/s_2 = t_2/t_1$$

$40/35 = t - 15/t$ where t is time taken to reach on time.

$$t = 105 \text{ min} = 105/60 \text{ hours}$$

$$\text{Total distance} = s_1 * t_1 = 40 * 105/60 = 70 \text{ km}$$

82. Ans. D.

In the given mixture of 80 litres, water is 20% hence, water is 16 litres and Alcohol is 64 litres.

Alcohol

64 litres

64 litres

Water

16 litres

16 + X litres

Now water becomes $23\frac{17}{21}\%$ of the mixture

$$\frac{16 + X}{64 + 16 + X} \times 100 = \frac{500}{21}$$

By solving this we get $X = 4$ litres.

83. Ans. B.

Rate of filling a cistern with pipe X = $1/24$

Rate of filling a cistern with pipe Y = $1/32$

Given: If both the pipes are opened together and after some time pipe Y has closed.

Let pipe Y is closed after x minutes.

Therefore part of cistern filled with pipes X and Y

$$18/24 + x/32 = 1$$

$$1/4 = x/32$$

$$\Rightarrow x = 8 \text{ minutes}$$

84. Ans. C.

suppose the ages of father and son are $5x$ yr and $2x$ yr

After four years, the age of son = $(2x + 4)$ yr

After four years, the age of mother = $(4x + 8)$ yr

So, the present age of mother = $(4x + 4)$ yr

Ratio of the age of father and mother = $5x : 4x + 4$

Since, data is insufficient, so cannot be determined.

85. Ans. A.

let, men = M, women = W, Youngster = Y

$$\text{Then } 2M = 3W = 4Y$$

$$W = 2/3 M \text{ and } Y = 1/2 M$$

$$\text{Given } 14M + 12W + 12Y$$

$$14 + 2/3 \times 12 + 1/2 \times 12$$

$$28 \text{ men}$$

$$28 \times 24 = m \times 14 = m = 48$$

$$\text{Therefore, additional labour} = 48 - 28 = 20$$

86. Ans. A.

Let the length be X

Then breadth be $X/2$

$$\text{Now, } X * X/2 = 972/6 = 162$$

$$X^2 = 162 * 2$$

$$X = 18$$

$$\text{Again, perimeter of circle} = 18 * 22$$

So,

$$2\pi r = 18 * 22$$

$$2 * (22/7) * r = 18 * 22$$

$$r = 63$$

$$\text{Area of circle} = \pi r^2 = 22/7 * (63 * 63) = 12474 \text{ sq m}$$

$$880/100 + 3x/100 = 1700$$

$$17x = 170000$$

$$x = 10000$$

Number of students not getting fee exemption =
 $10000 - 1700 = 8300$

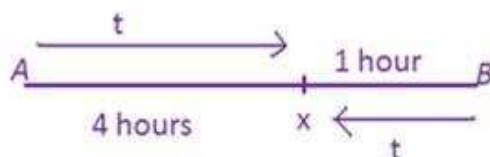
Number of student getting 75% exemption =
 $40 \times 8300 / 100 = 3320$

88. Ans. D.

A takes 1 hour after meeting and B takes 4 hours after meeting. Hence Time traveled before meeting = $v \cdot 1.4 = 2$ hours Time taken by A = $2 + 1 = 3$ hours

Analysis

It can be shown diagrammatically below



As the Distances covered are the same, the Time ratios are equal

i.e. $\frac{t}{4} = \frac{1}{t}$ i.e. $t = 2$ hrs. Thus A will take $2 + 1 = 3$ hours

89. Ans. C.

Let the common ratio be Rs x.

Therefore X's salary = Rs 6x and Y's salary = Rs 5x

$$\frac{6x \times 125\%}{5x \times 115\%} = \frac{750}{575} = \frac{30}{23}$$

Thus the required ratio is 30 : 23.

90. Ans. D.

Given, car and bike dealer bought 30 second hand cars and bikes for Rs. 472500.

He bought eight cars and rest of them were bikes.

Let the selling price of each car be 'a'

Given, he made a profit of 40% by selling them.

$$\Rightarrow 8a + (3a/4) \times 22 = 472500 + 40\% \text{ of } 472500$$

$$\Rightarrow 49a/2 = 1.4 \times 472500$$

$$\Rightarrow a = \text{Rs. } 27000$$

91. Ans. E.

(i) Hemant lives on the 5th floor and there are two people live between Hemant and Chetan. Hemant is going to Chennai.

		4
		3
		2
		1

1st possibility

		8
		7
		6
Hemant	Chennai	5
		4
		3
Chetan		2
		1

2nd possibility

(ii) Elena lives on an odd numbered floor but not the first floor and is not an immediate neighbour of Chetan or Hemant. Fatima lives second to the floor of Elena.

Chetan		8
		7
		6
Hemant	Chennai	5
		4
Elena		3
		2
Fatima		1

(iii) Three people lives between Hemant and the one who visits to Pune. Hemant, Chetan and also the immediate neighbours do not visit to Mumbai. Only one person lives between the one who visits to Mumbai and Gauri. The one who visits to Delhi is an immediate neighbour of Elena. The one who visits to Kolkata and Lucknow are immediate neighbours of each other. Chetan neither visits to Kolkata nor to Lucknow. Only one person lives between Arun and the one who visits to Punjab. Arun neither visits to Mumbai nor to Kolkata. Bhavna does not visit to Mumbai.

Chetan	Punjab	8
Bhavna	Kolkata	7
Arun	Lucknow	6
Hemant	Chennai	5
Gauri	Delhi	4
Elena	Rajasthan	3
Diksha	Mumbai	2
Fatima	Pune	1

881 / 1029
 people live between Hemant and Chetan. Hemant is going to Chennai.

Chetan		8
		7
		6
Hemant	Chennai	5
		4
		3
		2
		1

1st possibility

		8
		7
		6
Hemant	Chennai	5
		4
		3
Chetan		2
		1

2nd possibility

(ii) Elena lives on an odd numbered floor but not the first floor and is not an immediate neighbour of Chetan or Hemant. Fatima lives second to the floor of Elena.

Chetan		8
		7
		6
Hemant	Chennai	5
		4
Elena		3
		2
Fatima		1

(iii) Three people lives between Hemant and the one who visits to Pune. Hemant, Chetan and also the immediate neighbours do not visit to Mumbai. Only one person lives between the one who visits to Mumbai and Gauri. The one who visits to Delhi is an immediate neighbour of Elena. The one who visits to Kolkata and Lucknow are immediate neighbours of each other. Chetan neither visits to Kolkata nor to Lucknow. Only one person lives between Arun and the one who visits to Punjab. Arun neither visits to Mumbai nor to Kolkata. Bhavna does not visit to Mumbai.

Hemant	Chennai	5
Gauri	Delhi	4
Elena	Rajasthan	3
Diksha	Mumbai	2
Fatima	Pune	1

Final Arrangement

93. Ans. C.

(i) Hemant lives on the 5th floor and there are two people live between Hemant and Chetan. Hemant is going to Chennai.

Chetan		8
		7
		6
Hemant	Chennai	5
		4
		3
		2
		1

1st possibility

		8
		7
		6
Hemant	Chennai	5
		4
		3
Chetan		2
		1

2nd possibility

(ii) Elena lives on an odd numbered floor but not the first floor and is not an immediate neighbour of Chetan or Hemant. Fatima lives second to the floor of Elena.

Chetan		8
		7
		6
Hemant	Chennai	5
		4
Elena		3
		2
Fatima		1

882 / 1000
 Only one person lives between the one who visits to Mumbai and Gauri. The one who visits to Delhi is an immediate neighbour of Elena. The one who visits to Kolkata and Lucknow are immediate neighbours of each other. Chetan neither visits to Kolkata nor to Lucknow. Only one person lives between Arun and the one who visits to Punjab. Arun neither visits to Mumbai nor to Kolkata. Bhavna does not visit to Mumbai.

Chetan	Punjab	8
Bhavna	Kolkata	7
Arun	Lucknow	6
Hemant	Chennai	5
Gauri	Delhi	4
Elena	Rajasthan	3
Diksha	Mumbai	2
Fatima	Pune	1

Final Arrangement

94. Ans. B.

(i) Hemant lives on the 5th floor and there are two people live between Hemant and Chetan. Hemant is going to Chennai.

Chetan		8
		7
		6
Hemant	Chennai	5
		4
		3
		2
		1

1st possibility

		8
		7
		6
Hemant	Chennai	5
		4
		3
Chetan		2
		1

2nd possibility

(ii) Elena lives on an odd numbered floor but not the first floor and is not an immediate neighbour of Chetan or Hemant. Fatima lives second to the floor of Elena.

		6
Hemant	Chennai	5
		4
Elena		3
		2
Fatima		1

(iii) Three people lives between Hemant and the one who visits to Pune. Hemant, Chetan and also the immediate neighbours do not visit to Mumbai. Only one person lives between the one who visits to Mumbai and Gauri. The one who visits to Delhi is an immediate neighbour of Elena. The one who visits to Kolkata and Lucknow are immediate neighbours of each other. Chetan neither visits to Kolkata nor to Lucknow. Only one person lives between Arun and the one who visits to Punjab. Arun neither visits to Mumbai nor to Kolkata. Bhavna does not visit to Mumbai.

Chetan	Punjab	8
Bhavna	Kolkata	7
Arun	Lucknow	6
Hemant	Chennai	5
Gauri	Delhi	4
Elena	Rajasthan	3
Diksha	Mumbai	2
Fatima	Pune	1

Final Arrangement

95. Ans. C.

(i) Hemant lives on the 5th floor and there are two people live between Hemant and Chetan. Hemant is going to Chennai.

Chetan		8
		7
		6
Hemant	Chennai	5
		4
		3
		2
		1

		6
Hemant	Chennai	5
		4
		3
Chetan		2
		1

2nd possibility

(ii) Elena lives on an odd numbered floor but not the first floor and is not an immediate neighbour of Chetan or Hemant. Fatima lives second to the floor of Elena.

Chetan		8
		7
		6
Hemant	Chennai	5
		4
Elena		3
		2
Fatima		1

(iii) Three people lives between Hemant and the one who visits to Pune. Hemant, Chetan and also the immediate neighbours do not visit to Mumbai. Only one person lives between the one who visits to Mumbai and Gauri. The one who visits to Delhi is an immediate neighbour of Elena. The one who visits to Kolkata and Lucknow are immediate neighbours of each other. Chetan neither visits to Kolkata nor to Lucknow. Only one person lives between Arun and the one who visits to Punjab. Arun neither visits to Mumbai nor to Kolkata. Bhavna does not visit to Mumbai.

Chetan	Punjab	8
Bhavna	Kolkata	7
Arun	Lucknow	6
Hemant	Chennai	5
Gauri	Delhi	4
Elena	Rajasthan	3
Diksha	Mumbai	2
Fatima	Pune	1

Final Arrangement

96. Ans. C.

R is on the immediate right of S

L	S	R	P	O	Q	M	N
South	North	North	South	North	South	North	South

98. Ans. B.

Three persons are there between P and N

L	S	R	P	O	Q	M	N
South	North	North	South	North	South	North	South

99. Ans. A.

L & P is the one that does not belong to the group because they are facing on the same side but all other pairs of people facing on their opposite side.

L	S	R	P	O	Q	M	N
South	North	North	South	North	South	North	South

100. Ans. D.

L & N sit at the extreme ends of the line

L	S	R	P	O	Q	M	N
South	North	North	South	North	South	North	South

101. Ans. D.

9 1 8 2 6
↓ ↓ ↓ ↓ ↓ ↓
P E F H R J

Hence Option D is correct

102. Ans. E.

3 8 7 # 9
↓ ↓ ↓ ↓ ↓ ↓
K D M T A E

Hence Option E is correct

103. Ans. A.

4 3 1 2 8
↓ ↓ ↓ ↓ ↓ ↓
V P K F R V

Condition (1) is applicable.

Hence Option A is correct

104. Ans. C.

% 4 1 8 7 *
↓ ↓ ↓ ↓ ↓ ↓
X I F D M X

Condition (3) is applicable

Hence Option C is correct

105. Ans. B.

9 1 2 4 8 6
↓ ↓ ↓ ↓ ↓ ↓
J F R I V E

Condition (2) is applicable.

Hence Option B is correct

$$D = T \geq M < J$$

Conclusions:

I. $J > D \Rightarrow$ Not true

II. $M \leq D \Rightarrow$ True

Hence Option B is correct

107. Ans. C.

$\% \Rightarrow \geq$	$\star \Rightarrow <$	$\delta \Rightarrow >$
$\$ \Rightarrow =$	$\odot \Rightarrow \leq$	

$$B < K = N \geq R$$

Conclusions:

I. $R = K$ (Not true)

II. $R < K$ (Not true)

It is either smaller than or equal to it. Thus it is a complementary pair.

Hence Option C is correct

108. Ans. A.

$\% \Rightarrow \geq$	$\star \Rightarrow <$	$\delta \Rightarrow >$
$\$ \Rightarrow =$	$\odot \Rightarrow \leq$	

$$H \geq F < W = E$$

Conclusions:

I. $E > F \Rightarrow$ True

II. $H > W \Rightarrow$ Not true

Hence Option A is correct

109. Ans. D.

$\% \Rightarrow \geq$	$\star \Rightarrow <$	$\delta \Rightarrow >$
$\$ \Rightarrow =$	$\odot \Rightarrow \leq$	

$$Z > D \leq K > M$$

Conclusions:

I. $M < D \Rightarrow$ Not true

II. $Z > K \Rightarrow$ Not true

Hence Option D is correct

110. Ans. E.

$\% \Rightarrow \geq$	$\star \Rightarrow <$	$\delta \Rightarrow >$
$\$ \Rightarrow =$	$\odot \Rightarrow \leq$	

$$W \leq B < N \leq F$$

Conclusions:

I. $F > B \Rightarrow$ True

II. $W < N \Rightarrow$ True

Hence Option E is correct

111. Ans. D.

From I: rain is always good $\rightarrow 5 \ 3 \ 9 \ 7$

From II: he is always there $\rightarrow 3 \ 6 \ 8 \ 5$

112. Ans. E.

From I + II = p sit to the immediate right of T.

113. Ans. C.

From I. $L > G > I$; $K > L > H$, J

Thus, L is the heaviest.

Thus only I is sufficient.

From II. In ascending order

__, __, I, G, H, L

Thus, L is the heaviest.

Therefore only II is sufficient.

114. Ans. A.

From Statement I

Scenario I	Floor No.	Scenario II
	6 th	Ishika
Gaurav	5 th	
	4 th	
	3 rd	Gaurav
Ishika	2 nd	
Kumar	1 st	Kumar

In both the scenarios, Kumar is at the ground floor.

From Statement II

Scenario I	Floor No.	Scenario II
Love	6 th	
Jagan	5 th	Love
	4 th	
Hemant	3 rd	Jagan
	2 nd	Hemant
	1 st	

We can't know who lives on the ground floor with the help of statement II.

115. Ans. D.

From Statement I

Either Neha or Abhay is sitting at one of the ends.

Abhay is third to the left of Neha. Deepak is fourth to the left of Poorvi. The possible scenarios can be

I. Deepak _ Abhay _ Poorvi Neha

II. Abhay Deepak _ Neha _ Poorvi

So, we can't find who are sitting at the extreme ends.

From Statement II

Abhay _ Poorvi or Poorvi _ Abhay and neither of them is sitting at the ends.

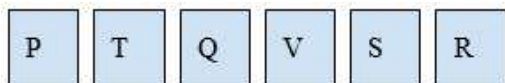
The possible scenarios can be

I. Manik Abhay _ Poorvi Neha

II. Poorvi Neha _ Abhay Manik

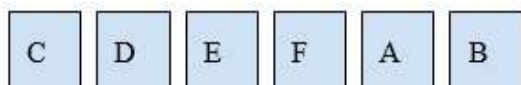
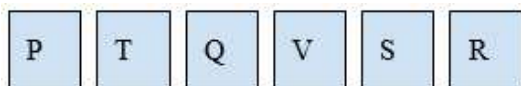
So, we can't find who are at the extreme ends.

116. Ans. C.



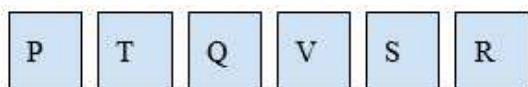
From the above diagram P and R are sitting on the extreme ends of the row.

117. Ans. E.



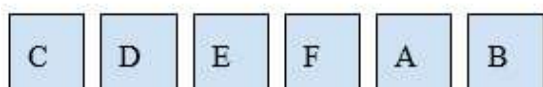
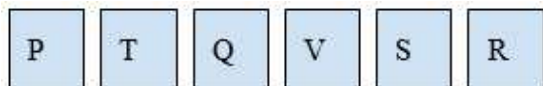
A faces S.

118. Ans. B.

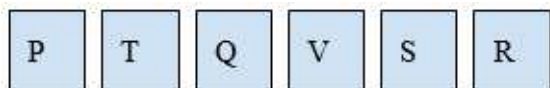


Two people are sitting in between T and S.

119. Ans. A.



120. Ans. E.



$$0) + (2^1 \times 0) + (2^0 \times 0) = \Delta \Delta \Delta \Delta$$

122. Ans. D.

$$x \times \frac{120}{100} x = 480$$

$$x = 20$$

$$\text{Length} = 20 \times \frac{120}{100} = 24$$

$$24 = (2^4 \times 1) + (2^3 \times 1) + (2^2 \times 0) + (2^1 \times 0) + (2^0 \times 0) = \Delta \Delta \Delta \Delta$$

123. Ans. D.

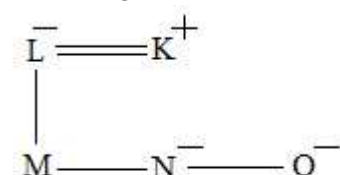
$$x \times \frac{120}{100} x = 480$$

$$x = 20$$

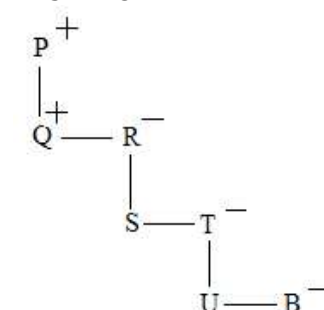
$$20 \times \frac{120}{100} = 24$$

$$\text{Length} = 24 = (2^4 \times 1) + (2^3 \times 1) + (2^2 \times 0) + (2^1 \times 0) + (2^0 \times 0) = \Delta \Delta \Delta \Delta$$

124. Ans. D.



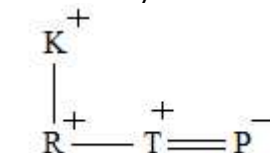
125. Ans. E.



The Gender of U can't be determined so, U is either grandson or granddaughter of R.

126. Ans. B.

The family tree for option b is



886 / 1029 Hence, option A.
In every step one word and one number is arranged. Words are arranging in increasing order according to the alphabetical series at the left end. Numbers are arranging like that first odd numbers are arranging in each step at the right end with add 2 and then even numbers are arranging with add 6.

Input: story final 28 welcome 13 25 dance 11 clap 12 16 page

Step I: clap story final 28 welcome 13 25 dance 12 16 page 13

Step II: dance clap story final 28 welcome 25 12 16 page 13 15

Step III: final dance clap story 28 welcome 12 16 page 13 15 27

Step IV: page final dance clap story 28 welcome 16 13 15 27 18

Step V: story page final dance clap 28 welcome 13 15 27 18 22

Step VI: welcome story page final dance clap 13 15 27 18 22 34

128. Ans. B.

Step IV: page final dance clap story 28 welcome 16 13 **15 27 18**
 $27-15=12$

Hence, option B.

In every step one word and one number is arranged. Words are arranging in increasing order according to the alphabetical series at the left end. Numbers are arranging like that first odd numbers are arranging in each step at the right end with add 2 and then even numbers are arranging with add 6.

Input: story final 28 welcome 13 25 dance 11 clap 12 16 page

Step I: clap story final 28 welcome 13 25 dance 12 16 page 13

Step II: dance clap story final 28 welcome 25 12 16 page 13 15

Step III: final dance clap story 28 welcome 12 16 page 13 15 27

Step IV: page final dance clap story 28 welcome 16 13 15 27 18

Step V: story page final dance clap 28 welcome 13 15 27 18 22

Step VI: welcome story page final dance clap 13 15 27 18 22 34

Hence, option C.
In every step one word and one number is arranged. Words are arranging in increasing order according to the alphabetical series at the left end. Numbers are arranging like that first odd numbers are arranging in each step at the right end with add 2 and then even numbers are arranging with add 6.

Input: story final 28 welcome 13 25 dance 11 clap 12 16 page

Step I: clap story final 28 welcome 13 25 dance 12 16 page 13

Step II: dance clap story final 28 welcome 25 12 16 page 13 15

Step III: final dance clap story 28 welcome 12 16 page 13 15 27

Step IV: page final dance clap story 28 welcome 16 13 15 27 18

Step V: story page final dance clap 28 welcome 13 15 27 18 22

Step VI: welcome story page final dance clap 13 15 27 18 22 34

130. Ans. B.

Step II: dance clap story **final** 28 welcome 25 12 16 page 13 15

Hence, option B.

In every step one word and one number is arranged. Words are arranging in increasing order according to the alphabetical series at the left end. Numbers are arranging like that first odd numbers are arranging in each step at the right end with add 2 and then even numbers are arranging with add 6.

Input: story final 28 welcome 13 25 dance 11 clap 12 16 page

Step I: clap story final 28 welcome 13 25 dance 12 16 page 13

Step II: dance clap story final 28 welcome 25 12 16 page 13 15

Step III: final dance clap story 28 welcome 12 16 page 13 15 27

Step IV: page final dance clap story 28 welcome 16 13 15 27 18

Step V: story page final dance clap 28 welcome 13 15 27 18 22

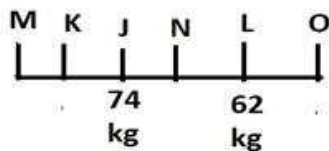
Step VI: welcome story page final dance clap 13 15 27 18 22 34

131. Ans. A.

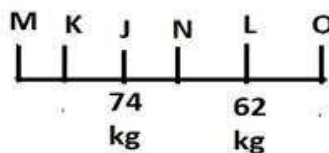
According to the clues, we get

>Q> M> P; C, P> D and > N

- 887 / 1929 Ans. A.
 O is heavier than Q. So, O is 110 kg.
 As no weights are given. So, it can't be determined.
 134. Ans. C.
 N may be of 68 kilogram in weight



135. Ans. E.
 More than three persons are heavier than L



136. Ans. C.
 Words and codes are

word	code	word	code
we	ca	player	ka
are	na	more	pa
best	sa	own	qa/ra
friends	ta	aim	ra/qa
good	ba		

The code for 'more' is - pa

137. Ans. A.
 Words and codes are

word	code	word	code
we	ca	player	ka
are	na	more	pa
best	sa	own	qa/ra
friends	ta	aim	ra/qa
good	ba		

The code for 'friends' is - ta

138. Ans. B.
 Words and codes are

word	code	word	code
we	ca	player	ka
are	na	more	pa
best	sa	own	qa/ra
friends	ta	aim	ra/qa
good	ba		

word	code	word	code
we	ca	player	ka
are	na	more	pa
best	sa	own	qa/ra
friends	ta	aim	ra/qa
good	ba		

'ba na ka ra' represent 'own are good player'

140. Ans. A.
 Words and codes are

word	code	word	code
we	ca	player	ka
are	na	more	pa
best	sa	own	qa/ra
friends	ta	aim	ra/qa
good	ba		

The code for 'we' is - ca

141. Ans. C.
NACH stands for - National Automated Clearing House
 National Payments Corporation of India (NPCI) has implemented "National Automated Clearing House (NACH)" for banks, financial institutions, corporates and the Government. NACH is a web based solution to facilitate interbank, high volume, electronic transactions which are repetitive and periodic in nature.
 NACH System can be used for making bulk transactions towards distribution of subsidies, dividends, interest, salary, pension etc. and also towards collection of payments pertaining to telephone, electricity, water, loans, investments in mutual funds, insurance premium etc.

142. Ans. C.
"Wings of Fire" is an autobiography of **APJ Abdul Kalam**. It was written by **Dr. Kalam** and **Arun Tiwari**.

Note: It is the story of a boy from a humble background who went on to become a key player in Indian space research/Indian missile programs and later became the president of India.

143. Ans. C.
 The International Development Association (IDA) is a member of the World Bank Group and is headquartered in Washington, D.C. United States.

1429. Ans. B.

Under MUDRA Bank's Shishu Scheme, maximum loan amount that can be granted is Rs. 50000. The maximum loan amount is Rs. 5 lakh under Kishor Scheme and Rs. 10 lakh under Tarun Scheme.

145. Ans. C.

There is a wide gender disparity in the literacy rate in India: effective literacy rates (age 7 and above) in 2011 were 82.14% for men and 65.46% for women.

Hence, option C is correct.

146. Ans. B.

MCLR stands for Marginal Cost of Funds based Lending Rate. It replaced the earlier existing Base rate system.

147. Ans. B.

Cash Reserve Ratio (CRR) and Statutory Liquidity Ratio (SLR) are deposited in Cash & Liquidity form respectively.

CRR has to be maintained in cash while SLR can be maintained either in cash or in assets that RBI suggests.

Both CRR and SLR are instruments in the hands of RBI to regulate money supply in the hands of banks that they can pump in economy SLR restricts the bank's leverage in pumping more money into the economy.

On the other hand, CRR, or cash reserve ratio, is the portion of deposits that the banks have to maintain with the Central Bank to reduce liquidity in the economy.

148. Ans. D.

Neeraj Chopra is an Indian track and field athlete competing in the javelin throw. He is the second Indian after **Anju Bobby George** to win a World Championship-level gold medal in athletics.

149. Ans. B.

Federal Reserve (Fed) is the central banking system of the **United States**. It was created on **December 23, 1913** with the enactment of the Federal Reserve Act, largely in response to a series of financial panics, particularly a severe panic in 1907.

150. Ans. D.

The headquarter of Bank of India is in **Mumbai, Maharashtra**.

151. Ans. A.

FICCI to fund construction of 250 toilets in govt schools in AP.

found in the Ganga and Brahmaputra rivers. It is an endangered mammal. Once found in abundance, the current population of Sisu in Assam is less than 300.

153. Ans. B.

The extended date for BASEL III Norms was 31st March, 2019. It was earlier 31st March 2018.

154. Ans. B.

Himachal Pradesh Cricket Association Stadium, abbreviated as the *HPCA Stadium*, is a picturesque cricket stadium located in the city of *Dharamshala District Kangra* in *Himachal Pradesh, India*.

155. Ans. D.

Umaid Bhawan Palace is located at Jodhpur in Rajasthan.

156. Ans. D.

Lokpriya Gopinath Bordoloi International Airport is situated in the city of Guwahati in the state of Assam.

Gopinath Bordoloi was the Chief Minister of Assam before independence and later Chief Minister of the Indian state of Assam, and also a leading Indian independence activist.

157. Ans. B.

RIDF - Rural Infrastructure Development Fund

The RIDF was set up by the Government in 1995-96 for financing ongoing rural Infrastructure projects.

The Fund is maintained by the National Bank for Agriculture and Rural Development (NABARD). Domestic commercial banks contribute to the Fund to the extent of their shortfall in stipulated priority sector lending to agriculture.

A RIDF includes rural water supply, rural roads and rural electrification whereas rural industry is not involved in it.

158. Ans. A.

The **Karachi Stock Exchange 100** Index is a major stock market index which tracks the performance of largest companies by market capitalization from each sector of Pakistani economy listed on The Karachi Stock Exchange.

159. Ans. C.

National **Automated** Clearing House (NACH).

NACH is a web-based platform to facilitate interbank, high volume, electronic transactions for Banks, Financial Institutions, Corporates and Government. It basically functions like an electronic clearing service available especially for banks.

DICGC stands for - **Deposit Insurance and Credit Guarantee Corporation of India.**

Under DICGC (Deposit Insurance and Credit Guarantee Corporation of India), each depositor is insured up to a maximum amount of Rs 1, 00,000 for both principal and interest.

All commercial banks including foreign banks functioning in India, local area banks and Regional rural banks are insured by DICGC.

161. Ans. B.

Phnom Penh is the capital and **Riel** is the currency of **Cambodia**.

Note:- Cambodia is a country located in the southern portion of the Indochina Peninsula in Southeast Asia.

162. Ans. A.

The iconic Barabati Stadium is an Indian sports stadium located in Cuttack, Odisha. It is a regular venue for international cricket and is the home ground of Odisha cricket team.

163. Ans. B.

Lok Nayak Jayaprakash Airport also known as Jaiprakash Narayan Airport, Patna is an airport located 5 kilometres (2.7 NM) southwest of Patna, the capital of the state of **Bihar** in India.

164. Ans. D.

Jakarta is the capital and Rupiah is the currency of **Indonesia**.

Note:- Indonesia is a country in **Southeast Asia** situated between the **Indian** and **Pacific oceans**. It is the **world's largest** island country, with more than **thirteen thousand** islands.

165. Ans. A.

Explanation: The Asian Infrastructure Investment Bank (AIIB) is a multilateral development bank (MDB) conceived for the 21st century. The Bank's foundation is built on the lessons of experience of existing MDBs and the private sector. Its modus operandi will be lean, clean and green: it is situated in Beijing, China.

166. Ans. B.

International Justice Day is celebrated throughout the world on July 17 as part of an effort to recognize the emerging system of international criminal justice.

area is diverse in eco systems and rich in ethnic cultural heritage.

Note:- It is a **well-known** repository of medicinal plants and the habitat for the endangered Giant Grizzled Squirrel of India.

168. Ans. E.

Headquarter of United Bank of India is located in Kolkata, West Bengal.

169. Ans. C.

Radha Mohan Singh was president of BJP's Bihar State unit from 2006 to 2009. He was elected to 11th *Lok Sabha*, 13th *Lok Sabha*, 15th *Lok Sabha* and is currently a member of the 16th *Lok Sabha*.

He represents Purvi Champaran constituency in Bihar state.

170. Ans. D.

Asset Reconstruction Company (India) Limited, an asset reconstruction company, offers services for the resolution of non-performing assets upon acquisition from banks and financial institutions in India. It also offers outsourced business services, such as valuation, legal and technical due diligence, documentation relating to transfer of debt, preparation of resolution strategies, preparation of feasibility/market studies, implementation of resolution strategy and monitoring, identification of strategic investors/buyers for business, enforcement/sale of underlying securities, raising of additional funds for borrowers, integration and maintenance of loan accounts of the borrower, protection.

171. Ans. C.

The Pradhan Mantri Fasal Bima (PMFBY) Yojna was launched on 18th February 2016 by Prime Minister Shri Narendra Modi.

PMFBY provides a comprehensive insurance cover against failure of the crop thus helping in stabilising the income of the farmers.

The Scheme covers all Food & Oilseeds crops and Annual Commercial/Horticultural Crops for which past yield data is available and for which requisite number of Crop Cutting Experiments (CCEs) are conducted being under General Crop Estimation Survey (GCES).

172. Ans. D.

In terms of the provisions of the RBI Act 1934, notes in denominations higher than **Rs 10000 cannot be issued**.

and are in the denomination of Rs 10, Rs 20, Rs 50, Rs 100, Rs 500, and Rs 2000.

The banknotes are issued by the Reserve Bank of India (Reserve Bank). Small currency notes of Rs 2 and Rs 5 denominations has been discontinued. But the existing Rs 2 and Rs 5 notes continue to be legal tender and are in circulation. Though Rs 1 note is coinised, the Central Government has recently reintroduced this note.

173. Ans. B.

SEBI has launched a centralized web based complaints redress system (SCORES). This would enable investors to lodge and follow up their complaints and track the status of redressal of such complaints from anywhere. This would also enable the market inter medianes and listed companies to receive the complaints from investors against them, redress such complaints and report redressal.

174. Ans. A.

'Shekel' is the currency of Israel.

Note: Israel is a country in the Middle East, on the southeastern shore of the Mediterranean Sea and the northern shore of the Red Sea.

175. Ans. D.

With a total capacity of 1400 MW, Tarapur is the largest nuclear power station in India. The facility is operated by the NPCIL (Nuclear Power Corporation of India). Other nuclear power stations in India are in: Kaiga, Kakrapar, Kudankulam, Madras (Kalpakkam), Narora, Rajasthan, Tarapur.

176. Ans. D.

Valmiki national park is located in the West Champaran district of **Bihar**, India.

177. Ans. C.

World Hepatitis Day observed on **July 28 every** year aims to raise global awareness of hepatitis and encourage prevention, diagnosis and treatment.

178. Ans. C.

Pinarayi Vijayan is an Indian politician and the **current Chief Minister** of **Kerala**, in office since 25 May 2016.

179. Ans. D.

Ahmedabad city is situated on the bank of Sabarmati river in Gujarat.

180. Ans. B.

IFSC is an 11- alphanumeric code with the **first four** alphabetic characters representing the **bank name**, and the **last six characters** (usually numeric, but can be alphabetic) representing the

destination banks, branches.

181. Ans. A.

Wular Lake is one of the largest **freshwater lakes** in Asia and is in Bandipora district in the Indian state of Jammu and Kashmir.

Wular lake is the largest lake in India.

Chilka is the largest Saline lake in India.

182. Ans. A.

Mount Everest is the Earth's highest mountains with a peak at 8848 m (29,029 ft) above sea level and the 5th tallest mountain measured from the centre of the Earth.

It is located in the Mahalangur section of the Himalayas. The international border between China and Nepal runs across the precise summit point.

183. Ans. C.

Ans. C

The World Health Organization is a specialized agency of the United Nations (UN) that is concerned with international public health. It was established on **7 April 1948**, headquartered in **Geneva, Switzerland**. The WHO is a member of the United Nations Development Group.

184. Ans. E.

The ECGC was known as -Export Credit Guarantee Corporation of India Ltd) is a company wholly owned by the Government of India based in Mumbai, Maharashtra.

It provides export credit insurance support to Indian exporters and is controlled by the Ministry of Commerce.

185. Ans. D.

Nairobi is Kenya's capital city.

The currency of Kenya is the **Shilling**.

The country is named after Mt. Kenya, which is the highest point in the country and is 17,057 feet high.

186. Ans. C.

The Gobi Desert is the largest desert in Asia, covering 500,000 square miles. Extending from northern China into Mongolia, the Gobi Desert receives an average of 7 inches of rainfall each year because the Himalaya mountains block rain clouds from reaching the region.

187. Ans. C.

Payment banks are allowed to accept demand deposits and issue debit cards and can also distribute non risk sharing financial products like mutual funds and insurance products but prohibited from giving loans and issuing credit cards.

187. Ans. C. Pakistan and will firm up India's trade relations beyond Afghanistan to countries of Central Asia and St Petersburg in Russia, by linking with North-South Transit Corridor, and the rail networks of Iran and more than a dozen other countries. The travel time for goods all the way to northern Europe from India via Chabahar is expected to be reduced by about half from the current 45 days. The shortened time can permit the movement of certain categories of perishables to and from countries nearer on the route - Iran and Afghanistan.

189. Ans. C.

almost 10% of country's total diamond deposits.

190. Ans. A.

On 12th August 2008, Kerala has become the first Indian state to reserve a government job for HIV positive candidates.

The Kerala State AIDS Control Society (KSACS) has invited applications from the graduate candidates suffering from the disease for the post of coordinator with the organization.

information carefully and answer the questions given below it:

% - Either the hour or minute hand of clock on 4

@ - Either the hour or minute hand of clock on 12

\$ - Either the hour or minute hand of clock on 5

- Either the hour or minute hand of clock on 9

& - Either the hour or minute hand of clock on 6

Note - The first symbol represents the hours and second symbol represents the minutes.

Example: Time "#&" represents 9 hours 30 minutes.

1. A train is scheduled to leave the station at "#&". But due to technical problem train has been late by 3hrs. Then at what time it leaves from the station?
 A. "\$%" B. "\$#"

C. "@&" D. "&\$"

E. None of these
2. A bus is scheduled to arrive at Delhi at "#\$". It takes 2 hour 40 minutes to reach Delhi from Ambala. At what time it should depart from Ambala to arrive Delhi at least 25 minutes before scheduled time?
 A. "\$%" B. "&%"

C. "&\$" D. "\$@"

E. "#@"
3. If a man takes 25 minutes to reach railway station and his train is scheduled at "\$%". Then at what time should he leave to reach the station 10 minutes earlier?
 A. "%\$" B. "%&"

C. "%@" D. "%#"

E. None of these

km/hr without stopping on any of the station but on Friday it has to stop 15 minutes on each of the five stations between Delhi and Muradabad. So at what time the train will reach Delhi with its usual speed every Friday, if it departs at "\$&" every Friday.

- A. "@&" B. "@\$"

C. "@#" D. "#@"

E. "#&"

5. An inauguration ceremony is scheduled at "\$\$" but due to rain there will be a delay of 1 hour 20 minutes. At what time the ceremony will start now?
 A. "&\$" B. "&%"

C. "#%" D. "\$#"

E. "&#"

Direction (6-10): Read the following information carefully and answer the questions given below it.

Ten vehicles viz. Cycle, Scooter, Car, Auto, Train, Boat, Truck, Helicopter, Motorcycle and Aeroplane are given with their speeds viz. 9, 17, 30, 35, 45, 55, 70, 224, 367 and 575 but not necessarily in the same order. These vehicles are placed in two rows in such a way that five vehicles are in each row and each vehicle from one row is exactly opposite a vehicle from the other row. The above row is facing North direction and the row below is facing south direction. All the vehicles are placed from east to west in the increasing order of their speeds(in km/hr).

The car is sitting third to the extreme end. The vehicle car is facing immediate neighbour of boat whose speed is 17km/hr. Motorcycle and Helicopter are immediate neighbours of each other and one of them has even number speed and the other has odd number of speed. Only

Engine and Boat neither of them has speed of 55 or 35 km/hr. Cycle and boat are immediate neighbours of each other. The one who faces Train Engine sits third to the right of scooter and both Train Engine and scooter have a speed of multiple of 5. Truck faces car. Aeroplane is sitting at the extreme end and has the highest speed. The one who has speed of 35 and 45 km/hr are immediate neighbours of each other. Motorcycle has more speed than Train Engine. Motorcycle and truck has speed more than 50 km/hr. The speed of helicopter and car is 367 km/hr and 45 km respectively. Scooter does not have the least speed.

6. Find the difference between speed of motorcycle and truck?
 - A. 170km/hr B. 171km/hr
 - C. 169km/hr D. 168km/hr
 - E. 165km/hr
7. Find the odd one out?
 - A. Cycle B. Aeroplane
 - C. Helicopter D. Auto
 - E. Scooter
8. What is the speed of auto?
 - A. 224km/hr B. 35km/hr
 - C. 70km/hr D. 45km/hr
 - E. 55Km/hr
9. Who among the following is placed to the immediate left of boat?
 - A. Train B. Cycle
 - C. Scooter D. Cycle
 - E. Truck
10. What is the sum of speeds of car and cycle?
 - A. 95km/hr B. 54km/hr
 - C. 36km/hr D. 39km/hr
 - E. 64km/hr

information correctly and answer the questions given below it.

P, Q, R, S, T, U, V and W are sitting around a square table in such a way that four of them who sits at the corner are facing towards the centre and other four who sits in the middle of the table are facing outside the centre. Each person has different lucky number viz. 1, 2, 3, 4, 5, 6, 7 and 8, but not necessarily in the same order.

S's daughter lucky number is 1. Only one person is sitting between P and U. W's brother S, sits on the immediate left of his mother whose lucky number is 6. P is the father of V and only one person sits between W's mother and T. T sits on the immediate right of the person whose lucky number is 2. No female is an immediate neighbour of Q, who sits at the corner of the table. S's daughter sits second to the right of U and on the immediate left of that person whose lucky number is 3. Q sits second to the left of W's husband whose lucky number is neither 4 nor 7. U, who is sister of V, her lucky number is 7 and is not an immediate neighbour of W's husband. Only one person sits between W and V. V sits second to the right of the person whose lucky number is 8. V is father of R and is not an immediate neighbour of T. P is married to W.

11. How is Q related to U?
 - A. Mother B. Sister
 - C. Daughter D. Grand Mother
 - E. None of these
12. Who is sitting second to the right of P?
 - A. U B. Q
 - C. W D. V
 - E. R
13. What is W's lucky number?
 - A. 2 B. 4
 - C. 3 D. 7
 - E. 8

the following does not belong to that group?

- A. W B. V
C. R D. P
E. S

15. Which of the following statement is true?

- A. V's lucky number is 5.
B. U is Q's daughter.
C. P sits to the immediate left of T.
D. R is facing towards the centre.
E. P and T are sitting opposite to each other

Direction (16-20): Read the following information carefully and answer the questions given below it:

In the given questions, two rows are given and to find out the resultant of a particular row following rules are given.

Step 1 – If an odd number is followed by an even number then the resultant comes by multiplying the numbers.

Step 2 – If an even number is followed by an odd non prime number then the resultant will be the subtraction of two numbers.

Step 3 – If an even number is followed by prime number (except 2) then the resultant will be the addition of two numbers.

Step 4 – If an odd number is followed by a perfect cube then the resultant will be the subtraction of two numbers.

Step 5 – If an odd number is followed by another odd number then the resultant will be the addition of both the numbers.

16. Find the difference of the resultant of two rows. If A is the resultant of first row.

9 216 6
A 5 11

- A. 15 B. 16
C. 13 D. 14
E. 12

15 08 15
35 45 13

- A. 191 B. 195
C. 198 D. 207
E. 205

18. Find the difference of resultant of two rows?

08 11 8
26 21 7

- A. 0 B. 1
C. 2 D. 5
E. 6

19. If X is the resultant of second row. Find the multiplication of the resultant of two rows?

X 06 15
45 33 03

- A. 38151 B. 38150
C. 37541 D. 38521
E. 38542

20. If the sum of resultant of two rows is 30. Find the value of X?

3 27 15
7 03 X

- A. 10 B. 11
C. 12 D. 14
E. 16

Direction (21-25): Read the following information carefully and answer the questions given below it:

6 horses P, Q, R, S, T and U are made to stand in a row facing north and distance between two adjacent horses increases from left to right in consecutive integral multiple of 4. Distance between R and S is 60m and only two horses stand between them. U sits immediate left of R. P sits somewhere to the right of U and distance between them is in multiple of six. Distance between R and Q is 44m. Horse P starts moving towards east, after moving 12m, it turns to its right and moves 60m. From there after turning to its left and walking for a distance of 5m, it comes to halt at a point X. Horse U moves in north direction for a distance of 20m and then turn to its left and moves 26m. After taking one more turn to its left it stops at a point Y after walking 5m.

- A. 50m B. 70m
C. 40m D. 60m
E. 30m

22. In which direction horse P is facing now?
A. North B. South
C. North-East D. East
E. West
23. Who among the following is on the immediate right of Q?
A. S B. R
C. U D. T
E. P
24. How many horses are there between S and P?
A. None B. One
C. Two D. Three
E. Four
25. Point Y is in which direction with respect to X?
A. North B. North-East
C. North-West D. South-East
E. West

Direction (26-29): Study the following information carefully to answer the given questions.

Eight persons P, Q, R, S, T, U, V and W lives on ten floors building starting from ground floor number one to top floor number ten. There were two vacant floors in the building. There are eight fruits Apple, Mango, Banana, Papaya, Orange, Cherry, strawberry and Guava in which only one person likes one fruit, but not necessarily in the same order. The one who likes guava lives below the one who likes Papaya but does not lives below the one who likes strawberry. There are three floors between P and Q. The person who likes mango lives below to both P and Q. There are only three floors gap between U and the one who likes Banana. U lives one of the floors below to the one who likes Banana. There are only three floors between U and S. V lives immediately below the one who likes Cherry. The number of

floors between U and the person who likes Orange. S does not like Banana. The one who likes Cherry does not lives on the topmost floor. There are two floors between W and R. The one who likes Apple lives immediately between P and W. W likes Mango and lives on bottom most floor. Q lives above P.

26. Who among the following likes Papaya?
A. P B. V
C. Q D. S
E. R
27. Who among the following lives immediately above the vacant floor?
A. S
B. T
C. The one who likes Papaya
D. R
E. The one who likes Mango
28. Which of the following is a vacant floor?
A. 2 B. 7
C. 6 D. 9
E. 4
29. How many persons live between T and the one who likes Guava?
A. Two B. Three
C. Four D. One
E. Five

30. **Direction :** In each below is given a statement followed by three conclusions numbered I, II and III. You have to assume everything in the statement to be true, then consider the two conclusions together and decide which of them logically follows beyond a reasonable doubt from the information given in the statement Give answer:

Statement:

For the first time India will invite heads of ten Asian nations for the Republic day 2018 celebrations. ASEAN is the association of south-east Asian nations. Its members are Vietnam, Laos, Philippines, Singapore, Thailand, Indonesia, Cambodia, Brunei, Malaysia and Myanmar.

from the given statement.

Conclusions:

(i) Republic day 2018 will be the first event ever where so many leaders will together will be the chief guests at the parade which would showcase India's Military might.

(ii) India is the only country among southeast Asian nations which celebrates Republic Day.

(iii) India and ASEAN are actively engaged in a comprehensive economic partnership, which is expected to emerge as the largest regional trading arrangement.

A. If only conclusion II follows

B. If only conclusion I, III follows

C. If only conclusion I follows

D. If only conclusion III follows

E. If neither I nor II follows and III

31. A study published in PLOS Medicine found that obesity was the cause of 1 in 10 deaths in the United States. Also, obesity was the third-leading cause of death in men and women, after high blood pressure and smoking. Hence, many doctors believe that it's high time obesity be placed in the category of serious diseases as it not only decreases life expectancy but also impairs the normal functioning of the body.

Which of the following statements, if true, undermines the given argument?

A. Extreme obesity can shorten a person's life span by 10 years.

B. Obesity is the result of eating of too much and of a sedentary lifestyle and cannot be defined as a disease per se.

C. Obesity can be a genetic disorder such as sickle-cell anemia and Tay-Sachs, which are classified as diseases.

American College of Cardiology, and the Obesity Society, the National Heart, Lung, and Blood Institute, and the American College of Gastroenterology have identified obesity as a disease.

E. Obesity and obesity-related health conditions cost an estimated 10% of annual medical spending in the United States.

Direction (32-36): Read the following information carefully and answer the questions given below it:

Eight people A, B, C, D, E, F, G and H were born in three different months (of the same year) but not necessarily in the same order, namely March, June and December such that not less than two people and not more than three people were born in a month. Each of them also likes different colours namely Red, Green, Blue, Orange, Pink, White, Black and Grey but not necessarily in the same order. Each belongs to different professions namely Doctor, Engineer, IAS, IPS, Scientist, Professor, Teacher and Fashion designer but not necessarily in the same order.

The one who is a teacher was born on one of the months which have more than 30 days and the one who is an engineer was born on one of the months which have more than 30 days. C likes grey colour and was born in the same month as E. Only B and H were born in March. The one who likes Pink colour was born in the month which has 30 days only. F was not born in the same month as E. B is a scientist and the one who likes pink colour is a doctor. D likes Orange colour and was born in the same month as F. G does not like Pink. The one who likes Black and the one who likes Blue were born in the same month. The one who likes Black, who is an IAS was not born in the same month as H. The one who likes red colour was born in the same

a scientist was born on one of the months which have more than 30 days and the one who is a professor was born on one of the months which has less than 31 days. The one who is IPS was born on one of the months which have less than 31 days and the one who is IAS was born on one of the months which has more than 30 days. C is neither Fashion Designer nor IPS. H is a fashion designer. F does not like Black colour and the one who likes orange colour is an engineer. C was not born in December.

32. Who among the following is IAS?
 A. E B. G
 C. C D. A
 E. F
33. Who among the following likes Orange Colour?
 A. E B. H
 C. D D. F
 E. B
34. Who among the following was born in December?
 A. C B. A
 C. B D. E
 E. None of these
35. Which of the following does not belong to the group?
 A. The one who is IPS
 B. The one who likes Pink colour.
 C. E
 D. The one who was born in June
 E. The one who is an engineer
36. Which colour does C likes?
 A. Blue B. Grey
 C. Pink D. White
 E. Red
37. **Direction :** In the question given below, a statement is given followed by three courses of action. A course of action is taken for improvement, follow up, etc. Read the statement carefully and give your answer.

A knife making accountant killed a 25 year-old man and injured four others in a lively neighbourhood near Paris' famed Opera Garnier before he was killed by police on Saturday night.

Courses of Action:

- I. The government should ban the sale of knives in all major cities.
 II. Any person seen carrying a knife should be immediately taken into police custody.
 III. Policemen should be posted near all major tourist spots to avoid such untoward incidents.
 A. Only course of action I follows
 B. Only course of action II follows
 C. Both I and II follow
 D. Both II and III follow
 E. None of them follow

38. **Direction :** A statement is given followed by three inferences numbered I, II, and III. Consider the statement to be true even if it is at variance with commonly known facts. You have to decide which of the inferences, if any, follow from the given statement.

Statement: Donald Trump began the week facing accusations of treason over his embrace of Vladimir Putin and ended it with a middle finger to his many critics by inviting the Russian autocrat to the White House.

Inferences:

- I. America and Russia are not allies.
 II. No prior American President has ever embraced a Russian counterpart.
 III. Russian President, Vladimir Putin, has been a long-time US enemy.
 A. Only I can be inferred
 B. Both I and II can be inferred
 C. Only III can be inferred
 D. Both I and II can be inferred
 E. Both II and III can be inferred

questions given below it.

Six subjects Mathematics, Hindi, English, Science, Accounts and Economics are taught at a coaching centre. Each subject was given a definite and continuous time slot. In a day total 14 hours class was scheduled. A subject can start its slot from a whole hour or half hour only (i.e. a subject can start from 2 pm or 2:30 pm but it cannot start from 2:07). Mathematics class takes place from 11am to 12:30 pm. Only one class took place between Mathematics and Science. Time slot of Science is twice the time slot of mathematics. Accounts classes starts from 5:30 pm. English class took place somewhere in between Mathematics and Accounts but it did not takes place immediately after or before Accounts. Total slot time of Hindi and Economics class is 4.5 hours. Number of classes took place between Economics and Accounts is same as the number of classes between English and Economics. Time slot of English is 1 hour less than the time slot of Science.

39. What is the time slot duration of Accounts class?
 A. 2 hours B. 1.5 hours
 C. 3 hours D. 1 hour
 E. Cannot be determined
40. Which of the following class is immediately held after English class?
 A. Accounts B. Economics
 C. Science D. Hindi
 E. Mathematics
41. How many classes took place between Science and Accounts?
 A. None B. One
 C. Two D. Three
 E. Four
42. At what time did Hindi class starts?
 A. 2:30pm – 5:30pm
 B. 6:30 am – 9:30am
 C. 9:30 am – 11:00am
 D. 12:30pm – 2:30pm
 E. 6:00am – 9:00 am

- A. 2 hours
 C. 4 hours
 E. 3 hours

- B. 1.5 hours
 D. 3.5 hours

44. **Direction:** The question given below consists of a statement, followed by two arguments numbered I and II. You have to decide which of the arguments is a 'strong' argument and which is a 'weak' argument.

Statement: Should women be allowed into combat arms if they meet all standards?

Arguments:

- I. Yes, women have already proven competence in combat – they have already been exposed to combat in Iraq and Afghanistan, so it makes no sense to officially continue excluding them.
 II. No, the average female is physically weaker than the average male.

- A. Only argument I is strong
 B. Only argument II is strong
 C. Either I or II is strong
 D. Neither I nor II is strong and
 E. Both I and II are strong

45. As Washington plans to increase its military footprint in Afghanistan, it is tightening the screws on Pakistan for supporting terrorism as an instrument of state policy. Both Washington and Kabul now view New Delhi as a player with considerable leverage over the evolving regional dynamic. A central feature of the Trump administration's new Afghanistan policy is an outreach to India.

How are relations of Pakistan with other countries?

- A. Relations of Pakistan and US are very cordial
 B. Pakistan wants to rule the other countries
 C. Relations are getting bitter over terrorism
 D. Pakistan does not want to maintain any relation with any country
 E. All of the above

information carefully to answer the given questions.

Eight persons - A, B, C, D, E, F, G and H are sitting around a circular table, but not necessarily in the same order. Some of them are facing inside while rest of them are facing outside. Each of them likes different engineering branches viz. Civil, Mechanical, Chemical, Electrical, Optical, Power, Computer and Geological.

F does not sit immediately next to A. Only two persons sit between G and H. Immediate left of A likes Mechanical, who faces the opposite to centre. F and E are facing the same side and only two persons are sitting between them. The one who likes Power sits immediately next to the one who likes Computer but not faces the one who likes Chemical. E sits second to the left of A. The one who likes Optical faces the one who likes Geological. D sits diagonally opposite to B who sits to the immediate right of E and both E and B are facing same direction. The one who likes Chemical sits between F and B. F does not like Civil. A and C are facing outward direction but not as F. C sits second to the left of G. The one who likes Geological sits second to the right of the one who likes Chemical. D is facing same direction as F. G does not like chemical.

46. Who among the following likes Electrical?

- A. C B. B
C. A D. H
E. F

47. Who among the following sits between A and G?

- A. B B. D
C. C D. H
E. F

A. A sits immediate next to H.

B. G and C face the same direction.

C. D faces the person who likes Civil.

D. E and G sit opposite to each other

E. All of the above

49. Who among the following person faces the one who sits second to the left of C?

- A. A B. D
C. E D. G
E. F

50. Four of the following are alike in a certain way and form a group. Which of the following does not belong to that group?

- A. F B. D
C. G D. C
E. B

51. **Direction:** In the following question, a sentence is given with some bold words which may contain errors. Below the sentence, a table is given with two columns in which column 'A' contains the list of bold words, and in column 'B' the suggested corrections are listed. You have to choose the best alternative among the four given options. If no correction is required against the given bold words, mark (E), i.e., "None of the above" as your answer.

On the **occasion** of his golden jubilee, the generous king Maharaja of Bikaner Ganga Singh, participated in the ancient Hindu *TulaDaan* ceremony **whereby** he sat on a large set of scales and was **measured** against gold bars, whose cash **equivalent** was then donated to the charitable Golden Jubilee Fund.

COLUMN A		COLUMN B	
(1)	occasion	(5)	date
(2)	whereby	(6)	wherein
(3)	measured	(7)	weighed
(4)	equivalent	(8)	equity

- A. Both (1)-(5) and (4)-(8)
B. (4)-(8)
C. (1)-(5)
D. (3)-(7)
E. None of these

which may contain errors. Below the sentence, a table is given with two columns in which column 'A' contains the list of bold words, and in column 'B' the suggested corrections are listed. You have to choose the best alternative among the four given options. If no correction is required against the given bold words, mark (E), i.e., "None of the above" as your answer.

The Bill states that companies with more than 10 employees would periodically **debate** specific terms with their **workers**, publish their own charter, and create an Employee Welfare Committee consisting of **representatives** of the company's **workforce**.

COLUMN A		COLUMN B	
(1)	debate	(5)	negotiate
(2)	workers	(6)	employees
(3)	representatives	(7)	colleagues
(4)	workforce	(8)	capital

- A. Both (1)-(5) and (4)-(8)
 B. (4)-(8)
 C. (1)-(5)
 D. (3)-(7)
 E. None of these

53. **Direction :** In the following question, a sentence is given with some bold words which may contain errors. Below the sentence, a table is given with two columns in which column 'A' contains the list of bold words, and in column 'B' the suggested corrections are listed. You have to choose the best alternative among the four given options. If no correction is required against the given bold words, mark (E), i.e., "None of the above" as your answer.

A warm story of **humility** and forgiveness comes from the US city of Fort Smith where a Masjid not only **forgave** the young man who **vandalised** the mosque but also helped pay his fine so that he doesn't get **charged** to jail and his future is saved.

(1)	scepticism	(5)	humanity
(2)	forgave	(6)	forget
(3)	vandalised	(7)	destroyed
(4)	charged	(8)	sentenced

- A. Both (1)-(5) and (4)-(8)
 B. (2)-(6)
 C. (1)-(5)
 D. (4)-(8)
 E. None of these

54. **Direction:** In the following question, a sentence is given with some bold words which may contain errors. Below the sentence, a table is given with two columns in which column 'A' contains the list of bold words, and in column 'B' the suggested corrections are listed. You have to choose the best alternative among the four given options. If no correction is required against the given bold words, mark (E), i.e., "None of the above" as your answer.

After learning that Ranjhi Rajak, a **pilgrim** from Madhya Pradesh had **collapsed** near Bhairo temple and needed **immediate** medical attention, SI Bahuguna carried Rajak on his back and walked uphill for over 2 kms till they reached the **nearby** hospital.

COLUMN A		COLUMN B	
(1)	pilgrim	(5)	monk
(2)	collapsed	(6)	crumbled
(3)	immediate	(7)	swift
(4)	nearby	(8)	beside

- A. Both (1)-(5) and (4)-(8)
 B. (2)-(6)
 C. (1)-(5)
 D. (3)-(7)
 E. None of these