Statement Test 7

1. An item is sold at 38% profit on the cost price after passing through two shopkeepers. If the first shopkeeper sold it at 20% profit then what is the percentage profit of the second shopkeeper?
(a) 15 (b) 12 (c) 10 (d) 5
2. A sum of money placed at compound interest triples itself in 9 year. In how many years will if amount to 243 times itself?
(a) 45 years (b) 36 years (c) 27 years (d) 54 years
3. Working together printer A and B would finish a task in 48 minutes A alone would finish the task in 120 minutes. How many pages does the task contains if printer B prints 10 page a minute more than printer A?
(a) 2800 (b) 2000 (c) 2400 (D) 1600
4. The ratio of speed of a motorboat to that of the current of water is 55:7. The boat goes along with the current in 6 hours 24 minutes. It will come back in.
(a) 9.3 hours (b) 7.3 hours (c) 11.3 hours (d) 8.2 hours
5. A person marks his goods x% above the cost price and allows a discount of 30% on the marked price. If his profit is 5%, then the value of x will be:
(a) 50 (b) 60 (c) 45 (d) 35
6. A and B can do a work in 15 days and 20 days respectively. A and B work together for 4 days and the remaining work is done by C in 8 days. If they are paid Rs. 6000 for this work then find the daily income of each.
(a) 600, 300, 400 (b) 400, 300, 300 (c) 400, 300, 400 (d) 300, 400, 400
7. A shopkeeper bought two cycles at Rs. 1700. If he sold the first cycle at 30% profit and the second at 20% profit, he earns a certain profit. If he sold the first cycle at 20% profit and the second at 30% profit then he gets Rs. 30 Less. The price of both cycles is:
(a) 1200, 500 (b) 900, 800 (c) 1000, 700 (d) 1050, 650
8. The ratio of water and wine in two different containers is 2 : 3 and 4 : 5. In what ratio we are required to mix the mixture of two containers in order to get the new mixture in which the ratio of wine and water be 7 : 5 ?
(a) 3 : 5 (b) 7 : 3 (c) 5 : 3 (d) 3 : 7
9. A man covers a distance from his house to office at 20km/hr and gets 10 min late. But if he covers the distance at 40km/hr then the reach his office 5 min earlier. Find the distance from his house to the office.
(a) 15 km (b) 18 km (c) 20 km (d) 10 km
10. The ratio of copper to zinc in alloys A and B are 3 : 4 and 5 : 9 respectively. A and B are taken in the ratio 2 : 3 and melted to form a new alloy C. What is the ratio of copper to zinc in C? (a) 8 : 13 (b) 3 : 5 (c) 9 : 10 (d) 27 : 43
11. Pipe A, B and C together can fill a cistern in 12 hours. All three pipes are opened together for 4 hours and then C is closed. A and B together take 10 hours to fill the remaining part of the cistern. C alone will fill two – thirds of the cistern in:
(a) 50 hours (b) 60 hours (c) 40 hours (d) 48 hours
12. The marked price of an article is Rs. 530. After two successive discounts, it is sold for Rs.396.44. If the first discount is 15% and the second discount is x%, then what is the value of x? (a) 10 (b) 10.5 (c) 12 (d) 12.5
13. In a test consisting of 140 questions, a candidate correctly answered 70% of the first 80 questions. What percentage of the remaining questions does the candidate need to correctly answer to score 60% in the test?
(a) 40% (b) 45⅓% (c) 46⅔% (d) 35%
14. Ratio of age of Priya to that Aman is 2 : 5 and ratio of age of Priya to that of Reena is 1 : 3. Sum of the ages of Aman and Reena is 55 year. Age of Saloni is 20% more than the age of Reena. Find the sum of age of Saloni and age of Priya.
(A) 66 years (B) 46 years (C) 32 years (D) 58 years (E) None of these
15. A alone would take 8 h more to complete the job than if both A and B worked together. If B worked alone, he took 4 ½ hour more to complete the job than if A and B worked together. What time would they take if both A and B worked together?
(a) 8 hours (b) 5 hours (c) 2 hours (d) 6 hours
16. Two pipes can fill a tank in 8 h and 12 h respectively whereas an escape pipe can empty it in 6 h. If the three pipes are opened at 1 pm, 2 pm and 3 pm respectively, at what time will the tank be filled ?
(a) 8 am (b) 7 am (c) 5 am (d) 7.30 am
17. The average age of employees of a company is 35 yr. If 5 new persons with an average age of 32 years join the company, the average of the entire company becomes 34 years. How many people were there in the company initially?
(a) 10 (b) 12 (c) 8 (d) None of these
18. In an examination Ram scored 25 mark less than Rohit. Rohit scored 45 more marks than Sam. Rohan scored 75 marks which is 10 more marks than Sam. Ravi's score is 50 less than maximum marks of the test. What approximate percentage of marks did Ravi score in the examination if gets 34 marks more than Ram?
(a) 60 % (b) 80% (c) 70 % (d) 85%
19. A person marks his goods x% above the cost price and allows a discount of 30% on the marked price. If his profit is 5%, then the value of x will be:
(a) 50 (b) 60 (c) 45 (d) 35
20. If A is 28% more than B and C is 25% less than the sum of A and B, then by what percent will C be more than A?
(a) 32.2% (b) 28% (c) 43% (d) 33.6%
21. A and B can do a piece of work in 6 days and 8 days, respectively. With the help of C, they can complete the work in 3 days and earn Rs 1848. What was the share of C?
(a) Rs.231 (b) Rs.924 (c) Rs.462 (d) Rs.693
22. A can do a piece of work in 12 days, B can do the same work in 18 days. They worked for 6 days and C does the rest of work in 4 days. If they get Rs. 1650 for the whole work, find the individual share of A,B and C respectively?
A. 825, 550, 275 B. 550, 825, 275 C. 825, 275, 550 D. 850, 525, 225 E. None
23. 7 years ago the ratio of ages of P and Q was 4 : 5 and after 5 years from now the ratio between ages of P and R is 4 : 5. If after 1 year the ratio between age of P and R will be 7 : 9, then find the present age of Q.
(A) 32 years (B) 27 years (C) 35 years (D) 24 years (E) None of these
24. P, Q and R can complete a work in 40 days, 50 days and 60 working alone. If P alone work for first 6 days and then P and Q worked for next 10 days and rest of work is completed by R alone, then find the time taken by R.
(A) 28 days (B) 24 days (C) 32 days (D) 25 days (E) None of these
25. A amount has to be distributed among man, woman and children in the ratio 7 : 8 : 9 respectively but it was mistaken to be 1/7 : 1/8 : 1/9. If total amount is Rs. 4584, then how much more did A man get than what he deserved?
(A) Rs. 385 (B) Rs. 452 (C) Rs. 391 (D) Rs. 451 (E) None of these
26. P and Q can complete a work together in 18 days and Q and R together can complete a work in 32 days. R alone can complete the work in 48 days. Find the number of days taken by P to complete 13/15th of the work.
(A) 16.4 days (B) 17.5 days (C) 19.2 days (D) 18.4 days (E) None of these
27. Speed of a boat Q is 56.25% more than the speed of boat P in still water and the difference between their upstream is 4.5 km/h. How much time will boat Q take to cover 275 km?
(A) 22 hours (B) 16 hours (C) 13 hours (D) 15 hours (E) None

1

S149. Ans.(a)

Sol.

% Profit of the second shopkeeper $= \frac{(138-120)\times 100}{120} = 15\%$

2

S152. Ans.(a)

Sol.

$1 \xrightarrow{9} 3 \xrightarrow{9} 9 \xrightarrow{9} 27 \xrightarrow{9} 81 \xrightarrow{9} 243$

9x5 = 45 years

3

S154. Ans.(c)

Sol.

$(A+B)x48 = ax120$

$\frac{A+B}{A} = \frac{60}{48} = \frac{5}{2}$

T. W=5x48 = 240

Efficiency -

A 2 — B 3

1 — 10

240 — 2400

4

S160. Ans.(d)

Sol.

	Downstream	:	upstream
	62		48
S	31	:	24
T	24	:	31
	x 16		x 16
	384		496

$\frac{496}{60} = 8.2hrs$

5

S161. Ans.(a)

Sol.

$\frac{CP}{MP} = \frac{100-D\%}{100+P\%} = \frac{100-30}{100+5} = \frac{70}{105}$

CP = 70, MP = 105

$x = \frac{MP-CP}{CP} = \frac{105-70}{70} = \frac{35}{70}$

$x\% = \frac{35}{70} \times 100 = 50\%$

6

S168. Ans.(c)

Sol.

A 15 — B 20 days

4 — 3 ← efficiency

60 → total work

4(A + B) + 8C = 60

28 + 8C = 60

C = 4

Time taken by C = $\frac{60}{4}$ = 15 days

Ratio of days taken by A : B : C = 15 : 20 : 15 = 3 : 4 : 3

Ratio of efficiency = $\frac{1}{2} : \frac{1}{4} : \frac{1}{3} = \frac{12}{2} : \frac{12}{4} : \frac{12}{3} = 4 : 3 : 4$

Total work = Efficiency × Days worked

Total work done by A = 4 × 4 = 16

Total work done by B = 3 × 4 = 12

Total work done by C = 4 × 8 = 32

$16 + 12 + 32 \rightarrow 6000$

$60 \rightarrow 6000$

$1 \rightarrow 100$

Total income of A = 100 × 16 = 1600

Total income of B = 100 × 12 = 1200

Total income of C = 100 × 32 = 3200

One day income of A = $\frac{1600}{4} = 400$

One day income of B = $\frac{1200}{4} = 300$

One day income of C = $\frac{3200}{8} = 400$

7

S174. Ans.(c)

Sol.

$30\%\ T_1 + 20\%\ T_2 = P$

$20\%\ T_1 + 30\%\ T_2 = P - 30$

$10\%\ T_1 - 10\%\ T_2 = 30$

$T_1 - T_2 = 300$

given that $T_1 + T_2 = 1700$

then, $T_1 = 1000$

$T_2 = 700$

8

S175. Ans.(c)

Sol.

$\frac{2}{5}$ — $\frac{4}{9}$

$\frac{5}{12}$

$\frac{1}{36}$ — $\frac{1}{60}$

= 5 : 3

9

S176. Ans.(d)

Sol.

Time difference = 15 min or $\frac{15}{60}$ hrs

Distance, D = $\frac{20\times 40}{20} \times \frac{15}{60} = 10$ km

10

S186. Ans.(d)

Sol.

	Cu	:	Zn	
A	3	:	4 = 7	×2 ×2
B	5	:	9 = 14	×1 ×3

A —	12	: 16
B —	15	: 27
C —	27	: 43

C = 27 : 43

11

S188. Ans.(c)

Sol.

According to question

$8(A + B + C) = 10(A + B)$

$\Rightarrow \frac{A+B+C}{A+B} = \frac{5}{4}$

Then, C alone will take to fill $\frac{2}{3}$rd of the cistern

$= \frac{5\times12}{1} \times \frac{2}{3} = 40$ hours

12

S190. Ans.(c)

Sol.

MP = 530

After 15%, discount = 450.5

But he sold it in = 396.44

Thus Discount = 54.06

$\text{Discount\%} = \frac{54.06}{450.5} \times 100 = 12,$

Second discount = 12%

13

S191. Ans.(c)

Sol.

Total questions → 140

Correct answer → $\frac{80\times70}{100} = 56$

Remaining questions = 140 − 80 = 60

need correct answer → $\frac{140\times60}{100} = 84$

Now required correct answer percentage = $\frac{84-56}{60} \times$

$= \frac{140}{3}\% = 46\frac{2}{3}\%$

14. Ans. (B)

Age of Priya = 2x years Age of Aman

= 5x years Age of Reena

= 6x years 5x + 6x = 55 11x

= 55 x = 5 Age of Priya = 2 × 5

= 10 years Age of Saloni = 6 × 5 × 1.2

= 36 years Sum = 10 + 36 = 46 years

15

S24. Ans.(d)

Sol. Time taken by A =(x+8) hours

Time taken by B = $(x+\frac{9}{2})$ hours

Work done together in one hour = $\frac{1}{x+8} + \frac{1}{x+\frac{9}{2}}$

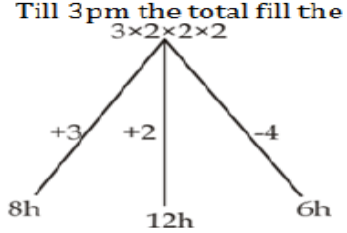
Required no. of hours = $x = \frac{\left[(x+8)\left(x+\frac{9}{2}\right)\right]}{\left[2x+\frac{25}{2}\right]} = 6$ *hours*

16

S25. Ans.(b)

Sol.

Till 3pm the total fill the tank = 6 + 2 = 8



& total capacity = 24

So remaining capacity = 16

& req. time = $\frac{16}{3+2-4} = \frac{16}{1} = 16$ hours

So, time = 3pm + 16 hour = 7 a.m

17

S32. Ans.(a)

Sol.

From question, $\frac{35x+5\times32}{x+5} = 34$

$x = 10$

18

S156. Ans.(c)

Sol.

Ram	Rohit	Sam	Rohan	Ravi
x-25	x	x-45	75	
85	110	65		119

+34

M.M = 169

$\frac{119}{169} \times 100 = 70\%$

19

S161. Ans.(a)

Sol.

$\frac{CP}{MP} = \frac{100-D\%}{100+P\%} = \frac{100-30}{100+5} = \frac{70}{105}$

CP = 70, MP = 105

$x = \frac{MP-CP}{CP} = \frac{105-70}{70} = \frac{35}{70}$

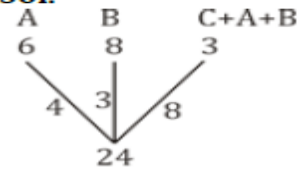
$x\% = \frac{35}{70} \times 100 = 50\%$

20

S162. Ans.(d)
Sol.
Suppose B = 100 then A = 128
$C = \frac{75}{100}(A + B) \Rightarrow C = \frac{3}{4}(A + B)$
$= \frac{3}{4} \times (128 + 100)$
$= \frac{3}{4} \times 228 = 171$
A : B : C
128 : 100 : 171
+43
$= \frac{43}{128} \times 100 = 33.59 = 33.6\%$

21

S163. Ans.(a)
Sol.



A : B : C
4 : 3 : 1
$C = \frac{1}{8} \times 1848 = 231$

22. A
Work done by A in 6 days= 6/12=1/2
Work done by B in 6 days= 6/18 = 1/3
Remaining work= 1 – (1/2+1/3)= 1/6
This work is done by C in 4 days i.e. C can complete the whole work in 24 days.
So, Ratio of work= 6/12 : 6/18 : 4/24
=1/2 : 1/3 : 1/6 = 3 : 2 : 1
Share of A= (3/6*1650)=Rs.825
Share of B= (2/6*1650)=Rs.550
Share of C=(1/6*1650)=Rs.275

23. Ans. (A)
At Present, Age of P = (4x + 7) years,
Age of Q = (5x + 7) years
Age of R = (4x + 7 + 5) × 5/4 – 5
= (5x + 10) years
(4x + 7 + 1)/(5x + 10 + 1) = 7/9
9 × (4x + 8) = 7 × (5x + 11)
36x + 72 = 35x + 77
x = 5
Present Age of Q = 5 × 5 + 7
= 25 + 7 = 32 years

24. Ans. (B)
P 40 15
Q 50 } 600 { 12
R 60 10
Time taken by R
= (600 – 15 × 16 – 12 × 10)/10
= (600 – 240 – 120)/10
= 240/10 = 24 days

25. Ans. (C)
Actual Ratio,
Man : Woman : Children = 7 : 8 : 9
Actual amount that man deserve
= 4584 × 7/24 = 1337 Rs.
Amount distributed in ratio,
Man : Woman : Children
= 1/7 : 1/8 : 1/9 = 72 : 63 : 56
Man get = 4584 × 72/191 = 1728 Rs.
Difference = 1728 – 1337 = 391 Rs.

26. Ans. (C)
P + Q 18 16
Q + R 32 } 288 { 9
R 48 6
Efficiency of Q = 9 – 6 = 3
Efficiency of P = 16 – 3 = 13
P alone complete the work in
= 288 × (13/15)/13 = 19.2 days

27. Ans. (A)
Speed of Boat P in still water
= 16x km/h
Speed of Boat Q in still water
= 16x × 1.5625 = 25x km/h
25x – 16x = 4.5
9x = 4.5
x = 0.5
Q cover 275 km in
= 275/(25 × 0.5) = 22 hours