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Section 1

QUANTITATIVE APTITUDE

CHAPTER 1

SPEED MATHS

Q1. What is the cube root of *389017* ? **[Time 15 Seconds]**

(a) 63 (b) 67

(c) 73 (d) 77

Q2. What is the cube root of *1685159* ? **[Time 15 Seconds]**

(a) 89 (b) 99

(c) 109 (d) 119

Q3. What is the cube root of *85184* ? **[Time 15 Seconds]**

(a) 44 (b) 46

(c) 54 (d) 56

Q4. Simplify (*4913* / 79597) $^{1/3}$? **[Time 30 Seconds]**

(a) 13 / 33 (b) 13 / 43

(c) 17 / 43 (d) 17 / 33

Q5. Simplify (*2146689* / 571787) $^{1/3}$? **[Time 30 Seconds]**

(a) 119 / 83 (b) 129 / 83

(c) 119 / 73 (d) 129 / 73

Q6. What is the square root of *6084* ? **[Time 15 Seconds]**

(a) 58 (b) 62

(c) 68 (d) 78

Q7. What is the square root of *12769* ? **[Time 15 Seconds]**

(a) 93 (b) 113

(c) 117 (d) 127

Q8. What is the square root of *67081* ? **[Time 15 Seconds]**

(a) 241 (b) 249

(c) 251 (d) 259

Q9. Simplify √(61009 / 1369) ? **[Time 30 Seconds]**

(a) 247/37 (b) 237/47

(c) 237/37 (d) 247/47

Q10. Simplify √(16641 / 162409) ? **[Time 30 Seconds]**

(a) 119/413 (b) 129/413

(c) 119/403 (d) 129/403

Q11. Find HCF of 12, 30, 66, 126 and 240 ?

[Time 15 Seconds]

(a) 3 (b) 6

(c) 9 (d) 12

Q12. Find LCM of 6, 8, 10 and 15 ? **[Time 15 Seconds]**

(a) 30 (b) 60

(c) 90 (d) 120

Q13. HCF and LCM of $28x^2y^3z^4p^5w^2r^6$, $14t^3k^4p^2n^4x$ is:

[Time 30 seconds]

a) $7x^2tp^3$ and $28\ x^2y^3z^4p^5w^2r^6t^3k^4n^4$ respectively
b) $7x^2tp^3$ and $14\ x^2y^3z^4p^4w^2r^6t^3k^4n^4$ respectively
c) $14p^2x$ and $28\ x^2y^3z^4p^5w^2r^6t^3k^4n^4$ respectively
d) $14p^2$ and $28\ x^2y^3z^4p^5w^2r^6t^3n^4$ respectively

Q14. Find HCF of 0.25, 0.35 and 0.4 ? **[Time 15 Seconds]**

(a) 0.25 (b) 0.05

(c) 0.50 (d) 1

Q15. Find LCM of 2.4, 1.6 and 0.8 ? **[Time 15 Seconds]**

(a) 0.4 (b) 3.2

(c) 4 (d) 4.8

Q16. HCF and LCM of 3/25, 9/20 and 6/35 is:

[Time 30 seconds]

a) 3/175 and 9/25 respectively
b) 3/350 and 6/5 respectively
c) 9/175 and 3/35 respectively
d) 3/700 and 18/5 respectively

Q17. Simplify $\sqrt{585}$ up to 2 decimal places.

[Time 15 Seconds]

(a) 23.82 (b) 24.18

(c) 24.74 (d) 24.51

Q18. Simplify $\sqrt{1625}$ up to 2 decimal places.

[Time 15 Seconds]

(a) 40.08 (b) 41.23

(c) 40.31 (d) 41.65

Q19. Which of the following is largest? **[Time 30 Seconds]**

$\sqrt{2}$, $\sqrt[3]{3}$, $\sqrt[4]{4}$,

(a) **$\sqrt{2}$** (b) **$\sqrt[3]{3}$**

(c) **$\sqrt[4]{4}$** (d) All are equal

Q20. Which of the following is smallest? **[Time 30 Seconds]**

$\sqrt{3}$, $\sqrt[3]{5}$, $\sqrt[4]{8}$,

(a) **$\sqrt{3}$** (b) **$\sqrt[3]{5}$**

(c) **$\sqrt[4]{8}$** (d) All are equal

Q21. Find the product 1008 x 1015. **[Time 15 Seconds]**

(a) 1013160 (b) 1043080

(c) 1033040 (d) 1023120

Q22. Find the product 256 x 0.24 **[Time 15 Seconds]**

(a) 62.04 (b) 61.44

(c) 60.64 (d) 63.24

Q23. If LCM (16,n) = 48 and HCF (16,n) = 8 then the value of n is : **[Time 30 seconds]**

(a) 8 (b) 16

(c) 24 (d) 48

Q24. HCF of $37(x^2-y^2)$ and $3(x+y)^2$ is : **[Time 15 seconds]**

(a) 1 (b) (x+y)

(d) (x-y) (d) (x^2-y^2)

Q25. LCM of 5/12, 15/7 and 7/5 is : **[Time 15 seconds]**

(a) 105 (b) 1/84

(c) 7/75 (d) 15/7

ANSWER KEY

Chapter 1 SPEED MATHS

Q1 c	Q2 d	Q3 a	Q4 c	Q5 b
Q6 d	Q7 b	Q8 d	Q9 a	Q10 d
Q11 b	Q12 d	Q13 c	Q14 b	Q15 d
Q16 d	Q17 b	Q18 c	Q19 b	Q20 c
Q21 d	Q22 b	Q23 c	Q24 b	Q25 a

CHAPTER 2

NUMBER SYSTEM

Q1. Which of the following statement is incorrect?

[Time 30 seconds]

(a) All rational numbers are real numbers
(b) All integers are rational numbers
(c) All irrational numbers are integers
(d) All imaginary numbers are complex numbers

Q2. Convert 82.121212 …… into fraction

[Time 30 seconds]

(a) 1361/17 (b) 8212/99

(c) 4106/49 (d) 2710/33

Q3. Convert 172.3777777…… into fraction

[Time 45 seconds]

(a) 17065/99 (b) 85327/495

(c) 17177/97 (d) 1177/7

4. Which of the following is a *perfect* number?

[Time 15 seconds]

(a) 10 (b) 25

(c) 28 (d) 100

Q5. What shall be minimum value of P so that given number is completely divisible by 11? [Time 30 seconds]

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(a) 2 (b) 3

(c) 5 (d) 7

Q6. The product of two different irrational numbers is always: [Time 15 seconds]

(a) Rational (b) Irrational

(c) Integer (d) zero

Q7. T^2-1 is divisible by 8, if T is: [Time 30 seconds]

a) a natural number b) a whole number

c) an even integer d) an odd integer

Q8. Find the greatest number of 5 digits, that will give remainder of 7 when divided by 9 and 8 respectively:
[Time 60 seconds]

a) 99923 b) 99943

c) 99953 d) 99973

Q9. The smallest number which when reduced by 7, is divisible by 28, 21, 18, 16 and 12 is: **[Time 60 seconds]**

a) 1008 b) 1015

c) 1022 d) 1032

Q10. In a race, Amit, Anil and Ajit step off together. Measurement of their steps is 75 cm, 80 cm and 90 cm respectively. Find the minimum distance each should walk so that all of them can cover the same distance in complete steps? **[Time 45 seconds]**

a) 3.6 m b) 36 m

c) 360 cm d) 3600 m

Q11. In a division sum, the divisor is 4 times the quotient and 6 times the remainder. If the remainder is 38, the dividend is? **[Time 60 seconds]**

a) 11084 b) 12078

c) 13034 d) 14072

Q12. Number of trailing zeroes in 48! would be:

[Time 15 seconds]

a) 9 b) 10

c) 11 d) 12

Q13. Number of trailing zeroes in the below product would be: **[Time 15 seconds]**

78 x 83 x 125 x 43 x 25 x 22 x 127 x 35

a) 2 b) 3

c) 4 d) 5

14. Find the unit digit in the product

12 x 23 x 38 x 45 x 216 x 22 x 55 x 36

[Time 15 seconds]

a) 6 b) 5

c) 4 d) 0

Q15. : Find the unit digit in $(721542)^{497}$

[Time 30 seconds]

a) 2 b) 4

c) 6 d) 8

Q16. Find the unit digit in $(33221133)^{3334}$

[Time 15 seconds]

a) 1 b) 3

c) 9 d) None of these

Q17. Find the unit digit in the product

$(97)^{98}$ x $(43)^{44}$ **[Time 30 seconds]**

a) 1 b) 3

c) 7 d) 9

Q18. Find the remainder when 36 x 38 x 41 x 43 x 45 x 47 is divided by 17 **[Time 30 seconds]**

a) 2 b) 3

c) 7 d) 9

Q19. Find the remainder when 24 x 27 x 29 x 43 x 69 x 72 is divided by 23. **[Time 15 seconds]**

a) 0 b) 3

c) 5 d) 13

Q20. Find the remainder when $(260)^{260}$ is divided by 7. **[Time 30 seconds]**

a) 0 b) 1

c) 2 d) 3

Q21. Find the remainder when $(99)^{64}$ is divided by 13. **[Time 30 seconds]**

a) 0 b) 1

c) 7 d) 11

Q22. Find the remainder when $(123)^{123}$ is divided by 7.

[Time 30 seconds]

a) 0 b) 1

c) 3 d) 5

Q23. The largest number which divides 77, 147, 252 to leave the same remainder in each case is:

[Time 45 seconds]

a) 9 b) 15
c) 25 d) 35

Q24. 48 apples, 72 strawberries and 108 oranges have to be arranged in row such that each row has equal number of items and each row has fruit of particular variety only, what is the least number of rows required?

[Time 45 seconds]

a) a)17 b)13
b) c)18 d)19

25. The greatest number which on dividing 1657 and 2037 leaves remainders 6 and 5 respectively is:

[Time 45 seconds]

(a). 123 **(b). 127**

(c). 235 **(d). 305**

ANSWER KEY

Chapter 2 NUMBER SYSTEM

Q1 c	Q2 d	Q3 b	Q4 c	Q5 a
Q6 b	Q7 d	Q8 b	Q9 b	Q10 b
Q11 c	Q12 b	Q13 a	Q14 d	Q15 a
Q16 c	Q17 d	Q18 d	Q19 a	Q20 b
Q21 b	Q22 b	Q23 d	Q24 d	Q25 b

Chapter 3

Percentage & its application

Q1. ½ is how much percent of 2/5 ? [Time 15 seconds]

(a). 40% **(b). 80%**

(c). 125% **(d). 133.33%**

Q2. What percent of 2kg is 400 grams?

[Time 15 seconds]

(a). 20% **(b). 40%**

(c). 200% **(d). 400%**

Q3. Salary of Amit is first increased by 10% and then decreased by 10%. What is the net percentage change from original salary? Time 15 seconds]

(a). no change **(b). 1 % increase**

(c). 1% decrease **(d). 2% increase**

Q4. Working hours of a company is first decreased by 20% and then increased by 20%. What is the net percentage change from original working hours?

[Time 15 seconds]

(a). no change **(b). 2 % increase**

(c). 2% decrease **(d). 4% decrease**

Q5. Length and breadth of a rectangular plot is increased and decreased by 10% and 20% respectively. What is the percentage change in its area? **[Time 30 seconds]**

(a). 10 % increase **(b). 12 % increase**

(c). 10 % decrease **(d). 12 % decrease**

Q6. Side of a square is decreased by 40%. What is the percentage change in its area? **[Time 30 seconds]**

(a). 40 % decrease **(b). 36 % decrease**

(c). 64 % decrease **(d). Can't be determined**

Q7. Length and breadth of a garden which is rectangular in size is decreased and increased by 10% and 30% respectively. What is the percentage change in its area?

[Time 30 seconds]

(a). 10 % increase **(b). 17 % increase**

(c). 17 % decrease **(d). 20 % decrease**

Q8. If a side of a cube is decreased by 10%, what would be change in its volume? **[Time 30 seconds]**

(a). 10 % decrease **(b). 16.66 % decrease**

(c). 27.1 % decrease **(d). 30 % decrease**

Q9. Anuj has to get 40 percent marks to clear an assessment test. He got 50 marks but fails by 10 marks. Find the maximum marks of the assessment test.

[Time 30 seconds]

a) 150 **b) 180**

c) 200 **d) 300**

Q10. If X is 4 times as large as Y. then percent by which Y is less than X is **[Time 15 seconds]**

a) 40 % **b) 60 %**
c) 75 % **d) 33.33 %**

Q11. Roy sells his toys 25% cheaper than Sam and 25% dearer than Ben. How much percentage is Ben's toys cheaper than Sam's? **[Time 30 seconds]**

a)33.33% **b)50%**
c) 66.66% **d)40%**

Q12. Mr Sunil is worried about the balance of his monthly budget. The price of petrol has increased by 40%. By what percent should he reduce the consumption of petrol so that he is able to balance his budget? **[Time 30 seconds]**

a) 33.33 % **b) 28.57 %**
c) 25 % **d) 14.28 %**

Q13. A reduction of 20% percent in the price of an item enables a buyer to buy 5 kg more for rupees 1200. The reduced price per kg of the item is **[Time 30 seconds]**

a) 36 **b) 45**
c) 48 **d) 60**

Q14. In an examination, 75% of the students passed in science, 70% in Mathematics and 65% in both science and mathematics. If 60 students failed in both the subject, find the total number of students? **[Time 30 seconds]**

a)100 **b)200**
c)300 **d) 400**

Q.15. A positive no. is by mistake multiplied by 10 instead of being divided by 10. By what percent more or less than the correct answer is the result obtained?

[Time 45 seconds]

a). 10% **b). 99%**
c). 100% **d). 9900%**

Q.16. A positive no. is by mistake divided by 4 instead of being multiplied by 4. By what percent more or less than the correct answer is the result obtained?

[Time 45 seconds]

a). 400% **b). 25%**

c). 93.75% **d). 106.66%**

Q17. In 2019, there were 840 boys in a school. The number decreased by 30 percent in 2020. How many girls are there in the school if the number of girls is 150 percent of the total number of boys in the school in 2020?

[Time 45 seconds]

a). 882 **b). 856**

c). 798 **d). 784**

Q18. A man spends 70% of his income. His income is increased by 20% and his expenditure also increases by 20%. Find the percentage increase in his saving?

[Time 45 seconds]

a) 10% **b) 15%**

c) 20% **d) 25%**

Q19. A salesman earned 8% commission on the amount of total sales up to Rs 20,000, inclusive, and p percent commission on the amount of total sales above Rs20,000. If the salesman earned a total commission of Rs2000 on total sales of Rs24,000, what was the value of p?

[Time 45 seconds]

(a) 4 **(b) 6**
(c) 8 **(d) 10**

Q20. The price of each share of stock YYY, when traded at a certain stock exchange, first goes up by k percent and then falls down by k percent every alternate day. After one such up-down cycle, the price of the stock fell by $2. If, after another such up-down cycle, the price per share of stock YYY comes to $196.02, what was the original price per share of stock YYY?

[Time 60 seconds]

(a) $300 **(b) $270**
(c) $250 **(d) $200**

Q21. A mixture contains, by weight, 20% peanuts and 80% cashews. If this mixture costs 10 percent more than an equal quantity of pure peanuts, by what percent are cashews more expensive than peanuts?

[Time 45 seconds]

(a) 10.0% **(b) 12.5%**
(c) 15.0% **(d) 22.5%**

Q22. An item was valued 4/5th of the original price at the start of the year, and after 6 months, it was value 3/4th of the original price. By what percent did the value of the decrease during 6 month period? **[Time 45 seconds]**

(a) 5% **(b) 6.25%**

(c) 7.50% **(d) 10%**

Q23. In an election, Mr. Smith received 40,000 votes cast by the residents of city ABC. In addition to that he also received 20 percent of the votes from the residents of city XYZ. If T is the total number of votes cast in the election (City ABC and XYZ together) and 30 percent of the votes were cast by the residents of city ABC, which of the following represents the number of votes that Mr. Smith received? **[Time 60 seconds]**

(a) 1.4T + 20000 **(b) 0.14T + 20000**

(c) 0.21T + 40000 **(d) 0.14T +40000**

Q24. In a manufacturing company, 60 percent employees are male and the remaining are females. In a union election,40 percent of male and 60 percent of female employees voted for Candidate XYZ. What percent of the total employees voted for Candidate XYZ?

[Time 60 seconds]

(a) 40% **(b) 48%**

(c) 50% **(d) 60%**

Q25. The suggested retail price (MRP) of a certain item is $60. Store ABC sells the item for 20% more than the MRP. The regular price of the item at Store XYZ is 30% more than the MRP, but the item is currently on sale for 10 percent less than the regular price. If GST is 5% of the purchase price at both stores, what is the result when the total cost of the item at Store XYZ is subtracted from the total cost of the item at Store ABC?

[Time 60 seconds]

(a) $0 **(b) $0.63**

(c) $1.80 **(d) $2.1**

ANSWER KEY

Chapter 3 Percentage

Q1 c	Q2 a	Q3 c	Q4 d	Q5 d

Q6 c	Q7 b	Q8 c	Q9 a	Q10 c
Q11 d	Q12 b	Q13 c	Q14 c	Q15 d
Q16 c	Q17 a	Q18 c	Q19 d	Q20 d
Q21 b	Q22 b	Q23 d	Q24 b	Q25 d

Chapter 4

Profit and Loss

Q1. What would be selling price of an item if its cost price is Rs 4800 and loss is 20%?

[Time 15 seconds]

(a) Rs 2980 **(b) Rs 3840**

(c) Rs 4460 **(d) 5760**

Q2. What would be cost price of an item if its selling price is Rs 900 and profit is 50%?

[Time 15 seconds]

(a) Rs 1050 **(b) Rs 840**

(c) Rs 600 **(d) 450**

Q3. A toy costing 250y was sold 300y. What is the gain or loss percent? **[Time 15 seconds]**

(a) 16.66% gain **(b) 20% loss**

(c) 20% gain **(d) Can't be determined**

Q4. An item was sold for price 72t and its cost was 96t. What is the gain or loss percent? **[Time 15 seconds]**

(a) 33.33% loss **(b) 25% loss**

(c) 33.33% gain **(d) 25% gain**

Q5. The cost price of 20 articles is equal to the selling price of 25 articles. The gain or loss percent is

[Time 15 seconds]

(a) 20% loss **(b) 25% loss**

(c) 20% gain **(d) 25% gain**

Q6. The cost price of 64 articles is equal to the selling price of 48 articles. The gain or loss percent is

(a) 16.66% loss **(b) 33.33% loss**

(c) 16.66% gain **(d) 33.33% gain**

Q7. If gems are bought at 12 a rupee, how many must be sold for a rupee to gain 20%? **[Time 30 seconds]**

(a) 8 **(b) 10**

(c) 15 **(d) Depends on number of gems**

Q8. By selling certain items at 48 a rupee, a man loses 20%. How many a rupee must he sell to gain 20%?

[Time 30 seconds]

(a) 24 **(b) 32**

(c) 56 **(d) 64**

Q9. A man sells goodies at 120 a rupee, and gains 10%. How many a rupee must he sell to gain 20%?

[Time 30 seconds]

(a) 110 **(b) 132**

(c) 148 **(d) 164**

Q10. What profit percent is made by selling an article at a certain price, if by selling at three-fourth of that price there would be a gain of 25%? **[Time 30 seconds]**

(a) 28% **(b) 35%**

(c) 40% **(d) 66.66%**

Q11. What profit percent is made by selling an article at a certain price, if by selling at four-fifth of that price there would be a loss of 20%? **[Time 30 seconds]**

(a) 10% **(b) 20%**

(c) 25% **(d) No profit no loss**

Q12. A vendor sells two items for Rs.99 each. On one he gained 10% and on the other he lost 10%. His gain or loss percent is ? **[Time 30 seconds]**

(a) 1% gain **(b) 2% gain**

(c) 1% loss **(d) No profit no loss**

Q13. Market price of certain item is Rs 400 and it's sold at 20% flat discount. What would be its selling price if vendor has no gain on its cost price? **[Time 30 seconds]**

(a) Rs 400 **(b) Rs 320**

(c) Rs 480 **(d) Rs 280**

Q14. Goods are sold so that when 4 percent is taken off the list price, a profit of 20% is made. How much percent is the list price more than the cost price? **[Time 30 seconds]**

(a) 4% **(b) 20%**

(c) 25% **(d) Can't be determined**

Q15. A toy was sold at a loss of 20 percent. If it were sold for Rs. 80 more, there would have been a gain of 20%. What is the cost price of the toy? [Time 45 seconds]

(a) Rs 120 **(b) Rs 160**

(c) Rs 200 **(d) Rs 240**

Q16. A vendor could sell only 4/5th of the stock at the rate of $3 per item. If 100 items were unsold, what was the total amount he received from the sale? [Time 30 seconds]

(a) $240 **(b) $1200**

(c) $1250 **(d) $1300**

Q17. A shopkeeper procured 1600 packets of a certain chocolate brand at a cost of $10 per box. If he sold 3/4th of the boxes for one and half times their procurement cost and sold the remaining packets at a loss of 25 percent of their procurement cost, what was the shopkeeper's total profit on the total sale? [Time 45 seconds]

(a) $5000 **(b) $5500**

(c) $6000 **(d) $6500**

Q18. A salesman sells a certain commodity with a profit of 30% on the cost of the commodity. If the selling price were increased by Rs 100, it would yield a profit of 40% of the commodity's cost. What was the initial selling price of the commodity? **[Time 45 seconds]**

(a) Rs 1000 **(b) Rs 1200**
(c) Rs 1300 **(d) Rs 1400**

Q19. A vendor's gross profit on an item was 20% of the cost of the item. If the vendor increased the selling price of the item from Rs 60 to Rs 65, while kept the cost of the item same, then the vendor's profit on the item after the price increase was what percent of the cost of the item? **[Time 45 seconds]**

(a) 30% **(b) 15%**
(c) 20% **(d) 24%**

Q20. A company sells only toy cars and toy bikes. The revenue from toy car sales in 2012 was down 11% from 2011 and the revenue from toy bikes sales in 2012 were up 7% from 2011. If total revenues from toy car sales and toy bikes sales in 2012 were up 1% from 2011, what is the ratio of revenue from toy car sales in 2011 to revenue from toy bikes sales in 2011? **[Time 60 seconds]**

(a) 1:2 **(b) 2:3**
(c) 4:5 **(d) 3:2**

Q21. A vendor's profit in 2012 was 20% greater than its profit in 2011, and its profit in 2013 was 25% greater than its profit in 2012. The company's profit in 2013 was what percent greater than its profit in 2011? [Time 45 seconds]

(a) 5% **(b) 45%**
(c) 46% **(d) 50%**

Q22. A shopkeeper professes to sell all articles at a discount of 20%, but increase the selling price of eacharticle by 30% his gain on each article is?

[Time 30 seconds]

(a) 4% **(b) 5%**
(c) 6% **(d) 7%**

Q23. A dishonest businessman professes to sell his goods at cost price but he uses a false weight with which he cheats by 20% while buying and by 30% while selling. Find his profit percentage? [Time 60 seconds]

a) 27.3 % b) 34.2 %

c) 48.3 % d) 71.4 %

Q24. A seller uses 930 grams in the place of one kg to sell his goods. Find his actual % profit or loss when he sells his article on 3% gain on cost price? [Time 60 seconds]

a) $8\frac{70}{93}$ **%**

b) $9\frac{10}{93}$**%**

c) $10\frac{70}{93}$**%**

d) $20\frac{3}{4}$**%**

Q25. A trader buys 150 pens for Rs.1000 and he marks each of them at Rs.10. He gives a discount of 20% on each pen and he gives 1 pen free on bulk purchases of 9 pens. What is his minimum possible overall percentage of profit?

[Time 60 seconds]

a) 8%

b) 10%

c) 20%

d) 5%

ANSWER KEY

Chapter 4 Profit and Loss

Q1 b	Q2 **c**	Q3 c	Q4 d	Q5 a
Q6 d	Q7 b	Q8 b	Q9 a	Q10 d
Q11 d	Q12 c	Q13 b	Q14 c	Q15 c
Q16 b	Q17 a	Q18 c	Q19 a	Q20 a
Q21 d	Q22 a	Q23 d	Q24 c	Q25 a

Chapter 5

Ratio & Proportion and Partnership

Q1. If Rs 8000 needs to be divided among A, B and C in the ratio 1:2:5 respectively, what would be share of B ?

[Time 15 seconds]

a) Rs 1000 b) Rs 2000
c) Rs 4000 d) Rs 5000

Q2. What would be combined share of A and C, If Rs 15000 needs to be divided among A, B, C and D in the ratio 2:5:13:10 respectively?

[Time 15 seconds]

a) Rs 5000 b) Rs 6000
c) Rs 7500 d) Rs 9000

Q3. If A : B = 3 :4 and B : C = 5 : 6, find A : B : C.

[Time 15 seconds]

a) 12:15:17 b) 15:20:24
c) 15:18:20 d) 12:20:21

Q4. If A : B = 1 : 2, C : B = 3 : 5 and D : C = 4 : 3,

find A : B : C : D. **[Time 30 seconds]**

a) 5 : 10 : 6 : 8
b) 3 : 4 : 5 : 6
c) 1 : 2 : 3 : 4
d) 4 : 5 : 6 : 8

Q5. Two sums of money are proportional to 8 : 9. If the second is Rs 450, what is the first sum?

[Time 15 seconds]

a) Rs 300
b) Rs 400
c) Rs 500
d) Rs 600

Q6. Divide 37 into two parts such that 5 times one part and 11 times the other is together 227. What would be the difference of two parts ? **[Time 30 seconds]**

a) 42
b) 47
c) 23
d) 17

Q7. Find fourth proportion of $3\sqrt{2}$, $7\sqrt{3}$, and $3\sqrt{2}$

[Time 30 seconds]

a) $7\sqrt{2}$
b) $6\sqrt{2}$
c) $6\sqrt{3}$
d) $7\sqrt{3}$

Q8. Find third proportion of $12x^2yz^3$ and $6y$

[Time 30 seconds]

a) $x^2z^3 / 3y$
b) $yx^2z^3/3$

c) $3y / x^2z^3$ d) $y/3x^2z^3$

Q9. If a family of 12 persons can live on Rs 960 for 21 days, how long can a family of 9 persons live on Rs 840?
[Time 30 seconds]

a) 18 days b) 27.5 days
c) 15 days d) 24.5 days

Q10. Divide Rs 1375 between A, B and C such that A gets 1 ½ times as much as C and B 2 ½ times as much as C. Find share of C?Time 30 seconds]

a) Rs 275 b) Rs 350
c) Rs 550 d) Rs 600

Q11. A property worth of Rs 236250 is to be divided among four persons whose ratios are – A's to B's , as 2:3, B's to C's as 4:5, C's to D's as 6:7. What amount A must receive? [Time 30 seconds]

a) Rs 72000 b) Rs 54000
c) Rs 48000 d) Rs 36000

Q12. Incomes of two persons is in the ratio 5 : 3 and their expenditure ratio is 9 : 5. If they save Rs. 2600 and Rs. 1800 respectively, find their incomes: [Time 45 seconds]

(a) Rs. 8000, Rs. 4800 **(b) Rs. 6000, Rs. 3600**
(c) Rs. 10000, Rs.6000 **(d) Rs. 9000, Rs. 5400**

Q13. A bag contains one rupee, 50 paise and 25 paise coins in the ratio 2 : 3 : 5. Their total value is Rs. 608. The value of 25-paise coins is: **[Time 45 seconds]**

(a) Rs. 128 **(b) Rs. 160**
(c) Rs. 192 **(d) Rs. 256**

Q14. Two numbers are in the ratio 1 1/2 **: 2** 2/3 **. When each of these number is increased by 15, they become inthe ratio 1** 2/3 **: 2** 1/2 **. The greater of the numbers is:**
[Time 45 seconds]

(a) 27 **(b) 36**
(c) 48 **(d) 64**

Q15. At a certain shop, the ratio of the number of T-shirts to the number of trousers is 4 to 5, and the ratio of the number of jackets to the number of T-shirts is 3 to 8. If the ratio of the number of sweaters to the number of trousers is 6 to 5, what is the ratio of the number of jackets to the number of sweaters?
[Time 45 seconds]

(a) 9 to 25 **(b) 1 to 3**
(c) 1 to 4 **(d) 3 to 5**

Q16. A cylindrical rod that weighs 20 pounds is cut into two pieces so that one of the pieces weighs 16 pounds and is 36 feet long. If the weight of each piece is directly proportional to the square of its length, how many feet long is the other piece of rod?

(a) 9 **(b) 12**
(c) 18 **(d) 24**

Q17. In an engineering college, 80 more than $1/3^{rd}$ of all the students took an electronics course and $1/3^{rd}$ of those who took a electronics course took mechanical. If $1/6^{th}$ of all the students in the school took mechanical, how many students are in the school? **[Time 45 seconds]**

(a) 200 **(b) 240**
(c) 480 **(d) 600**

Q18. Total cost of an item is formed out of four costs: M-type cost, L-type cost, F-type cost, and O-type cost. If M-type cost and L-type cost constitute 3/7 part of the total cost, L-type cost and F-type cost constitute 1/2 part of the total cost, F-type cost and O-type cost constitute 4/7 part of the total cost, and M-type cost and O-type constitute 1/2 part of the total cost, which of the four cost is the highest among all?

[Time 60 seconds]

(a) M-type cost **(b) L-type cost**
(c) F-type cost **(d) F-type cost or O-type cost**

SPEED MATHS
EVERY SECOND COUNTS

Q19. In an organisation having 500 employees, 1/4th of the males and 1/5th of the females eat company breakfast. What is the greatest possible number of employees in the organisation eat company breakfast? [Time 45 seconds]

(a) 60 (b) 80
(c) 100 (d) 120

Q20. Sanjay and Ajay started a business by investing Rs. 120000 and Rs.150000 respectively. Find the share of Ajay out of an annual profit of Rs. 26100. [Time 30 seconds]

(a) Rs 11600 (b) Rs 12000
(c) Rs 13800 (d) Rs 14500

Q21. A and B enter into a partnership for a year, A contributes Rs 15000 and B Rs 20000. After 4 months they admit C, who contributes Rs 22500. If B withdraws his contribution after 9 months, what would be B's share a

profit of Rs 9000 at the end of the year?

[Time 30 seconds]

(a) Rs 3000 **(b) Rs 4500**
(c) Rs 6000 **(d) Rs 7500**

Q22. A, B and C enter into a business partnership. A advances two-fifth of the capital for one – fourth of the time; B advances one-fourth of the capital for one-fifth of the time; and C, the remainder of the capital for the two-fifth of the time. How much B gets from profit of Rs 21750? **[Time 45 seconds]**

(a) Rs 2500 **(b) Rs 3250**
(c) Rs 3750 **(d) Rs 4500**

Q23. Rina invested Rs 152,000 in a business. After few months Meena joined her and invests Rs 114,000. At the end of year both of them share the profits at the ratio of 2:1. After how many months did Meena join Rina?

[Time 45 seconds]

(a) 4 months (b) 6 months
(c) 8 months (d) 10 months

Q24. Three friends A, B and C shared profits in ratio of 5:7:8. They partnered for 1 year 2 months, 8 months and 7 months respectively. What was the ratio of their investments respectively? [Time 60 seconds]

(a) 7:9:13 (b) 10:25:32
(c) 12:17:23 (d) 20:49:64

Q25. Amy, Kim and Cindy invested Rs. 160000, Rs. 80000 and Rs. 160000 respectively in a business. Amy left after six months. If after eight months, there was a gain of Rs. 80010, then what will be the share of Kim?

[Time 60 seconds]

(a). Rs. 4450 (b). Rs. 8880

(c). Rs. 12600 (d). Rs. 17800

ANSWER KEY

Chapter 5

Ratio & Proportion,

Partnership

Q1 b	Q2 **c**	Q3 b	Q4 a	Q5 b
Q6 c	Q7 d	Q8 c	Q9 d	Q10 a
Q11 d	Q12 a	Q13 a	Q14 c	Q15 c
Q16 c	Q17 c	Q18 d	Q19 d	Q20 d
Q21 a	Q22 c	Q23 a	Q24 d	Q25 d

SPEED MATHS
EVERY SECOND COUNTS

Chapter 6
AVERAGE and
Problem on Ages & Numbers

Q1. A batsman had an average of 60 run in 9 innings, but in the 10th inning, he was out on zero, what is the average after 10th inning? **[Time 15 seconds]**

(a). 51 **(b). 53**

(c). 54 **(d). 55**

Q2. The average of first 61 natural numbers is-
[Time 15 seconds]

(a). 30 **(b). 30.5**

(c). 31 **(d). 32**

Q.3. The average of the 8 persons in a committee is increased by 2 years, when 2 men aged 35 years and 45 years are substituted by 2 women. Find the average age of these 2 women? **[Time 30 seconds]**

(a). 50 yrs **(b). 45 yrs**

(c). 48 yrs **(d). 40yrs**

Q4. A science college has a student-to-teacher ratio of 25 to 2. The average annual salary for teachers is Rs 42,000. If the college pays a total of Rs 3,780,000 in annual salaries to its teachers, how many students does the college have?

[Time 30 seconds]

(a) 900 **(b) 1000**
(c) 1125 **(d) 1230**

Q5. The average score of a class was 70. If the girls' average was 80 and that of boys' was 65, what could be the number of boys and girls, respectively, in the class?

[Time 30 seconds]

(a) 8; 9 **(b) 18; 27**
(c) 9; 18 **(d) 18; 9**

Q6. A technical course is divided into two groups. In group P, the average score in the test was 76. In group Q, the average score in the test was 70. If the average score of all 30 trainees in the course was 74, how many trainees are in group P? **[Time 45 seconds]**

(a) 10 **(b) 17**
(c) 20 **(d) 25**

Q7. A vendor has 500 kgs of tea in stock, 30% of which is dust. If the vendor adds another 200 kgs of tea of which 40% is dust, approximately what percent, by weight, of the vendor's tea contains dust? **[Time 45 seconds]**

(a) 31% **(b) 33%**
(c) 34% **(d) 35%**

Q8. The average of 7 numbers is 20. The average of the first 4 numbers is 19 and that of the last 4 is 24. What is the value of the 4^{th} number? **[Time 45 seconds]**

(a) 23 **(b) 25**
(c) 32 **(d) 43**

Q9. Bag A and Bag B each contain many white balls and red balls. All of the red balls have the same diameter. The diameter of each red ball is 4 inches less than the average diameter of the balls in Bag A and 2 inches greater than the average diameter of the balls in Bag B. What is the difference between average diameter, (in inches) of the balls in Bag A and of the balls in Bag B?

[Time 60 seconds]

(a) 4 **(b) 6**
(c) 7 **(d) 8**

Q10. At a certain garments factory, the average wage of 20 of the workers is Rs 25,000, the average wage of 25 other workers is Rs 20,000, and the average wage of the remaining 5 workers is Rs 100,000. What is the average wage of the 50 workers at the factory?

[Time 60 seconds]

(a) Rs 25,000 **(b) Rs 30,000**
(c) Rs 35,000 **(d) Rs 50,000**

SPEED MATHS
EVERY SECOND COUNTS

Q11. A student's average score on four speed tests is 78. If each speed test is scored out of 100, which of the following can be the student's score on the 5th test so that the student's average score on the five speed tests increases by an integer value? **[Time 45 seconds]**

(a) 82 **(b) 87**
(c) 89 **(d) 93**

Q12. A teacher gave the same test to three groups: X, Y, and Z. The average scores for the 3 groups were 64, 84, and 72, respectively. Numbers of candidates in each class who took the test was in the ratio 3 : 5 : 4, respectively. What was the average score for the three groups together? **[Time 60 seconds]**

(a) 72 **(b) 75**

(c) 77 **(d) 78**

Q13. A college gathering had 26 females and 22 males. The average age of all of the people at the party was exactly 66.74 years. If the average age of the males was exactly 69.74 years, what was the average age approximately, (in years), of the females? **[Time 60 seconds]**

(a) 61.24 **(b) 63.74**
(c) 64.24 **(d) 64.74**

Q14. The present ages of Geeta and Sarita are in the ratio of 6 : 7 respectively. After 6 years, their ages will be in the ratio of 15 : 17 respectively ? What is Geeta's present age? **[Time 30 seconds]**

a) 28 years **b) 30 years**
c) 25 years **d) None of these**

Q15. The ratio between the percent ages of Roy and Rahim is 3 : 2 respectively. Also, the ratio between the present ages of Rahim and Atul is 5 : 2 respectively. What is the ratio between the present ages of Roy and Atul respectively? **[Time 30 seconds]**

a) 4 : 15 **b) 15 : 4**
c) 9 : 5 **d) Cannot be determined**

Q16. The respective ratio of the present age of Steve and Tim is 4 : 5. Six years hence the respective ratio of their age will be 6 : 7. What is the difference between their age? **[Time 30 seconds]**

a) 2 years **b) 3 years**
c) 4 years **d) Cannot be determined**

Q17. The ratio of the present ages of Reena and Deepti is 2 : 3. After five years, Reena will be 31 years old. What will be the age of Deepti after three years? **[Time 30 seconds]**

a) 29 years **b) 39 years**
c) 42 years **d) 44 years**

SPEED MATHS
EVERY SECOND COUNTS

Q18. The present age of Vick and Sid are in the ratio of 14 : 17 respectively. Six years from now, their age will be in the ratio of 17 : 20 respectively. What is Sid's present age? **[Time 45 seconds]**

a) 17 years **b) 51 years**
c) 34 years **d) 28 years**

Q19. Sunil's present age is two-fifth of the age of his father. After 8 years, he will be one-half of the age of his father. How old is the father at present? **[Time 45 seconds]**

a) 40 years **b) 36 years**
c) 35 years **d) 32 years**

Q20. A positive number consists of two digits. If the digits swap places and the new number is added to the original number, find out that resulting number will be divisible by which integer? **[Time 45 seconds]**

a) 5 **b) 7**
c) 11 **d) 13**

Q21.A number consists of three digits whose sum is 10. The middle digit is equal to the sum of the corner two digits and if its digits are reversed, the number will be increased by 99. Find the original number. **[Time 45 seconds]**

a) 253 **b) 154**
c) 370 **d) 352**

SPEED MATHS
EVERY SECOND COUNTS

Q22. The number 75 can be written as the sum of the squares of three different positive integers. What is the sum of these three integers? **[Time 60 seconds]**

a) 13 **b) 14**
c) 15 **d) 16**

Q23. What is the sum of the first ten prime numbers? **[Time 45 seconds]**

a) 100 **b) 101**
c) 128 **d) 129**

Q24. If k is a positive integer and the product of all the integers from 1 to k, both inclusive, is a multiple of 990, what is the least possible value of k?
[Time 45 seconds]

a) 10 **b) 11**
c) 22 **d) 99**

Q25. The point P, Q, R, and S are on the number line, not necessarily in the order. If the distance between P and Q is 18 and the distance between R and S is 8, what is the distance between Q and S if the distance between R and P is the same as the distance between R and Q. Also assume that P is to the left of S on the number line? **[Time 60 seconds]**

a) 17 **b) 10**
c) 1 **d) Can't be determined**

ANSWER KEY

Chapter 6

AVERAGE, Problem on Ages & Numbers

Q1 c	Q2 **c**	Q3 c	Q4 c	Q5 d
Q6 c	Q7 b	Q8 c	Q9 b	Q10 b
Q11 d	Q12 b	Q13 c	Q14 d	Q15 b
Q16 b	Q17 c	Q18 c	Q19 a	Q20 c
Q21 a	Q22 a	Q23 d	Q24 b	Q25 d

Chapter 7

Mixture and Alligation

Q1. Two varieties of wheat W1 at Rs 16 per kg and W2 Rs 40 per kg are mixed together in the ratio 2 : 3. Find the average price of the resulting mixture? [Time 30 seconds]

a) Rs 26.6 per kg **b) Rs 28 per kg**
c) Rs 30.4 per kg **d) Rs 36.2 per kg**

Q2. Two varieties of rice R1 at Rs 20 per kg and R2 Rs 50 per kg are mixed together the average price of the

resulting mixture is Rs 38.75 per kg. In what ratio R2 and R1 are mixed? [Time 30 seconds]

a) 1:2 **b) 2:1**
c) 3:5 **d) 5:3**

Q3. Anil mixed 10 kg of 1^{st} variety of rice with 15 kg of 2^{nd} variety rice and sold the mixture at a price 40% more than that of 1^{st}. He did not get any profit. What is the ratioof the cost price of 1^{st} variety to that of 2^{nd} per kg?
[Time 45 seconds]

a) 2:5 **b) 3:5**
c) 4:5 **d) 5:8**

Q4. How many kgs of sugar worth Rs 3.60 per kg should be mixed with 8 kg of sugar worth Rs 4.20 per kg, such that by selling the mixture at Rs 4.40 per kg, there may be a gain of 10%? **[Time 45 seconds]**

(a) 6 kg **(b) 3 kg**

(c) 2 kg **(d) 4 kg**

Q5. To a certain solution of 4 litres of item X, containing 30% item X, 1 litre of water is added. The percentage of item X in the new solution is? **[Time 30 seconds]**

a)24% **b)13%**

c)15% **d)30%**

Q6. 40kg solution of sugar and water contains 5 % sugar, what quantity of sugar must be added to the solution to increase this to 12 %? **[Time 45 seconds]**

a) 1.85 kg **b) 2.54 kg**

c) 2.90 kg **d) 3.18 kg**

Q7. How many litres of Chemical X must be added to a 120-litre solution that is 25 percent Chemical X in order to produce a solution that is 40% Chemical X?

[Time 45 seconds]

(a) 30 **(b) 24**
(c) 20 **(d) 15**

Q8. A tank contains 50 litres of water. 5 litres of water is taken out of it and replaced by oil. The process is repeated again 2 more time. Find the proportion of oil and water in the resulting mixture. **[Time 45 seconds]**

(a) 1 : 4 **(b) 1 : 16**

(c) 271 : 729 **(d) 19 : 81**

Q9. A cistern full of wine contains 40% alcohol. A part of this wine is replaced by another containing 19% alcohol and now the percentage of alcohol was found to be 26%. The quantity of wine replaced is: **[Time 45 seconds]**

(a) 1/2 **(b) 2/3**

(c) 3/4 **(d) 4/5**

Q10. A cistern contains a mixture of two liquids X and Y is the ratio 7 : 5. When 9 litres of mixture are drawn off and the can is filled with Y, the ratio of X and Y becomes 7 : 9. How many litres of liquid X was contained by the can initially? **[Time 45 seconds]**

(a) 28 **(b) 24**

(c) 22 **(d) 21**

Q11. Two jars contain wine and water mixed respectively in the ratio of 2 : 1 and 3 : 7. Find the ratio in which these are to be mixed to get a new mixture in which the ratio of wine to water is 7: 9. **[Time 45 seconds]**

(a) 3:5 **(b) 2:7**

(c) 4:5 **(d) 2:3**

Q12. A 25% gain is made by selling the mixture of two types of rice at Rs. 450 per kg. If the type one costing 620 per kg was mixed with 130 kg of the type two, how many kilograms of the type one was mixed? [Time 45 seconds]

(a) 123 kg **(b) 58 kg**

(c) None of these **(d) Can't be determined**

Q13. There are 2 mixtures of oil and water, the percentage of oil in them being 25% and 75% respectively. If 2 gallons of the first are mixed with three gallons of the second, what will be the ratio of oil to water in the new mixture? [Time 45 seconds]

(a) 7 : 2 **(b) 5 : 3**

(c) 11 : 9 **(d) 7 : 3**

Q14. A large bottle contains a mixture of two liquids A and B in the ratio 9 : 3. When 7 litres of mixture are drawn off and the vessel is filled with B, the ratio of A and B becomes 8: 10. How many litres of liquid A were initially there in the vessel? [Time 45 seconds]

(a) 11.32 **(b) 11.76**

(c) 12.24 **(d) 12.88**

Q15. A Jar is filled with liquid, 4 parts of which are water and 5 parts of milk. What fraction of the mixture must be drawn off and replaced with water so that the amount of water and milk in the mixture may become equal?

[Time 45 seconds]

(a) 1/5 **(b) 1/10**

(c) 1/12 **(d) 1/20**

Q16. Julie purchased 25 kg of rice at cost price of Rs. 18.4 per kg and 32 kg of rice at cost price of Rs. 25.5 per kg. At what approximate price per kg should she sell the mixture to gain 20%?? **[Time 30 seconds]**

(a) Rs 23.6 **(b) Rs 24.4**

(c) Rs 26.8 **(d) Rs 27.2**

Q17. In 50 grams alloy of gold and silver, the gold is80% by weight. How much gold should be mixed to thisalloy so that the weight of gold would become 95%

[Time 30 seconds]

(a) 50 grams **(b) 150 grams**

(c) 200 grams (d) 250 grams

Q18. If 2 litres of water is evaporated on boiling from 8 litres of sugar solution containing 5% sugar, find the percentage of sugar in the remaining solution?

[Time 30 seconds]

(a) 4.5 % (b) 3.2 %

(c) 5.75% (d) 6.66%

Q19. A container contains a mixture of two liquids X and Y in the ratio 4 : 1. When 10 litres of the mixture is taken out and 10 litres of liquid Y is poured into the container, the ratio becomes 2 : 3. How many litres of liquid X was contained in the container?

[Time 45 seconds]

(a) 14 (b) 16

(c) 18 (d) 20

Q20. One type of liquid contains 20% of milk, the other contains 30% of milk. A container is filled with 5 parts of the first liquid and 3 parts of the second liquid. The percentage of milk in the mixture is: [Time 45 seconds]

(a) 12.25 % (b) 15 %

(c) 18.5 % (d) 23.75 %

Q21. There are 2 cans containing a mixture of wine, water and alcohol. The first can contains wine, water and alcohol in the ratio 3 : 5 : 2. The second can contains water and wine in the ratio 5 : 4. One litre of the first and 2 litres of the second are mixed together. What fraction of the mixture is alcohol? **[Time 45 seconds]**

(a) 1/5 **(b) 2/5**

(c) 1/15 **(d) 2/15**

Q22. Two jars are taken such that capacity of first is one tenth of second. In both of them, 3 litres of oil and 7 litres of water is added. Now, from second jar, 4 litres of the mixture is taken out and added to 1st jar. The 1st jar gets full after this process. With a mixture of oil and water, the remaining portion of second jar is to be filled so that the final ratio of oil and water in second jar becomes 2:3. What should be the ratio of oil and water in the added mixture? **[Time 60 seconds]**

(a) 1:5 **(b) 37:73**

(c) 19:81 **(d) 271:399**

Q23. Mr. Q purchased two different kinds of juice. In the 1st mixture, the ratio of fruit to water is 3 : 4 and the 2nd mixture it is 5 : 6. If he mixes, the two given mixtures and makes a 3rd mixture of 18 litres in which the ratio of fruit to water is 4 : 5, the quantity of the 1st mixture (whose ratio is 3 : 4) that is required to make 18 litres of the 3rd kind of mixture is: **[Time 60 seconds]**

(a) 6 **(b) 7**

(c) 8 **(d) 9**

Q24. There are two alloys made up of copper and zinc. In the first alloy copper is half as much as zinc and in the second alloy, copper is thrice as much as zinc. How many times the second alloy must be mixed with the first alloy to get the new alloy in which copper is twice as much as zinc? **[Time 60 seconds]**

(a) 2 **(b) 3**

(c) 4 **(d) 5**

Q25. Monu is mixing up a salad dressing. The recipe requires that 5/8 of the finished dressing mix be a special oil, 1/4 vinegar, and the remainder an even mixture of salt, pepper and sugar. If Monu accidentally doubles the vinegar and forgets the sugar altogether, what proportion of the botched dressing will be the special oil? **[Time 60 seconds]**

(a) 13/27 **(b) 15/29**

(c) 5/8 **(d) 5/12**

ANSWER KEY

Chapter 7 Mixture & Alligation

Q1 c	Q2 d	Q3 b	Q4 d	Q5 a
Q6 d	Q7 a	Q8 c	Q9 b	Q10 d
Q11 a	Q12 d	Q13 c	Q14 d	Q15 b
Q16 c	Q17 b	Q18 d	Q19 b	Q20 d
Q21 c	Q22 d	Q23 b	Q24 b	Q25 d

Chapter 8

Simple and Compound Interest

Q1. Find the simple interest on sum of Rs 12000 at 12¾ % per annum for 3 quarters of a year. **[Time 30 seconds]**

(a) Rs 925.25 **(b) Rs 1080.50**

(c) Rs 1147.50 **(d) Rs 1235.75**

Q2. In approximately how much time a sum of Rs 45000 at 16½ % per annum can yield Rs 24725 as simple interest?

[Time 30 seconds]

(a) 12 months (b) 28 months

(c) 32 months (d) 40 months

Q3. What shall be simple rate of interest per annum if a sum of Rs 28000 can yield Rs 2100 as simple interest in 8 months?

[Time 30 seconds]

(a) 11.25 % (b) 12.5 %

(c) 14.75 % (d) 16 %

Q4. Jojo wishes to quadruple her investment of certain amount in 12 years. What rate of interest per annum (simple interest) she shall opt for her investment?

[Time 30 seconds]

(a) 33.33 % (b) 25 %

(c) 20 % (d) 15 %

Q5. The simple interest on a certain sum of money for 2 ½ years at 12% per annum is Rs. 40 less than the simple interest on the same sum for 3 ½ years at 10% per annum. Find the sum.

[Time 30 seconds]

(a) 800 (b) 742

(c) 636 (d) 600

Q6. Ajay took a loan from a bank at the rate of 12 % per annum simple interest. After 3 years he had to pay Rs. 5400 as an interest for the said period. The principal amount borrowed by Ajay was: **[Time 30 seconds]**

(a) 12000 **(b) 13500**

(c) 15000 **(d) 16000**

Q7. Suman wants to divide her principal of Rs. 2379 into 3 parts such that the amounts after two, three and four years respectively are equal at the simple rate of interest 5% per annum. The first part is? **[Time 30 seconds]**

(a) 414 **(b) 621**

(c) 828 **(d) 1242**

Q8. A sum of money amounts to Rs.4250 in 3 years and Rs.5450 in 5 years with simple interest. What is the sum? **[Time 30 seconds]**

(a) 1850 **(b) 2450**

(c) 3050 **(d) 3650**

Q9. If Rs. 800 becomes Rs. 956 in 3 years at a certain rate of simple interest and when the rate of interest is increased by 4%, it grows further. Rs. 800 will grow up to what amount in 3 years with new rate?

[Time 30 seconds]

(a) Rs 1632 **(b) Rs 1248**

(c) Rs 1188 **(d) Rs 1052**

Q10. What will be the ratio of simple interest earned by Mohan on certain amount at the same rate of interest for 6 years and that for 9 years? **[Time 30 seconds]**

(a) 1:2 **(b) 2:3**

(c) 3:4 **(d) 4:5**

Q11. Pooja wants to invest Rs. 100000 in two types of shares. The firs type yields an interest of 9% per annum and the second type 11% per annum. If the total interest at the end of one year shall be 9 ¾ %, then find the amount to be invested in first type share should be?

[Time 45 seconds]

(a) 32000 **(b) 37500**

(c) 45800 **(d) 52400**

Q12. Find the compound interest on Rs. 12000 at 5% per annum for 2 years, compounded annually.

[Time 30 seconds]

(a) Rs 840 **(b) Rs 960**

(c) Rs 1230 **(d) Rs 1440**

Q13. Find the compound interest on Rs. 32,000 at 20% per annum for 9 months, compounded quarterly

[Time 30 seconds]

(a) Rs 4824 **(b) Rs 5044**

(c) Rs 6412 **(d) Rs 7200**

Q14. In approximately what rate of interest per annum, a certain sum of Rs can be tripled in 9 years when interest is compound per annum? **[Time 30 seconds]**

(a) 4 ½ years **(b) 6 years**

(c) 8 years **(d) 10 ¾ years**

Q15. The least number of complete years in which a certain sum of money invested at 20% compound interest will be more than doubled is **[Time 30 seconds]**

(a) 3 years **(b) 4 years**

(c) 5 years **(d) 6 years**

Q16. Simple interest on a certain sum of money for 3 years at 8% per annum is half the compound interest on Rs. 8000 for 2 years at 10% per annum. The sum placed on simple interest is **[Time 30 seconds]**

(a) Rs 3500 **(b) Rs 4000**

(c) Rs 4500 **(d) Rs 5500**

Q17. What will be the difference between simple and compound interest at 10% per annum on the sum of Rs 10000 after 4 years? **[Time 45 seconds]**

(a) Rs 375 **(b) Rs 482**

(c) Rs 554 **(d) Rs 641**

Q18. What would be effective annual rate of interest on a certain sum corresponding to nominal rate of 6% per annum compounded half yearly? [Time 45 seconds]

(a) 6.23 % **(b) 6.18 %**

(c) 6.09 % **(d) 6.02 %**

Q19. How the sum Rs. 3364 between X and Y can be divided so that X's share at the end of five years may equal to Y's share at the end of seven years with compound interest rate at 5%? [Time 60 seconds]

(a) Rs 1764 and Rs 1600 **(b) Rs 1864 and Rs 1500**

(c) Rs 1664 and Rs 1700 **(d) Rs 1564 and Rs 1800**

Q20. The simple interest on a certain sum at a certain rate is 9/16 times of the sum. If the number representing rate percent and time in years be equal, then the time is_____. [Time 30 seconds]

(a) 12 years **(b) 10 years**

(c) 7 ½ years **(d) 5 years**

Q21. At approximately what rate percent compound interest p.a. does a sum of become five-fold in 4 years? **[Time 60 seconds]**

(a) 30% **(b) 40%**

(c) 50% **(d) 60%**

Q22. The compound interest compounded p.a. on a certain sum for 2 years at 10% per annum is Rs. 525. The simple interest on the same sum for double the time at half the rate percent per annum is? **[Time 60 seconds]**

(a) Rs 500 **(b) Rs 600**

(c) Rs 700 **(d) Rs 800**

Q23. Pavan took a loan of Rs 50000 which needs to be paid back in 2 equal half - yearly instalments. How much each instalment Pavan has to pay if the rate of interest is 8% per annum compounded half - yearly? **[Time 60 seconds]**

(a) Rs 25830 **(b) Rs 26510**

(c) Rs 27800 **(d) Rs 28320**

Q24. Neha borrowed some sum of money and returned it in 3 equal quarterly instalments of approx. Rs. 2 lakhs each. What sum had she borrowed if the rate of interest was 16% per annum compounded quarterly?

[Time 60 seconds]

(a) Rs 4.8 lakhs **(b) Rs 5.15 lakhs**

(c) Rs 5.32 lakhs **(d) Rs 5.55 lakhs**

Q25. A luxury item is sold at Rs 12000 cash or Rs 2500 as cash down payment and Rs.2500 a month for 4 months. The approx. rate of interest per annum charged under the instalment plan is? **[Time 60 seconds]**

(a) 20% **(b) 24%**

(c) 26% **(d) 30%**

ANSWER KEY

Chapter 8

Simple and Compound Interest

Q1 c	Q2 d	Q3 a	Q4 b	Q5 a
Q6 c	Q7 c	Q8 b	Q9 d	Q10 b
Q11 b	Q12 c	Q13 b	Q14 c	Q15 b
Q16 a	Q17 d	Q18 c	Q19 a	Q20 c
Q21 a	Q22 a	Q23 b	Q24 d	Q25 c

Chapter 9

SPEED, DISTANCE, TIME

Q1. What is the length of the tunnel which a boy driving at 15 km an hour can cross in 5 minutes? [Time 15 seconds]

(a) 1000 m **(b) 1250 m**

(c) 1500 m **(d) 2000 m**

Q2. A passenger train runs at the speed of 75 km an hour. What is its speed in meter per second? [Time 15 seconds]

(a) 15.5 m/s **(b) 16.4 m/s**

(c) 18.2 m/s **(d) 20.8 m/s**

Q3. A superfast train 50 meters long passes a platform 100 meters long in 10 seconds. Find its speed in km/hr.

[Time 30 seconds]

(a) 45 **(b) 48**

(c) 54 **(d) 60**

4. X & Y are two points of interest Sunil wants to cover. He covers the distance from X to Y on cycle at 16 kmph and returns to X by walking at a uniform speed of 8 kmph. His average speed during the whole journey is___.

[Time 30 seconds]

(a) 12 kmph **(b) 10.66 kmph**

(c) 9 kmph **(d) Can't be determined**

Q5. A vehicle covers 4 successive stretches of 3 km each at speed of 10kmph, 20kmph, 30kmph and 60kmph respectively. Its average speed is___. **[Time 30 seconds]**

(a) 20 kmph **(b) 25 kmph**

(c) 30 kmph **(d) Can't be determined**

Q6. Anu walks at 5 kmph for 6hr and at 4 kmph for 9hr. Her average speed is___. **[Time 30 seconds]**

(a) 4.1 kmph **(b) 4.2 kmph**

(c) 4.4 kmph **(d) 4.5 kmph**

Q7. A car takes 2 hours more to cover a distance of 480 km when its speed is reduced by 8 km/h. Find its usual speed. **[Time 45 seconds]**

(a) 45 **(b) 48**

(c) 54 **(d) 60**

Q8. When the speed of a train is increased by 20%, it takes 20 minutes less to cover the same distance. What is the time taken to cover the same distance with the actual speed? **[Time 45 seconds]**

(a) 70 minutes **(b) 80 minutes**

(c) 90 minutes **(d) 120 minutes**

Q9. Joy goes to office at speed of 20km/h and reaches 7 minutes late. Next day, he covers the distance at 18 km/h and reaches 8 minutes late than the scheduled time. What is the distance of his office from his house?

[Time 45 seconds]

(a) 2 km **(b) 3 km**

(c) 5 km **(d) 6 km**

Q10. A local train 200 m long is running with a speed of 75 km/h. In what time will it pass a man who is running at 15 km/h in the same direction as the train is moving?

[Time 30 seconds]

(a) 6 seconds **(b) 12 seconds**

(c) 15 seconds **(d) 18 seconds**

Q11. Two train starts for Jhansi from Delhi at 11 a.m. and 10.40 a.m. and travel at 80 km/h and 60km/h respectively. How many kilometres from Delhi will the two train be together? **[Time 45 seconds]**

(a) 80 km **(b) 100 km**

(c) 120 km **(d) 150 km**

Q12. A scooter traveling at a certain constant speed takes 5 minutes longer to travel 10 km than it would take to travel 10 km at 60 km per hour. At what speed, in km per hour, is the scooter traveling? **[Time 30 seconds]**

(a) 36 **(b) 40**
(c) 42 **(d) 48**

Q13. A rider increased his average speed by 10 km per hour in each successive 10-minute interval after the first interval. If in the first 10-minute interval, his average speed was 30 km per hour, how many kilometres did he travel in the 4^{th} 10-minute interval? **[Time 30 seconds]**

(a) 4 **(b) 5**
(c) 8 **(d) 10**

Q14. A biker completed its first 30 km of a 60-km trip at an average speed of 60 km per hour. Approximately at what average speed, (in kmph) did the biker complete the remaining kilometres to achieve an average speed of 50 km per hour for the entire 60-km trip assuming that the biker completed its 60-km trip without a break?

[Time 45 seconds]

(a) 43 **(b) 40**
(c) 36 **(d) 33**

Q15. Ben ran for two days. On the 2nd day he ran at an average speed of 3 mile per hour faster than he ran on the 1st day. If during these 2 days he ran a total of 36 miles and ran total 8 hours, what could be his average speed, in miles per hour, on the 1st day? [Time 60 seconds]

(a) 0.25 **(b) 0.50**

(c) 1.00 **(d) None of these**

Q16. Two trains traveling toward each other on parallel tracks at constant speed of 50 km per hour and 60 km per hour are 285 km apart. How far apart will they be 2 hours before their engine meet? [Time 45 seconds]

(a) 110 **(b) 120**

(c) 220 **(d) 240**

Q17. If the speed zone limit along a 10-km section of a track is reduced from 50 km per hour to 40 km per hour. How many minutes more approximately will it take a train to travel along this section at the new speed zone limit than it would have taken at the old speed zone limit? [Time 60 seconds]

(a) 3 **(b) 5**

(c) 8 **(d) 10**

Q18. Kyle drives 3 times farther in 36 minutes than what Archie drives in 30 minutes. If Kyle drives at a speed of 40 km per hour, at what speed, in km per hour, does Archie drive? **[Time 60 seconds]**

(a) 6 **(b) 9**
(c) 16 **(d) 24**

Q19. A train left Pune station at 6 am and reached Sholapur station at 11 am. Another train left Sholapur station at 7 am and reached Pune at 10 am. At what time did the two trains pass one another? **[Time 60 seconds]**

(a) 7:50 am **(b) 8:13 am**
(c) 8:30 am **(d) 8:42 am**

Q20. Leo walks 5 km from point A to point B in one hour, then bicycles back to point A along the same route at 15 kmph. Bobby makes the same round trip, but does so at ½ of Leo's average speed. How many minutes does Bobby spend on his round trip? **[Time 45 seconds]**

(a) 40 **(b) 80**
(c) 120 **(d) 160**

Q21. David is travelling on his skates and has calculated to reach stadium at 2 p.m. if he travels at 10 km per hour. He will reach there at 12 noon if he travels at 15 km per hour. At what speed must he travel to reach stadium at 1 P.M.? **[Time 45 seconds]**

(a) 8 km/h **(b) 10 km/h**
(c) 12 km/h **(d) 15 km/h**

Q22. Allen walks around a circular field at the rate of 1 round per hour while Benjamin runs around it at the rate of 6 rounds per hour. They start at same point at 5:30 am. They shall first cross each other at ?

[Time 30 seconds]

(a) 5:38 am **(b) 5:42 am**
(c) 5:46 am **(d) 5.55 am**

Q23. A police patrol vehicle travelling at 60 km/h crosses an escaping thief travelling in the opposite direction at 48 km/h. The police vehicle has to travel for a further 5 minutes before it can find a gap in the median to take a U turn and start chasing the thief. After how much timeafter the police crosses the thief does it catch him?

[Time 60 seconds]

(a) 45 minutes **(b) 50 minutes**
(c) 60 minutes **(d) 40 minutes**

Q24. It takes 8 hours for Anita for journey of 600 km, if 120 km is done by bus and the rest by car. It takes 20 minutes more, if 200 km is done by bus and the rest bycar. The ratio of the speed of the bus to that of the car is:

[Time 45 seconds]

(a) 1:2 **(b) 4:5**
(c) 2:3 **(d) 3:4**

Q25. Tushaam and Pooja stand at point X. Pooja begins to walk in a straight line away from Tushaam at a constant rate of 2 km per hour. One hour later, Tushaam begins to jog in a straight line in the exact opposite direction at a constant rate of 6 km per hour. If both Tushaam and Pooja travel indefinitely, what is the difference (in minutes), between the amount of time it takes Tushaam to cover twice the distance that Pooja has covered and the amount of time it takes Tushaam to cover half of the distance that Pooja has covered? **[Time 120 seconds]**

(a) 120 **(b) 108**
(c) 90 **(d) 72**

ANSWER KEY

Chapter 9

SPEED, DISTANCE, TIME

Q1 b	Q2 d	Q3 c	Q4 b	Q5 a
Q6 c	Q7 b	Q8 d	Q9 b	Q10 b
Q11 a	Q12 b	Q13 d	Q14 a	Q15 d
Q16 c	Q17 a	Q18 c	Q19 c	Q20 b
Q21 c	Q22 b	Q23 b	Q24 d	Q25 b

Chapter 10

BOATS & STREAMS, RACES

Q1. Anil can row boat upstream at 18 km/h and downstream at 26 km/h. Find speed of boat in still water.

[Time 15 seconds]

(a) 20 km/h **(b) 22 km/h**
(c) 24 km/h **(d) 27 km/h**

Q2. A boat can be rowed upstream at 5.6 km/h and downstream at 7.2 km/h. Find speed of stream.

[Time 15 seconds]

(a) 1.2 km/h **(b) 1 km/h**

(c) 0.8 km/h (d) 0.6 km/h

Q3. Sunil can row his water-jet at the rate of 25.4 km/h upstream and 0.4 km/h faster downstream. Find his speed of water-jet and stream in km/h respectively.

[Time 30 seconds]

(a) 25 and 26 (b) 25.5 and 0.3
(c) 25.7 and 0.25 (d) 25.6 and 0.2

Q4. The difference between upstream and downstream speed of a boat is 4 km/h and downstream speed is 3 times the upstream speed. Find speed of stream and boat in km/h respectively. **[Time 30 seconds]**

(a) 2 and 6 (b) 1 and 3
(c) 6 and 2 (d) 3 and 1

Q5. A sailor takes 7 hours 20 minutes to row a boat 22 km downstream of a river and 9 hours 30 minutes to cover a distance of 19 km upstream. Find the speed of the current.

[Time 30 seconds]

(a) 0.5 km/h (b) 1 km/h
(c) 1.5 km/h (d) 2 km/h

Q6. In an hour, a motor boat goes 13 ½ km along the stream and return in 80 minutes. Find the ratio of upstream and downstream speed. **[Time 30 seconds]**

(a) 1:2 (b) 2:3
(c) 1:3 (d) 3:4

Q7. A boat, whose speed in 20 km/h in still water goes 40 km downstream and comes back in a total of 4 hours 16 minutes. The speed of the stream, in km/h, is

[Time 45 seconds]

(a) 3 km/h (b) 4 km/h
(c) 5 km/h (d) 6 km/h

Q8. A speed boat can travel with a speed of 32 km/h in still water. If the rate of stream is 10 km/h, then find the time taken by the speed boat to cover distance of 168 km downstream.

[Time 30 seconds]

(a) 3 hours (b) 4 hours
(c) 5 hours (d) 6 hours

Q9. The speed of Boat Pegasus is 3 km/h more than the speed of Boat Titan. The time taken by Boat Titan to travel a distance of 30 km downstream is 30 minutes more than the time taken by Boat Pegasus to travel the same distance downstream. If the speed of the stream is 1/3rd of the speed of Boat Titan, then what is the speed of Boat Pegasus?

[Time 60 seconds]

(a) 8 km/h (b) 10 km/h
(c) 11.2 km/h (d) 12 km/h

Q10. Two super-boats have same speed of 10 km/h in still water. First super-boat starts from a point X and goes upstream. At the same time, second super-boat starts from same point X and goes downstream. After three hours, the sum of total distance covered by them is 60 km. What is the speed of the stream in km/h? [Time 60 seconds]

(a) 2 km/h **(b) 2.5 km/h**
(c) 3 km/h **(d) can't be determined**

Q11. Two jets AX7 and BY5 are stationed at two points Y and Z on a flowing river. The direction of flow of river is from Y to Z. When the jets AX7 and BY5 moved towards each other they met at P, Which is at a distance of 20 m from the point Z. When AX7 moves towards BY5 and BY5 moves away from AX7 they met at S which is at a distance of 40 m from the point Z. Boat BY5's speed in still water is 5 times the speed at which river is flowing. Find the ratio of the speed of jet AX7 to jet BY5.

[Time 60 seconds]

(a) 8:1 **(b) 7:1**
(c) 6:1 **(d) 5:1**

Q12. The speed of a motor boat A in still water is 20 km/h, while that of motor boat B is 16 km/hr. The speed of stream is 6 km/h. Both motor boats start from the same side of stream at the same point & cross the 20 km wide stream. Find the distance between the points where they will reach on opposite side of stream [Time 60 seconds]

(a) 1/2 km **(b) 2/3 km**

(c) 3/2 km **(d) 4/3 km**

Q13. In a 500 m race, the ratio of the speeds of two contestants Ariv and Ben is 4 : 5. Ariv has a start of 180 m over Ben. Then, Ariv wins by: **[Time 45 seconds]**

(a) 50 m **(b) 72 m**
(c) 85 m **(d) 100 m**

Q14. Anjali and Binita take part in 100 m race. Anjali runs at 5 km/h. Anjali gives Binita a start of 8 m and still beats her by 8 seconds. The speed of Binita from the given option is: **[Time 45 seconds]**
(a) 4 km/h **(b) 4.25 km/h**
(c) 4.5 km/h **(d) 4.75 km/h**

Q15. In a 200 m race, Anu beats Bina by 20 m and Chinu by 30 m. In a race of 900 m, Bina will beat Chinu by **[Time 45 seconds]**
(a) 40 m **(b) 50 m**
(c) 55 m **(d) 65 m**

Q16. In a 1000 m race, Sanju is beaten by Romy by 50 m and in another 800 m race, Romy is beaten by Tony by 50

m. In a race of 320 m, Sanju will be beaten by Tony by

[Time 45 seconds]

(a) 35 m **(b) 40 m**
(c) 45 m **(d) 50 m**

Q17. In 600 m race, Amy covers the distance in 40 seconds and Cindy in 48 seconds. In this race Amy beats Cindy by

[Time 30 seconds]

(a) 100 m **(b) 150 m**
(c) 180 m **(d) 225 m**

Q18. In a 500 metres race A beats B by 45 m or 9 seconds. A's time in the race could be[Time 30 seconds]

(a) 91 seconds **(b) 100 seconds**
(c) 109 seconds **(d) 120 seconds**

Q19. In a friendly race, distance of 224 meters can be covered by Priya in 28 seconds and Seema in 32 seconds. By what margin (in metres) does Priya defeat Seema?

[Time 30 seconds]

(a) 24 m **(b) 32 m**
(c) 36 m **(d) 40 m**

Q20. In racing over a distance T at uniform speed, Avi can beat Bindu by 20m, Bindu can beat Cella by 10m, and Avi

can beat Cella by 28m. Then T, in metres is

[Time 30 seconds]

(a) 120 m **(b) 75 m**
(c) 100 m **(d) 50 m**

Q21. Amrit and Simran can cover a 200m race in 22 seconds and 25 seconds respectively. When Amrit finish the race, then Simran is at what distance from the finishing line? **[Time 30 seconds]**

(a) 24 m **(b) 30 m**
(c) 48 m **(d) 54 m**

Q22. Steve is 1 ½ times faster than Carlos. Steve gave Carlos a start of 90 m, still both of them finished the race together at same time. The said race comprised of how many metres? **[Time 30 seconds]**

(a) 150 m **(b) 180 m**
(c) 240 m **(d) 270 m**

Q23. In a 400m race, Asha gives Babita start of 5 seconds and beats her by 15m. In another race of 400m, Asha beats Babita by 7 1/7 seconds. Their respective speeds are:

[Time 30 seconds]

(a) 6 m/s, 7 m/s **(b) 5 m/s, 7 m/s**
(c) 8 m/s, 7 m/s **(d) 9 m/s, 7 m/s**

24. Ali, Bob and Kim are three contestants in a kilometre race. If Ali can give Bob a start of 40 metres andAli can give Kim a start of 64 metres, how many metres start can Bob gives Kim? **[Time 30 seconds]**

(a) 25 m **(b) 30 m**
(c) 35 m **(d) 40 m**

Q25. Sally, Romy and Billy ran a 20 km race. Sally's and Romy's combined times exceeded Billy's time by exactly 2 hours. If none of them ran faster than 8 km per hour, who could have won the race?

I. Sally **II. Romy** **III. Billy**

I only II only III only I or II only I, II, or III

[Time 60 seconds]

(a) I & II only **(b) II & III only**
(c) I & III only **(d) None**

ANSWER KEY

Chapter 10

BOATS & STREAMS, RACES

Q1 b	Q2 **c**	Q3 d	Q4 a	Q5 a
Q6 d	Q7 c	Q8 b	Q9 d	Q10 d
Q11 b	Q12 c	Q13 d	Q14 b	Q15 b
Q16 a	Q17 a	Q18 a	Q19 b	Q20 c
Q21 a	Q22 d	Q23 c	Q24 a	Q25 a

Chapter 11

TIME & WORK

Q1. If A can complete a work in 10 days and B can complete the same work in 15 days, then in how many days the same work can be completed by both A and B together? **[Time 15 seconds]**

(a) 5 days **(b) 6 days**

(c) 7 days **(d) 7.5 days**

Q2. If A can complete a work in 8 hours, B can complete the same work in 12 hours and C can complete it in 16

hours, then in how much time the same work can be completed by both A, B and C together? [Time 30 seconds]

(a) 2 2/7 **hours** **(b) 3** 3/11 **hours**

(c) 4 1/7 **hours** **(d) 3** 9/13 **hours**

Q3. Ram is twice as good workman as Shyam is. If Shyam takes 18 days to complete a piece work then in how many days the same work can be completed by both Ram and Shyam together? [Time 30 seconds]

(a) 5 days **(b) 6 days**

(c) 7 days **(d) 8 days**

Q4. P is 25% more efficient than Q. If Q takes 9 days to complete a piece work then in how many days the same work can be completed by both P & Q together? [Time 30 seconds]

(a) 4 days **(b) 5 days**

(c) 6 days **(d) 6 days**

Q5. A certain work can be finished by Seema and Pinki together in 30 days together. If Pinki can do twice the work which Seema can do in a given time, then in how many days Seema can complete the same work alone? [Time 30 seconds]

(a) 60 days **(b) 75 days**

(c) 90 days **(d) 120 days**

Q6. Anil can do a work in 6 days. Bharat takes 12 days. Deepak takes as long as Anil and Bharat would take working together. How long will it take Bharat and Deepak to complete the work together? [Time 45 seconds]

(a) 2 days **(b) 3 days**
(c) 2 ½ days **(d) 3 ½ days**

Q7. Sachin takes 3 days to complete 1/4th of a job. Rohit takes 3 days to complete 1/5th of the same work and Virat takes 5 days to complete 1/3rd of the job. If all of them work together for 3 days and Sachin & Virat quit, how long will it take for Rohit to complete the remaining work done. [Time 45 seconds]

(a) 2.4 days **(b) 3.5 days**
(c) 4.8 days **(d) 5.25 days**

Q8. Ajit does ½ as much work as Gagan in ¾ of the time. If together they take 18 days to complete the work, how much time shall Gagan take to do it? [Time 30 seconds]

(a) 30 days **(b) 25 days**

(c) 24 days **(d) 20 days**

Q9. P is thrice as good a workman as Q and takes 20 days less to do a piece of work than Q takes. In how many days P and Q can do the whole work if they start working together? **[Time 30 seconds]**

(a) 5 days **(b) 7.5 days**
(c) 9 days **(d) 12 days**

Q10. Simon can do a piece of work in 14 days and Tom alone can do it in 8 days. Tom works at it 4 days and then leaves. Simon alone can finish the remaining work in?

[Time 30 seconds]

(a) 6 days **(b) 7 days**
(c) 8 days **(d) 9 days**

Q11. P, Q, R, S can do a piece of work in 6, 10, 12, 15 days respectively. They started work together and P leaves after 1st day of work and Q after 2nd of work. In how manydays, R and S can finish the remaining work?

[Time 45 seconds]

(a) 3 4/5 **days** **(b) 4 ½ days**
(c) 2 2/9 **days** **(d) 1 ¾ days**

Q12. Aruna can do a job in 20 days, Dimple in 30 days and Parul in 60 days. If Aruna is helped by Dimple and Parul every 3rd day how long will it take for them to complete the job? **[Time 60 seconds]**

(a) 15 days **(b) 18 days**
(c) 16 days **(d) 12 days**

Q13. Riya can do a job in 15 days and Sunny in 20 days days. If Riya and Sunny work alternately on odd and even days with Riya starting, in how many days will the work be completed? **[Time 45 seconds]**

(a) 15 days **(b) 16 days**
(c) 17 days **(d) 18 days**

Q14. A piece of work can be done by 6 boys and 5 girls in 6 days or 3 boys and 4 girls in 10 days. It can be done by 9 boys and 15 girls in how many days? **[Time 60 seconds]**

(a) 3 days **(b) 5 days**
(c) 5.5 days **(d) 7 days**

Q15. Hilam alone can do a piece of work in 6 days and Jayavel alone in 8 days. Hilam and Jayavel undertook to do it for Rs. 32000. With the help of Raju, they completed the work in 3 days. How much is to be paid to Raju?

[Time 60 seconds]

(a) Rs 3000 **(b) Rs 4000**
(c) Rs 5000 **(d) Rs 6000**

Q16. 5 men and 2 women working together can do four times as much work as a man and a woman. Working capacity of man and woman is in the ratio:

[Time 60 seconds]

(a) 1:2 **(b) 2:1**
(c) 1:3 **(d) 3:1**

Q17. Four adults consume food costing Rs 600 on a 3-day trip. If a child consumes half the amount of food consumed by an adult, what would be the cost of food consumed by 6 adults and 3 children during a 4-day trip.

[Time 45 seconds]

(a) Rs 1800 **(b) Rs 1500**
(c) Rs 1250 **(d) Rs 1000**

Q18. Monika and Kareena individually take 12 hours more and 27 hours more, respectively, to complete a

certain work than what they would have taken to complete the same work working together. How many hours do Monika and Kareena take to complete the project, working together? **[Time 45 seconds]**

(a) 12 **(b) 16**
(c) 18 **(d) 24**

Q19. 10 men and 10 women earn Rs. 1320 in 3 days. 20 men and 40 women earn Rs. 7000 in 5 days. In how many days can 12 men and 8 women earn Rs. 2120?

[Time 60 seconds]

(a) 4 days **(b) 5 days**
(c) 6 days **(d) 8 days**

Q20. Moin's efficiency is 2/5thof Kamal's efficiency. Moin starts off three pieces of work and works for 1 day alone and Kamal joins him for the next ½ day. Moin leaves after that and Kamal doubles his efficiency. If Kamal can finish the remaining work alone in 4 hours, then in how many hours could Moin and Kamal together do one piece of work at initial efficiency? **[Time 90 seconds]**

(a) 12.25 hours **(b) 16.4 hours**
(c) 20.5 hours **(d) 23.2 hours**

Q21. A ground can be cleaned by 25 helpers in 2 hours. Also at the end of every 10 mins, 10 additional helpers join. In how many minutes will the whole ground can be cleaned? **[Time 90 seconds]**

(a) 60 mins **(b) 72 mins**
(c) 84 mins **(d) 90 mins**

Q22. Priya, Kusum and Riya work together for a particular time to do a certain amount of work. Riya needs one hour less than Priya to complete the work. Working together, they require 30 minutes to complete 50% of the job. The work also gets completed if Priya & Kusum start working together and Priya leaves after 1 hour and Kusum works for a further 3 hours. How much work does Riya do per hour? **[Time 90 seconds]**

(a) 25% **(b) 33.33%**
(c) 50% **(d) 66.66%**

Q23. Jojo is 20% more efficient than Bulbul. Bulbul is 25% less efficient than Sheena. Meena is 20% less efficient than Bulbul. Geeta who takes 8 days to complete the work alone is 25% less efficient than Sheena. If all of

them work together, how much time it will take to complete the work? **[Time 90 seconds]**

(a) 1 day **(b) 1.33 day**
(c) 1.5 day **(d) 1.75 day**

Q24. Simran can complete certain piece of work in 18 days and Raj & Simaran together can complete the same work in 6 days only. Raj & Simran started the work but after two days Simran ran away and Raj continues to work alone. If Kokila, who is one and a half times more efficient than Simran, joins the work on 4^{th} day and She works with Raj on alternate day basis with Kokila starting, in how many total days the work will be completed.

[Time 90 seconds]

(a) 8 ¼ days **(b) 8 ½ days**
(c) 9 days **(d) 9 ¾ days**

Q25. A vendor undertook to do a piece of work in 12 days. He employed certain number of helpers but 5 of them being absent from the first day, and rest could finish the work in 18 days. Find the number of helpers originally employed? **[Time 30 seconds]**

(a) 9 **(b) 12**
(c) 15 **(d) can't be determined**

ANSWER KEY

Chapter 11

TIME & WORK

Q1 b	Q2 d	Q3 b	Q4 a	Q5 c
Q6 b	Q7 d	Q8 a	Q9 b	Q10 b
Q11 c	Q12 a	Q13 c	Q14 a	Q15 b
Q16 b	Q17 b	Q18 c	Q19 b	Q20 c
Q21 a	Q22 c	Q23 c	Q24 c	Q25 c

Chapter 12

PIPES & CISTERNS

Q1. A tank can be filled by two Pipes A and B can in 3 hours and 6 hours respectively. Both together can fill the tank in how many hours? **[Time 15 seconds]**

(a) 1 hour **(b) 1 ½ hour**
(c) 2 hour **(d) 2 ½ hour**

Q2. Pipes A and B can fill a tank in 12 hours and 18 hours respectively. Both together can fill the tank in how many hours? **[Time 30 seconds]**

(a) 6 hours 40 mins **(b) 6 hour 48 mins**
(c) 7 hours 12 mins **(d) 7 hours 20 mins**

Q3. Pipes X can fill a tank in 10 hours alone and it takes just 6 hours to fill tank if Pipe Y is also opened along with Pipe X. In how many hours, Pipe Y can fill the tank alone? **[Time 30 seconds]**

(a) 12 hours **(b) 15 hours**
(c) 16 hours **(d) 18 hours**

Q4. Pipe A can fill a tank in 30 mins and Pipe B is doubly faster than Pipe A. If both pipes are opened together then in how much time the tank can be filled completely? **[Time 30 seconds]**

(a) 8 mins **(b) 10 mins**
(c) 12 mins **(d) 15 mins**

Q5. Pipe A can fill a tank in 45 mins and Pipe B is 50% slower than Pipe A. If both pipes are opened together then in how much time the tank can be filled completely? **[Time 30 seconds]**

(a) 15 mins **(b) 20 mins**

(c) 25 mins **(d) 30 mins**

Q6. Two pipes P and Q can fill a tank in 24 mins and 32 mins respectively. If both pipes are opened simultaneously, find out when the pipe P must be turned off so that the tank can be filled in exactly 16 mins?

[Time 30 seconds]

(a) 12 mins **(b) 15 mins**
(c) 16 mins **(d) 18 mins**

Q7. Pipe A can fill a tank in 15 mins and Pipe B can empty a full tank in 20 mins, then in how much time the tank can be filled completely if both pipes are opened simultaneously? **[Time 30 seconds]**

(a) 20 mins **(b) 30 mins**
(c) 45 mins **(d) 60 mins**

Q8. Pipe A can fill a tank in 40 mins and Pipe B can fill it in 60 mins. If Pipe C can empty a full tank in 50 mins, then in how much time the tank can be filled completely if all the three pipes are opened simultaneously?

[Time 45 seconds]

(a) 10 1/10 **mins**
(b) 11 1/11 **mins**
(c) 12 11/12 **mins**
(d) 13 11/13 **mins**

Q9. A jar normally takes 6 mins to be filled fully but because of the leak, it takes another minute. In how many minutes will the leak empty a full water jar?

[Time 30 seconds]

(a) 28 mins
(b) 36 mins
(c) 42 mins
(d) 48 mins

Q10. A water pump began filling an empty pool with water and ran at a constant rate till the pool was full. At some time, the pool was half full, and 140 mins later, it was 5/6 full. How many mins would it take the pump to fill the empty pool 50%? **[Time 45 seconds]**

(a) 120 mins
(b) 150 mins
(c) 210 mins
(d) 218 mins

Q11. A cistern is filled in half the time by three pipes P, Q and R. The pipe R is twice as fast as Q and Q is twice as slow as P. How much time will pipe P alone take to fill the cistern? **[Time 30 seconds]**

(a) 20 mins
(b) 30 mins
(c) 40 mins
(d) can't be determined

Q12. Two pipes can fill a tank in 20 minutes and 30 minutes. The first pipe was opened initially for 't' minutes after which the second pipe was opened. If it took a total of quarter of hour for the tank to be filled, find the value of t? **[Time 30 seconds]**

(a) 5
(b) 7.5
(c) 9
(d) 10

Q13. A large cistern can be filled by two pipes P and Q in 1 hour and 2/3 of an hour respectively. How many hours will it take to fill the cistern from empty state if Q is used for half the time and P and Q fill it together for the other half? **[Time 30 seconds]**

(a) 1/3 hour
(b) 1/2 hour
(c) 3/4 hour
(d) 1 hour

Q14. A bottle is filled by three inlets with uniform flow. The first two inlets operating simultaneously fill the bottle in the same time during which the bottle is filled by the third inlet alone. The second inlet fills the bottle 5 mins faster than the first inlet and 4 mins slower than the third inlet. The time required by the second inlet is:

[Time 45 seconds]

(a) 10 mins
(b) 12 mins
(c) 15 mins
(d) 18 mins

Q15. Black and white pipes are used to fill a cistern. Black pipe can fill the cistern twice as fast as white pipe. Blue pipe and green pipe can empty the cistern. Green pipe takes same time to empty the cistern as white pipe takes to fill it. Blue pipe can empty the cistern in 6 hours. If all 4 pipes are opened together, how much hour would it take to fill the cistern? Assume green pipe can empty the cistern twice as fast as blue pipe. **[Time 60 seconds]**

(a) 2 Hours
(b) 3 Hours
(c) 3.5 Hours
(d) 4 Hours

Q16. There are two taps white & black connected to a tank. Tank capacity is 40 L. White Tap can fill the tank in 10 hour. Black Tap can empty the tank in 20 hour. How much time will both the taps take to fill the tank when both are open simultaneously assuming that water evaporates at the rate of 2.5% of the total capacity of tank in an hour. **[Time 45 seconds]**

(a) 20 hours **(b) 24 hours**
(c) 40 hours **(d) 42 hours**

Q17. Three pipes PPP, QQQ and RRR can fill a large cistern in 6 hours. After working at it together for 2 hours, RRR is closed and PPP and QQQ can fill the remaining part in 7 hours. The number of hours taken by RRR alone to fill half the cistern is: **[Time 30 seconds]**

(a) 7 hours **(b) 8 hours**
(c) 8.5 hours **(d) 9 hours**

Q18. A cistern has a leak which would empty the completely filled cistern in 20 mins. If the cistern is full of water and a tap is opened which admits 2 litres of water per minute in the cistern, the leak now takes 30 mins to

empty the cistern. How many litres of water does the cistern hold? [Time 30 seconds]

(a) 3600 (b) 4200

(c) 5400 (d) 7200

Q19. A booster pump can be used for emptying as well as filling a tank. Tank capacity is 2400 m^3. The emptying capacity of the tank is 10 m^3 per min higher than its filling capacity and the pump needs 8 mins lesser to empty the tank than it needs to fill it. What is the filling capacity of the pump? [Time 60 seconds]

(a) 90 m^3/min (b) 72 m^3/min

(c) 60 m^3/min (d) 50 m^3/min

Q20. A city is supplied with water from a big overhand tank which is fed with a constant volume of water regularly. When the tank is full, if 16000 gallons are used daily, the supply fails in 50 days. However if 18500 gallons are used daily, the supply lasts for 40 days only. How much water can be used daily without the supply ever failing? [Time 60 seconds]

(a) 6000 gallons (b) 7500 gallons

(c) 9000 gallons (d) 10000 gallons

Q21. A tank is 7 m long and 4m wide. At what speed should water run through an inlet 5 cm broad and 4 cm

deep so that in 3 hours and 9 mins water level in the tank rises by 4.5m? [Time 60 seconds]

(a) 3 km/h **(b) 4 km/h**
(c) 5 km/h **(d) 6 km/h**

Q22. Two pipes P and Q can fill a cistern in 12 mins and 15 mins respectively. If both the pipes are opened simultaneously and pipe P is closed after 3 mins, then how much more time will it take to fill the cistern by pipe Q? [Time 60 seconds]

(a) 8 1/4 **mins** **(b) 8** 2/5 **mins**
(c) 7 3/4 **mins** **(d) 7** 4/5 **mins**

Q23. Two inlets A and B can fill a tank in 12 mins and 15 mins respectively while a third inlet C can empty the full tank in 6 mins. A and B are kept open for 5 mins at the start and then C is also opened. In what time is the tank emptied? [Time 60 seconds]

(a) 45 mins **(b) 40 mins**
(c) 36 mins **(d) 33 mins**

Q24. Two pipes can fill a jar with water in 15 and 12 hours respectively and third pipe can empty it in 4 hours. If the pipes be opened in order at 9, 10 and 12 noon respectively, the jar will be emptied at: [Time 60 seconds]

(a) 4:40 p.m. **(b) 3:40 p.m.**
(c) 2:40 p.m. **(d) 1:40 p.m.**

Q25. A leak at the bottom of the cistern can empty the full cistern in 8 mins. An inlet pipe fills water @ 6 litres a min. When the cistern is full, the inlet is opened and due to the leak, the cistern is emptied in 12 mins. How many litres does the cistern hold? **[Time 60 seconds]**

(a) 8920 **(b) 8640**
(c) 7895 **(d) 7560**

ANSWER KEY

Chapter 12

PIPES & CISTERNS

Q1 c	Q2 c	Q3 b	Q4 b	Q5 d
Q6 a	Q7 d	Q8 d	Q9 c	Q10 c
Q11 d	Q12 b	Q13 b	Q14 a	Q15 a

Q16 c	Q17 a	Q18 d	Q19 d	Q20 a
Q21 c	Q22 a	Q23 a	Q24 b	Q25 b

Chapter 13

PERMUTATION & COMBINATION

Q1. In how many ways can the letters of the word 'GREAT' be arranged? **[Time 15 seconds]**

(a) 30 **(b) 60**

(c) 120 **(d) 240**

Q2. How many 4 letters unique words can be formed from the letters of the word 'TRIPLE'? [Time 15 seconds]

(a) 120 **(b) 240**
(c) 360 **(d) 720**

Q3. In how many ways can the letters of the word 'ELEVEN' be arranged? [Time 15 seconds]

(a) 60 **(b) 120**
(c) 240 **(d) 360**

Q4. In how many ways can the letters of the word 'HONOLULU' be arranged? [Time 30 seconds]

(a) 480 **(b) 1080**
(c) 2520 **(d) 5040**

Q5. In how many ways can the letters of the word 'CLEVER' be arranged so that vowels are never together? [Time 30 seconds]

(a) 240 **(b) 480**
(c) 600 **(d) 720**

Q6. In how many ways can the letters of the word 'TOMATO' be arranged so that T's are never together?

[Time 30 seconds]

(a) 60 **(b) 120**
(c) 180 **(d) 240**

Q7. In how many ways can the letters of the word 'PAPER' be arranged so that vowels are never together?

Time 30 seconds]

(a) 24 **(b) 36**
(c) 48 **(d) 60**

Q8. In how many ways can the letters of the word 'NAYAN' be arranged so that vowels are at corners only?

[Time 15 seconds]

(a) 3 **(b) 6**
(c) 12 **(d) 18**

Q9. In how many ways can the letters of the word 'ONION' be arranged so that consonants are never together? **[Time 30 seconds]**

(a) 18 **(b) 24**
(c) 36 **(d) 72**

Q10. In how many ways can the letters of the word 'ODOUR' be arranged so that all the vowels are never together? **[Time 30 seconds]**

(a) 90 **(b) 72**
(c) 42 **(d) 36**

11. In how many ways can the letters of the word 'GOOGLE' be arranged so that consonants are only at even positions? **[Time 30 seconds]**

(a) 6 **(b) 9**
(c) 12 **(d) 24**

Q12. How many 4 digit numbers can be possible from the digits 2, 3, 4, 5, 7 and 8 when repetition of digits is not allowed? **[Time 30 seconds]**

(a) 120 **(b) 240**
(c) 360 **(d) 720**

Q13. How many 4 digit numbers can be possible from the digits 2, 3, 0, 5, 7 and 9 when repetition of digits is not allowed? **[Time 30 seconds]**

(a) 240 **(b) 300**
(c) 360 **(d) 480**

Q14. How many 4 digit even numbers can be possible from the digits 2, 3, 0, 5, 8 and 9 when repetition of digits is not allowed? **[Time 30 seconds]**

(a) 144 **(b) 156**
(c) 172 **(d) 180**

Q15. How many 3 digit numbers divisible by 5 can be possible from the digits 2, 3, 0, 5, and 9 when repetition of digits is not allowed? **[Time 30 seconds]**

(a) 21 **(b) 24**
(c) 36 **(d) 48**

Q16. How many 4 digit odd numbers divisible by 5 can be possible from the digits 2, 3, 0, 5, and 7 when repetition of digits is allowed? **[Time 30 seconds]**

(a) 500 **(b) 200**
(c) 100 **(d) 96**

Q17. A committee of 4 members needs to be selected from a group of 4 men and 3 women. In how many ways the members can be selected for the committee? **[Time 30 seconds]**

(a) 35 **(b) 105**
(c) 150 **(d) 210**

Q18. A committee of 4 members needs to be selected from a group of 5 boys and 4 girls, so that it has equal number of boys and girls. In how many ways can it be done?

[Time 30 seconds]

(a) 30 **(b) 60**
(c) 100 **(d) 120**

19. Team of 4 members for world Quiz competition needs to be selected from a group of 3 boys and 4 girls, such that it has at least 2 girl members. In how many wayscan it be done? **[Time 30 seconds]**

(a) 24 **(b) 30**
(c) 31 **(d) 35**

Q20. Five persons need to be selected for a concert from a group of 4 males and 5 females, such that number of males must be lesser than number of females. In how many ways persons can be selected? **[Time 30 seconds]**

(a) 35 **(b) 48**
(c) 64 **(d) 81**

Q21. Three balls to be picked from a box containing 3 green balls, 4 blue balls and 5 yellow balls. In how many ways can 3 balls be picked from the box, so that all balls picked are of different colour? **[Time 30 seconds]**

(a) 30 **(b) 60**
(c) 72 **(d) 120**

Q22. Three balls to be picked from a box containing 3 black balls, 4 blue balls and 4 white balls. In how many ways can 3 balls be picked from the box, so that all balls picked are of same colour? **[Time 30 seconds]**

(a) 10 **(b) 18**
(c) 24 **(d) 36**

Q23. In a birthday party, every person shakes hand with every other person. If there was a total of 28 handshakes in the party, how many persons were present in the party? **[Time 30 seconds]**

(a) 6 **(b) 7**
(c) 8 **(d) 9**

Q24. In how many ways five Japanese and five Indian can be seated along a circular table, so that they occupy alternate position. **[Time 30 seconds]**

(a) 5! 5! **(b) 4! 5!**

(c) 5! 4! **(d) 4! 4!**

Q25. There are 15 points in a plane out of which 6 are collinear. Find the number of lines that can be formed from 15 points. **[Time 30 seconds]**

(a) 90 **(b) 91**

(c) 105 **(d) 105**

ANSWER KEY
Chapter 13
PERMUTATION & COMBINATION

Q1 c	Q2 **c**	Q3 b	Q4 d	Q5 a
Q6 b	Q7 b	Q8 a	Q9 a	Q10 c
Q11 b	Q12 c	Q13 b	Q14 b	Q15 a
Q16 c	Q17 a	Q18 b	Q19 c	Q20 d
Q21 b	Q22 a	Q23 c	Q24 b	Q25 b

Chapter 14
PROBABILITY

Q1. What is the probability of getting heads more than tails when one coin is tossed three times?

[Time 15 seconds]

(a) 3/8 **(b) 1/2**

(c) 5/8 **(d) ¾**

Q2. What is the probability of getting alternate heads and tails when a coin is tossed three times? [Time 15 seconds]

(a) 1/4 **(b) 1/2**

(c) 1/3 **(d) 3/4**

Q3. What is the probability of getting at least 2 tails when a coin is tossed three times? [Time 15 seconds]

(a) 1/4 **(b) 1/2**

(c) 1/3 **(d) 3/4**

Q4. What is the probability of getting prime number of heads when 4 coins are tossed simultaneously?

[Time 30 seconds]

(a) 1/4 **(b) 1/2**

(c) 3/4 **(d) 5/8**

Q5. What is the probability of getting a prime number or a perfect number when one dice is rolled?

[Time 15 seconds]

(a) 1/3 **(b) 2/3**

(c) 1/6 **(d) 5/6**

Q6. A dice is rolled 2 times. What is the probability of getting sum of two throws as multiple of 4?

[Time 30 seconds]

a) 7/36 **(b) 2/9**

(c) 5/18 **(d) 1/4**

Q7. Two dices are rolled together. What is the probability of getting a bigger number on first dice?

[Time 30 seconds]

(a) 7/18 **(b) 1/3**

(c) 5/12 **(d) 4/9**

Q8. A card is drawn at random from a pack of 52 cards. What is the probability of the card being red Queen or a diamond card? **[Time 15 seconds]**

(a) 7/26 **(b) 15/52**

(c) 4/13 **(d) 17/52**

Q9. Two cards are drawn at random from a pack of 52 cards. What is the probability of both the cards being of spades? **[Time 30 seconds]**

(a) 1/4 **(b) 1/26**

(c) 1/17 **(d) 7/13**

Q10. Two cards are drawn at random from a pack of 52 cards. What is the probability of both the cards are of same suite? **[Time 30 seconds]**

(a) 1/17 **(b) 6/17**

(c) 16/51 **(d) 2/13**

Q11. Four cards are drawn at random from a pack of 52 cards. What is the probability of all the cards are of different suite? **[Time 30 seconds]**

(a) ${}^{4}C_{1} * {}^{4}C_{1} * {}^{4}C_{1} * {}^{4}C_{1} / {}^{52}C_{4}$

(b) ${}^{4}C_{1} / {}^{52}C_{4}$

(c) ${}^{13}C_{1} * {}^{13}C_{1} * {}^{13}C_{1} * {}^{13}C_{1} / {}^{52}C_{4}$

(d) ${}^{13}C_{1} / {}^{52}C_{4}$

Q12. Three cards are drawn at random from a pack of 52 cards. What is the probability of picking one King card and two prime number cards? **[Time 30 seconds]**

(a) ${}^{4}C_{1} * {}^{16}C_{1} * {}^{4}C_{1} / {}^{52}C_{3}$

(b) ${}^{20}C_{3} / {}^{52}C_{3}$

(c) ${}^{4}C_{1} * {}^{16}C_{2} / {}^{52}C_{3}$

(d) ${}^{4}C_{2} * {}^{13}C_{1} / {}^{52}C_{3}$

Q13. Three cards are drawn at random from a pack of 52 cards. What is the probability that all the cards are of same colour? **[Time 30 seconds]**

(a) ${}^{13}C_{3} / {}^{52}C_{3}$

(b) $2 * {}^{13}C_{3} / {}^{52}C_{3}$

(c) ${}^{4}C_{1} * {}^{4}C_{1} * {}^{4}C_{1} / {}^{52}C_{3}$

(d) $4 * {}^{13}C_1 \ / {}^{52}C_3$

Q14. What is the probability of having 53 Wednesdays in a leap year? [Time 30 seconds]

(a) 1/366 (b) 53/366

(c) 1 /7 (d) 2/7

15. What is the probability of having 53 Mondays and 53 Wednesdays in a leap year? [Time 30 seconds]

(a) 1/366 (b) 0

(c) 1 /7 (d) 2/7

Q16. What is the probability of having 53 Saturdays or 53 Tuesdays in a regular year? [Time 30 seconds]

(a) 1/365 (b) 0

(c) 1 /7 (d) 2/7

Q17. A bag contains 4 green, 3 red and 5 blue balls. 3 balls are selected at random from the bag. What is the

probability that selected balls will have at least 2 green balls? **[Time 30 seconds]**

(a) $^{4}C_{3} * {}^{4}C_{3} / {}^{12}C_{3}$

(b) $^{4}C_{1} / {}^{12}C_{3} + {}^{4}C_{3} / {}^{12}C_{3}$

(c) $^{4}C_{2} * {}^{3}C_{1} * {}^{5}C_{1} / {}^{12}C_{3}$

(d) $^{4}C_{2} * {}^{8}C_{1} / {}^{12}C_{3} + {}^{4}C_{3} / {}^{12}C_{3}$

Q18. A bag contains 3 green, 2 black and 5 white balls. Three balls are selected at random from the bag. What is the probability that selected balls will contain more green balls than white balls? **[Time 30seconds]**

(a) $^{3}C_{3} + {}^{3}C_{2} * {}^{5}C_{1} / {}^{10}C_{3}$

(b) $^{3}C_{2} * {}^{5}C_{1} / {}^{10}C_{3}$

(c) $^{3}C_{3} + {}^{3}C_{2} * {}^{2}C_{1} + {}^{3}C_{2} * {}^{5}C_{1} + {}^{3}C_{1} * {}^{2}C_{2} / {}^{10}C_{3}$

(d) $^{3}C_{2} + {}^{5}C_{1} / {}^{10}C_{3}$

Q19. Bag A contains 2 green, 3 red and 4 white balls and bag B contains 3 green, 4 red and 2 white balls. One ball is picked at random from the bag A and transferred to bag B. Now one ball is picked from bag B at random. What is the probability that picked ball from bag B would be red? **[Time 30 seconds]**

(a) 13 / 30

(b) 1/3

(c) 2/5

(d) 7/15

Q20. A bag contains 4 green, 3 red and 3 white balls. Three balls are picked one after other at random without replacement. What is the probability that picked balls would contain 1 red and 2 green balls?

[Time 45 seconds]

(a) 1/20 **(b) 3/20**

(c) 1/5 **(d) 1/4**

Q21. Two cards are drawn at random from a pack of 52 cards one after other with replacement. What is the probability of picking one Queen and one Jack?

[Time 30 seconds]

(a) 1/13 **(b) 2/13**

(c) 1/169 **(d) 2/169**

Q22. Two brothers are returning home from the college. It is known that Ajay speaks truth in 75% cases and Vijay speaks truth in only 25% cases. An accident takes place at on their way to home. What is the probability that Vijay and Ajay will report this event truly or both of them will not speak truth? **[Time 30 seconds]**

(a) 3/8 **(b) 5/8**

(c) 3/16 **(d) 5/16**

Q23. The probability that a randomly chosen apple is stale is 1/3. The probability that a randomly chosen apple is green is 2/7. Out of total T apples, 100 apples are neither stale nor green, find the value of T. **[Time 30 seconds]**

(a) 125 **(b) 140**

(c) 210 **(d) 250**

Q24. A mathematics puzzle is given to 3 students and their chances of solving it are 1/3, 1/4, 1/5 respectively. What is the probability that none of them will solve it?

[Time 30 sec]

(a) 1/5 **(b) 2/5**

(c) 1/3 **(d) 3/4**

Q25. A word is chosen at random from set of all possible words that can be formed from the letters of the word TOTAL. What is the probability that chosen word will not have vowels together? **[Time 60 seconds]**

(a) 1/5 **(b) 2/5**

(c) 3/4 **(d) 3/5**

ANSWER KEY

Chapter 14: PROBABILITY

Q1 b	Q2 c	Q3 b	Q4 d	Q5 b
Q6 d	Q7 c	Q8 a	Q9 c	Q10 b
Q11 a	Q12 c	Q13 b	Q14 d	Q15 b
Q16 d	Q17 d	Q18 c	Q19 a	Q20 b
Q21 d	Q22 a	Q23 c	Q24 b	Q25 d

Chapter 15

Clocks & Calendars

Q1. What would be angle between the minute hand and the hour hand of a clock when the time is 6.40 p.m.?

[Time 15 seconds]

(a) 60^o **(b) 48^o**

(c) 40^o **(d) 32^o**

Q2. What would be smaller angle between the minute hand and the hour hand of a clock when the time is 11.15 a.m.? **[Time 15 seconds]**

(a) 240^o **(b) 142.5^o**

(c) 120^o **(d) 112.5^o**

Q3. What would be smaller angle between the minute hand and the hour hand of a clock when the time is 8.48 a.m.? **[Time 30 seconds]**

(a) 24^o **(b) 32^o**

(c) 48^o **(d) 54^o**

Q4. What would be smaller angle between the minute hand and the hour hand of a clock when the time is 1912 hours? **[Time 30 seconds]**

(a) 168^o **(b) 144^o**

(c) 138^o **(d) 124^o**

Q5. At what time approximately between 3 and 4 o'clock will the hands of a clock be together? [Time 45 seconds]

(a) 3:27:47 **(b) 3:29:18**

(c) 3:32:44 **(d) 3:38:19**

Q6. At what time approximately between 8 p.m. and 9 p.m. (24 hours clock) will the hands of a clock be together? Time 45 seconds]

(a) 08:19:33 **(b) 20:20:20**

(c) 08:21:47 **(d) 20:21:49**

Q7. At what time(s) approximately between 7 and 8 o'clock will the hands of a clock be at right angle? [Time 60 seconds]

(a) 7:10:55 **(b) 7:43:38**

(c) 7:08:13 and 7:44:22 **(d) 7:10:55 and 7:43:38**

Q8. At what time(s) approximately between 1 & 2 o'clock will the hands of a clock be at 90^{o} ? [Time 60 seconds]

(a) 01:21:49 and 01:54:33 **(b) 01:19:43 and 01:52:43**

(c) 01:21:49 and 01:57:31 **(d) 01:23:22 and 01:54:33**

Q9. At what time approximately between 4 & 5 o'clock will the hands of a clock be in straight line (not coinciding)? **[Time 60 seconds]**

(a) 4:48:16 **(b) 4:49:52**

(c) 4:54:33 **(d) not possible**

Q10. At what hours approximately between 10 p.m. & 11 p.m. will the hands of a clock be in straight line (not coinciding)? **[Time 60 seconds]**

(a) 10:21:49 **(b) 22:49:21**

(c) 22:21:49 **(d) not possible**

Q11. How many times are the hands of the clock at right angles in a day? **[Time 30 seconds]**

(a) 24 times **(b) 48 times**

(c) 22 times **(d) 44 times**

Q12. How many times do the hands of the clock can coincide from 6 a.m. on 28th Feb 2020 till 6 a.m. on 1st March 2020? **[Time 60 seconds]**

(a) 24 times **(b) 48 times**

(c) 22 times **(d) 44 times**

Q13. How many times in a day do the hands of the clock are in straight line but not coinciding? [Time 30 seconds]

(a) 24 times **(b) 48 times**

(c) 22 times **(d) 44 times**

Q14. A clock is set right at 10 a.m. The clock gains 10 minutes in 24 hours. What will be the true time when the clock indicates 3 p.m. on the following day?

[Time 60 seconds]

(a) 2.48 p.m. **(b) 2:52 p.m.**

(c) 3:08 p.m. **(d) 3:12 p.m.**

Q15. A clock is set right at 4 a.m. The clock loses 16 minutes in 24 hours. What will be the true time when the clock indicates 9 p.m. on 4^{th} day? [Time 60 seconds]

(a) 7.48 p.m. **(b) 8 p.m.**

(c) 10 p.m. **(d) 10:12 p.m.**

Q16. What was the day of the week on 28th September 2004? **[Time 60 seconds]**

(a) Sunday **(b) Monday**

(c) Tuesday **(d) Wednesday**

Q17. What will the day of the week on 15th August 2050? **[Time 60 seconds]**

(a) Sunday **(b) Monday**

(c) Tuesday **(d) Wednesday**

Q18. How many days are there in 2x weeks and x days? **[Time 30 seconds]**

(a) 8x **(b) $2x^2$**

(c) 15x **(d) Data inadequate**

Q19. If on 8th Feb, 2009 it was Tuesday, What could the day of the week on 8th Feb, 2008? **[Time 30 seconds]**

(a) Sunday **(b) Monday**

(c) Tuesday **(d) Wednesday**

Q20. If today is Friday what would be day after 100 days?

[Time 30 seconds]

(a) Sunday **(b) Monday**

(c) Tuesday **(d) Wednesday**

Q21. On what dates of March 2005 did Monday fall?

[Time 60 seconds]

(a) 18th March **(b) 19th March**

(c) 20th March **(d) 21st March**

Q22. Suppose 12th May, 1997 was a Wednesday, then what could be the day on Oct 15, 2001? **[Time 60 seconds]**

(a) Wednesday **(b) Friday**

(c) Thursday **(d) Tuesday**

Q23. What could be the day on 1st April, 1326 if it's assumed that 9th July, 1529 was a Sunday?

[Time 60 seconds]

(a) Saturday **(b) Friday**

(c) Thursday **(d) Sunday**

Q24. The last day of a century cannot be?

[Time 60 seconds]

(a) Monday **(b) Friday**

(c) Tuesday **(d) Wednesday**

Q25. The calendar for the year 1988 is same as which of the following year? **[Time 60 seconds]**

(a) 2012 **(b) 2014**

(c) 2016 **(d) 2018**

ANSWER KEY
Chapter 15:
Clocks & Calendars

Q1 c	Q2 **d**	Q3 a	Q4 b	Q5 c
Q6 d	Q7 d	Q8 a	Q9 c	Q10 c
Q11 d	Q12 d	Q13 c	Q14 a	Q15 b
Q16 c	Q17 b	Q18 c	Q19 a	Q20 a
Q21 d	Q22 a	Q23 a	Q24 c	Q25 c

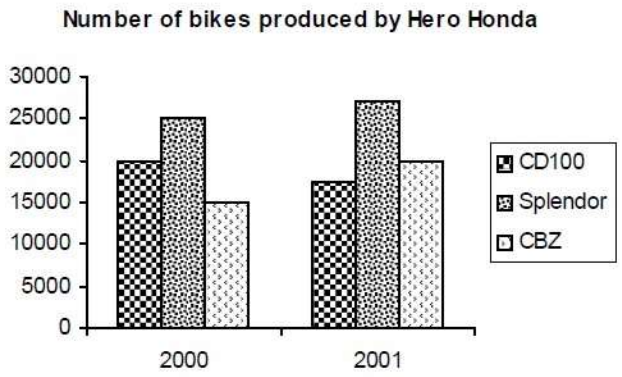
Chapter 16

Data Interpretation

& Data Sufficiency

Directions Q1-5: Refer to the charts below and answer the following questions.

[Time 3 minutes for all 5 Questions]



Q1. If Hero Honda Company wants all its CBZ which are produced in 2000 and 2001 to be sold then what should have been the number of CBZ produced in 2001?

a) 15,000
b) 18,000
c) 17,000
d) Data inadequate

Q2. If in 2001 Yamaha accounts for 8% of market share, what per cent of 'Others' category does it account for?

a) 24% **b) 25%**

c) 26.66% **d) 28%**

Q3. If Hero Honda plans to launch a new model Crazy in 2002 and if the market increases by 20% and the market share of Hero Honda increases by 10%, then what is the minimum number of Splendor that needs to be produced to meet the demand?

a) 27,000 **b) 25,000**

c) 25,500 **d) Data inadequate**

Q4. If in 2002 LML enters the market and is able to capture 30% of the 50,000 market then what is the percentage difference between market share of LML and Splendor? (Assuming percentage market share of Hero Honda models and Others is the same as in the previous year)

a) 24.5% **b) 19.5%**

c) 12% **d) None of these**

Q5. If the market share of 'Others' remains the same, what is the total number of Bajaj bikes sold in 2001, if Bajaj enters as a new player in market in 2001 and has the same market share as Hero Honda?

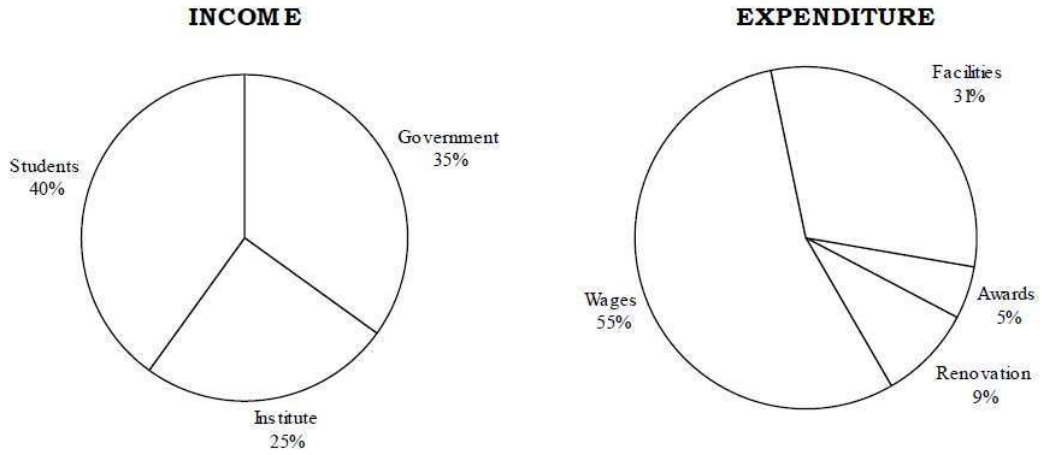
a) 52,500 **b) 53,500**

c) 52,000 **d) 54,000**

Directions Q6-10: Refer to the pie-charts below and answer the following questions:

[Time 3 minutes for all 5 Questions]

Monthly income and expenditure for a semi-government institute



There are some constraints:

a) Renovation can be done only with donation from the institute.
b) Income from students can only be used for awards and facilities else it has to be kept aside.
c) Government and institute's contributions do not increase even if any new course is introduced for/till first 2 years.

Q6. The total income is Rs 35×10^6. The percentage utilization of the income from the students is 100%. If expenditure on awards and facilities is met only with

income from students, then approximately what is the total expenditure?

a) Rs 31.5 × 106 **b) Rs 35 × 106**
c) Rs 39 × 106 **d) Rs 40 × 106**

Q7. Approximately what is the ratio of the expenditure on facilities to that on wages?
a) 5 : 11 **b) 11 : 6**
c) 6 : 11 **d) Cannot be determined**

Q8. If no money is spent on renovation, then the income and the expense are same, otherwise there is a shortage of Rs 650000. Then what is the total income?

a) Rs 72 × 105 **b) Rs 65.7 × 105**
c) Rs 59.5 × 105 **d) Rs 54.5 × 105**

Q9. Students' contribution is totally used in awards & facilities but Rs 2×10^6 is still left. Find the total expense.
a) Rs 5×10^6 **b) Rs 7.5×10^6**

c) Rs 4×10^6 **d) Data inadequate**

Q10. If the government's contribution was Rs 10 lakh and the management could Rs 60000, then what would be approximate expense on wages?

a) Rs 1504000 **b) Rs 1538000**
c) Rs 1602000 **d) Rs 1571000**

Data Sufficiency

Q11. If $|y + 3| = 2$, what is the value of y?

(1) $y < 0$

(2) $y^2 + 6y + 5 = 0$ **[Time 30 seconds]**

(a) Statement (1) ALONE is sufficient, but statement (2) ALONE is not sufficient.

(b) Statement (2) ALONE is sufficient, but statement (1) ALONE is not sufficient.

(c) BOTH statements (1) and (2) TOGETHER are sufficient, but NEITHER statement ALONE is sufficient.

(d) EACH statement ALONE is sufficient.

(e) Statements (1) and (2) TOGETHER are NOT sufficient.

Q12. If *x* and *y* are integers, is *y* even?

(1) $5x + 6y$ is even.
(2) $5x + 3y$ is even. **[Time 30 seconds]**

(a) Statement (1) ALONE is sufficient, but statement (2) ALONE is not sufficient.

(b) Statement (2) ALONE is sufficient, but statement (1) ALONE is not sufficient.

(c) BOTH statements (1) and (2) TOGETHER are sufficient, but NEITHER statement ALONE is sufficient.

(d) EACH statement ALONE is sufficient.

(e) Statements (1) and (2) TOGETHER are NOT sufficient.

Q13. By what % was the price of a mobile phone increased?
(1) The price of the mobile phone was increased by Rs 400.
(2) The price of the mobile phone after the increase was Rs 4000. **[Time 30 seconds]**

(a) Statement (1) ALONE is sufficient, but statement (2) ALONE is not sufficient.

(b) Statement (2) ALONE is sufficient, but statement (1) ALONE is not sufficient.

(c) BOTH statements (1) and (2) TOGETHER are sufficient, but NEITHER statement ALONE is sufficient.

(d) EACH statement ALONE is sufficient.

(e) Statements (1) and (2) TOGETHER are NOT sufficient.

Q14. How many male teachers in an institute of 80 teachers have post-graduate degree?
(1) One half of all the teachers in the institute have post-graduate degree.
(2) 50% of all the teachers in the institute are male.

[Time 30 seconds]

(a) Statement (1) ALONE is sufficient, but statement (2) ALONE is not sufficient.

(b) Statement (2) ALONE is sufficient, but statement (1) ALONE is not sufficient.

(c) BOTH statements (1) and (2) TOGETHER are sufficient, but NEITHER statement ALONE is sufficient.

(d) EACH statement ALONE is sufficient.

(e) Statements (1) and (2) TOGETHER are NOT sufficient.

Q15. If a vendor purchased an item at a cost of Rs. *P* and sold it for Rs. Q, by what % of its cost did she make profit?
(1) $Q - P = 60$
(2) $5Q = 6P$

[Time 30 seconds]

(a) Statement (1) ALONE is sufficient, but statement (2) ALONE is not sufficient.

(b) Statement (2) ALONE is sufficient, but statement (1) ALONE is not sufficient.

(c) BOTH statements (1) and (2) TOGETHER are sufficient, but NEITHER statement ALONE is sufficient.

(d) EACH statement ALONE is sufficient.

(e) Statements (1) and (2) TOGETHER are NOT sufficient.

Q16. If the list price of a scooter was Rs 6,250, what was the cost of the scooter to the trader?
(1) The cost price, when raised by 25 percent was equal to the list price.
(2) The scooter was sold for Rs 5,500, which was 10 percent more than the cost to the trader.[Time 45 seconds]

(a) Statement (1) ALONE is sufficient, but statement (2) ALONE is not sufficient.

(b) Statement (2) ALONE is sufficient, but statement (1) ALONE is not sufficient.

(c) BOTH statements (1) and (2) TOGETHER are sufficient, but NEITHER statement ALONE is sufficient.

(d) EACH statement ALONE is sufficient.

(e) Statements (1) and (2) TOGETHER are NOT sufficient.

Q17. Part P of a mill has 100 workers. What is the average annual wage of the workers at the mill?
(1) The average annual wage of the workers in Part P is Rs 15,000.
(2) The average annual wage of the workers at the mill other than those in Part P is Rs 20,000. [Time 45 seconds]

(a) Statement (1) ALONE is sufficient, but statement (2) ALONE is not sufficient.

(b) Statement (2) ALONE is sufficient, but statement (1) ALONE is not sufficient.

(c) BOTH statements (1) and (2) TOGETHER are sufficient, but NEITHER statement ALONE is sufficient.
(d) EACH statement ALONE is sufficient.
(e) Statements (1) and (2) TOGETHER are NOT sufficient.

Q18. A box has pink, blue, white, and black marbles in the ratio 6 : 5 : 2 : 2. How many white marbles are there in the box?
(1) There are 2 more pink marble than blue marbles.
(2) The box has a total of 30 marbles. [Time 30 seconds]

(a) Statement (1) ALONE is sufficient, but statement (2) ALONE is not sufficient.

(b) Statement (2) ALONE is sufficient, but statement (1) ALONE is not sufficient.

(c) BOTH statements (1) and (2) TOGETHER are sufficient, but NEITHER statement ALONE is sufficient.

(d) EACH statement ALONE is sufficient.

(e) Statements (1) and (2) TOGETHER are NOT sufficient.

Q19. Jar *A* and Jar *B* contain oil and Jar *B* was half full. If all of the oil in Jar *A* was poured into Jar *B*, then what fraction of the capacity of *B* was filled with oil?
(1) Jar *A* was one-third full, when the oil from it was poured into Jar *B*.
(2) Jar *A* and Jar *B* have the same capacity.
[Time 45 seconds]

(a) Statement (1) ALONE is sufficient, but statement (2) ALONE is not sufficient.

(b) Statement (2) ALONE is sufficient, but statement (1) ALONE is not sufficient.
(c) BOTH statements (1) and (2) TOGETHER are sufficient, but NEITHER statement ALONE is sufficient.
(d) EACH statement ALONE is sufficient.
(e) Statements (1) and (2) TOGETHER are NOT sufficient.

Q20. Two containers contain wine and water solutions of volume *A* litres and *B* litres, respectively. What would be the minimum concentration of wine in either container so that when the entire contents of both containers are mixed, 30 litres of 80% wine solution is obtained?

(1) $A = 2B$

(2) $A = B + 10$ **[Time 60 seconds]**

(a) Statement (1) ALONE is sufficient, but statement (2) ALONE is not sufficient.
(b) Statement (2) ALONE is sufficient, but statement (1) ALONE is not sufficient.
(c) BOTH statements (1) and (2) TOGETHER are sufficient, but NEITHER statement ALONE is sufficient.
(d) EACH statement ALONE is sufficient.
(e) Statements (1) and (2) TOGETHER are NOT sufficient.

Q21. What is the volume of wine present in a mixture of wine and water?

(1) When 2 litres of wine is added to the mixture, the resultant mixture has equal quantities of wine and water.

(2) The initial mixture had 2 parts of water to 1 part wine.

[Time 60 seconds]

(a) Statement (1) ALONE is sufficient, but statement (2) ALONE is not sufficient.
(b) Statement (2) ALONE is sufficient, but statement (1) ALONE is not sufficient.
(c) BOTH statements (1) and (2) TOGETHER are sufficient, but NEITHER statement ALONE is sufficient.
(d) EACH statement ALONE is sufficient.
(e) Statements (1) and (2) TOGETHER are NOT sufficient.

Q22. How many kilometres long is the route from Mumbai to Delhi?
(1) It will take 20 minutes less time to travel the entire route at an average rate of 65 kilometres per hour than at an average rate of 60 kilometres per hour.
(2) It will take 2.5 hours to travel the first half of the route at an average rate of 52 kilometres per hour.

[Time 60 seconds]

(a) Statement (1) ALONE is sufficient, but statement (2) ALONE is not sufficient.
(b) Statement (2) ALONE is sufficient, but statement (1) ALONE is not sufficient.
(c) BOTH statements (1) and (2) TOGETHER are sufficient, but NEITHER statement ALONE is sufficient.
(d) EACH statement ALONE is sufficient.
(e) Statements (1) and (2) TOGETHER are NOT sufficient.

Q23. Is the time required to travel *t* kms at *p* kms per hour greater than the time required to travel *T* kms at *P* kms per hour?
(1) $t = T + 20$
(2) $p = P + 20$

[Time 45 seconds]

(a) Statement (1) ALONE is sufficient, but statement (2) ALONE is not sufficient.
(b) Statement (2) ALONE is sufficient, but statement (1) ALONE is not sufficient.
(c) BOTH statements (1) and (2) TOGETHER are sufficient, but NEITHER statement ALONE is sufficient.
(d) EACH statement ALONE is sufficient.
(e) Statements (1) and (2) TOGETHER are NOT sufficient.

Q24. If 2 machines work simultaneously at their respective constant rates to manufacture screws, how many screws do they manufacture in 10 minutes?
(1) One of the machines manufactures screws at the constant rate of 50 screws per minute.
(2) One of the machines manufactures screws at twice the rate of the other machine. **[Time 60 seconds]**

(a) Statement (1) ALONE is sufficient, but statement (2) ALONE is not sufficient.
(b) Statement (2) ALONE is sufficient, but statement (1) ALONE is not sufficient.
(c) BOTH statements (1) and (2) TOGETHER are sufficient, but NEITHER statement ALONE is sufficient.
(d) EACH statement ALONE is sufficient.
(e) Statements (1) and (2) TOGETHER are NOT sufficient.

Q25. A dealer has a number of laptops to be sold by its sales persons. How many laptops are up for the sale?
(1) If each of the sales persons sells 5 of the laptops, 18 laptops will remain in stock.
(2) If each of the sales persons sells 4 of the laptops, 28 laptops will remain in stock. **[Time 60 seconds]**

(a) Statement (1) ALONE is sufficient, but statement (2) ALONE is not sufficient.
(b) Statement (2) ALONE is sufficient, but statement (1) ALONE is not sufficient.
(c) BOTH statements (1) and (2) TOGETHER are sufficient, but NEITHER statement ALONE is sufficient.
(d) EACH statement ALONE is sufficient.
(e) Statements (1) and (2) TOGETHER are NOT sufficient.

ANSWER KEY
Chapter 16
ata Interpretation
& Data Sufficiency

Q1 d	Q2 c	Q3 d	Q4 b	Q5 a
Q6 c	Q7 c	Q8 b	Q9 d	Q10 b
Q11 e	Q12 c	Q13 c	Q14 e	Q15 b
Q16 d	Q17 e	Q18 d	Q19 c	Q20 d
Q21 c	Q22 d	Q23 e	Q24 e	Q25 c

Section 2

REASONING APTITUDE

Chapter 1

Numerical Reasoning

Q1. Anita left her home for the bus stop 15 minutes earlier than usual. It takes 10 minutes to reach the stop. She reached the stop at 9.20 a.m. What time does she usually leave home for the bus stop? [Time 15 seconds]

a) 9.05 a.m.
b) 9.25 p.m.
c) 9.55 a.m.
d) None of these

Q2. Ramdev told Pooja, "The temple bell rings at regular intervals of 45 minutes. The last bell was rung five minutes ago. The next bell due to be rung is at 8.45 a.m." At what time did Ramdev give this information to Pooja if his watch is running slow by 10 minutes? [Time 30 seconds]

a) 7.55 a.m.
b) 8.05 a.m.
c) 8.15 a.m.
d) 8.25 a.m.

Q3. How many numbers can be formed which are perfect squares of two digit odd numbers using the first, fourth and ninth digits of the number 987654321 and digits should not be repeated? **[Time 30 seconds]**

a) none
b) 1
c) 2
d) 3 or more

Direction (Q4-Q10): Read the following information and answer the questions given below.

There are 6 persons A, B, C, D, E and F. The number of item each has is an integer. A has 3 items more than C. D has 4 items less than B. E has 4 items less than F. C has 4 items less than E. F has 4 items less than D. **[Time 5 minutes: set of 7 Questions]**

Q4. What can be minimum number of total items?

a) 37
b) 41
c) 43
d) 49

Q5. Which of the following figures cannot be equal to the total number of items possessed by all the 6 Persons?

a) 49
b) 55
c) 67
d) 72

Q6. If B gives 2 items to each of D & F and D gives 3 items to each of A and F, who will have maximum number of items?

a) B b) D

c) E d) F

Q7. If C gives all of his items to A and A gives all of his initial items to E and E gives all of his initial items to C, who will have minimum number of items?

a) A b) C

c) E d) Data inadequate

Q8. If total number of items is highest possible 2 digits number divisible by 5, who among following will have even number of items?

a) A b) B

c) D d) None of these

Q9. If total number of items is a 2 digit number, having both the digits equal, and B gives half of his item to E, who among following will have total number of items as 2nd highest in the group?

a) A b) E

c) D d) None of these

Q10. If 3 people (in the order of number of items they have from minimum to maximum), give all of their items to other 3 people (in the order of items they have from maximum to minimum) respectively, who among following will have odd number of total items in the group?

a) B
b) D
c) F
d) Data inadequate

Q11. There are 20 people working at an organisation. The 1st team of 5 works between 9.00 a.m. and 3.00 p.m., the 2nd team of 10 works between 11.00 a.m. and 5.00 p.m. and the 3rd team of 5 works between 1 p.m. and 7.00 p.m. There are 3 computers in the office which all the employees frequently use. During which of the following hours the 3 computers are likely to be used most? [Time 30 seconds]

a) 3 p.m. to 5 p.m.
b) 2 p.m. to 4 p.m.
c) 1 p.m. to 3 p.m.
d) 11 a.m. to 1 p.m.

Q12. If the day before yesterday was Tuesday, when will Friday be? [Time 15 seconds]

a) Today
b) Tomorrow
c) Day after tomorrow
d) Two days after today

Q13. If Thursday was the day after the day before yesterday five days ago, what is the least number of days ago when Sunday was three days before the day after tomorrow?

[Time 30 seconds]

a) 1 b) 2

c) 3 d) 4

14. Rima was counting down from a number 4 more than the sum of first 5 prime numbers. Mira was counting upwards from the 2nd whole number and he was calling out only the odd numbers. What common number will they call out at the same time if they were calling out at the same speed? **[Time 30 seconds]**

a) 23 b) 21

c) 19 d) they will not call out the same number

Q15. If the position of the 1st and the 6th digits of the sequence of numbers 8 4 0 3 9 1 4 6 5 7 are interchanged, the 2nd and the 7th and so on, which number would be 7th from the right end? **[Time 30 seconds]**

a) 5 b) 3

c) 6 d) 9

Direction (Q16-Q20):

The letters L, M, N, P, Q, R, S, T and U are substituted by nine integers 1 to 9 but not in that order. Number 4 is assigned to P. Q is a perfect square and R is a perfect number. U and S add up to exactly 5. The difference between P and T is 5. The difference between M and T is 4. U is half of R and L is more than N.

[Time 4 minutes: set of 5 Questions]

Q16. What number is assigned to N?

a) 7 b) 5

) 2 d) Data inadequate

Q17. If the first and last letters as per alphabetical order interchange their assigned number, what will be sum of L and M?

a) 6 b) 7

c) 8 d) 9

Q18. If the value of the letter assigned 2nd highest number is reduced to half and the value of the letter assigned first prime number is doubled, which letters will have the same assigned number?

a) L and S b) P and S

c) L and P d) L, P and S

Q19. If the value of the letter assigned 2nd highest number is reduced to half and the value of the letter assigned first prime number is doubled, what would be difference between the sum of M and S & the sum of N and P?

a) 0 b) 2
c) 5 d) Data inadequate

Q20. If all the letters are arranged in descending order as per their assigned number, which letter would be 3rd to the right of the number having assigned number as perfect cube?

a) M b) R
c) M or no letter d) Data inadequate

Q21. If the numbers from 15 to 85 which are exactly divisible by 5 are arranged in descending order leaving out numbers which are divisible by 13 or 7, which number would come at the tenth place from the bottom?

[Time 45 seconds]

a) 50 b) 55
c) 60 d) 70

Q22. If the numbers between 20 and 200 which are exactly divisible by 17 are arranged in ascending order and repeating those numbers whose sum of digits is more than 10, which number(s) would come in the middle?

[Time 45 seconds]

a) 85
b) 102
c) 119
d) 85 and 102

Q23. Which of the following will be the last digit of the second highest number after the positions of the corner digits in each number given below is reversed?

728 419 156 253 834

[Time 45 seconds]

a) 1
b) 2
c) 7
d) 8

Q24. What will be the difference between the 1st digits of the highest number as well as of the lowest number after positions of the first two digits in each number are reversed?

728 419 156 253 834

[Time 45 seconds]

a) 1
b) 2
c) 3
d) 4

Q25. A chimpanzee climbs 30 units on a flag-post at the beginning of each hour and rests for a while when heslips back 20 units before he again starts climbing in the beginning of the next hour. If he begins his climbing at 7.30 a.m., at what time will he first touch the top of the flag-post which is at 120 units from the ground?

[Time 45 seconds]

a) 5.30 a.m.
b) 6 a.m.
) 6.30 a.m.
d) 7.30 p.m.

ANSWER KEY

Chapter1

Numerical Reasoning

Q1 d	Q2 c	Q3 c	Q4 c	Q5 d
Q6 d	Q7 a	Q8 a	Q9 c	Q10 b
Q11 c	Q12 b	Q13 b	Q14 d	Q15 a
Q16 a	Q17 c	Q18 d	Q19 b	Q20 c
Q21 d	Q22 b	Q23 c	Q24 d	Q25 a

Chapter 2
Number series & Alphabet series

Directions Q1-5: A number series is given below. Find out the missing number represented by '?' in the given series:

Time 30-45 seconds Each Question]

Q1. 3 10 29 66 127 218 ?

(a) 287 (b) 318

(c) 329 (d) 345

Q2. 5 7 11 15 23 27 ?

(a) 33 (b) 35

(c) 37 (d) 43

Q3. 5 8 20 47 95 ? 278

(a) 162 (b) 168

(c) 170 (d) 173

Q4. 15 151 1210 ? 29056

(a) 4263 (b) 5463

(c) 6263 (d) 7263

Q5. 508 640 776 925 ? 1283

(a) 1092 (b) 1113

(c) 1148 (d) 1206

Directions Q6-10: A number series is given below. Find out the wrong number in the given series.

[Time 30-45 seconds Each Question]

Q6. 84, 138, 192, 270, 348, 434

(a) 138 (b) 192

(c) 348 (d) 434

Q7. 45, 62, 81, 102, 123, 150

(a) 62 (b) 81

(c) 102 (d) 123

Q8. 3, 7, 23, 47, 119, 167

(a) 3 (b) 7

(c) 119 (d) 167

Q9. 28, 55, 83, 138, 221, 360

(a) 28 (b) 83

(c) 138 (d) 360

Q10. 73, 57, 49, 44, 43, 42

(a) 57 (b) 49

(c) 44 (d) 43

Directions Q11-15: A number series is given below. Find out the wrong number in the given series.

[Time 45 - 60 seconds Each Question]

Q11. 34/15, 76/35, 130/63, 202/99, 290/143, 394/195

(a) 76/35 (b) 130/63

(c) 202/99 (d) 290/143

Q12. 1325, 714, 318, 90, -18, -54

(a) 1325 (b) 90

(c) -18 (d) -54

Q13. 12, 6.8, 7.5, 12.75, 27.5, 71.25

(a) 71.25 (b) 27.5

(c) 7.5 (d) 6.8

Q14. 7, 4, 6, 9, 20, 52.5, 160.5

(a) 4 (b) 6

(c) 9 (d) 20

Q15. 10, 41, 94, 1624, 2516, 3625, 4936

(a) 41 (b) 94

(c) 1624 (d) 3625

Directions Q16-20: An alphabet cyclic series is given below. Fill in the blank with best possible answer from the options given to form a cyclic series.

[Time 30-45 seconds Each Question]

Q16. bcd_, ab_d, _abc, c_ab,

(a) abcd (b) accd

(c) acdd (d) bcca

Q17. _aad, bbc_, _bcc, add_,

(a) bacd (b) abcd

(c) cdca (d) bcad

Q18. _prs, _qqs, _qrr, _qrs,

(a) ppps (b) pqqr

(c) qrps (d) sqqp

Q19. pp_p, q_qq, r_rr, ss_s,

(a) prps (b) pqrr

(c) qpps (d) pqrs

Q20. STUR, TURS, URST, RSTU,

(a) STRT (b) TRRT

(c) SSUU (d) SSRR

Directions Q21-25: An alpha-numeric series is given below. Find out the wrong entry in the given series.

[Time 30-45 seconds Each Question]

Q21. P1R, Q3S, R5T, S7U, T11V

(a) P1R (b) Q3S

(c) R5T (d) S7U

Q22. C2E, E3G, H4J, J5O, O6U

(a) C2E (b) E3G

(c) H4J (d) J5O

Q23. 2CX2 3DY3 4EV4 5FU5 6GT6

(a) 3DY3 (b) 4EV4

(c) 5FU5 (d) none of these

Q24. 1cz 2fx 5iv 7lt 9or

(a) 1cz (b) 2fx

(c) 9or (d) none of these

Q25. u$2 p%3 i&5 e*7 a#9

(a) p%3 (b) i&5

(c) a#9 (d) none of these

ANSWER KEY

Chapter 2

Number series & Alphabet series

Q1 d	Q2 b	Q3 c	Q4 d	Q5 a
Q6 b	Q7 d	Q8 a	Q9 d	Q10 c
Q11 a	Q12 a	Q13 d	Q14 b	Q15 c
Q16 c	Q17 b	Q18 a	Q19 d	Q20 b
Q21 a	Q22 b	Q23 a	Q24 b	Q25 a

Chapter 3
BLOOD RELATION

Q1. Pointing a photograph, Pinki said, he is the only son of my grandfather's only son. How is the boy in the photograph related to Pinki? **[Time 30 seconds]**

a) Brother b) Cousin

c) Son d) can't be determined

Q2. Pointing a girl, Rajesh said, she is the only granddaughter of my wife's grandfather's only child. How is the girl related to Rajesh? **[Time 30 seconds]**

a) Sister b) Niece

c) Daughter d) can't be determined

Q3. Pointing to a girl, Pooja said, 'She is the grand-daughter of my grandfather's only son'. How is the girl related to Pooja? **[Time 30 seconds]**

a) Niece b) Sister

c) Daughter d) can't be determined

Q4. X is the sister of Y. F is the father of G, who is the brother of Y. F married to N. How is Y related to N?

[Time 30 seconds]

a) Son
b) Daughter
c) Either son or daughter
d) Date inadequate

Q5. Y is the father of X, who is the brother of T. X married to P. T is the daughter of C. D is the father of P and M is the only son of D. How is P related to C? **[Time 30 seconds]**

a) Daughter
b) Daughter-in-law
c) Granddaughter
d) Son-in-law

Q6. Pointing a boy, Rohit said, 'He is the only son of my grandfather's son'. How is the boy related to Rohit?

[Time 30 seconds]

a) Son
b) Brother
c) Cousin
d) Data Inadequate

Q7. Q married to J. P is a brother of V. J is a mother of N, who is a brother of V. How is V related to Q?

[Time 30 seconds]

a) Son
b) Daughter
c) Either daughter or son
d) Data Inadequate

Q8. Pointing to Jay, Jaya said, "His/her mother's brother is the father of my son Arya". How is Jay related to Jaya?

[Time 30 seconds]

a) Niece
b) Nephew or Niece
c) Aunt
d) Data Inadequate

Q9. If Puri is the husband of Riya and Sonal is the mother of Santosh and Riya, how is Sonal related to Puri?

[Time 30 seconds]

) Mother in law
b) Mother
c) Sister
d) Sister in law

Q10. Pointing to Shilpa, Kiran said, "The son of her only brother is the brother of my wife. How is Shilpa related to that Kiran?

[Time 30 seconds]

a) Mother
b) Sister
c) Sister of father in law
d) Sister in law

Directions (Q11-14): Study the following information and answer the questions given below.

A = B means B is the father of A.
*A * B means A is the sister of B.*
A ? B means B is the mother of A.
A $ B means A is the brother of B.
A £ B means B is the son of A.
A x B means A is the daughter of B.

[Time 4 minutes: set of 4 Questions]

Q11. Which of the following is not correct?

a) F x G ? H means F is the grand-daughter of H

b) P= Q ? R means R is the grand-mother of P

c) L $ M * O means O is the sister of L

d) M * O £ P = Q means Q and O are husband and wife

Q12.Which of the following is correct?

a) U x T * Q means Q is the maternal uncle of U.

b) D ? V x T means D is the granddaughter of T

c) L £ M $ R means R is the paternal uncle of L

d) N $ R * D? T means N is the son of T

Q13. Which of the following indicates A is the grand-father of B?

a) P x A = Q = B

b) B $ L x O x A

c) B x T x A

d) L * B = P $ Q = A

Q14.Which of the following means F is the paternal uncle of T?

a) T x L $ F $ N

b) N $ F $ L x T

c) T x M * F $ L

d) L = F $ Q £ T

Directions (Q15-17): ***Study the following information and answer the questions given below.***

Mohan is the grandson of Geeta. Deepak is husband of Geeta. Kiran is married to the son of Santosh. Trishna have two children of different gender. Elina is the daughter of Kiran's brother. Nilesh is brother-in-law of the son of Santosh. Geeta has one only one child. Deepak is the father of Nilesh.

[Time 3 minutes: set of 3 Questions]

Q15. How Nilesh is related to Geeta?

a) Son
b) Son -in- law
c) Grandson
d) Brother

Q16. If Pihu is married to Nilesh, then how is Pihu related to Mohan?

a) Mother in law
b) Mother
c) Sister
d) Grandmother

Q17. If Umesh is the son of Trishna, then how is Umesh related to Nilesh?

a) Brother
b) Uncle
c) Cousin
d) Brother-in-law

Q18. Sudeep's grand-father's brother is the father of Prashant's father. How is Sudeep related to Prashant?

[Time 45 seconds]

a) Cousin b) Uncle

c) Father d) Son

Q19. If X + Y means X is the mother of Y; X - Y means X is the brother Y; X % Y means X is the father of Y and X x Y means X is the sister of Y, which of the following shows that A is the maternal uncle of B? **[Time 60 seconds]**

a) B - N + M x A b) A + S x N – B

c) A - M + N x B d) B - S % A

Q20. If below is the code provided:

A5B means A is the father of B;

A9B means A is the sister of B;

A4B means A is the brother of B;

A3B means A is the wife of B,

Then which of the following means F is the mother of K?

[Time 45 seconds]

a) F5M3K b) F9M4N3K

c) F3M5N3K d) F3M5K

Directions (Q21-22): Study the information given below and answer the questions following it:

[Time 2 minutes: set of 2 Questions]

Tinu is the son of Hari's father's only sister Priya. Gagan is the son of Charu, who is the mother of Lalit and paternal grandmother of Hari. Jitesh is the father of Priya.

Q21. How is Lalit's wife related to Priya?

a) Sister in law
b) Niece
c) Sister
d) Data inadequate

Q22. How is Tinu related to Charu?

a) Nephew
b) Grandson
c) Son
d) Data inadequate

Directions (Q23-25): Study the information given below and answer the questions following it:

[Time 3 minutes: set of 3 Questions]

(i) In a family of six persons L, M, N, X, Y, and Z there are two married couples.

(ii) Y is grandmother of M and mother of N.

(iii) X is wife of N and mother of L.

(iv) L is the granddaughter of Z.

Q23. Which of the following is true?

a) N has 2 daughters
b) Y has 2 grand-sons
c) M is brother of L
d) Data inadequate

Q24. How many male members are there in the family?

a) 3
b) 4
c) None of these
d) Data inadequate

Q25. Who among the following is one of the couples?

a) XY
b) YZ
c) ZN
d) Data inadequate

ANSWER KEY

Chapter 3:

BLOOD RELATION

Q1 d	Q2 **c**	Q3 d	Q4 c	Q5 b
Q6 c	Q7 c	Q8 b	Q9 a	Q10 c
Q11 c	Q12 d	Q13 d	Q14 a	Q15 a
Q16 b	Q17 d	Q18 a	Q19 c	Q20 d
Q21 a	Q22 b	Q23 d	Q24 d	Q25 b

Chapter 4
DIRECTION SENSE

Q1. Neeraj starts his journey by walking in West direction. He walks for 14 m and takes a left turn. Next after travelling a distance of 20 m, he turned to his right and travelled 8 m. Next he walks for 6 m towards North direction and turns 45° in clockwise direction. In what direction is Neeraj travelling now? **[Time 30 seconds]**

a) South-west b) North-east

c) North-west d) South-east

Q2. Jyotsna starts from a point in east direction. She walks 10 m and takes a right turn. Now she walks 5m and again takes a right turn. Next she walks 3 m and takes a left turn. Now she walks 6 m and takes a right turn. She finally stops after walking 8m. In which direction is the starting point with respect to the ending point? **[Time 30 seconds]**

a) South-east b) South-west

c) North d) North-east

Q3. Raju starts from point P, walks 10 m in north direction and reaches point S. He takes a right turn, walks 2 m and reaches point Q. Find distance QP. **[Time 30 seconds]**

a)2 √26 m b) 5√13 m

c) 2√13 m d) 3√29 m

Q4. From point P, Vaishali started walking in south direction. She walked for 4 miles and took a right turn. Next she walked 5 miles and turned to her left. Next she walked for 3 miles and turned to her right. Next she walked 4 miles and turned to her right again. Next she walked 15 miles and turned to her right again and stopped at point Q after walking 7 miles. Find distance PQ. **[Time 60 seconds]**

a) 2√22 miles
b) 3√21 miles
c) 2√17 miles
d) 4√17 miles

Q5. Point B is 10 m west of point C. Point D is4 m north of point B. Point F is 3 m east of point Q and point Q is 5 m south of point C. What is the direction of point D with respect to point F? **[Time 30 seconds]**

a) South-east
b) South
c) North-east
d) North-west

Directions (Q6-Q8):

Point P is 8 m north of point Q. Point Q is 10 m west of point R. Point R is 11 m north of point S. Point U is 4 m north of point T which is 6m west of point S. **[Time 2 minutes: set of 3 Questions]**

Q6. A person starts from point U, reaches point V, then takes a left (point G) and then a right turn to reach point Q. Find VG + QR.

a) 13 km
b) 12 km
c) 15 km
d) 14 km

Q7. Point Z is 5m north of point R. Find PZ.

a) 29 m b) √109 m

c) 2√26 m d) 2√51 m

Q8. Point W is 6 m west of point U. Point Y is 3 m south of point U. A person starts from point W in south direction, reaches a point A, takes a left turn and reaches point Y. Find WY.

a) 15 m b) 3√10 m

c) 2√5 m d) 3√5 m

Q9. Shinu starts from point F in east direction. Walks for 6 m then takes a right turn and walks for 5 m. Now she takes a left turn and walks for 3 m, then after 2 consecutive left turns she reaches point F. Find the distance travelled by Shinu to reach point X. **[Time 30 seconds]**

a) 27 m b) 25 m

c) 23 m d) 24 m

Q10. Hari started from point in South direction. After walking for 10 km he took a right turn. Now he walked another 10 km and took a left turn. Then after walking for 4 km he took a right turn. After covering more 4 km he turned 45° in clockwise direction. Hari is facing which direction now? **[Time 30 seconds]**

a) South West b) South East

c) North East d) North West

Q11. Snigdha starts from point P which is 6 km west of point E. Then she goes towards north 4km and after taking a right turn she reaches point Q. Now she turns to her right and reaches a point T on line EP which is midway. Find distance ET + QE. **[Time 30 seconds]**

a) 8 km b) 12 km

c) 5 km d) 6 km

Q12. From a point, Rakesh starts walking in south direction. He takes a right turn, then takes 2 lefts turns and then again takes two right turns and stops after walking 3 km. In which direction Rakesh is standing with respect to the starting point? **[Time 30 seconds]**

a) West b) East

c) North d) can't be determined

Directions (13-15):

Point L is 7 km north of point K. Point K is 8 km east of point G. Point L is 12 km east of point M. Point E is 9 km north of point N which is 12 km east of point K. **[Time 4 minutes : set of 3 Questions]**

Q13. Rita starts from point S, walks 9 km and reaches point T mid-way between points K and N. Then she goes 2 km towards south, takes 2 left turns and reaches point N. How much distance has she travelled?

a) 15 km b) 18 km

c) 20 km d) 19 km

Q14. A person starts from point N in south direction. He walks 5 km and reaches point P and then turns towards west and reaches point Q which is south of point M. Find distance PQ – LM.

a) 13 km b) 12 km

c) 24 km d) 16 km

Q15. If point X is 4 km north of point G and point Y is south of point G such that point G is mid way between points X and Y. Find distance XY + KE.

a) 23 km b) 25 km

c) 19 km d) 17 km

Directions (16-17):

Point X is 8 m west of point Y. Point Z is 2 m east of point T. Point P is 3 m east of point K. Point Z is 3 m north of point of point M. Point N is 9 m west of point M. Point P is 9 m north of point T. Point N is 6 m south of point Y. **[Time 3 minutes: set of 2 Questions]**

Q16. Find distance from X to K.

a) 7√6 m b) 7√5 m

c) 6√6 m d) 6√5 m

Q17. Sonu starts from point P in east direction. Walks for 6 m, takes a right turn, then walks for 5 m. Now she takes a left turn, walks for 3 m, then after two consecutive right turns she reaches point Z. Find the distance travelled by her to reach point Z.

a) 27 m b) 25 m

c) 23 m d) 24 m

Direction (Q18- Q22): Read the following information carefully and answer the questions that follow:

P & Q means P is 3 km to north of Q,

P + Q means P is 3 km to east of Q,

P # Q means P is 1 km to south of Q,

P @ Q means P is 1 km to east of Q.

[Time 4 minutes: set of 5 Questions]

Q18. If it is given that: C # B; D # E + A; C + D. What is the distance between A and B?

a) 4 km b) 5 km

c) 6 km d) 7 km

Q19. If it is given that: F @ E # D; C @ D; B + A; B & C. What is the minimum distance between F and A?

a) 4.5 km b) 5 km

c) 5.5 km d) 6 km

Q20. If it is given that: R + Q + P; R & S & T & V; V # U. What is the minimum distance between P and U?

a) 9 km b) 10 km

c) 11 km d) 12 km

Q21. If it is given that: E @ B; D @ C; A # C; E # D. What is the distance between A and B?

a) 0 km b) 2 km

c) 3 km d) 5 km

Q22. If it is given that: R + P; R @ Q & S; T @ S. What is the direction of R with respect to T?

a) South b) North

c) South-West d) North-East

Q23. Neha started walking from point A and walks 6 km towards south and stops at point B. Now, she turns 30° to her left and walks 5 km to reach a point C. Now, she takes 120° left turn and walks 5 km to reach a point D. Then, she turns 30° to his left and walks 6 km to reach a point E. Finally, she turns 90° to her right and walks 4 km to reach a point F.
What is the distance between point A and point F?

[Time 60 seconds]

a) 7 km b) 8 km

c) 9 km d) Data inadequate

Direction (Q24- Q25): Read the following information carefully and answer the questions that follow:

Ria and Siya live in same house. Early morning Riya leaves the house and walks for 6 kilometres following her own shadow. Then she turns towards her left and walks for another 6 kilometres. Finally she turns his right and walks for another 2 kilometres. Same day in evening Siya leaves the house and walks for 4 kilometres following her own shadow and then turns to his right. She walks for 6 kilometres and then turns to left direction and finally walks for another 8 kilometres.

[Time 2 minutes: set of 2 Questions]

Q24 What is the position of Ria with respect to the house?

a) 10 km South-West
b) 10 km North-East
c) 12 km South-West
d) 12 km North-East

Q25. What is the position of Siya with respect to Riya at last?

a) 20 km East
b) 28 km East
c) 20 km West
d) 32 km West

ANSWER KEY
Chapter 4:
DIRECTION SENSE

Q1 b	Q2 **d**	Q3 a	Q4 c	Q5 d
Q6 d	Q7 b	Q8 d	Q9 b	Q10 d
Q11 a	Q12 d	Q13 d	Q14 b	Q15 a
Q16 d	Q17 b	Q18 c	Q19 b	Q20 b
Q21 a	Q22 b	Q23 c	Q24 a	Q25 a

Chapter 5

Sequence and Order & Ranking

Q1. How many such 5's are there in the following number sequence each of which is immediately preceded by 3 or 4 but not immediately followed by 3 or an even number?

[Time 30 seconds]

3 5 9 5 4 5 5 3 5 8 4 5 6 7 3 5 7 5 5 4 5 2 3 5 1 0

a) 2 b) 3
c) 4 d) 5

Q2. How many such prime numbers are there in the following number sequence each of which is immediately preceded by an odd number but not immediately followed by 8 or an odd number? **[Time 30 seconds]**

3 5 9 5 4 5 5 3 5 8 4 5 6 7 3 5 7 5 5 4 5 2 3 5 1 0

a) 1 b) 2
c) 3 d) 5

Q3. How many such odd numbers are there in the following number sequence each of which is immediately preceded by a prime number but not immediately followed by multiple of 4? **[Time 45 seconds]**

3 5 9 5 4 5 5 3 5 8 4 5 6 7 3 5 7 5 5 4 5 2 3 5 1 0

a) 9 b) 10
c)11 d) 12

Q4. How many such perfect squares or cubes numbers are there in the following number sequence each of which is immediately preceded by an odd number but not immediately followed by an odd number?

[Time 45 seconds]

3 5 9 5 4 5 5 3 5 8 4 5 6 7 3 5 7 5 5 4 5 2 3 5 1 0

a) 1 b) 2
c) 3 d) none

Q5. How many such numbers are there in the following number sequence such that sum of its preceding and following number is neither a multiple of 5 nor a perfect or prime number? **[Time 60 seconds]**

3 5 9 5 4 5 5 3 5 8 4 5 6 7 3 5 7 5 5 4 5 2 3 5 1 0

a) 8 b) 10
c) 11 d) 12

Direction (Q6-Q10): Study the following information and answer the questions given below:

Twenty two girl-scouts bearing names from B to Y were standing in a row. The teacher wanted to select various teams for a republic day program from these girl-scouts. She gave them random number code from 2 to 8 a shown below:

B	***C***	***D***	***E***	***F***	***G***	***H***	***J***	***K***	***L***	***M***	***N***	***P***	***Q***	***R***	***S***	***T***	***U***	***V***	***W***	***X***	***Y***
4	*4*	*6*	*3*	*5*	*7*	*3*	*3*	*5*	*6*	*2*	*5*	*8*	*3*	*8*	*7*	*7*	*8*	*4*	*2*	*7*	*4*

Q6. If the teacher decides to pick up those girls who bear prime numbered code preceded by even numbered code, how many girls will be picked up?

a) 3 b) 5

c) 6 d) 7

Q7. If the teacher decides to pick up those girls who bear even numbered code, but followed by prime number code and preceded by odd numbered code, how many girls will be picked up?

a) none b) 2

c) 4 d) 5

Q8. If she decides to pick up those girls who bear odd numbers but have girls bearing 7 and or 8 on either side how many girls will be picked up?

a) 4 b) 5

c) 6 d) 7

Q9. If the girls having vowel as their code interchange their codes, how many girls having odd number as her code followed by odd number code, in first half of the row?

a) 3 b) 4

c) 5 d) 6

Q10. If one is added to each odd numbered code and 2 is added to each even numbered code, and girls having odd number code to be picked for a team, how many girls could be picked up?

a) 3 b) 2

c) 1 d) none

Q11. In a row of thirty five boys, Raj is fourth from the right end and Tinku is tenth from the left end. How many boys are there between Raj and Tinku?

[Time 30 seconds]

a) 19 b) 20

c) 21 d) 22

Q12. Kiran's position from the left in a row of the student is 12th and Rahul's position from the right is 20th. After interchanging their positions, Kiran becomes 22nd from the left. How many students were there in the row?

[Time 30 seconds]

a) 40 b) 41

c) 30 d) 32

Q13. Anup runs faster than Leo, Jay runs slower than Ria and Ria runs slower than Leo. Who is the slowest runner?

[Time 15 seconds]

a) 40 b) 41

c) 30 d) Jay

Q14. In a Queue, Joy 14^{th} from the front and Manish is 17^{th} from the end, while Viru is exactly in between the two. Joy is ahead of Manish and there are 48 persons in the queue. How many persons are there between Joy and Viru?

[Time 30 seconds]

a) 6 b) 7

c) 8 d) 9

Q15. In the sequence given below, which of the following is the seventh to the right of thirteenth letter from your left?

N R P Q Y B Z A R S T I J K L M T Y V G F E Z R D C

[Time 30 seconds]

a) Y b) G

c) V d) F

Q16. There are six students A, B, C, D, E and F, who got different marks in the examination. A got less marks than only C and F. B got more marks than E, who did not get the lowest marks in the examination. The second lowest person got 65 marks. Who scored the 3rd highest marks?

[Time 45 seconds]

a) D b) C

c) F d) A

Q17. In a school, there are 60 students in a certain class, where number of boys is twice that of girls. Asha is ranked 17th from the top. If there are 9 boys ahead of Asha, then how many girls are there after Asha in the rank?

[Time 45 seconds]

a) 12 b) 13

c) 16 d) 21

Q18. There are 25 boys in a horizontal row. Shefali was shifted by three places towards her right side and she occupies the middle position in the row. What was her original position from the left end of the row?

[Time 30 seconds]

a) 10^{th} b) 13^{th}

c) 15^{th} d) 16^{th}

Q19. Pinki is three times older than Yash. Zoya is half the age of Minu. Yash is older than Zoya. Which of the following information will be sufficient to estimate Pinki's age? **[Time 45 seconds]**

a) Zoya is 10 years old.
b) Both Yash and Minu are older than Zoya by the same number of years.
c) Both (a) and (b) above
d) Either (a) or (b) above

Q20. In a row of 10 boys, when Ram was shifted by 5 places towards the left, he became the 3rd from the left end. What was his earlier position from the right end of the row?
[Time 30 seconds]

a) 9^{th} b) 5^{th}
c) 3^{rd} d) Data inadequate

Direction (Q21-23): Riya, Siya and Aliya are in control of the following number-letter-symbol series respectively.
*Riya: 2 & S * 9 P T B £ 8 Q Δ 6*
Siya: ⊕ 1 □ F @ V 4 $ © M T D ⇔
Aliya: G 3 H # K N . 5 R = 7 W Y

Q21. If each symbol which immediately precedes a number in Riya's series, each number which immediately follows a letter in Siya's series, and each letter which immediately precedes a symbol in Aliya's series are selected, what will be total number of these elements? [Time 45 seconds]

a) 5 b) 6

c) 7 d) 8

Q22. If all the numbers from Aliya's series, all the letters from Siya's series and all the symbols from Riya's series are respectively arranged in the same given order one after the other from the left end, which of the following will be the sixth to the right of the eleventh element from your right? [Time 30 seconds]

a) V b) M

c) T d) D

Q23. If from each series, amongst letters/numbers/symbols the one having highest members is sorted out and then arranged in the descending order on the basis of the number of elements they have, which of the following will indicate the correct descending order? [Time 60 seconds]

a). Aliya-letters, Siya-symbols, Riya-symbols

b). Aliya-letters, Siya-symbols, Riya-letters

c). Riya-numbers, Siya-letters, Aliya-symbols

d). Riya-letters, Siya-symbols, Aliya-letters

Q24. Priya is older than her cousin Tina, Tina's brother Vinod is older than Priya. When Tina and Vinod visit Priya's house, they like to play chess. Tina wins the game more often than Priya. Based on the above information few conclusions as given below have been made. Which one of these can surely be true? **[Time 30 seconds]**

a) While playing chess with Priya and Tina, Vinod often loses.
b) Priya is the oldest among the three.
c) Priya loses all the games.
d) Tina is the youngest of the three.

Q25. There are seven persons up on a ladder. Amit, Bpin, Charu, Deepti, Ezaz, Fiza and Gagan (not necessary in same order). Amit is further up than Ezaz but is lower than Charu. Bipin is in the middle, Gagan is between Amit and Bipin. Ezaz is between Bipin and Fiza. If Fiza is between Ezaz and Deepti, the person on the bottom step of the ladder will be: **[Time 60 seconds]**

a) Fiza
b) Ezaz
c) Gagan
d) Deepti

ANSWER KEY

Chapter 5

Sequence, Order and Ranking

Q1 b	Q2 b	Q3 c	Q4 b	Q5 c
Q6 d	Q7 c	Q8 c	Q9 b	Q10 d
Q11 c	Q12 b	Q13 d	Q14 c	Q15 b
Q16 d	Q17 a	Q18 a	Q19 c	Q20 c
Q21 c	Q22 d	Q23 b	Q24 d	Q25 d

Chapter 6
Seating Arrangement

Directions Q1-5: Study the given information and answer the questions given below:

[Time 4-5 minutes for all 5 Questions]

There are eight persons Anil, Bipin, Chetan, Deepak, Pankaj, Ketan, Rohan and Sohan. All are sitting in a straight line facing North. They all have different age: 14, 22, 24, 31, 36, 43, 46 and 53. The one who is 36 years old is sitting second to left of Deepak. There are 2 people between Anil and Deepak. The one who is 53 years old is sitting to immediate left of Anil. Those sitting at extreme ends have age difference of 22 years. One person is sitting between the ones who are 36 and 46 years old. Sohan is sitting at one of the extreme ends of line. Sohan is not 46 years old. Rohan is sitting second to the left of Sohan. Chetan is sitting second to the left of Bipin. The one who is 14 years old is sitting second to left of Rohan. Anil is younger than Pankaj by 19 years.

Q1. Who is 46 years old?

a). Deepak b). Chetan
c). Bipin d). Pankaj

Q2. How many people are sitting between Bipin and one aged 22 years?

a). Three b). Four
c). One d). Two

Q3. Who is sitting third to right of Anil?

a). The one aged 14 years old
b). Chetan
c). The one aged 46 years old
d). Rohan

Q4. Ketan is younger than Rohan by how many years?

a). 10 years
b). 8 years
c). 21 years
d). 22 years

Q5. What is the age of Chetan?

a). 36 years
b). 53 years
c). 22 years
d). 43 years

Directions Q6 - 10: Study the given information and answer the questions given below:

[Time 5-6 minutes for all 5 Questions]

There are eight people Priya, Qia, Riya, Siya, Tia, Usha, Varsha, Waheeda sitting around a circular table facing outside the centre. Qia, who is not an immediate neighbour of Waheeda, sits second to the left of Priya. Number of persons sitting between Siya and Usha is equal to number of persons sitting between Waheeda and Riya. Varsha sits second to the left of Usha. There are 3 people sitting between Priya and Riya. Siya is not an immediate neighbour of Priya and Qia. Tia sits opposite to Varsha.

Q6. Who sits opposite to Siya?

a).Waheeda b). Qia
c). Riya d). Varsha

Q7. Who sits second to the left of Riya?

a). Siya b). Tia

c). Priya d). Qia

Q8. If Usha and Tia interchange their positions, then who sits to the immediate left of Tia?

a). Usha b). Siya
c). Priya d). Riya

Q9. 4 of the following 5 are alike in a certain way and so form a group. Find the one which does not belong to that group?

a). Tia b). Usha
c). Varsha d). Qia

Q10. What is the position of Qia with respect to Riya?

a). Second to the right b). Second to the left
c). Immediate right d). Immediate left

Directions Q11-16: Study the given information and answer the questions given below:

[Time 5-6 minutes for all 5 Questions]

Eight persons – Anu, Bittu, Chinu, Dipu, Pihu, Kittu, Rinu and Shinu are sitting around a circle not in same order. Three of them are facing towards the centre of circle while others are facing outside. Dipu is sitting third to right of Anu. There are 2 persons between Dipu and Kittu. Chinu and Pihu are immediate neighbours and both are facing opposite direction. Chinu and Pihu both are not immediate neighbours of Kittu. Shinu is sitting third to right of Chinu. There is one person sitting between Shinu and Rinu. Kittu and Dipu are facing opposite directions (like if Kittu is facing inside, then Dipu is facing outside and vice versa). Bittu is sitting immediate left of Dipu. Shinu sits second to right of Rinu. Dipu and Shinu faces same direction. Dipu and Chinu faces opposite direction.

Q11. Who is sitting second to left of Kittu?

a). Anu b). Dipu
c). Shinu d). Bittu

Q12. Who is sitting opposite Shinu?

a). Chinu b). Pihu
c). Dipu d). Anu

Q13. Who is sitting third to right of Pihu?

a). Kittu b). Dipu
c). Rinu d). Bittu

Q14. Which of the following persons faces towards the centre?

a). Bittu, Dipu, Shinu
b). Anu, Dipu, Pihu
c). Anu, Chinu, Kittu
d). Chinu, Kittu, Shinu

Q15. Four of the following five are alike in a certain way based on the given arrangement and so form a group. Which is the one that does not belong to that group?

a). Kittu – Chinu
b). Bittu – Kittu
c). Pihu – Shinu
d). Anu – Bittu

Directions Q16-20: Study the given information and answer the questions given below:

[Time 6-7 minutes for all 5 Questions]

Eight Persons are sitting in a straight line of 8 vacant seats. Four of them are facing south and the remaining 4 persons are facing north. They also like 8 different vegetables: Carrot, Brinjal, Cabbage, Potato, Tomato, Beans, Spinach, and Onion but not necessarily in same order. Those 8 people are also sitting in alphabetical order. Person who likes Tomato sits third to the right of Pavan. Pavan neither likes Spinach nor Carrot. Qutub faces south. Person who likes Brinjal sits third to the right of person who likes Potato. 3 persons sit between the person who likes Spinach and Carrot. Pavan neither likes Spinach nor Carrot. Person who likes Beans sits third to the left of the person who likes Tomato. Qutub sits second to the right of the person who likes Onion. Person who likes Carrot and Spinach face same direction (i.e. both face either towards south or North). Person who likes Carrot sits to the immediate left of the person who likes Onion. Person who likes Cabbage sits third to the left of Rohit. 3 persons sit between the Person who likes Cabbage and the person who likes Brinjal.

Q16. Who among the following is not sitting in the row?

a). Shaan b). Tinku
c). Umesh d). Varun

Q17. Who among the following is not facing north?

a). Nilesh b). Om
c). Pavan d). Shaan

Q18. Which of the flowing given vegetable does Tinku like?

a). Tomato b). Potato

c). Cabbage d). Brinjal

Q19. If Pavan is related to Beans, Qutub is related to Brinjal, Then who is related to Spinach?

a). Nilesh b). Om

c). Rohit d). Shaan

Q20. Which of the following combination is true?

a). Mohan – Carrot b). Nilesh – Onion

c). Om – Beans d). Umesh – Cabbage

Directions Q21-25: Study the given information and answer the questions given below:

[Time 7-8 minutes for all 5 Questions]

Eight friends 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 outward. They are working in four different companies Apple, Motorola, Google and Samsung. Two persons are working at each company. G sits on the immediate right of B, who works at the Google. C sits third to the left of H, who works at the Apple and both are facing the same direction. C and B are not facing the same direction but C is an immediate neighbour of E, who is fourth to the left of G. E and G both are facing opposite directions but both work at the same company. Those who work at the Google sit adjacent to each other but face opposite direction. Those who work at the Motorola sit opposite each other. The immediate neighbours of E are not facing outward. A person who works at the Apple is an immediate neighbour of the persons who work at the Samsung. D and F are immediate neighbours of H. D is not facing the centre and works at the Samsung. The one who is on the immediate left of F is not facing the centre. F sits second to the right of C.

Q21. Who among the following works at the Apple?

a).D and F b).H and F
c).G and C d).C and H

Q22. Who among the following sits on the immediate right of the person who works at the Motorola?

a).B b).D
c).A d).F

Q23. How many persons are facing outward?

a).Two b).Three

c).Four d).Can't be determined

Q24. A works at which of the following?

a).Either Google or Apple b).Either Samsung or Motorola

c).Google d). Samsung

Q25. If D and F interchange their places then who among the following is on the immediate left of G?

a).B b).D

c).H d).F

ANSWER KEY

Chapter 6

Seating Arrangement

Q1 a	Q2 d	Q3 c	Q4 b	Q5 b
Q6 b	Q7 a	Q8 d	Q9 b	Q10 a
Q11 d	Q12 b	Q13 a	Q14 c	Q15 b
Q16 d	Q17 a	Q18 b	Q19 c	Q20 d
Q21 d	Q22 b	Q23 b	Q24 c	Q25 d

Chapter 7
Coding and Decoding

[Time 30-45 seconds for each Question]

1. If ***FRIEND*** is coded as ***HUMJTK***, how can ***CANDLE*** be written in that code?

(a) EDRIRL *(b) DCQHQK*
(c) ESJFME *(d) FYOBOC*

Q2. If ***FULFNHW*** is the code for ***CRICKET***, ***EULGH*** will be coded as
(a) PRIDE (b) BRIDE
(c) BLADE (d) BLIND

Q3. In a certain code language ***TSSNOFFQ*** is coded as ***STRONGER*** then ***GQFDENN*** will be coded as
(a) DOMEERF (b) FEEDORM
(c) FREEDOM (d) FREEDMO

Q4. In a certain code ***BODE*** is coded as @ $ * ? and ***EAT*** is coded as ? • £ How can ***DEBATE*** be coded in that code?

(a) ? * @ * £ •
(b) * ? @ • £ ?
(c) * ? @ * £ ?
(d) none of these

Q5. If ***SUGAR*** is coded as ***UVIBU*** then ***TABLE*** will be coded as

(a) TADNE
(b) VCDOE
(c) ECDQG
(d) UBEOF

Q6. If **tamceno** means ***sky red,*** **cenorax** means ***red cheese*** and **aplmitl** means ***star bright***, which word could mean ***bright sky***?

(a) cenotam
(b) mitltam
(c) raxmitl
(d) aplceno

Q7. If **agnoscrenia** is the code for **big spider, delanocrenia** is the code for ***big snake*** and **agnosdeery** is the code for ***blue spider;*** then code for ***black widow spider*** would be?

(a) deeryclostagnos
(b) agnosdelano
(c) agnosvitriblunin
(d) trymuttiagnos

Q8. If **krekinblaf** means **workload, dritakrekin** means **groundwork** *and* **krekinalti** means **workitem** then which word could mean **someitem**?

(a) moropalti (b) krekindrita
(c) altiblaf (d) dritaalti

Q9. If ***cemolinea*** is the code for ***fair warning, cerimitu*** is the code for ***report card*** and ***cilaceri*** is the code for ***weather report*** then what can be code for ***fair weather***?

(a) cemocila (b) cericeme
(c) cemomitu (d) cerimita

Q10. If ***plekapaki*** means ***vegcake***, ***pakishillen*** means ***cakewalk*** and ***treftalan*** means ***butterfinger*** which of the following could mean ***fingercake***?

(a) shillenalan **(b)** treftpleka
(c) pakitreft **(d)** alanpaki

Directions (11-15): Read the given information carefully and answer the questions given below. All the codes given below are only in two letters format.

[Time 3 minutes for all 5 Questions]

"***World is digital now***" is written as "***Zi Li Ki Ti***",
"***Information transfer through world***" is written as "***Di Ki Si Fi***",
"***Digital information easy now***" is written as "***Si Zi Ti Bi***" and
"***Now we have leave***" is written as "***Gi Xi Vi Zi***".

Q11. What is the possible code for "***Easy for transfer***"?
(a) Fi Bi Zi (b) Di Ji Bi
(c) Bi Ti Ui (d) Fi Li Xi

Q12. If "***World have information***" is coded as "***Gi Si Ki***", then what will be the code for "***Leave***"?
(a) Di (b) Li
(c) Zi (d) Can't be determined

Q13. What is the code for "***Transfer***"?
(a) Di (b) Ti
(c) Fi (d) Either Di or Fi

Q14. What is the word for the code "***Si***" in the given code language?

(a) Now (b) World
(c) Information (d) Digital

Q15. If "***Information market easy***" is written as "***Bi Si Ci***", then what will be the code for "***Market***"?
(a) Bi (b) Si
(c) Ci (d) Either Si or Ci

irections (16-20): Read the given information carefully and answer the questions given below. All the codes given below are only in two letters format.

[Time 4 minutes for all 5 Questions]

In certain code language:
"***free is not easy***" is coded as "***ka wa ho ga***",
"***demand and supply free***" is coded as "***mo ta pa ka***",
"***easy makes only part***" is coded as "***zi wa ne ki***" and
"***demand makes supply free***" is coded as "***zi mo ka ta***".

Q16. What is the code for "***easy***" in the given code language?
(a) ta (b) pa
(c) mo (d) wa

Q17. What is the code for "***supply***" in the given code language?

(a) Either pa or mo (b) Only mo

(c) Only ta (d) Either mo or ta

Q18. What may be the possible code for "***demand only more***" in the given code language?

(a) Xi ne mo (b) Xi ka ta

(c) Mo zi ki (d) Ki ne mo

Q19. What may be the possible code for "***work and easy***" in the given code language?

(a) Mo wa pa (b) Pa wa tu

(c) Pa ga wa (d) Pa wa ne

Q20. Code for "***makes***" in the given code language can be?

(a) ho (b) ne

(c) pa (d) zi

[Time 45-60 seconds for each Question]

Q21. If ***DISTANCE*** is coded as ***IDTUBECN*** and ***DOCUMENT*** is coded as ***ODDVNTNE***. What can be code for **THURSDAY**?

(a) HTSVTYAD (b) HTTQRYAD
(c) HTVSTYAD (d) HTVSTYDA

Q22. If ***TRANSFER*** is coded as ***IVUHMZIG***. What can be code for **RANDOMLY**?

(a) BONLWMZI (b) IZMWLNOB
(c) BIMWLNOZ (d) ZMNPEOBS

Q23. In a certain code ***MODEL*** is written as '***513#2***' and ***DEAR*** is written as '***3#%8***'. How is ***LOAD*** written in that code?

(a) 23%1 (b) 25%3

(c) 21#3 (d) 21%3

Q24. If **YTNEWT** is coded as **589368** and ***NEVELE*** is coded as **930323**, how can **TWELVE** be coded in that code?

(a) 863203 (b) 863584
(c) 863903 (d) 863063

Q25. If **nitco sco tingo** means **lovely than flower, tingo rho mst** means **cute flower fruit** and **mst sco tmp** means **cute than smile** what would **fruit** stand for?

(a) rho (b) mst
(c) tmp (d) sco

ANSWER KEY

Chapter 7

Coding and Decoding

Q1 a	Q2 b	Q3 c	Q4 c	Q5 d
Q6 b	Q7 c	Q8 a	Q9 a	Q10 d
Q11 b	Q12 d	Q13 d	Q14 c	Q15 c
Q16 d	Q17 d	Q18 a	Q19 b	Q20 d
Q21 c	Q22 a	Q23 d	Q24 a	Q25 a

Chapter 8
ANALOGY & CLASSIFICATION

Directions (Q1-10): Classification

Classify the given four words in the answer choices. Three of the four given words will be in the same classification. Choose the word that does NOT belong in the same classification as the others.

[Time 4 minutes]

Q1. Which word does NOT belong with the others?

a). table b). rug
c). couch d). chair

Q2. Which word does NOT belong with the others?

a). car b). steering wheel
c). engine d). tire

Q3. Which word does NOT belong with the others?

a). branch b). leaf
c.) dirt d). root

Q4. Which word does NOT belong with the others?

a). guitar b). flute
c). cello d). violin

Q5. Which word does NOT belong with the others?

a). book b). chapter
c). glossary d). index

Q6. Which word does NOT belong with the others?

a). duck b). flee
c). dodge d). avoid

Q7. Which word does NOT belong with the others?

a). cornea b). pupil
c). retina d). vision

Q8. Which word does NOT belong with the others?

a). unique b). beautiful
c.) rare d). exceptional

Q9. Which word does NOT belong with the others?

a). assess b). evaluate
c). appraise d). instruct

Q10. Which word does NOT belong with the others?

a). area b). variable

c.) circumference d). quadrilateral

Directions (Q11-15):

Each question has an underlined word followed by four answer choices. Choose the word that is a necessary part of the underlined word. **[5 Questions Time 3 minutes]**

Q11. <u>school</u>

a). student b). report card

c). test d). learning

Q12. <u>monopoly</u>

a). corrupt b). exclusive

c). rich d). gigantic

Q13. <u>itinerary</u>

a). map b). route

c). travel d). guidebook

Q14. <u>knowledge</u>

a). school b). teacher

c). textbook d). learning

Q15. <u>purchase</u>

a). trade b). money

c). bank d). acquisition

Directions (Q16-20): ANALOGY

Analogies test your ability to see relationships between words, objects, or concepts. In the following questions a set of two related words are given, followed by a 3rd word and four answer choices. Identify the word that would best complete the second set so that it expresses the same relationship as the 1st set.

[5 Questions Time 3 minutes]

Q16. Careful : Cautious :: Boastful : ?

a). arrogant. b). humble.
c). joyful. d). suspicious.

Q17. Elated : Despondent :: Enlightened : ?

a). aware. b). ignorant.
c). miserable. d). tolerant.

Q18. Play : Actor :: Concert : ?

a). symphony. b). musician.
c). piano. d). percussion.

Q19. Candid : Indirect :: Honest : ?

a). frank. b). wicked.
c). truthful. d). untruthful.

Q20. Embarrassed : Humiliated :: Frightened : ?

a). terrified. b). agitated.
c). courageous. d). reckless.

Directions (Q21-25): ANALOGY

In the following questions a set of two related words are given, followed by four pairs of words in answer. Choose the pair that best represents a similar relationship to the one expressed in the original pair of words. **[5 Questions Time 4 minutes]**

Q21. SIAMESE : CAT :: ?

a). type : breed b). dog : puppy
c). mark : spot d). romaine : lettuce

22. BINDING : BOOK :: ?

a). criminal : gang b). display : museum
c). frame : picture d). nail : hammer

Q23. MONK : DEVOTION :: ?

a). maniac : pacifism b). explorer : contentment
c). visionary : complacency d). rover : wanderlust

Q24. PULSATE : THROB :: ?

a). walk : run b). tired : sleep
c). examine : scrutinize d). ballet : dancer

Q25. DOMINANCE : HEGEMONY :: ?

a). romance : sympathy b). furtherance : melancholy
c). independence : autonomy d). tolerance : philanthropy

ANSWER KEY
Chapter 8
ANALOGY & CLASSIFICATION

Q1 b	Q2 a	Q3 c	Q4 b	Q5 a
Q6 b	Q7 d	Q8 b	Q9 d	Q10 b
Q11 a	Q12 b	Q13 b	Q14 d	Q15 d
Q16 a	Q17 b	Q18 b	Q19 d	Q20 a
Q21 d	Q22 c	Q23 d	Q24 c	Q25 c

CHAPTER 9

Statement & Arguments, Statement & Conclusions, Statement & Assumptions

Direction (Q1-Q10): Statement and Arguments

Each question 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. Choose answer options accordingly. **[Time 30-45 seconds: each Question]**

Q1. Statement:

Should a total ban be put on trapping wild animals?

Arguments:

I. Yes. Trappers are making a lot of money.

II. No. Bans on hunting and trapping are not effective.

(a) Only argument I is strong
(b) Only argument II is strong
(c) Neither I nor II is strong
(d) Both I and II are strong
(e) Either 1 or II is strong

Q2. Statement:

Should system of offering jobs only to the wards of government employees be introduced in all government offices in India?

Arguments:

I. No. It denies opportunity to many deserving individuals and government many stand to lose in the long run.

II. No. It is against the principle of equality. Does not government owe its responsibility to all its citizens?

(a) Only argument I is strong
(b) Only argument II is strong
(c) Neither I nor II is strong
(d) Both I and II are strong
(e) Either 1 or II is strong

Q3. Statement:

Should new big industries be started in Mumbai?

Arguments:

I. Yes. It will create job opportunities.

II. No. It will further add to the pollution of the city.

(a) Only argument I is strong
(b) Only argument II is strong
(c) Neither I nor II is strong
(d) Both I and II are strong
(e) Either 1 or II is strong

Q4. Statement:

Should income tax be abolished in India?

Arguments:

I. Yes. It is unnecessary burden on the wage earners.

II. No. It is a good source of revenue.

(a) Only argument I is strong
(b) Only argument II is strong
(c) Neither I nor II is strong
(d) Both I and II are strong
(e) Either 1 or II is strong

Q5. Statement:

Should judiciary be independent of the Executive?

Arguments:

I. Yes. This would help curb the unlawful activities of the executive.

II. No. The executive would not be able to take bold measures.

(a) Only argument I is strong
(b) Only argument II is strong
(c) Neither I nor II is strong
(d) Both I and II are strong
(e) Either 1 or II is strong

Should shifting agriculture be practised??

Arguments:

I. No. It is a wasteful practice.

II. Yes. Modern methods of farming are too expensive.

(a) Only argument I is strong
(b) Only argument II is strong
(c) Neither I nor II is strong
(d) Both I and II are strong
(e) Either 1 or II is strong

Q7. Statement:

Is Pen mightier than a sword?

Arguments:

I. Yes. Writers influence the thinking of the people.

II. No. With the help of physical force one can conquer all.

(a) Only argument I is strong
(b) Only argument II is strong
(c) Neither I nor II is strong
(d) Both I and II are strong
(e) Either 1 or II is strong

Should India have no military force at all?

Arguments:

I. No. Other countries in the world do not believe in non-violence.

II. Yes. Many Indians believe in non-violence.

(a) Only argument I is strong
(b) Only argument II is strong
(c) Neither I nor II is strong
(d) Both I and II are strong
(e) Either 1 or II is strong

Q9. Statement:

Should an organisation like UNO be dissolved?

Arguments:

I. Yes. With cold war coming to an end, such organisations have no role to play.

II. No. In the absence of such organisations there may be a world war.

(a) Only argument I is strong
(b) Only argument II is strong
(c) Neither I nor II is strong
(d) Both I and II are strong
(e) Either 1 or II is strong

Q10. Statement:

Is buying things on instalment profitable to customers?

Arguments:

I. Yes. Customer has to pay less.

II. No. Paying instalments upsets the family budget.

(a) Only argument I is strong
(b) Only argument II is strong
(c) Neither I nor II is strong
(d) Both I and II are strong
(e) Either 1 or II is strong

Direction (Q11-Q18): Statement and Conclusions

In each question, is given a statement followed by two conclusions numbered I and II. 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. Choose answer options accordingly. **[Time 30 seconds: each Question]**

Q11. Statement:

All the organised persons find time for rest. Pooja in spite of her very busy schedule finds time for rest.

Conclusions:

I. Pooja is an organised person.

II. Pooja is an industrious person.

(a) Only conclusion I follows
(b) Only conclusion II follows
(c) Neither I nor II follows
(d) Both I and II follow
(e) Either 1 or II follows

Q12. Statement:

Fortune favours the brave.

Conclusions:

I. Risks are necessary for success.

II. Cowards die many times before their death.

(a) Only conclusion I follows
(b) Only conclusion II follows
(c) Neither I nor II follows
(d) Both I and II follow
(e) Either 1 or II follows

Q13. Statement:

I know nothing except the fact of my ignorance.

Conclusions:

I. Writers knowledge is very poor.

II. The world of knowledge is too vast to be explored by a single person.

(a) Only conclusion I follows
(b) Only conclusion II follows
(c) Neither I nor II follows
(d) Both I and II follow
(e) Either 1 or II follows

Q14. Statement:

Death keeps no calendar.

Conclusions:

I. Man must die one day.

II. Death can come anytime.

(a) Only conclusion I follows
(b) Only conclusion II follows
(c) Neither I nor II follows
(d) Both I and II follow
(e) Either 1 or II follows

Money plays a vital role in politics.

Conclusions:

I. The poor can never become politicians.

II. All the rich men take part in politics.

(a) Only conclusion I follows
(b) Only conclusion II follows
(c) Neither I nor II follows
(d) Both I and II follow
(e) Either 1 or II follows

Q16. Statement:

Quality has a price tag. India is allocating lots of funds to education.

Conclusions:

I. Quality of education in India would improve soon.

II. Funding alone can enhance quality of education.

(a) Only conclusion I follows
(b) Only conclusion II follows
(c) Neither I nor II follows
(d) Both I and II follow
(e) Either 1 or II follows

Q17. Statement:

Adversity makes a man wise.

Conclusions:

I. The poor are wise.

II. Man learn from bitter experience.

(a) Only conclusion I follows
(b) Only conclusion II follows
(c) Neither I nor II follows
(d) Both I and II follow
(e) Either 1 or II follows

Q18. Statement:

Video libraries are flourishing very much these days.

Conclusions:

I. People in general have got a video craze.

II. It is much cheaper to see as many movies as one likes on videos rather than going to the cinema hall.

(a) Only conclusion I follows
(b) Only conclusion II follows
(c) Neither I nor II follows
(d) Both I and II follow
(e) Either 1 or II follows

Direction (Q19-Q25): Statement and Assumptions

In each question, is given a statement followed by two assumptions numbered I and II. You have to consider the statement and the following assumptions and decide which of the assumptions is implicit in the statement. Choose answer options accordingly.

[Time 30 seconds: each Question]

Q19. Statement:

If you have any problems, bring them to me.

Assumptions:

I. You have some problems.

II. I can solve any problem.

(a) Only assumption I is implicit
(b) Only assumption II is implicit
(c) Neither I nor II is implicit
(d) Both I and II are implicit
(e) Either 1 or II is implicit

Q20. Statement:

Most people who stop smoking gain weight.

Assumptions:

I. If one stops smoking, one will gain weight.

II. If one does not stop smoking, one will not gain weight.

(a) Only assumption I is implicit

(b) Only assumption II is implicit
(c) Neither I nor II is implicit
(d) Both I and II are implicit
(e) Either 1 or II is implicit

Q21. Statement:

Double your money in five months – an advertisement.

Assumptions:

I. The assurance is not genuine.
II. People want their money to grow.

(a) Only assumption I is implicit
(b) Only assumption II is implicit
(c) Neither I nor II is implicit
(d) Both I and II are implicit
(e) Either 1 or II is implicit

Q22. Statement:

Be humble even after being victorious.

Assumptions:

I. Many people are humble after being victorious.
II. Generally people are not humble.

(a) Only assumption I is implicit

(b) Only assumption II is implicit
(c) Neither I nor II is implicit
(d) Both I and II are implicit
(e) Either 1 or II is implicit

Q23. Statement:

Never before such a lucid book was available on the topic.

Assumptions:

I. Some other books were available on this topic.
II. You can write lucid books on very few topics.

(a) Only assumption I is implicit
(b) Only assumption II is implicit
(c) Neither I nor II is implicit
(d) Both I and II are implicit
(e) Either 1 or II is implicit

Q24. Statement:

If he is intelligent, he will pass the examination.

Assumptions:

I. To pass, he must be intelligent.
II. He will pass the examination.

(a) Only assumption I is implicit

(b) Only assumption II is implicit
(c) Neither I nor II is implicit
(d) Both I and II are implicit
(e) Either 1 or II is implicit

Q25. Statement:

The patient's condition would improve after operation.

Assumptions:

I. The patient can be operated upon in this condition.
II. The patient can't be operated in this condition.

(a) Only assumption I is implicit
(b) Only assumption II is implicit
(c) Neither I nor II is implicit
(d) Both I and II are implicit
(e) Either 1 or II is implicit

ANSWER KEY

Chapter 9

Statement & Arguments, Statement & Conclusions, Statement & Assumptions

Q1 c	Q2 d	Q3 e	Q4 b	Q5 a
Q6 a	Q7 a	Q8 c	Q9 b	Q10 c
Q11 d	Q12 a	Q13 b	Q14 d	Q15 c
Q16 a	Q17 b	Q18 d	Q19 b	Q20 c
Q21 b	Q22 b	Q23 a	Q24 a	Q25 a