

## Table of Contents

QUANTITATIVE PART.....	2
PROFIT AND LOSS.....	2
PROBABILITY .....	8
PROBLEMS ON HCF AND LCM.....	24
PIPES AND CISTERNS .....	31
AVERAGES .....	31
ALLIGATIONS AND MIXTURES .....	32
PROBLEMS ON TRAINS.....	33
GEOMETRY, COORDINATE GEOMETRY .....	33
TIME, SPEED, DISTANCE .....	38
SIMPLE INTEREST & COMPOUND INTEREST .....	42
PROBLEMS ON AGES .....	43
CLOCKS & CALENDARS .....	44
RATIOS & PROPORTIONS .....	44
LOGARITHMS.....	44
ALGEBRA .....	44
SURDS & INDICES .....	45
DATA SUFFICIENCY.....	45
TRIGNOMETRY .....	46
AMCAT REASONING PART.....	46
BLOOD RELATIONSHIP .....	46
DIRECTION SENSE.....	48
ODD MAN OUT.....	51
STATEMENT AND CONCLUSIONS .....	53
CODING AND DECODING .....	61
LOGICAL ORDER .....	61
DATA ARRANGEMENTS .....	66
MATHEMATICAL OPERATIONS.....	68
INFERRED MEANING .....	69
AMCAT VERBAL PART.....	74
ODD WORDS .....	74
ANTONYMS .....	75
SYNONYMS.....	77
ANALOGIES.....	78
READING COMPREHENSIONS .....	78

JUMBLD SENTENCES .....	81
SENTENCE CORRECTION.....	81
SENTENCE FORMATION .....	83
SPOTTING ERRORS .....	85
SELECTING WORDS .....	86
SENTENCE COMPLETION.....	86
SENTENCE IMPROVEMENT.....	89
SENTENCE SELECTION .....	91
PARAGRAPH FORMATION.....	91
PROGRAMMING MCQ'S .....	92

## QUANTITATIVE PART

### PROFIT AND LOSS

1. The list price of an electric iron is Rs 300. If two successive discounts of 15% and 10% .selling price will be.

**A.Rs. 229.50**

B.Rs. 231.50

C.Rs. 232.50

D.Rs. 234.50

E. None of the above.

2. Aman deposits Rs. 5000 in his bank account for 5 years to earn an intrest of 12%.What amount will he get after 5 years?

A. Rs.2000

- B. Rs.3000
- C. Rs.5300
- D. Rs.8300
- E. Rs.8000**

3. Steward assigns  $\frac{1}{8}$ th of his monthly salary for food. Steward's total food bill for the month is Rs 6,500. What is Steward's yearly salary?

- A.RS. 9,750
- B.Rs. 12,174**
- C.Rs. 5,76,000
- D.Rs. 6,24,000

4. Given that the interest is only earned on principal .if an investment of Rs 1000.00 amounts to Rs 1440.00 in two years then what is the rate of interest earned ?

- A. 20%
- B. 22%**
- C. 21%
- D. 11%
- E. 44%

5. Which is better a successive discount of 40% and 30% or a discount of flat 70%?

- A. Both are equivalent
- B. 40% and 30%
- C. 70%**
- D. None of these

6. what is better successive discount of 40% and 30 % or a discount of flat 70%

- A. Both are equivalent
- B.40% and 30%
- C.70%
- D. None of these

7. A flower seller purchases roses at Rs. 96 a dozen and sells them at Rs 10 per flower. What is the profit percent of the flower seller?

- A) 0.4
- B) 0.2
- C) 0.25**
- D) 0.15

8. Mauli purchased a designer saree from Mumbai at  $\frac{8}{9}$ th of its MRP, When she came back to Delhi, her neighbour coaxed Mauli to sell the saree to her. She was even ready to pay 9% more than Its MRP. What would Maull's gain percentage be, If she decides to sell the saree to her neighbour?

- a)15.59%
- b) 16.61%
- c) 20.38%
- d)22.65%**

9. Zegna car was in rage two years back and it cost Rs 5,60,000 then. Now, however, with many new hi-tech cars coming into the market, the price of the car has dipped to Rs 4,00,000. Find the decrease in price of the car as a percentage of the old price.

- a) 28%                      **b) 28.57%**      c) 40%                      d) 71.42%

10. Rahul purchased 7 Dvds each of which costs Rs. 17. He gave a five hundred rupee note to the shopkeeper. The amount returned to him is divisible by:

**A) 3**

B) 7

C) 9

D) 11

11. When the price of shoes is decreased by 10%, the number of pairs sold increased by 20%. What is the net effect on sales?

A) 8% decrease

B) 10% decrease

C) 10% increase

**D) 8% increases**

**12.** The printed price on a book is Rs. 400, a bookseller offers a 10% discount on it. If he still earns a profit of 12%, then the cost price of the book is:

A) Rs.260

B) Rs.352

C) Rs.360

**D) Rs.300**

13. If at 15% profit. the selling pace of dozen pencils is Rs.13.80: then wt at is the cost price of a pencil?

A) Rs. 1.15

**B) Re. 1**

C) Re. 0.85

D) Rs. 1.10

14. A salesman has the library to sell a hair dryer in his store at a price between Rs. 300 and Rs. 700. Profit earned by selling the hair dryer for Rs. 650 is twice the loss incurred when it is sold for Rs. 350. What is the cost price of the hair dryer?

A) Rs. 550

**B) Rs. 450**

C) Rs. 350

D) Rs. 150

15. Shobhit bought 300 litres of milk at Rs. 19 per litre. He added 200 litres of water to it and sold 400 litres of this milk at Rs. 20 per litre. To the rest, he added 10 litres more water and then sold it for Rs 15 per litre. If ne used mineral water that costs Rs 10 per litre, then the total money earned by Shobhit Is

a) Rs. 4,000

b) Rs. 4,150

c) Rs. 1,800

**d) Rs. 1,850**

**16.** A man sells 12 candies for Rs.12 & loses Rs.2.40. If he sells 12 candies for Rs.16. how much does he gain or lose?

- a) Gains Rs 4
- b) Loses Rs. 6
- c) Gains Rs. 6.40
- d) Loses Rs. 1.60
- e) Gains Rs. 1.60**

**17.** An investment earns 4 paisa per rupee invested. If at the end of the year. the interest earned by an investment is Rs. 100, then the investment is equal to:

- a) Rs. 2,000
- b) Rs. 2,200
- c) Rs. 1,000
- d) Rs 2,500**
- e) Rs. 4,000

18. The printed price on a book is Rs. 400, a bookseller offers a 10% discount on it. If he still earns a profit of 12%, then the cost price of the book is:

- a) Rs. 280
- b) Rs. 352
- c) Rs. 360
- d) Rs. 321**

19. A coffee shop blends 2 kinds of coffee, putting in 2 parts of a 33p. a gm. grade to 1 part of a 24p. a gm. If the mixture is changed to 1 part of the 33p. a gm. to 2 parts of the less expensive grade, how much will the shop save in blending 100 gms.

- A. Rs.90
- B. Rs.1.00
- C. Rs.3.00**
- D. Rs.8.00.

20. A customer paid you \$600 for construction work, out of which,  $\frac{3}{5}$  of the total amount was spent on the purchase of materials and  $\frac{1}{5}$  of the remaining was spent on travelling. How much is left after all the deductions?

- A. \$120
- B. \$190
- C. \$192
- D. \$240**

21. A storekeeper sold a wrist watch for \$660, including a sales tax of 10%. If the cost price of the watch is \$500, what is the percentage profit for shopkeeper?

- A. 10%
- B. 15%
- C. 20%**
- D. 25%

22. In a match, awards are given to each of 11 members of the team and a trophy to the team. In all winning team gets 2.75kg weight awards. If the weight of match winning trophy is 1.275kg, what the weight of each player giving weight of trophy?

- A) 200 grams

- B) 150 grams
- C) 124 grams
- D) 134 grams

23. A supplier supplies cartridges to a news paper publishing house. He earns a profit of 20% by selling cartridges for Rs. 540. Find the cost price of the Cartridges?

- 1. Rs. 500
- 2. Rs. 480
- 3. Rs. 450
- 4. Rs. 400

24. In a promotion sale a company sells a gymnasium kit consisting of a bag worth Rs 999 a towel worth rs 299 a pair of shoes worth Rs 1999 a sipper worth Rs 199 for Rs 2999 what is the net saving for a buyer?

- 1. 0.14
- 2. 0.2
- 3. 0.1

**4. 0.25**

25. If at 15% profit, the selling price of dozen pencils is Rs. 13.80; then what is the cost price of a pencil?

a: Rs. 1.15

**b: Rs. 1**

c: Rs. 0.85

d: Rs. 1.10

26. Given that the interest is only earned on principal, if an investment of rs.1000.00 amount to rs.1440.00 in two years, then what is the rate of interest earned?

a: 20%

**b: 22%**

c: 21%

d: 11%

e: 44%

27. A real estate developer purchased 2 acres of land for Rs. 1.5 crore. He divided it into 25 residential plots. He sold them at Rs. 25 lakhs per plot. What is his profit percentage?

a) About 200% b) About 100% c) About 366% **d) About 316%**

**28.** Recycling 900 kg of paper saves 17 trees. How many trees are saved when 1200 kg of paper are recycled?

a) 19 b) 25 c) 20 **d) 22**

**29.** Sawroop draws a certain amount of money from the ATM machine. Number of Rs 500 notes are double the number of Rs 100 notes. Which of the following can be the possible amount drawn?

a) 5,000 **b) 8,800** c) 10,000 d) 9,500

30. Three marketers distribute their products in a colony for pilot testing. Marketer A distributes 150 Items to the people equally and then was left with a few items. Marketer B distributes 270 Items to the people equally and then was left with the same number of Items as the number left with Marketer A. Marketer C distributes 320 items to the people and is left with the same number of items as the number left with Marketer A. What is the maximum possible number of people in the colony?

a) 10 b) 50 **c) 75** d) 100

30. Flow many liters of a 90% solution of concentrated acid needs to be mixed win a 7r/o solution of concentrated acid to get a 30 L solution of 78% concentrated acid?

a) 24 L b) 22.5 L c) 6L **d) 17.5 L**

31. In a scheme, a pack of three soaps with MRP Rs.45 is available for Rs.42. If it still gives a profit of 5% to the shopkeeper, then the cost price of the pack is

a) Rs.40 **b) Rs.37** c) Rs.41 d) Rs.35

32. A vendor purchases binds' clips at 12 for Rs.60. How many clips should he sell for Rs.60 to earn a profit of 20%?

a) 5 b) 4 c) 8 d) 6 **e) 10**

33. A seller buys 10 phone chargers for Rs.800 and sells them at the rate of Rs.100 per charger. His gain percent is:

**1)0.25**

2)0.2

3)0.3

4)0.15

34. A real estate developer purchased 2 acres of land for Rs.1.5 crore. He divided it into 25 residential plots. He sold them at Rs.25 lakhs per plot. What is his profit percentage?

1)about 200%

2)about 100%

3)about 366%

**4)about 316%**

**35.** In a scheme, a pack of three soaps with MRP Rs. 45 is available for Rs. 42. If it still gives a profit of 5% to the shopkeeper, then the cost price of the pack is:

**Rs. 40**

Rs. 37

Rs. 41

Rs. 35

**36.** Every year before the festive season, a shopkeeper increases the price of the products by 35% and then introduces two successive discounts of 10% and 15% respectively. What is his percentage loss or gain?

A.3.27% loss **B.3.27% gain** C. No profit, no loss 8.875% D.loss 8.875% gain

**37.** If the price of rice increases by 30%, then by what percent should its consumption be decreased so that the total expenditure remains same?

A. 76.92% **B. 23.07%** C.30% D.25% E. 42.85%

38. A showroom offers a 10% discount on a microwave, whose marked price is Rs. 8000, and also gives a blender worth Rs. 1200 as a complimentary gift with it. Even then, the showroom earns a profit of 20%. The cost price per microwave is:

Rs. 7200

Rs. 6000

**Rs. 5000**

Rs. 4000

Every year before the festive season, a shopkeeper rises the price of the products by 35% and introduces two successive discounts 10% and 15% respectively. What is his loss or gain percentage?

- 3.27% loss
- 3.27% gain
- No loss and no profit
- 8.875% loss
- 8.875% gain

40 A book store offers a 10% discount on all the books sold plus an additional discount of 5% on the total bill, if the total bill after the initial discount is more or equal to rs.1000. Dilshan bought 3 books worth rs.450, rs.520 and rs.250 respectively. How much money was Dilshan able to save as a result of various discounts offered by the store?

- 102
- 176.9**
- 61
- 183
- E none of the above

41 . Every year before the festive season, a shopkeeper increases the price of the products by 35% and then introduces two successive discounts of 10% and 15% respectively. What is his percentage loss or gain?

- A) 3.27% loss
- B) 3.27% gain**
- C) No profit, no loss
- D) 8.875% loss
- E) 8.875% gain

42. Maull purchased a designer saree from Mumbai at  $\frac{8}{9}$ th of its MRP. When she came back to Delhi. Her neighbour coaxed Maull to sell the saree to her. She was even ready to pay 9% more than its MRP. What would Maull's gain percentage be, if she decides to sell the saree to her neighbour?

- A) 15.59%
- B) 16.61%
- C) 20.36%
- D) 22.65%**

## PROBABILITY

1. Ravi has a bag full of 10 Nestle and 5 Cadbury chocolates. Out of these. He draws two chocolates. What is the probability that he would get at least one Nestle chocolate?

**19/21**

3/7

2/21

1/3

2. A software engineer creates a LAN game where an 8 digits code made up of 1.2.3.4.5.6.7.8 has to be decided on. as a universal code. There is a condition that each number has to be used and no number can be repeated. What is the probability that first 4 digits of the code are even number?

1/70

1/840



**1/8**

1/40320

3. If we permute 5 letters of the word 'mango' of permuted word with 'n' at the second place

A.5

B.6

C.12

**D.24**

## PERMUTATIONS & COMBINATIONS

How many ways Sangeeta, Artill, Pooja, Mona and payal can stand in a queue ?

A.120

B.5

**C.20**

D.150

2. If  $nC_5 = nC_6$  what of the value of  $15C_n$

A.1365

B.151

**C.11**

D.111

3. There are two bags A and B. A contains 6 red flowers and 3 pink flowers. Whereas bag B contains 2 red flowers and 7 pink flowers. One flower is chosen from a bag randomly. What is the probability that the flower chosen is pink?

A)4/9

B)1/3

C)5/4

**D)5/9**

4. In how many ways can the team members be arranged for the team picture if all the males are always together and if the team comprises of 7 males and 6 females?

A) 13!

**B) 7! 7!**

C) 7! 6!

D) 14!

5. In how many ways can three leads be selected out of 5 males and 4 females if at least one female must be selected?

A)  ${}^9P_3$

B)  ${}^9C_3$

**C)  ${}^4C_2 {}^5C_1$**

D) 74

E) 70

6. A written exam consists of 6 questions with the answer options as yes/ no / none. In how many ways can the examinees select the answers?

a)  ${}^6P_3$  ways    **b)  ${}^6C_3$  ways**    c)  ${}^3C_1. {}^3C_1. {}^3C_1. {}^3C_1. {}^3C_1$     d)  $({}^3C_1)^6$

7. In a shooting competition, the probability that Rahul will hit the target is  $\frac{5}{7}$  and the probability that Sheela will hit the target is  $\frac{3}{4}$ . So what is the probability that both of them will hit the target?

$\frac{2}{5}$

$\frac{1}{5}$

$\frac{20}{21}$

**D) 15/28**

8. How many three digits numbers can be formed using 2,3,4 and 5 with none of the digits being repeated?

20

45

**24**

D) 10

9. Sara has 400 marbles. If she gives  $(1/5)$ th of her marbles to Sam and Sam gives  $(3/4)$ th of his marbles to David, then how many marbles does Sam have?

80

**20**

60

D) 200

10. If the difference of two numbers is 8 and the difference of their squares is 160, then the numbers are:

18, 10

8, 16

**6, 14**

None of the above

11. If the sum of 4 times a number A and three times a number B is equal to the sum of number B and seven times the number A. then what is the value of A:B?

**2:3**

B) 3:2

C) 4:3

D) 3:4

12. Five paramedics and four technicians are registered for a rescue team. Now many possible combinations one can choose to make a rescue team of a paramedic and a technician?

9

40

**20**

16

13. The causes of productivity loss are to be written around a circle in the annual report. In how many ways can an analyst write them around the circle, if the number of causes is 5?

5!

${}^5C_5$

${}^5P_5$

**4!**

${}^4C_4$

13. A detergent powder company is having a contest. Each pack of 1 kg contains one of the letters B, A, M and O. In every 20 packs, there are four Bs, five As, ten Ms and one O. What is the probability that a pack will have a B?

A)  $1/4$

B)  $1/2$

**C)  $1/5$**

D) 120

14. if  ${}^nC_5 = {}^nC_6$ , what is the value of  ${}^{15}C_n$ ?

**a) 1365**

b) 15!

C) 11

d) 11!

15. Sameer plant 7225 plants. so that there are as many rows as there are trees in a row. How many tree are in row?

A) 75

B) 95

**C) 85**

D) 65

16. if a coin with heads is tossed , then the probability of obtaining a tail is :

A) 0

**B)  $\frac{1}{2}$**

C)  $\frac{1}{3}$

D) 1

17. In a quiz competition, the host asked a question & provided 3 possible answers. what is probability that the answer choice which rohit selects for question wrong?

A)  $\frac{1}{3}$

B)  $\frac{1}{2}$

C)  $\frac{3}{2}$

D)  $\frac{2}{3}$

18. The boss accepts only one employees leave request for a particular day. if five employer name ronak, mahesh, shripal, mohanpriya and shreyansh applied for the leave on the occasion of ganesh chaturthi. what is the probability that ronak's leave request will be approved

A)  $\frac{2}{3}$

B) 1

C)  $\frac{4}{5}$

**D)  $\frac{1}{5}$**

19. 10 scooters, 5 motorcycles and 15 cars are parked in the parking area of a market What is the probability that a scooter will leave the parking first?

$\frac{1}{6}$

$\frac{1}{2}$

$\frac{3}{5}$

**D)  $\frac{1}{3}$**

20. In a non-leap year what is the probability that the last day of the year starts with a T?

a)  $\frac{4}{7}$

b) 1

c) 0

**d)  $\frac{2}{7}$**

21. The permutations and combinations of abcd taken 3 at a time are respectively

a) 12, 2

**b) 24, 4**

c) 36, 6

d) 48, 8

22. In a shooting competition, the probability that Rahul will hit the target is  $\frac{5}{7}$  and the probability that Sheela will hit the target is  $\frac{3}{4}$ . So what is the probability that both of them will hit the target?

**A)  $\frac{2}{5}$**

B)  $\frac{1}{5}$

C)  $\frac{20}{21}$

D)  $\frac{15}{28}$

23. There are 2 bags A and B. Bag A contains 6 red flowers and 3 pink flowers whereas Bag B contains 2 red flowers and 7 pink flowers. One flower is chosen from a bag randomly. What is the probability that the flower chosen is pink?

4/9

1/3

5/4

**5/9**

24. If we permute 5 letters of the word 'lemon' in 5! Ways. In how many words vowels do not come together?

120

**72**

48

43

25. If  ${}^nC_5 = {}^nC_6$ . What is the value of  ${}^{15}C_n$ ?

**1365**

15!

11

11!

26. In a non-leap year, what is the probability of last day of the year starts with 'T'?

4/7

0

1

**2/7**

27 In a section of cinema hall , seats are arranged so that each row has the same number of seats. Abdul is seated in the 5 th row from the front and 3 rd row from the back. If his seat is 6 th from the left and 2<sup>nd</sup> from the right, how many seats are there in this section?

A) 52

**B) 49**

C) 45

D) 55

28 10 Scooters, 5 motorcycles and 15 cars are parked in the parking area of a market . what is the probability that a scooter will leave the parking first

1/6

1/2

3/5

**1/3**

. The permutations and combinations of abcd taken 3 at a time are respectively:

A.12,4

B.24,4

**C. 36,6**

D. 48,8

## NUMBERS

1. The number of 6-digit even number that can be make for number 2, 4, 3 is?

A. 18

- B. 12
- C. 120
- D. 486**

2. The number of 6-digit even numbers that can be made from the number 214635 are

- A) 18
- B) 720**
- C) 120
- D) 360

3. What is the unit digit in  $27^{20}$ ?

- 1**
- 5
- 12
- 20

4. If an integer "K" is divisible by 2, 5 and 13, what is the next largest number that is divisible by all the three given numbers?

- 2k
- K + 13
- 2k + 13
- 2k + 65
- K + 130**

5. 4 is a number on the real number line. If we subtract 1 from this number then the new number will be:

- A) Farther from the origin than -3.4
- b) Closer to the origin than -3.4**
- c) Equally farther from the origin, as -3.4 is
- d) None of the above

6. The number  $456^*85$  is completely divisible by 3. Smallest whole digit number in place of \* can be:

- a) 0
- b) 1
- c) 2**
- d) 3

7. What is the remainder If  $8^{25}$  is divided by 7?

- a) 25
- b) 8
- c) 1**
- d) 0

13. Rahul purchased 7 Dvds each of which costs Rs 17. He gave a five hundred rupee note to the shopkeeper. The amount returned to him is divisible by.

- a) 3**
- b) 7
- c) 9
- d) 11

14. The unit digit of  $3^{34}$  is

- a) 7

**b) 9**

c)3

d)1

## TIME AND WORK

1. A large rubber cushion can be filled with air pump in 10 minutes another pump can fill the same cushion in 12 minutes.if both the pumps operate together.how long it take to fill the cushion?

A. 6<sup>5</sup>11 minutes

B. 5<sup>6</sup>11 minutes

C. 4<sup>5</sup>11 minutes

**D. 5<sup>5</sup>11 minutes**

2. If there are 150 babies born every minute. How many babies share the same birth date world wide?

A. 2,24,000

**B. 2,16,000**

C. 2,25,000

D. 2,18,000

3.martha was supposed to multiply the number of cans sold with the price of one can to ascertain the amount earned by her, Instead of taking 41 as the number of cans , she wrote 14 by mistake . As a result the product went down by 135. What is the other multiplier?

A)5

B)7

C)9

D)12

.4. Abu company provides taxi for call center employees. The company has 7 Taveras, 5 Qualis,. 6 Innovas and few small cars. If Tavera makes one fourth of the total fleet how many small cars are there in the company?

a) 12

b) 7

c) **6**

d) 10

5. A field person of a customer care department of a company on an average attendance to three complaints. If customer care receives about 200 complaints daily, and have 45 field persons to attend to these, how many complaints are to be outsourced?

A.145

B.135

C.55

**D.65**

6. In a class of 80 students  $\frac{4}{5}$  of them own cars if  $\frac{15}{16}$  of them own Alto then how many own al to?

A.64

B.20

**C.60**

D. Data consistent

7. If anitha score 66 out of hundreds then how much does she score out of 75

50

60

66

45

8. Rahul played well in this season. His current batting average is 5. If he score 78 runs in today's match his batting average became 54. How many matches had he played In this season?

A)8

B)10

C)9

D)6

9. A bread making machine can be make bread of 50kg dough in 3 minutes. How many such machines are required to make breads of 300kg dough in 6 minutes

A)6

**B)3**

C)4

D)5

10. Recycling 900 kg of paper saves 17 trees, Now many trees are saved when 1200 kg of paper are recycled?

a) 19

b) 25

c) 20

**d) 22**

11. There are 3 main steps of completion of a project- Development. Review and Roll out. After development, there are 4 people who can independently work and lead the process to the next step i.e. Review. Further ahead, there are 5 people who can work independently and lead to the next step i.e Roll-out. In how many ways can a project manager complete the project?

a) 20

b) 9

**c) 15**

d) 25

e) 18

12.Rasheb starts for a wedding venue at 6 pm and drives at a speed of 60 km/hr. Ramesh starts for the same venue at 6.30 pm. and drives at a speed of 75 km/hr When will both reach the venue. provided they reach at the same time?

a) 8.00 pm

**b) 9.30 pm**

c)9.00 pm

d) 8.30 pm

13.Ronald and Elan are working on an assignment. Ronald takes 6 hours to type 32 pages on a computer, while Elan takes 5 hours to type 40 pages. How much time will they take, working together on two different computers to type an assignment of 110 pages?

7 hours 30 minutes

8 hours

**8 hours 15 minutes**

D) 8 hours 25 minutes

14. Ramesh, Abhijeet and Ajay are eligible to be the captain of the cricket team. Shahid, John, Shisir and Nitin are eligible to be the co-captain. How many possible outcomes are there for choosing a captain and a co-captain?

A) 12

B) 7

**C) 9**

D) 16

13. Surekha travels 10 km to reach her office. She walks 0.5 km on foot at a speed of 8 kmph to catch her chartered bus which travels at a speed of 40 kmph. Time taken by her to reach the office is:

A) 15 min

B) 20 min

**C) 18 min**

D) 30 min

14.  $\frac{5}{11}$  of the paper produced can be recycled. If 6,42,400 tonnes of paper is produced. What quality of recycled paper can be made after its use?

3,92,000 tonnes

**2,92,000 tonnes**

1,92,000 tonnes

4,92,000 tonnes

15. Supriya runs a marathon race in 50 minutes at an average speed of 48 km/hour. In order to set a national record, she needs to win the race in 40 minutes. Considering that her speed remains constant, at what minimum speed should she run to set the record?

70 km/hr

**60 km/hr**

55 km/hr

0 km/hr

16. A content manager is working on an excel sheet. She has 6 columns in the sheet-A,B,C,D,E and F. She has to check that no two columns should have the same entry. She can check only 2 columns at a time. How many times will she have to repeat the comparing process to complete the process for the whole life?

7

8

**15**

10

17. If Mini downloads three more songs in her mobile. She will have songs worth 512 MB in her mobile. If on an average each song is 4 MB, how many songs did she initially have in her phone before downloading?

**125**

128

120

137

18. In a test called ACSAT, the average marks of 15 test takers is 240. If the marks of 5 test takers are subtracted, the average marks decreases by 40. What is the average marks of 5 test takers?

1600



**320**

200

40

19. Nine days ago, the area covered by the mold on a piece of bread was 3 square inches. Today the mold covers 9 square inches. What is the rate of change in mold's area?

2 square inches per day

3 square inches per day

$\frac{2}{5}$  square inches per day

**$\frac{2}{3}$  square inches per day**

**20.** A contractor estimates that 3 people can paint Mr. Khan's house in 4 days. If he uses 4 people instead of 3, how will they take to complete the job?

4

2

**3**

5

**21.** A man can complete a job in 12 days and his wife can complete the same job in 15 days. How long will they take to complete the job if they work together?

A)  $6\frac{2}{3}$  days

**B)  $6\frac{1}{2}$  days**

C)  $10\frac{1}{2}$  days

D)  $10\frac{2}{3}$  days

22. In a poultry farm, 50 hens give 200 eggs in 2 days. In how many days will 20 hens give 400 eggs?

a) 15

**b) 10**

c) 5

d) 8

**23.** In an annual sale, there was a flat discount of 40% on all items. Komal bought a pair of jeans for Rs. 480. What is the labeled price of the pair of jeans?

a) Rs. 799

b) RS. 699

c) RS. 699

**d) RS. 800**

**24.** The total combinations of picking 3 balloons from a packet of 25 balloons are.

a) 2100

b) 2200

**c) 2300**

d) 2400

**25.** 4 men can repair a road in 7 hours. How many men are required to repair the road in 2 hours?

a) 7

**b) 14**

c) 17

d) 10

**26.** 47,322 bulbs are to be packed in several boxes. Each box should contain equal numbers of bulbs and no bulb should be left unpacked. Number of boxes used can be:

- a) 12
- b) 11**
- c) 8
- d) 14

27. In a scheme, a pack of three soaps with MRP Rs. 45 is available for Rs. 42. If it still gives a profit of 5% to the shopkeeper, then the cost price of the pack is:

- a) RS. 40**
- b) Rs. 37
- c) Rs. 41
- d) Rs. 35

28. If I have kept six different books on a shelf, in how many different ways can I arrange them?

- a) 6
- b) 24
- c) 120
- d) 720**

29.. A can finish a job in 12 hours and B in 14 hours. A & B work alternatively. starting with A .if A earns Rs. 50 per hour, how much does A earn through this job? In a class composed of x girls and y boys what part of the class is composed of girls

- A)  $y/(x + y)$
- B)  $x/xy$
- C)  $x/(x + y)$**
- D)  $y/xy$

30 There are 200 questions on a 3 hr examination.Among these questions are 50 mathematics problems.It is suggested that twice as much time be spent on each maths problem as for each other question.How many minutes should be spent on mathematics problems

- A.36
- B.72**
- C.60
- D.100

31. The pulse rate of a person is 15 beats in 10 seconds. At this rate, what will be pulse rate of the person per minute?

- A. 90 beats per minute**
- B. 100 beats per minute
- C. 150 beats per minute
- D. Data insufficient

**32.** Pardeep receives an export order for garments. He has 30 machines to complete the order in 60 days. How many machines would be required to complete the Job in 40 days?

- a) 50
- b) 25
- c) 35
- d) 45**

**33.** If anita scores 65 out of hundred then how much does she score out of 75?

- 1. 50
- 2. 60
- 3. 66
- 4. 48**

**34.** A machine worth Rs.180000 depreciates at the rate of 18% of the value of machine per annum. The value of machine after 18 months from now will be?

- 1. Rs.2,31,516

**2. Rs.1,34,316**

3. Rs.1,50,000

4. Rs.1,00,000

**35.** A water pump takes 6 hours to fill an overhead tank. Standby pump takes 10 hours to fill the same tank. If first pump fails after 2 hours of running, then how long will the stand by pump takes to fill the tank

a. 6 hours

b. 8 hours

**c. 6 2/3 hours**

d. 8 2/3 hours

**36.** Micro-sims Pvt Ltd. Produces 1,200 phones every day. If out of these,  $2\frac{1}{3}\%$  are faulty and  $4\frac{1}{3}\%$  are defectives in packaging. Then how many non-faulty and non-defective packaged phones are produced every day?

1. 80

2. 120

3. 1080

4. **1120**

**37.** Sudhir goes to the market once every 64 days and Sushil goes to the same market once every 72 days. They met each other one day. How many days later will they meet each other again?

1. 16

2. 64

3. 240

4. 576

**38.** What is the least amount that a person can have, such that when he distributes it in to groups of Rs.16 or Rs18 or Rs20 or Rs25, He is always left with Rs 4?

1. Rs1,796

2. Rs1,804

3. Rs2,596

4. **Rs3,604**

**39.** A scuba diver descends at a rate of 40 feet per minute. a diver dive from a ship to search for a lost ship at the depth of 3000feet below the sea level..how long will he take to reach the ship?

1. 70 minutes

2. 72 minutes

3. 75 minutes

4. 76 minutes

**40.** In how many ways Sangeetha, Arthi, Pooja, Mona and Payal stand in a queue?

**a) 120**

b) 5

c) 20

d) 150

**41.** The average age of a cricket team of eleven is 22 years. The average age gets increased by 1 year, when the coach age is also included, What is the age of the coach?

**1) 34**

2) 23

- 3) 30  
4) 40

**42.** In a class of 80,  $\frac{4}{5}$  th own car  $\frac{15}{16}$  of them own ALTO, how many own ALTO?

**(a) 64** (b) 60 (c) 16 (d) data inconsistent

**43.** A goods carriage of length 2 km. headed to Srinagar from Punjab was running at a speed of 30 km/hr. It crosses a tunnel which is 58 km long with that speed. Find the time taken by the goods carnage to cross the tunnel?

a) 4 hours b) 3 hours **c) 2 hours** d) 1 hour

**44)** Pulse rate of a teenager is 12 beats in 10 sec. At this rate, would his pulse rate be more than, equal to, or less than 100 beats per minute?

**a) Less than** b) Greater than c) Equal to d) Data insufficient

45. Sudha purchased 3 kg potato from market. She used  $\frac{1}{3}$  of it in cooking baked potatoes and  $\frac{1}{2}$  of remaining in mixed vegetables. What quantity of potatoes is she left with?

a) 1.5 kg b) 2 kg **c) 1 kg** d) 2.5 kg

**46.** To fill a storage tank of wheat. 20 containers full of wheat are required. How many containers of wheat will be required to fill the same tank if the capacity of the containers is reduced to two-fifth of their present capacity?

a) 30 b) 25 **c) 50** d) 60

**47.** A field person of a customer care department of a company on an average attends to 3 complaints. If customer care receives about 200 complaints daily. and have 45 field persons to attend to these, how many complaints are to be out sourced?

a) 145 b) 135 c) 55 **d) 65**

**48.** In a poultry farm 00 hens give 200 eggs in 2 days. In how many days will 20 hens give 400 eggs?

a) 15 **b) 10** c) 5 d) 8

49.. 4 men can repair a road in 7 hours. Now many men are required to repair the road In 2 hours?

a) 7 **b) 14** c) 17 d) 10

49. What sum of money Wit accumulate to Rs. 5,300 at 8% interest in 9 months?

**A) Rs. 5,000** B)Rs. 5,400 C)Rs. 4,500 D) Rs. 4,000

**50.** There are 3 main steps of completion of a project-Development,Review and roll out.After development,there are 4 people who can independently work and lead the process to the next step i.e.Review.Further ahead, there are 5 perople who can independently and the lead to the next step i.e.Roll-out.In how many ways can a project manager complete the project?

**1)20**

2)9

3)15

4)25

5)18

51. A bread making machine can make bread 5 kg dough in 3 minutes. How many such machines are required to make breads of 300 kg dough in 6 minutes?

- 6
- 3**
- 4
- 5

52. A large rubber cushion can be filled with air pump in 10 minutes., another pump can fill the same cushion in 12 minutes. If both the pumps operate together, how long will it take to fill the cushion?

- $6\frac{5}{11}$  minutes
- $5\frac{6}{11}$  minutes
- $4\frac{5}{11}$  minutes
- $5\frac{5}{11}$  minutes**

**53.** Rahul played well in this season. His current batting average is 51. If he scores 78 runs in today's match, his batting average will become 54. How many matches had he played in this season?

- 8**
- 10
- 9
- 6

54. A child walks 6m towards west and then 20 m towards south. He then turns east and walks another 12 m. Then he walks 2 m towards north. How far is he from his initial position?

- 10 m**
- 12 m
- 8 m
- 6 m

55. Jagadish can build a wall in 10 days. Narender can build the same wall in 12 days while sumit takes 15 days to do the same job. Which two of them should be employed to finish the job in 6 days?

- A) Jagadish and Narender
- B) Jagadish and sumit**
- C) sumit and Narender
- D)None of the above

**56** To fill a storage tank of wheat are required . How many cotainers of wheat will be required to fill the same tank if the capacity of the containers is reduced to two-fifth of their present capacity?

- A) 30
- B) 25
- C) **50**
- D) 60

57 There are three main steps of completion of project-development,review and roll-out.After development, there are 4 people who can independently work and lead the process to the next step i.e Review. Further ahead , there are 5 people who can work independently and lead to next step i.e Roll-out. In how many ways can a project manager complete the project?

**A) 20**

B) 9

C) 15

D) 25

E) 18

58 A field person of a customer care department of a company on an average attends to 3 companies. If customer care receives about 200 complaints daily, and have 45 fields persons to attend to these, how many complaints are to be out sourced?

A) 145

B)135

C)55

**D)65**

59 Swaroop draws a certain amount of money from ATM machine. Number of rs.500 notes are double the number of Rs.100 notes. Which of the following can be possible amount drawn

5000

8800

10000

**D 9500**

60 . Three marketers distribute their products in a colony for pilot testing. Marketers A distributes 150 items to the people equally an then was left with a few items.

Marketers B distributes 270 items to the people equally and then was left with the same number of items as the number left with Market A. Marketer C distributes 320 items to the people and its left with same number of items as the number left with Market A. What is the maximum possible number of people in the colony?

**10**

50

75

100

61 Recycling 900 kg of paper saves 17 trees. How many trees are saved when 1200 kg of paper are recycled?

A) 19

B) 25

C) 20

**D) 22**

62 A man walks 20 km towards south and then 15 km towards east. How far is he fro his initial position?

**25 km**

30 km

40 km

50 km

Sudhir goes to the market once every 64 days and Sushil goes to the same market once every 72 days. They met each other one day. How many days later will they meet each other again?

16  
64  
240

63 In a promotional sale, a company sells a gymnasium kit consisting of a bag worth Rs. 999, a towel worth Rs. 299, a pair of shoes Rs. 1999, a sipper worth Rs. 199 for Rs. 2999. What is the net saving for a buyer?

**0.14**  
0.2  
0.1  
0.25

**576**

64. 322 bulbs are to be packed in several boxes. Each box should contain equal number of bulbs and no bulb should be left unpacked. Number of boxes used can be?

8  
**11**  
12  
14

65 Sudhir goes to the market once in 64 days and sushil goes to the market once in 72 days. After how many days will they meet each other?

a) 16  
**b) 64**  
c) 240  
d) 576

On an average, a content developer can develop 6 question in 1 hour. Resource manager need to complete a project of 2400 questions in 20 hours. How many developers should he take in his team?

**a) 20,**  
b) 30  
c) 40  
d) 10

66. In a Poultry farm, 50 Hens give 200 Eggs in 2 days. In how many Days will 20 hens give 400 eggs?

A. 15  
B. 10  
**C. 5**  
D. 8

67. Shobhit bought 300 litres of milk at Rs. 19/lit. He added 200 litres of water to it and sold 400 litres of milk at Rs. 20/lit. To the rest he added 10 litres more water and sold it for Rs. 15 /lit if he used mineral water that costs Rs. 10 per litre, then total money he earned is?

Rs. 4000  
**Rs. 4150**  
Rs. 1800  
Rs. 1850

## PROBLEMS ON HCF AND LCM

Find the smallest number, which when divided by 24, 30, 48 and 60 leaves a remainder 2 in each case?

A. 238

**B. 242**

C. 8

D. 4

2. What are the largest 4-digit and the smallest 3-digit numbers divisible by 6, 15, 21 and 24?

A. 9235, 420

B. 9980, 840

**C. 9240, 840**

D. 9999, 999

3. What is the least perfect square, which is divisible by 24, 30 and 60?

A)1600

**B)3600**

C)14400

D)32400

4. What is the least number by which 1470 must be divided to get a number which is a perfect square?

A)7

**B)30**

C)35

D)42

5.. Find the least number which when divided by 5,8 and 19 leaves remainders 2, 5 and 16 respectively?

a) 747

**b) 757**

c) 760

d) 767

e)763

6. If a positive integer  $n$  is divided by 5 then the remainder is 3. Which of the following numbers gives remainder 0, when it is divided by 5?

a)  $n+3$

b)  $n-2$

**c)  $n+2$**

d)  $n+1$

7.What is the difference between the LCM and HCF of the numbers 20,30,and 40?

100

**110**

120

130

8. The difference of two numbers is 14. Their LCM and HCF are 441 and 7 respectively. Find the numbers.

21,35

35,49

**49,63**

63,77

9. What is the smallest number that should be divided by 10500 to make it a perfect cube?

4

**84**

12



10. What is the smallest square number which is divisible by 2. 4. 5. 6 and 9?

- 200  
90  
180  
**900**

11. If the sum of two numbers is 27 and their HCM and LCM are 3 and 60 respectively, then the sum of the reciprocal of the two numbers is

- a)  $1/10$                       b)  $1/5$                       c)  $3/10$                       **d)  $3/20$**

12. What is the LCM of  $147/64$  and  $30/44$ ?

**A.  $735/2$**

B.  $735/704$

C.  $3/704$

D.  $3/735$

13. ) What is the value of  $i^{34}$ ?

a: -1

**b: 1**

c: 0

d: i

14. ) what is the value of  $(-3/7)^{-4}$

**a,  $81/2401$**

b,  $2401/81$

c,  $18/2401$

d,  $81/2410$

15. ) Sum of squares of two numbers is 2754, their HCF is 9, LCM is 135, Find the numbers.

a: 27, 36

b: 27, 35

c: 28, 45

**d: 27, 45**

16.  $(17^3 \cdot 17^{5/2} \cdot (17^3)^{3/2}) \cdot (17^{10/7} \cdot (17^5)^{3/35} \cdot (17^6)^{1/7}) =$

A)  $17^{51/7}$

b)  $17^{43/7}$

**c) 175**

d) 1712

e) 1

17. What is the value of  $(3^3 \cdot 81^2 \cdot 20) / 95$ ?

a) 3

b) 3

c)  $1/3$

**d) None of the above**

18.  $8 - 2 \times 2 =$

a) 410

b) 4210

**c) 216**

d) 416

19. A number is multiplied by 11 and 11 is added to the product. If the resulting number is divisible by 13, what is the smallest number?

**a) 12**

b) 22

c) 26

d) 53

20) What least value must be assigned to # , so that the number 279#4423 is divisible by 97 ?

**A) 1**

b) 5

c) 3

d) 7

21. Find the number to be multiplied by  $(-6)^{-1}$ . so as to get  $(-8)^{-1}$  as the product?

a)  $\frac{3}{4}$

b)  $-(3/4)$

**c)  $4/3$**

d)  $-(4/3)$

22. . What is the value of expression  $4^{23} * 5^{20} * 6^{-2} * 3^2 * 5^{-5} * 2^{-46} * 5^{-10} * 11^0 * 5^{-5}$  ?

**a)  $5^{10}/4$**

b)  $1/4$

c) 4

d)  $5^{10}$

23. Write 4.004 as a fraction of the lowest form.

a)  $500/125$

b)  $2002/500$

**c)  $1001/250$**

d)  $500/225$

24. Which of the following number is divisible by 6?

a) 4322

b) 3142

**c) 2256**

d) 1640

25 . Which number should be multiplied by 43 so that it will have 3 prime factors?

a) 2

b) 3

**c) 6**

d) 8

26, When 235 is divided by 3, the remainder is

**a) 2**

b) 3

c) 4

d) 0

27. The product of two numbers is 2208 if the LCM of the numbers is 532 what is their MCP?

a) 12 b) 4 **c) 24** d) Data Inconsistent

28.  $(a^2-b^2)(a-b)^2=2$  and  $a=4$  then what is b?

a)  $2/3$  b)  $3/2$  c)  $4/2$  **d)  $4/3$**

29. Write  $(620)_{10}$  as a number in the number system with base 8.

a) 9161 b) 1161 **c) 19161** d) 1061

30. Find the value of x if  $8^{2x} + 8^{-5} = 8^7$

A) 1      B) 0      C) -1      **D) None of the above**

31. The LCM of two numbers is 35322. If the numbers are in the ratio 1:3, then their HCF is:

**A)11774**      B)35322      C) 23542      D) 58870

32. A number when divided by the sum of 625 and 515 gives a quotient that is 5 times of the difference between 625 and 515 and remainder as zero. What is the number?

1)632500

**2)627000**

3)675000

4)687000

33, What least value must be assigned to #, so that the number 279#4423 is divisible by 9?

1)1

**2)5**

3)3

4)7

34. Which of the following numbers is divisible by 6?

1)4322

2)3142

**3)2256**

4)1640.

35. The number 456'85 is completely divisible by 3. Smallest whole digit number in place of can be:

A) 0

**B) 1**

C) 2

D) 3

36. What is the value of the expression:  $5'(2 + 16)/2 - 4'(2 + 2) + 1/4$  of 16?

A) 26

B) 13

C) 34

**D) 33**

**37.** Find the largest two digit number that divides 673 and 865, leaving remainder 1 in each.

A. 91

B. 93

**C. 96**

D. 98

38. The product of two numbers is 2208. If the LCM of the numbers is 552. What is their HCF?

a) 12

b) 4

**c) 24**

d) Data inconsistent

39. Write 52817 as a mixed fraction.

a.  $75 \frac{2}{4}$

**b.  $75 \frac{3}{7}$**

c.  $74 \frac{3}{7}$

d.  $702 \frac{7}{7}$

40. Choose the correct answer.

$(\frac{2}{7}) - 8 \times (\frac{7}{2}) - 2 = (\frac{2}{7})2x$ . Find x.

**A.-3**

B.-6

C.2

D.3

41.  $(a^2 - b^2)/(a - b) = 2$  and  $a = 4$  then what is b?

A.  $2/3$

**B.  $3/2$**

C.  $4/2$

D.  $4/3$

42. Write  $81^{3/14}$  as a proper fraction

A.  $243/14$

B.  $1131/14$

**C.  $1137/14$**

D.  $1134/14$

43. Divide the sum of  $3/5$  and  $8/11$  by their differences

A.  $7/73$

**B.  $73/7$**

C.  $11/15$

D. None of the above

44. Sum of the digits of a 3 digit number is subtracted from the number. The resulting number is divisible by-\_\_\_\_\_

A) 6

**B) 9**

C) BOTH 6 & 9

D) ALL 3, 6 & 9

45. What is the value of  $(5^2 \cdot 25^8 / 625)^{2/7}$ ?

A) 5

B) 25

C) **625**

D)  $5^{1/7}$

46. What is the value of x in the expression  $[(3025) + \sqrt{(0.0678 - x)}] = 55.26$ ?

a)  **$1 \cdot 10^{-3}$**     b)  $1 \cdot 10^{-4}$     c)  $2 \cdot 10^{-3}$     d)  $2 \cdot 10^{-4}$

47. What is the highest power of 2 in the following expression?  $1800 \cdot 25 \cdot 4^8 \cdot 21^2 \cdot 45^{-2}$

19

21

20

**18**

17

48.  $3 \cdot (4^4 + 4^3 + 4^2 + 4 + 1) =$

1019

1029

**1026**

49. What is the least number by which 1470 must be divided to get a number which is a perfect square?

7

**30**

35

42

50. Sum of the digits of a 3 digit number is subtracted from the number. The resulting number is divisible by \_\_\_\_\_.

6

**9**

Both 6 and 9

All 3, 6 and

51. Which one of the following numbers is exactly divisible by 11?

235641

245642

315624

**415624**

52. What is the difference between the LCM and HCF of the numbers 20, 30, and 40?

100

**110**

120

130

53. The difference of two numbers is 14. Their LCM and HCF are 441 and 7 respectively. Find the numbers.

21,35

35,49

49,63

**63,77**

54. The number of 6 – digit even numbers that can be made from number 21435 are :

18

**72**

120

360

55. Which number should be added to the 113257, so that it can be divisible by 9

4

**6**

8

10

56. . Divide the sum of  $\frac{3}{5}$  and  $\frac{8}{11}$  by their difference:

$\frac{7}{73}$

**$\frac{73}{7}$**

$\frac{11}{15}$

None of the above

57 What is the value of  $(10101)_2$  in decimal number system?

A) 42

B) 18

C) 20

**D) 21**

58 The LCM and HCF of two numbers are 2970 and 30 respectively. Prime factors of the product of two numbers are:

**A) 2,3,5,11**

B) 2,3,7,11

C) 2,4,5,11

D) 2,3,7,13

59 . Convert  $4.33333\dots$  into  $\frac{p}{q}$  form

A)  $\frac{39}{9}$

B)  $\frac{39}{10}$

C) 39

**D) None of the above**

60 . Write  $(625)_{10}$  as a number , in the number system with base 8.

- A) 9161
- B) 1161**
- C) 19161
- D) 1061

61 . Find the number to be multi[plied by  $(6^{-1})$ ,so as to get  $(-8)^{-1}$  as the product?

- A)  $\frac{3}{4}$**
- B)  $-(3/4)$
- C)  $4/3$
- D)  $-(4/3)$

62 . What is the value of the expression  $4^{23} * 5^{20} * 6^{-2} * 3^2 * 5^{-5} * 2^{-46} * 5^{-10} * 11^0 * 5^{-57}$

A)  $5^{10/4}$

**B)  $1/4$**

- C) 4
- D)  $5^{10}$

63 . write 4.004 as a fraction of the lowest form

- A)  $500/125$
- B)  $2002/500$
- C)  $1001/250$**
- D)  $500/225$

64 . Which of the following number is divisible by 6?

- A) 4322
- B) 3142
- C) 2256**
- D) 1640

$3 \times (4^4 + 4^3 + 4^2 + 4 + 1) =$

- 1019
- 1029
- 1026

**D 1023**

The LCM of two numbers is 35322. If the numbers are in the ratio 1:3, then their HCF is:

**11774**

- 35322
- 23542
- 58870

What is the unit digit in  $27^{20}$ ?

- a) 1
- b) 5**
- c) 12
- d) 20

. write  $(625)$  as a number, in number system with base 8?

- 9161
- 1161
- 19161

## PIPES AND CISTERNS

A water filter takes 40 minutes to filter 20 litres of water. Another filter of same specifications takes 30 minutes to filter the same amount of water. If both the filters are used at the same time. Then how long it will take them to filter the 70 litres of water.

- A.  $1\frac{1}{2}$  hour
- B.  $1\frac{1}{4}$  hour
- C. 1 hour
- D.  $1\frac{1}{2}$  hours

2. A water filter takes 40 minutes to their 20 liters of water Another filter of same specification takes 30 minutes to filter the same are used at same time then how long will 4 take there to filter 70 litres of water

- A.  $1\frac{1}{2}$  hours
- B.  $\frac{3}{4}$  hours

**C. 1 hours**

- D.  $1\frac{1}{2}$  hours

3. To fill a storage tank of wheat, 20 containets full of wheat are required. how many containers wheat will be require to fill the same tank if the capacity of containers is reduce to two- fifth of their present capacity?

- A) 30
- B) 25
- C) 50**
- D) 60

## AVERAGES

1. The average of 7 numbers is 50. The average of first three of them is 40, while is the average of the last three is 60. What must be the remaining number?

- A) 60**
- B) 55
- C) 50
- D) 45

2. The number  $2594^*$  is completely divisible by 6. The smallest value of  $*$  can be:

- A) 0
- B) 2**
- C) 4
- D) 6

3. The average of 7 numbers is 60. The average of the first three numbers is 50, while the average of the last three is 70. What must be the remaining number?

- A) 75

- B) 65
- C) 60**
- D) 55

## ALLIGATIONS AND MIXTURES

A restaurant prepares 22 litres of a mixture that contains 25% of orange essence and the remaining quantity as water. If 3 litres of water is mixed in this mixture, what will be the percentage of orange essence in the new mixture?

- A) 34%
- B) 4%
- C) 12%
- D) 22%**

2. What is the value of square of  $7\frac{1}{2}$ , when it is expressed as a mixed fraction?

- A)  $49\frac{1}{2}$
- B)  $49\frac{1}{4}$**
- C)  $56\frac{1}{4}$
- D)  $50\frac{1}{4}$

3. If  $7^{a+4} * 5^b = 1715$ , then  $ab = ?$

- A) 0
- B) 2**
- C) -1
- D) 4

4. A chemical mixture requires 2 chemicals. A and B in the proportion 3:2. The mixture is to be prepared in a tank of capacity 50 litres, Pipe A can fill the tank with chemical A in 15 minutes and pipe B can fill the tank with chemical B in 30 minutes. If both the pipes are opened when the tank is empty, then for how long should the pipes A and B run to obtain the mixture? (In minutes)

- a) (10, 10)
- b) (9, 9)
- c) (12, 12)
- d) (9, 12)**
- e) (12, 9)

5 The largest measuring cylinder that can accurately fill 3 tanks of capacity 98,182 and 266 litres each, is of capacity:

- A) 2 litres
- B) 7 litres
- C) 14 litres**
- D) 98 litres



## PROBLEMS ON TRAINS

1. Ratio between speeds of 2 trains is 5:3. If the first train runs 350 km in 2 hours. Then what is the speed of the second train?

- A) 100 kmph
- B) 115 kmph
- C) 105 kmph**
- D) 210 kmph

2. A train runs at a speed of 42 M/S and takes 35 seconds to pass a tunnel. After travelling some distance, it takes 15 seconds to pass a pole. What is the length of the tunnel?

- A) 162m
- B) 630m
- C) 840m**
- D) 240m

3. A train travelling at 250 kmph overtakes a cyclist who is travelling at 10 kmph in 45 seconds. What is the length of the train in metres?

- a) 3,000m**
- b) 5,400m
- c) 6,000m
- d) 10,800m

4. Mumbai Rajdhani express takes 16 hours to reach Mumbai from Delhi while Swaraj express takes 20 hours. The ratio of the speeds of both the train is:

- A) 1:4
- B) 4:6
- C) 5:4**
- D) 3:2

## GEOMETRY, COORDINATE GEOMETRY

1. write square root of 1000 as mixed surd

- A) 12, 7**
- B) 7, 14
- C) 7, 12
- D) 7, 13

2. The correct relationship after eliminating  $x$ ,  $y$  and  $z$  from  $x+y=a$ ,  $y+z=b$ ,  $z+x=c$  and  $x+y+z=m$ , is:  
 $m=x+y+z$

- A)  $2m=a+b+c$**
- B)  $m=x-y-z$
- C)  $2m=x-y-z$
- D) None of the above

3, Solve:  $\sqrt{9-\sqrt{3+\sqrt{5-\sqrt{3+169}}}}$

$$\sqrt{7}$$

- A) 1
- B) 0
- C)  $\sqrt{5}$
- D)  $\sqrt{2}$

4. If  $m^n=2401$ , then  $m/n=$

- A)  $4/7$
- B)  $7/4$**
- C)  $11/3$
- D)  $4/11$

5. A number becomes a perfect square when we subtract 1 from it. Which of the following cannot be the last digit of that number?

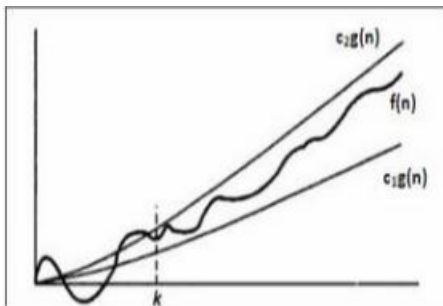
- A) 2
- B) 4**
- C) 5
- D) 0

6. If the LCM and I-ICF of two numbers are 78 and 13 respectively. the product of two numbers can be expressed as

- A)  $2 \times 3 \times 13 \times 11$
- B)  $2 \times 3 \times 13 \times 12$
- C)  $2 \times 3 \times 13 \times 13$**
- D)  $2 \times 3 \times 13 \times 14$

7. Choose the correct answer

Passage:



What can you say about  $f(n)$  and  $g(n)$  from the curve shown in the figure?

- A)  $f(n) = \Theta(g(n))$
- B)  $f(n) = \theta(g(n))$**
- C)  $f(n) = o(n)$
- D)  $f(n) = O(n)$

8. What will be the cost of fencing a rectangular compound if the wire costs Rs. 20 per metre?

Given:

$$\text{Area} = 40 \text{ m}^2$$

$$\text{Length} = 2 \times \text{Breadth}$$

- A) Only 1
- B) Only 2
- C) Either 1 or 2
- D) Both 1 and 2**

9. What is the least perfect square, which is divisible by 24, 30 and 60?

- A) 1600
- B) 3600**
- C) 14400
- D) 32400
- E)

10 What is the value of the expression:  $5 \times (2 + 16) / 2 - 4 \times (2 + 2) + 1/4 \text{ of } 16$ ?

- a) 26
- b) 13
- c) 34
- d) 33**

11) Solve:  $4/5 \times 61/80 \times 10/9$

- a)  $61/90$
- b)  $90/61$
- c)  $60/91$**
- d) None or me above

11. If  $x = 1 + 2^{1/2}$  and  $y = 1 - 2^{1/2}$ , then  $x^2 + y^2$  is

- a) 2
- b) 3
- c) 6**
- d) 0

12. what is the value of square of  $7^{1/2}$ , when it is expressed as mixed fraction?

- a)  $49^{1/2}$
- b)  $49^{1/4}$**
- c)  $56^{1/4}$
- d)  $14^{1/4}$

13. Length and breadth of a rectangle are directly proportional. If length increases from 6 cm to 21 cm and if breadth now is 14 cm, then what was the breadth before any change in length occurred?

- a) 4 cm**

- b) 1.5 cm
- c) 2 cm
- d) 3 cm

14. If  $13 = 13w/(1-w)$ , then  $(2w)^2 =$

- A)  $1/4$
- B)  $1/2$
- C) 1**
- D) 2

15. If  $892.7 - 573.07 - 95.007 = "A"$ . What is the value of A?

- A) 414.637
- B) 224.777
- C) 233.523
- D) 224.623**

16. Which of the following numbers is not divisible by 14?

- A. 3542**
- B. 2086
- C. 1998
- D. 2996

17. What are the values of X and Y in  $72x23Y$ , if it is perfectly divisible by 88.

- 1.  $X = 1$   $y = 5$
- 2.  $X = 7$   $y = 5$
- 3.  $X = 3$   $y = 2$
- 4.  $X = 7$   $y = 2$**

18. The difference of 2 numbers is 8 and the difference of their squares is 160. Find the numbers?

- 1. 18, 10
- 2. 8, 16**
- 3. 6, 14
- 4. None of above

19. The number of 6 digit numbers that can be formed from 0, 1, 5, 6, 7 and 8 in which the first digit is not 0 are

- 1. 120
- 2. 600**
- 3. 720
- 4. 800

20. what is the remainder if  $8^{25}$  is divided by 7?

- 1. 25
- 2. 8
- 3. 1**
- 4. 0

21. what number should be divided by  $(0.81)^{1/2}$  to give 81?

- 1. 9
- 2. 81
- 3. 72.9**
- 4. 0.9

22. Find the value of X;

$$0.009/x=0.01$$

- 1. 0.0009
- 2. 0.09
- 3. 0.9
- 4. 9

23. write 0.55... as a fraction

- 1.  $1/5$
- 2.  $5/9$
- 3.  $1/3$
- 4.  $4/5$

24. What is the relationship between the fractions  $14/15$  and  $37/40$ .

a,  $14/15 = 37/40$

b,  $14/15 < 37/40$

**c,  $14/15 > 37/40$**

d, cannot be determined

25. find n if  $(2^{228}/2^n)=512$

a: 219

b: 218

**c: 237**

d: none of the above

26. Find the smallest number which when divided by 24 30 48 and 60 leaves a remainder 2 in each case

a: 238

**b: 242**

c: 8

d: 4

27. What is the value of (a,y) In  $(13-20 - a \times 13Y) = 168 \times 1322$  ?

a) (1,2)

b) (0,1)

**c) (-1,2)**

d) (-1,22)

e) (1,-22)

28. It  $7^{a+4} \times 5^b = 1715$ , then ab =

A) 0

B) 2

C)-1

**D) 3/4**

29. Find the smallest number, which when divided by 3, 5 and 7 leaves a remainder 2 in each case, and is divisible by 11.

**A) 737**

B) 735

C) 105

D) 107

30. Find the cube of  $(21)^{2/7}$

1)  $7^3 \cdot 3^5$

**2)  $7^3 \cdot 3^6$**

3)  $7^3 \cdot 9^2$

4)  $7^2 \cdot 9^3$

30 The population of a town three years ago was 'b' and the population of the town three years from now will be 'c'. What is the current population of the town. If it grows at the same rate?

**A)  $\sqrt{bc}$**

B)  $b\sqrt{c}$

C)  $c\sqrt{b}$

D)  $b\sqrt{\left(\frac{b}{c}\right)}$

E)  $\sqrt{\left(\frac{b}{c}\right)}$

31. .  $(a^2 - b^2)/(a - b)^2 = 2$  and  $a = 4$  then what is b?

A)  $2/3$

**B)  $3/2$**

C)  $4/2$

D)  $4/3$

32 write  $\sqrt{1008}$  as a mixed surd.

**A)  $12\sqrt{7}$**

B)  $7\sqrt{14}$

C)  $7\sqrt{12}$

D)  $7\sqrt{13}$

33  $(a^2 + b^2)/(a - b)^2$  and  $a = 4$  then what is b?

$2/3$

$3/2$

$4/2$

**$4/3$**

34 what is the value of (a,y) in  $(13^{-20} - a \cdot 13^y) = 168 \cdot 13^{-22}$ ?

A) (1,2)

**B) (0,1)**

C) (-1,2)

D) (-1,22)

E) (1,-22)

**TIME, SPEED, DISTANCE**

1. Consider the following parameters

A. A boat travels 300 meters upstream in 15 mins.

B. Its speed downstream is  $\frac{8}{5}$  times its speed upstream.

Which of the following options provides the correct relationship between speed of current and speed of the boat?

A. Speed of the current =  $\frac{12}{10}$  times the speed of the boat.

**B. Speed of the current =  $\frac{3}{13}$  times the speed of the boat.**

C. Speed of the current =  $\frac{9}{10}$  times the speed of the boat.

D. Speed of the current =  $\frac{9}{13}$  times the speed of the boat.

2. The tremors of the earthquake were felt at intervals of 15 seconds. The first tremor was felt at 08:54:57 am and the last tremor was felt at 10:45:12 am. How many times were the tremors felt?

A) 484

B) 485

**C) 441**

D) 525

3. Akhil travels first half of the distance at 50m/s and second half at 75m/s. The total distance travelled is 3km. Find his average speed of travel for the entire journey.

**a) 60m/s**

b) 62.5m/s

c) 55m/s

d) 65m/s

4. A man has strayed from his path while on his way to park. He moves 100km towards south, then another 40km towards west. He then travels 70km towards north and reaches the park. What is the distance of the shortest possible route?

**A) 50km**

B) 40km

C) 60km

D) 30km

E)

5. A car is 250 metres behind the bus. The car and bus are moving with the speed of 60 km/hr and 35 km/hr respectively. The car will be ahead of bus by 250 metres in

a) 37 seconds

b) 48 seconds

**c) 72 seconds**

d) 68 seconds

e) None of the above

6. A man rows a boat at a speed of 15 mph in still water. Find the speed of the river if it takes her 4 hours 30 minutes to row a boat to a place 30 miles away and return.

A. 5 mph

B. 10 mph

**C. 12 mph**

D. 25 mph

7 When a train travels at a speed of 60kmph, it reaches the destination on time. When the same train travels at a speed of 50kmph, it reaches its destination 15min late. What is the length of journey?

- a) **75km**
- b) 50km
- c) 60km
- d) 85km

8 Find the ratio of distances covered by a car and a cyclist when it is given that the car moves for 1.5 hours at 30 kmph and the cyclist moves for 1 hour at 25 kmph?

- a) 6:5
- b) **9:5**
- c) 3:2
- d) 5:1

9 An aeroplane flies along the sides of an equilateral triangle with speed of 300 km/hr, 200 km/hr, 240 km/hr. The average speed of the plane while flying around the triangle is:

- A) 250 km/hr
- B) 275 km/hr
- C) 200 km/hr
- D) **240 km/hr**

10. An air conditioner can cool the hall in 40 minutes while another takes 45 minutes to cool under similar conditions. If both air conditioners are switched on at the same instance, then how long will it take to cool the room?

- A. **About 22 minutes**    B. About 20 minutes    C. About 30 minutes    D. About 25 minutes

11. Ratio between speeds of 2 trains is 5:3. If the first train runs 350 km in 2 hours, then what is the speed of the second train?

- A) 100 kmph
- B) 115 kmph
- C) **105 kmph**
- D) 210 kmph

12. A train runs at a speed of 42 m/s and takes 35 seconds to pass a tunnel. After travelling some distance. It takes 15 seconds to pass a pole. What is the length of the tunnel?

- A) 162 m
- B) 630 m
- C) **840 m**
- D) 240 m
- E)

13 Sunil drove his car in the Northern direction for some distance. He then turned left and drove for 10 km. He again turned left and drove for 20 km. He found himself 10 km. west of his starting point. Initially, how far did he drive his car in the Northern direction?

- A) 10 km
- B) **20 km**
- C) 30 km
- D) 15 km



14. Siddarth and Murali go for jogging from the same point. Siddarth moves towards east and covers 4km. Murali moves towards west and covers 3km. Siddarth turns left and covers 4km and Murali turns right to cover 4km. Now what will be the distance between them?
- A) 14km  
B) 6km  
C) 8km  
**D) 7km**
15. The distance from the pavillon to the food court on the map is 3.5 cm. if map is the scale 1 cm= 10 cm, what is the actual distance?
- A) 25 cm  
B) 36 cm  
**C) 35 cm**  
D) 40 cm
16. A man walks 20 km towards south and then 15 km towards east. How far is he from his initial position?
- A) 25 km**  
B) 30 km  
C) 40 km  
D) 50 km
17. A tourist has strayed from his path while on his way to his hotel. He moves 28 km towards south, then moves 20 km towards south, then moves 20 km towards west, then 4 km towards north and then 2 km towards east to reach his hotel. What is the distance of the shortest possible route?
- A) 45 km  
B) 20 km  
C) 18 km  
**D) 30 km**
- 18 One gear of pulley rotates at a speed of 3 revolutions per second; another gear rotates at 5 revolutions per second. If both start together, after how many seconds will they be together again?
- A) 3  
B) 5  
**C) 15**  
D) 20
- 19 sunteela moves a distance of 9 meters towards east. she then moves towards south and travels a distance of 4 meters. From here, she moves a distance of 6 meters towards west. How far is the starting point from her final position?
- A) 3 meters  
B) 4 meters  
C) 5 meters  
**D) 7 meters**
20. Find the ratio of distance covered by a car and a cyclist when it is given that the car moves for 1.5 hours at 30 kmph and the cyclist moves for 1 hour at 25 kmph?
- A) 6.5  
**B) 9.5**

- C) 3.2
- D) 5.1

21 Akil travels first half of the distance at 50m/s and second half at 75m/s. The total distance travelled is 3km. Find his average speed of travel for the entire journey.

- A) 60m/s**
- B) 62.5m/s
- C) 55m/s
- D) 65 m/s

A man has strayed his path while on his way to the park. He travels 100km south, then 40km to the west. Then he travels 70kms to the north and reaches the park. What is the distance of the shortest possible route?

- a) 50km**
- b) 40km
- c) 60km
- d) 30km

## SIMPLE INTEREST & COMPOUND INTEREST

1. a, b and c are such that b is the simple interest on a and c is the simple interest on b for the same period and same rate of interest. The relation between these three is

- A  $a^2 = b c$
- B  $c^2 = a b$
- C  $b^2 = a c$**
- D  $a = b = c$

2. A bank advertises that you can double the money by investing it with them for 8 years. What is the interest rate offered by them?

- 12.50%
- 10%
- 8.50%**
- 14%

3. The simple interest earned on a certain amount is double the money when invested for 15 years. What interest rate is offered?

- 26.66%
- 12%
- 30%
- 13.33%**

4. Three successive discounts of 6%, 10%, 15% are equal to a single discount of

- 25%
- 28.90%

30%  
31%  
**28.09%**

5. Sangeeta invested Rs. 20,000 at 8% per annum. If the interest is compounded half yearly, then total interest earned by Sangeeta at the end of the year is:

**Rs. 1,632**

Rs 1,600  
Rs 1,800  
Rs. 1,475

6. Simple interest on an amount at 4% per annum for 13 months is more than the simple interest on the same sum for 8 months at 6% per annum by Rs. 40. What is the principal amount?

Rs. 3,600  
**Rs. 12,000**  
Rs. 4,800  
Rs. 24,000

7. Given that the interest is only earned on principal, if an investment of Rs. 1000.00 amounts to Rs. 1440.00 in two years, then what is the rate of interest earned?

20%  
22%  
21%  
**11%**  
44%

8. A bank advertises that you can double the money by investing it with them for 8 years. What is the interest rate offered by them?

**a) 12.50%**    b) 10%    c) 8.50%    d) 14%

9. What sum of money will accumulate to Rs. 5,300 at 8% interest in 9 months?

**a) RS. 5,000**    b) Rs. 5,400    c) Rs. 4,500    d) Rs. 4,000

10. Aman deposits Rs. 5000 in his bank account to earn 12% interest. What amount will he receive after 5 years?

**a) 2000**  
b) 5000  
c) 3000  
d) 8000

## PROBLEMS ON AGES

## CLOCKS & CALENDARS

## RATIOS & PROPORTIONS

1. A car engine is half filled and holds 15 litres of petrol. What fraction of the engine is full if it contains 18 litres of petrol?

1/4

2/3

2/5

**3/5**

2. A bag contains coins of 1 rupee, 2 rupees and 5 rupees in the ratio 4:8:5. The number of 5 rupee coins is:

8

16

15

**10**

3. How many toffees were distributed in total among Ankit, Aniket and Anuj in the ratio 2:3:7, if Aniket receives 84 toffees in total?

300

312

**336**

4. Find the ratio of distances covered by a car and a cyclist when it is given that the car moves for 1.5 hours at 30 kmph and the cyclist moves for 1 hour at 25 kmph?

a) 6:5

**b) 9:5**

c) 3:2

d) 5:1

## LOGARITHMS

## ALGEBRA

1. 3 empty CDs and 2 pen drives cost Rs. 790. 2 empty CDs and 3 pen drives cost Rs. 1110. What is the cost of the pen drive?

A. Rs 30

**B. Rs 350**

C. Rs 25

D. Rs 300

2. If  $764xy$  is divisible by 90. Then what is the value of  $x + y$ ?

- 1
- 3
- 5
- 6

## SURDS & INDICES

Write  $\sqrt{1008}$  as mixed surd.

- a)  $12\sqrt{7}$                       b)  $7\sqrt{14}$                       c)  $7\sqrt{12}$                       d)  $7\sqrt{13}$

Write  $\sqrt{1008}$  as a mixed surd.

- $12\sqrt{7}$
- $7\sqrt{14}$
- $7\sqrt{12}$
- $7\sqrt{13}$

## DATA SUFFICIENCY

1. The question consists of a problem question followed by the two statements numbered I and II. Find out if the information given in the statements are sufficient to answer the problem.

Problem question: How much time would a machine take to put caps on 300 bottles?

- i) It takes 8 hours to put caps on 300 bottles manually.
- ii) It takes 2 minutes lesser to put cap on a bottle using than putting it manually.

**Statement I alone is sufficient to answer the problem question.**

Statement II alone is sufficient to answer the problem question.

Either of the statements taken individually is sufficient in answering the problem question.

Both statements are put together are sufficient in answering the problem question.

Both statements even put together are not sufficient in answering the problem question.

2. The question consists of a problem question followed by the two statements numbered I and II. Find out if the information given in the statements are sufficient to answer the problem.

Problem question: The salaries of A and B are in the ratio 2:3. What is the salary of A?

Statements:

- i) The salary of B is Rs. 8000.
- ii) the total salary of A and B is Rs. 15000.

Statement I alone is sufficient to answer the problem question.

Statement II alone is sufficient to answer the problem question.

**Either of the statements is sufficient in answering the problem question.**

Both statements are put together are sufficient in answering the problem question.

Both statements even put together are not sufficient in answering the problem question.

3. Problems of question

Statements

I) R is taller than Q but smaller than P

II) Q is taller than S

A. Statements I alone sufficient

B. Statements II alone sufficient

C. But statements put together are sufficient

D. Both the statements even put together are not sufficient

**E. Either the statements is sufficient**

## TRIGNOMETRY

# AMCAT REASONING PART

## BLOOD RELATIONSHIP

1. Introducing a woman, a man said "She is the only daughter -in-law of my mother". How is the woman related to the man?

A. Cousin

B. Sister

C. Daughter

D. **Wife**

2. X is the wife of Y and Y is the brother of Z. Z is the son of P. How is P related to X?

A. Aunt

B. Sister

**C. Father-in-law**

D. Brother-in-law

3. P is the father of R but R is not his son. M is the spouse of R. How is M related to P?

A. Wife

B. Uncle

**C. Son-in-law**

D. Daughter-in-law

4. Seeta who is the sister-in-law of Arvind, is the daughter-in-law of Sumeetha. Deepak is the Father of Saarthak. Who is the only brother of Arvind. How is Sumeetha related to Arvind?

**A. Mother**

B. Aunt

C. Mother-in-law

D. Grandmother

5. A is the only son of P. P is B's mother in law how is A related to B?

A. Father

B. Brother

C. Uncle

**D. Data is not sufficient.**

6. D and E have three children A, B and C. F is A's spouse. D is the grandfather of G. B is the mother of H. F is G's father. Who is the male child of D and E?

A. A

**B. B**

C. C

D. D

7. Q is the wife of R. M is the mother of R and S. how is M related to Q?

Father

**Mother-in-law**

Uncle

Father-in-law

9. Seeta who is the sister-in-law of Arvind, is the daughter-in-law of Sumedha. Deepak is the father of Saarthak, who is the only brother of Arvind. How is Sumedha related to Arvind?

Mother-in-law

**Mother**

Aunt

Grandmother

10. Ram is five years elder to his youngest sibling Shreya. Shreya is two years younger than her brother Ritesh. Ritesh is 13 years old and is Ram's brother. How old will Ram be in two years from now?

a) 16 b) 17 c) 20 d) 15 **e) 18**

11. Introducing a man, a woman said, "He is the husband of my mother's daughter". How is the woman related to the man?

Mother

Daughter

Sister

**None of these**

12. Pointing to a man, a girl said, "He is the husband of the granddaughter of the mother of my mother". How is the man related to the girl?

Cousin

**Brother-in-law**

Brother

D Father

13. X says, pointing to Y, "He is my sister's only brother's son." How is Y related to X?

Nephew

**Son**

Brother

Uncle

14 pointing towards the person in the photograph, pinki said, "He is the cousin of my mother's husband". How is that person related to pinki?

A) Father

**B) Uncle**

C) Brother

D) Brother-in-law

15 Pointing to a lady, a man said, "She is the daughter of the woman who is the mother of the husband of my mother". How is the lady related to the man?

A) Grandmother

B) sister

**C) Mother**

D) Aun

X says, pointing to Y, "he is my sister's only brother's son." How is Y related to X?

Nephew

**Son**

Brother

Uncle

4 Pointing to a lady, a man said, "She is the wife of my father's only son". How is the man related to the lady?

Cousin

Brother-in-law

**Husband**

Nephew

## **DIRECTION SENSE**

Aakit is standing on point A facing west. She walks straight for 15 meters and then takes a right turn and walks 8 meters to reach point B. What is smallest distance between the two points and in which direction of points A does point B be

**A. 15 m west**

B. 8 m north west

C. 17 m north west

D. 17 m North East



2. Aaron was riding his bike. He rode 50 meters south and took a left turn to ride another 70 meters. After that he took another left turn and rode 50 meters again and finally he took a right turn to ride 60 meters more. How far and in which direction is he from the starting point?

- A. 120meters, west
- B. 110meters, east
- C. 110meters, west

**D. 130meters, east**

3. A man moves 2 kms towards east, then 3 kms towards south and again 2 kms towards west and then he goes 2 kms towards the initial point from where he started in which direction is he from his initial position?

- A. East
- B. South
- C. West

**D. North**

4, .Mehak was in a whimsical mood and to reach her home from her office she took the following steps-4 steps towards North, 3 steps towards East, 8 steps towards South, 6 steps towards west,7 steps towards North, 5 steps towards East, 6 steps towards South, 4 steps towards West and finally reached her home taking 3 steps towards North. The location of Mehak's home with respect to her office is;

3 steps to the East

**3 steps to the West**

0 steps

2 steps towards the East

2 steps to the West

5. Five cars are parked in a row facing Eastward. E is parked to the left of A, B and C. B, C and A are parked to the left of D. C is parked between A and B. If B is parked fourth from the left, how far is A parked from the right?

**Fourth**

Third

Second

First

6. The distance from the pavillion to the food court on the map is 3.5 cm. If map is of the scale 1cm=10 m, What is the actual distance?

1) 25m

2) 36m

**3) 35m**

4) 40m

7. Rahul is facing south. He walks 15m straight and he turns left and walks 25m, then he turn left again and walks 15m and finally he turns left and walks 40m. How far and in which direction is he standing from the starting point?

- a) 10m east
- b) 10m north
- c) 15m west**
- d) 15m south

8. A lady is facing South-East. She turns  $180^\circ$  in the clockwise direction, then  $360^\circ$  in the anticlockwise direction and then another  $270^\circ$  in the clockwise direction.

South

**South-West**

West

South-East

**9** Shivam put his wall clock on a table in such a way that at 9 a.m, the hour hand was pointing South, In which direction will be the minute hour point at 9:30 p.m?

South

North

West

**D East**

**10** A child while coming home from his school first goes 4 kms towards south-east, then 8 kms towards west. He then goes 4 kms towards north-west. In which direction is he from his school?

A) East

B) North

C) South-east

**D) West**

**11** Shivam put his wall clock on a table in such a way that at 9 a.m, the hour hand was pointing South. In which direction will the minute hour point at 9.30 p.m?

South

North

West

**East**

**12** A lady walks 8 km towards east, then 3 km towards south and then she walks 4 km towards west. How far is she from his initial position and in which direction?

**5 km towards south-east**

7 km towards west

5 km towards west

8 km towards west

A puppy was trying to find its mother. It was facing East and walked 10m. It turned South then and walked another 10m. Then it started walking towards North it walked 20 m and turned West. After that, it walked 10 m and moved 2m South. In which direction and how far is it from the original position?

60 m North-East

10 m North-East

**8 m North**

25 m North

**14 )** Aaron was riding a bike. He ride 50m south and took left and ride 70m and again turned left and ride 50m and he finally took right turn and ride 60m. How far and in which direction is he standing from the starting point?

110m, west

120 m, east

60m, north

**130m, east**

**15 )** Ravi leaves for his office in his car. He drives 5km south and 4km west and again drives to the south 7km. Further on, he drives 4km to the east and turns to the north and covers 5km. How far and in which direction is he standing from the initial point?

5km, south

5km, north

7km, south

**7km, north**

16 A man moves 2km to the east and 3km to the south and he moves 2km to the west, then he goes 2km to the initial point. In which direction is he standing??

**a) north**

b) south

c) east

d) west

## ODD MAN OUT

1. From the given choices select the odd man out.

A. bb c MN

B. dd e OP

**C. gg f QP**

D. mm n WX

2. From the given choices select the odd man out.

A. DEB

B. FGD

C. PQN

**D. TUS**

3. From the given choices select the odd man out.

A. CEH

**B. PRV**

C. TVY

D. MOR

4. Pick the odd man out

A. ADBC

**B. MNPO**

C. TWUV

D. PSQR

5. Pick the odd man out

A. D6J

**B. T4Z**

C. M6S

D. K7R

6. From the given choices select the odd one out.

C5H

**E6L**

M4Q

T3W

7. Choose the odd man out.

**HAIR**

LIAR

FAIR

PAIR

8. Pick the odd man out.

AE5

DF6

HN14

**KP18**

9. From the given choices select the odd one out

ADP

QTX

HKR

**STE**

10. Pick the odd man out

KML

PRQ

**NPQ**

TVU

11. From the given choices select the odd one out.

PSRQ

**MNPO**

SVUT

KNML

12 choose the odd man out

TRIANGLE

SQUARE

PENTAGON

**CIRCLE**

13. find the given anagrams select the odd one out

**LABLOTOF**

ONSEL

CEKTRIC

D SNINET

14 . choose the odd man out:

HAIR

**LIAR**

FIAR

PAIR

15 From the given choices select the odd one out.

A) PSRQ

**B) MNPO**

C) SVUT

D) KNML

16 pick the odd man out.

**A) FHKO**

B) CEHL

C) ZBEJ

D) XZCG

17 From the given anagrams select the odd one out

RKOC

**RRIVE**

ADNS

LNDA

18. POLICY : NPJJAZ :: INSURANCE :

**GOQVPBLDC**

GOQVQBLDC

GOQVRBLDC

GOQVPBLEC

19. odd man out

KML

PRQ

**NPQ**

TVU

20. Odd one out

**a) ADP**

b) QTX

c) HKR

d) STE

21. Pick the odd man out:

DFK

PRW

EGL

**TVZ**

## STATEMENT AND CONCLUSIONS

1. How is sangeetha related to manoj?

Statement I: Manoj is the only son of sangeetha's father

Statement II: Rohit is manoj's father.

**Statement I alone is sufficient**

Statement II alone is sufficient

Both the statements put together are sufficient

Both the statements put together are not sufficient

Problem question:

Out of five parties, which party won the election?

Statements:

Party 'X' got the least number of votes.

Party 'Y' got hundred more votes than party 'Z'.

Statement I alone is sufficient.

Statement II alone is sufficient.

Both statements put together are sufficient.

Both the statements even put together are not sufficient.

**Either of the statement is sufficient.**

The given signs signify something and on that basis, assume the given statement to be true and find which of the conclusions I and II is/are definitely true.

$A+B$  means A is equal to B

$A-B$  means A is less than B

$A=B$  means A is not equal to B

$A*B$  means A is greater than B

$A/B$  means A is less than equal to B

Statements:

K-M, K/L, L+N

Conclusions:

M-L

M/N

**Only I is true.**

Only II is true

Both are correct

None of these are true

Problem question: In what proportion would Mukesh, Rakesh and Rajesh distribute profit among them?

Statements:

Rakesh gets one-third of the profit

Mukesh and Rajesh have invested 80% of the total investment

Statement I alone is sufficient in answering the problem question

Statement II alone is sufficient in answering the problem question

**Both statements put together are sufficient in answering the problem question**

Both statements even put together are not sufficient in answering the problem question

Either statements is sufficient in answering the problem question.

Statements and Conclusion

Note:

$A \# B$  means A is equal to B

$A/B$  means A is half of B

$A \% B$  means A is less than B

$A > B$  means A is 20% of B

Statements:

$S > T$ ,  $T \# U$ ,  $U/V$

Conclusion:

$S \% V$

$S > V$

Only I is true

**Only II is true**

Both are true

None of these is true

Statements and conclusion:

Out of four balls P,Q,R,S find out the smallest one?

Statement:

Q is bigger than P, but smaller than S

R is smaller than Q

Conclusions:

Statement I alone is sufficient

Statement II alone is sufficient

Both the statements put together are sufficient

**Both the statements put together are not sufficient**

5 . Problem Question: Among five friends A, B, C, D and E, who is the tallest?

Statements:

I) B is taller than A, but smaller than D and E.

II) C is smaller than B.

Statement I alone is sufficient to answer the problem question.

Statement II alone is sufficient to answer the problem question.

Either of the statements taken individually is sufficient in answering the problem question.

**Both statements are put together are sufficient in answering the problem question.**

Both statements even put together are not sufficient in answering the problem question.

6 Problem Question: Find P,Q,R.

Statements:

I) P, Q,R are the three consecutive integers.

II) The average of P, Q and R is 34.

Statement 1 alone sufficient

Statement 2 alone sufficient

**Both statements put together are sufficient**

Both statements put even together are not sufficient

7. Deepa Mehta's Fire was under fire from the country's self-appointed moral police. Their contention was that the film was a violation of the Indian cultural mores and couldn't allowed to influence the Indian Psyche. According to them, Such films run the moral fabric of the nation, which must be protected and defended against such intrusions at all cost of cultural dictatorship.

The assumption underlying the moral police's critique of Fire was the Indian audience is vulnerable to all types of influence.

**The assumption underlying the moral police's critique of Fire was the Indian audience is impressionable and must be protected against immoral influence.**

The moral police thinks it has the sole authority to pass judgment on films screened in India. None of these.

Soha ranks fifth in the class. How many students are there in the class?

Statements:

One of her friends got 40<sup>th</sup> rank which is the last rank in the class.

Her rank from middle is 17

**Statement I alone is sufficient**

Statement II alone is sufficient

Both statements put together are sufficient

Both the statements even put together are not sufficient.

Either of the statements is sufficient.

A more reactive metal can displace a less reactive metal from its salt solution. Which of the following is most reactive?

Statements:

I. A can displace neither B nor C

II. C can displace A.

Statement I alone is sufficient

**Statement II alone is sufficient**

Both statements put together are sufficient

Both the statements even put together are not sufficient.

Either of the statements is sufficient.

Problem question: Out of five parties, which party won the election?

Statements:

Party 'X' got the least number of votes.

Party 'Y' got hundred more votes than party 'Z'

Statement I alone is sufficient to answering the problem question.

Statement II alone is sufficient to answering the problem question.

Both statements put together are sufficient in answering the problem question.

Both the statements even put together are not sufficient in answering the problem question

Either of the statements is sufficient in answering the problem question.

11 Problem question: Sharmila is a chemistry teacher. She forgot to bring her time-table and now wants to find out the schedule for XI-B. She knows that there are four subjects taught- physics, chemistry, Mathematics and Biology- In four consecutive periods of one hour each starting from 9.00 a.m. At what time is the chemistry period scheduled?

Statements:

I: Mathematics period ended at 11.00 a.m., which was preceded by biology.

II: Physics was scheduled in the last period.

I alone is sufficient while II alone is not sufficient.

II alone is sufficient while I alone is not sufficient

Either I or II is sufficient



Neither I nor II is sufficient

**Both I and II together are sufficient**

**12** How many people cast their vote in the MCD elections in metropolitan city-Delhi?

Statements:

I) The population of India is 2 billion and population of each metropolitan city is 15% of the total.

II) 33% of the total population of Delhi cast their vote in the MCD elections.

Statement I alone is sufficient in answering the problem question

Statement II alone is sufficient in answering the problem question

Either of the statements taken individually is sufficient in answering the problem question

**Both statements put together are sufficient in answering the problem question**

Both the statements even put together are not sufficient in answering the problem question

**13** Problem question:

Four people – A, B, C and D are sitting in a row. Who is sitting at the extreme right?

Statements:

I) C is to the left of D

II) B is to the left of A

Statement I alone is sufficient.

Statement II alone is sufficient.

Both statements put together are sufficient.

**Both the statements even put together are not sufficient.**

**14** The given signs signify something and on that basis, assume the given statements to be true and find which of the two conclusions I and II is/are definitely true.

“%” denotes “greater than”

“>” denotes “equal to”

“=” denotes “not less than”

“@” denotes “not equal to”

“#” denotes “less than”

“\*” denotes “not greater than”

Statements : A%B, C=E, D\*B

Conclusions: I. A#D

II. C\*E

only conclusion I is true

only conclusion II is true

**neither conclusion I nor II is true**

both conclusion I and II are true

**15** Ionization energy decreases with the increasing size of metal atom out of caesium, lithium, potassium and sodium which will have the lowest ionization energy?

Statements:

Lithium has the smallest size

The size of potassium and caesium is greater than Lithium

Statement 1 alone sufficient

Statement 2 alone sufficient

Both statements put together are sufficient

Both statements put even together are not sufficient

**Either of the statements taken individually is sufficient in answering the problem question**

16 Based on the given passage find out which of the following statements can be inferred from the passage.

The company encourages its managers to interact regularly, without preset agenda to discuss issues concerning the company and the society. This idea has been borrowed from the ancient Indian concept of religious congregation, called satsang. Designations are forgotten during these meetings, hence it is not uncommon in these meetings to find a management trainee questioning the Managing Director on some corporate policy or his knowledge of customers.

The company is concerned about its reputation with its employees

The company believes in fostering the spirit of dialogue without degenerating it into a positioning based debate

The company had some inter personal problem in the past due to which it felt the need for these corporate satsangs

**All of these above**

Problem question: in which year was Rashmi born?

Statements:

Rashmi is four years younger to her brother

Rashmi's brother was born in 1998

Statement I alone is sufficient in answering the problem question

Statement II alone is sufficient in answering the problem question

**Both statements put together are sufficient in answering the problem question**

Both statements even put together are not sufficient in answering the problem question

Either of the statement in answering the problem question

Excessive amounts of mercury in drinking water, associated with certain types of industrial pollution have been shown to cause Hobson's disease. Island L has an economy based entirely on subsistence level agriculture; modern industry of any kind is unknown. The inhabitants of Island L have unusually high incidence of Hobson's disease.

Mercury in drinking water is actually perfectly safe

Mercury in drinking water must have sources other than industrial pollution

**Hobson's disease must have causes other than mercury in drinking water**

Both options (1) and (2)

Both options (3) and (2)

M and N have two children A and B. F is the spouse of B. D is the child of F. P is the son-in-law of N. K is the child of P. Who is the male child of M and N?

**B**

D

A

K

The question consists of a problem question followed by two statements I and II. Find out the information given in the statement(s) is sufficient in finding the solution to the problem.

Problem question: How many people cast their vote in the MCD elections in metropolitan city-Delhi?

Statements:

The population of India is 2 billion and population of each metropolitan city is 15% of the total. 33% of the total population of Delhi cast their votes in the MCD elections.

**Statement I alone is sufficient in answering the problem question**

Statement II alone is sufficient in answering the problem question

Both statements put together are sufficient in answering the problem question

Both statements even put together are not sufficient in answering the problem question

The question consists of a problem question followed by two statements I and II. Find out the information given in the statement(s) is sufficient in finding the solution to the problem.

Statements:

C is to the left of D.

B is to the left to A.

Statement I alone is sufficient.

Statement II alone is sufficient.

Both statements put together are sufficient.

**Both the statements even put together are not sufficient.**

The question consists of a problem question followed by two statements I and II. Find out the information given in the statement(s) is sufficient in finding the solution to the problem.

Problem question: Is Radha Manju's sister?

Statements:

Rahul has two daughters of which Manju is one.

Radha's mother is married to Rahul.

Statement I alone is sufficient.

Statement II alone is sufficient.

**Both statements put together are sufficient.**

Problem question: The value of  $p^2 - 2qr$  can be found if:

Statements:

The value of  $p+q$  is given

The value of  $q+r$  is given

Statement I alone is sufficient in answering the problem question

Statement II alone is sufficient in answering the problem question

**Both statements put together are sufficient in answering the problem question**

Both statements even put together are not sufficient in answering the problem question

Either of the statement is sufficient in answering the problem question

Both the statements even put together are not sufficient.

4 Statements and conclusion

Note:

"%" denotes "greater than"

">" denotes "equal to"

"=" denotes "not less than"

“@” denotes “not equal to”

“#” denotes “less than”

“\*” denotes “not greater than”

Statements:

$$P=Q, S\#R, T*Q$$

Conclusion:

I)  $T*P$

II)  $T\%Q$

Only conclusion I is true

Only conclusion II is true

Both conclusions are true

**Neither I nor II is true**

) Statements and conclusion

Find P,Q,R

S1: P,Q and R are three consecutive integers.

S2: The average is 34.

S1 alone is enough

S2 alone is enough

**Both the statements put together are sufficient**

Both the statements put together are not sufficient

Statement 1: A lot of kids were complaining of stomach ache

Statement 6: However the authorities were not ready to take responsibility

P: They also have asked the school authorities to close down the school

Q: Parents have asked the food sample to be tested

R: The problem was started after their mid-day meal was served

S: Thus, it had to be something in the food they had eaten.

SRQP

**RSQP**

PRQS

QSPR

Four people -A,B,C and D are sitting in a row. who is sitting at the extreme right?

Statements:

C is to the left of D.

B is to the left of A.

Statement I alone is sufficient

Statement II alone is sufficient

Both statements put together are sufficient

**Both the statements even put together are not sufficient.**

Given conditions:

‘%’ denotes “GREATER THAN”

‘>’ denotes “EQUAL TO”

‘=’ denotes “NOT LESS THAN”

‘@’ denotes “LESS THAN”

‘#’ denotes “LESS THAN”

‘\*’ denotes “NOT GREATER THAN”

Q. statements:

$$A\%B, C=E, D*B$$

Conclusions:

A#D

C\*E

Only condition I is true.  
Only condition II is true.  
Either I or II is true.  
**Neither I or II is true.**

## CODING AND DECODING

### LOGICAL ORDER

1. Infant  
    Foetus  
    Zygote  
    Adult  
    Teenager

- A) 2,3,1,5,4  
**B) 3,2,1,5,4**  
C) 4,5,1,3,2  
D) 2,1,5,4,3

2. Select the correct order  
    1. Dress  
    2. Yarn  
    3. Cotton  
    4. Stitching  
    5. Plant

- a ) 5,4,3,2,1  
b) 4,5,3,1,2  
c) 3,1,2,4,5  
**d) 5,3,2,4,1**

3. A- Was the recipient  
    B-Of  
    C-Mother Teresa  
    D-1979 Nobel Peace Prize  
    E- the

- A) ECABD  
**B) EDABC**  
C) DABEC  
D) CABED

4. Arrange the words to get meaningful order  
Education

Promotion  
Birth  
Retirement  
Job

**3,1,5,2,4**

4,5,3,1,2

3,4,5,2,1

5,4,3,2,1

5 Arrange the words in most meaningful order.

1. Office
2. Cabin
3. City
4. Desk
5. Building

**A) 4,2,1,5,3**

B) 2,4,1,5,3

C) 4,2,5,3,1

D) 2,4,5,3,1

6. Choose the option that arranges the given set of words in 'most' meaningful order. The words when put in order should make logical sense according to size., quality, quantity, occurrence of events, value, appearance, nature, process etc.

- 1 Tree
- 2 Wood
- 3 Plant
- 4 Seed
- 5 Furniture

3,4,2,1,5

**3,4,1,2,5**

4,1,3,2,5

4,3,1,2,5

7. Choose the option that arranges the given set of words in 'most' meaningful order. The words when put in order should make logical sense according to size, quality, quantity, occurrence of events, value, appearance, nature, process etc.

Education  
Promotion  
Birth  
Retirement  
Job

3,1,5,4,2

**3,1,5,2,4**

3,1,2,4,5

3,1,2,5,4

8. Choose the option that arranges the given set of words in 'most' meaningful order. The words when put in order should make logical sense according to size, quality, quantity, occurrence of events, value, appearance, nature, process etc.

Cotton  
Plant  
Cloth  
Yarn  
Shirt

2,1,4,5,3

2,4,1,3,5

**2,1,4,3,5**

2,4,3,1,5

9. Arrange the words to get meaningful order

1. Cry  
2. Mother  
3. Food  
4. Hungry  
5. Child  
5, 1,2,4,3  
5, 4,1,3,2  
5, 1,4,3,2  
**5, 4,1,2,3**

10. Kaziranga sanctuary

Asia  
Rhinoceros  
India  
Assam  
2, 4,1,3,5  
2, 4,5,3,1  
5, 4,3,1,5  
**2, 4,5,1,3**

1.If "Apples are red" is coded as 541."My eye swollen" is coded as 368.then what does "Apple f y eye" stand for?

**A. 5692**  
B. 5690  
C. 5962  
D. 5672

## ANALOGIES

### Question 24

Coal : Burn :: Bomb

**A. Explosion**

B. Fire

C. Smoke

D. Noise

20, 22, 26, 32, \_?

38

**40**

44

36

. 2, 5, 26

A. 53

B. 677

C. 676

**D. 52**

2. 0.28, 0.56, 1.68

A. 2.24

**B. 3.36**

C. 5.04

D. 6.72

3. 1, 4, 18, 48

A. 120

**B. 64**

C. 100

D. 96

4. 2, 3, 7, 8, 13, 14

A. 24

B. 21

C. 18

**D. 205.**

5. 2, 8, 5, 6, 8, ..... 11

A. 5

**B. 10**

C. 4

D. 2

6. Building : Bricks :: Flower :

Seeds

**Fruit**

Honey

Petals

7. 3, 7, 13, 21, ....

A) 36

B) 33

C) 41

**D) 31**

8 . If CABLE is coded as 64592, then LABEL is coded as:



- A) 91296
- B) 29546
- C) 94592**
- D) 29456

9 . If BLACK is coded as DNCCEM, then ORANGE is coded as

**QTCPIG**

PSCOHF

PSBOHF

QTCOIG

10 coal:burn::bomb

**A) Explosion**

B) Fire

C) smoke

D) noise

11 G3S:J3P :: L4X: ?

P3Y

O3T

**P4T**

112 If NORMAL is coded as LAMRON, then SYSTEM is coded as:

TXTUDN

METSYS

TZTUFN

**METSSY**

13 5, 25, 61, 113,...

**181**

121

212

D 241

Find the next number in the series.

2,5,26,....

53

677

676

52

If KIDNEY is coded as YENDIK, then MUSCLE is coded as:

MOTDMD

OWUEOH

PXVFPI

**ELCSUM**

2,3,7,8,13,14,\_?

**a) 24**

b) 21

- c) 18  
d) 20

Correct option: D. Neither I or II is true.

Q.  $50 :: 102 : ?$

204

**405**

152

156

. if EAGLE is coded as FZHKF, what is the code for THANKS?

UGBMLR

RGZMJT

**UIBOLT**

RIAOJT

NUMBER SERIES

DATA SUFFICIENCY

LOGICAL ORDER

1. CEGI JLNP QSUW \_\_\_\_\_

A. WCMS

B. SXBD

**C. XZBD**

D. UZDH

2. If CHAIR is coded as HCARI, then SHAME is coded as:

IDBSJ

IDASJ

HSBEM

**HSAEM**

If KIDNEY is coded as YENDIK, then MUSCLE is coded as?

MOTDMD

YKULJOD

MLESCU

**ELCSUM**

**DATA ARRANGEMENTS**

1. Choose the answer option that arranges the given set of words in the 'most' meaningful order. The words when put in order should make logical sense according to size quality, occurrence of events,value,appearance,nature,process etc.

1. Garden
  2. Earth
  3. Grass
  4. Forest
  5. Tree
- A. 5,3,1,4,2  
 B. 3,5,1,2,4  
**C. 3,5,1,4,2**  
 D. 5,1,3,4,2

2. 1. Kazaranga Sanctuary
  2. Asia
  3. Rhinoceros
  4. India
  5. Assam
- A. 2,4,1,3,5  
 B. 2,4,5,3,1  
 C. 2,4,3,1,5  
**D. 2,4,5,1,3**

3. If  $AC \% BC$ , then

NOTE:

- “#” Denotes “greater than”  
 “/” Denotes “equal to”  
 “&” Denotes “not equal to”  
 “+” Denotes “lesser than”  
 “%” Denotes “a little more than”

- a)  $A/C$   
 b)  $B\#C$   
 c)  $C\#B$   
**d)  $B+A$**

Given signs signify something and on that basis, assumes the given statement to be true.  
 Answer the question basis the information provided.

- “x” denotes “larger than”  
 “+” denotes “equal to”  
 “-” denotes “not equal to”  
 “/” denotes “not smaller than”  
 “\*” denotes “not larger than”

If  $A/B$  and  $B/C$ , then

- $A+C$**   
 $AxC$   
 $A-C$   
 $A\%C$

Choose the option that arranges the given set of words in 'most' meaningful order. The words when put in order should make logical sense according to size., quality, quantity, occurrence of events, value, appearance, nature, process etc.

Dress  
Yarn  
Cotton stitching  
Plant

**5,3,2,4,1**

3,5,2,1,4

5,3,1,4,2

1,2,3,4,5

Given conditions:

' # 'denotes "GREATER THAN"

' / ' denotes "EQUAL TO"

' + ' denotes " LESSER THAN"

' % ' denotes " A LITTLE MORE THAN "

' \* ' denotes "LITTLE LESS THAN"

' & ' denotes " NOT EQUAL TO"

Q.  $AC \% BC$ , then

**A/C**

B#C

C#B

B+A

## MATHEMATICAL OPERATIONS

1.  $2^8 \times 2^2$

A)  $4^{10}$

**B)  $2^{10}$**

C)  $2^{16}$

D)  $4^{16}$

2. Which number is the Fourth power of 7

**A.  $2,401$**

B.  $2,421$

C.  $2,601$

D.  $2,621$

3. What is the smallest number which when divided by 7,18,56 and 36. Leave a remainder zero?

**504**

392

390

1012

4. What is the number that should be subtracted from 682 to make it a perfect square?

2

4

**6**

8

5. What is the least number which should be added to 0.0282 to if a perfect square?

**0.0007**

0.0042

0.0002

0.0003

6. What 0.555.... as a fraction?

1/5

**5/9**

1/3

4/5

## **INFERRED MEANING**

1. Based on the given passage, find out which of the statement can be inferred from the passage.

Excessive amount of mercury in drinking water, associated with certain types of industrial pollution have been shown to cause Hobson's disease. Island L has an economy based entirely on subsistence level agriculture. modern industry of any kind is unknown. The Inhabitants of Island L have unusually, high incidence of Hobson's disease.

A. Mercury in drinking water is actually perfectly safe.

B. Mercury in drinking water must sources other than industrial pollution.

C. Hobson's disease must have causes other than mercury in drinking water.

D. Both options (1) and (2)

**E. Both options (3) and (2)**

2. Based on the given passage, find out which of the statement can be inferred from the passage.

Social scientists have found that people who marry young are seldom prepared for marital roles. Also the men and women who marry as young adults live longer than those who never marry. According to a study, young adults who are about to get married have fewer unhealthy habits. Like smoking and uncontrolled drinking of alcohol as compared with the other people of the same age.

**A. The institution of marriage forces young men and women to quit smoking and drinking.**

B. Those who marry at an older age live a shorter life than those who get married at a younger age.

C. People who marry at an older age are well prepared to take up marital roles.

D. Young adults who are not about to marry are more likely to have unhealthy habits than those who are about to marry.

3. Deepa Meta's *Fire* was under fire from the country's self-appointed moral police. Their contention was that the film was a violation of the Indian culture mores and couldn't be allowed to influence the Indian psyche. According to them, such films run the moral fabric of the nation, which must be protected and defended against such intrusions at all cost, even at the cultural dictatorship

A. The assumption underlying the moral police's critique of *Fire* was that the Indian audience is vulnerable to all types of influence.

B. The assumption underlying the moral police's critique of *Fire* was that the Indian audience is impressionable and must be protected against immoral influence

**C. The moral police thinks it has the sole authority to pass judgement on films screened in India.**

D. None of these.

3. Of the fitness and wellness activities customary in India. Artistic yoga is the new kid in town. It has successfully earned a pat on the back from whosoever has lent an ear to the latest advancement artistic yoga and suaveness of yoga and the frenzy of modern cardio-vascular exercises. The technique involves performance of various asanas and pranayams followed by walking in tread mill, stair climbing, cycling and so on. The activities are performed in cyclic order and the asana or pranayam that is done in the beginning is repeated in the end. This helps an individual at the physical level as well as the mental and spiritual level this that helping about a complete transformation of body, mind and soul

**A. Artistic yoga helps in the overall development of those who practice it.**

B. Artistic yoga has been adopted by modern people since it is in fashion days.

C. All the activities performed at the beginning of artistic yoga are also repeated in the end

D. Since it combines yoga and exercise, artistic yoga will replace other fitness and wellness programmes

4. The world production of sugar has been reported to be very scarce as compared to the global sales for four years. The demand for sugar is extremely high but the supply has been low for quite some time now. This could be because of the awful weather and also because some chief sugar growers have switched to high-priced jute. The price of sugar has soared in response to the phenomena of the demand supply disparity. The price of sugar now equals that of jute.

Sugar production is profitable only when the price of sugar is as high as that of jute.

The sugar growers who had shifted to the higher priced jute, will now move back to producing sugar

**Demand for jute was higher than the demand for sugar, which made sugar growers shift their production**

If there continues to be a shortfall in the production of sugar, the price of sugar may even exceed that of jute

5. Problem question: Among the four students of class V – Radha, Meera, Kamala and Geetanjali, who is the tallest?

Statements:

Meera is shorter than Radha, but taller than Geetanjali  
Kamala is taller than Meera

Statement I alone is sufficient in answering the problem question

Statement II alone is sufficient in answering the problem question

**Both statements put together are sufficient in answering the problem question**

Both statements even put together are not sufficient in answering the problem question

Either of the statement is sufficient in answering the problem question

6. Read the passage carefully and select the statement that can be inferred from it.

Of all the fitness and wellness activities customary in India. Artistic yoga is the new kid in town. It has successfully earned a pat on the back from whosoever has lent an ear to the latest advancements. Artistic yoga combines the suaveness of yoga and the frenzy of modern cardiovascular exercises. The technique involves performance of various aasanas and pranayams followed by walking on treadmill, stair climbing, cycling and so on. The activities are performed in a cyclic order and the aasana or pranayama that is done in the beginning is repeated in the end. This helps an individual at the physical level as well as the mental and spiritual level, thus helping bring about a complete transforms of body, mind and soul.

Artistic yoga helps in the overall development of those who practise it

Artistic yoga has been adopted by modern people since it is in fashion these days

**All the activities performed at the beginning of artistic yoga are also repeated in the end**

Since it combines yoga and exercises, artistic yoga will replace other fitness and wellness programs.

7 Read the passage carefully and select the statement that can be inferred from it.

There are ways to spice up one's work. And I am surely not asking you to be an office gossip-monger. There are predominantly three kinds of people at a work place. Firstly, the ones who work for money alone, and wouldn't devote even an iota of their time beyond 9-5 office timings. They are usually not happy with what they are doing, unlike the others. Secondly, there are those, for whom, work is a means of getting appreciation and rewards. They are happy if they feel their efforts work as an end in itself. They put their heart and soul into their work and never worry about rewards. I am just asking you to try and transform yourself into one of the latter two.

The writer is a professional career counsellor in the organization.

People belonging to the second and third kinds are having higher job satisfaction.

**Rewarding the first and second kind of people at work place encourages them to do better.**

The third kind of people at workplace is the best assets for the organization.

People belonging to the second kind have to stretch themselves to get appreciation and rewards

8.Excessive amounts of mercury in drinking water, associated with certain types of industrial pollution have been shown to cause Hobson's disease.Island L has an economy based entirely on subsistence level agriculture.modern industry of any kind is unknown. The inhabitants of island L have unusually high incidence of hobons diseases.

Mercury in drinking water is actually perfectly safe

Mercury in drinking water must have sources other industrial pollution

Hobon's diseases must have causes other than mercury in drinking water

**Both options(1) and (2)**

Read the passage and answer the questions given below

Sixty years ago, on the evening of August 14, 1947, a few hours before Britain's Indian Empire was formally divided into the nation-states of India and Pakistan, Lord Louis Mountbatten and his wife, Edwina, sat down in the vice regal mansion in New Delhi to watch the latest Bob Hope movie, "My Favorite Brunette." Large parts of the subcontinent were descending into chaos, as the implications of partitioning the Indian Empire along religious lines became clear to the millions of Hindus, Muslims, and Sikhs caught on the wrong side of the border. In the next few months, some twelve million people would be uprooted and as many as a million murdered. But on that night in mid-August the bloodbath-and the fuller consequences of hasty imperial retreat-still lay in the future, and the Mountbatten probably felt they had earned their evening's entertainment.

Mountbatten, the last viceroy of India, had arrived in New Delhi in March, 1947, charged with an almost impossible task. Irrevocably enfeebled by the Second World War, the British belatedly realized that they had to leave the subcontinent, which had spiraled out of their control through the nineteen-forties. But plans for brisk disengagement ignored messy realities on the ground. Mountbatten had a clear remit to transfer power to the Indians within fifteen months. Leaving India to God, or anarchy, as Mohandas Gandhi, the foremost Indian leader, exhorted, wasn't a political option, however tempting. Mountbatten had to work hard to figure out how and to whom power was to be transferred.

The dominant political party, the Congress Party, took inspiration from Gandhi in claiming to be a secular organization, representing all four hundred million Indians. But many Muslim politicians saw it as a party of upper-caste Hindus and demanded a separate homeland for their hundred million co-religionists, who were intermingled with non-Muslim populations across the subcontinent's villages, towns, and cities. Eventually, as in Palestine, the British saw partition along religious lines as the quickest way to the exit.

But sectarian riots in Punjab and Bengal dimmed hopes for a quick and dignified British withdrawal, and boded ill for India's assumption of power. Not surprisingly, there were some notable absences at the Independence Day celebrations in New Delhi on August 15th. Gandhi, denouncing freedom from imperial rule as a "wooden loaf," had remained in Calcutta, trying, with the force of his moral authority, to stop Hindus and Muslims from killing each other. His great rival Mohammed Ali Jinnah, who had fought bitterly for a separate homeland for Indian Muslims, was in Karachi, trying to hold together the precarious nation-state of Pakistan.

Nevertheless, the significance of the occasion was not lost on many. While the Mountbattens were sitting down to their Bob Hope movie, India's constituent assembly was convening in New Delhi. The moment demanded grandiloquence, and Jawaharlal Nehru, Gandhi's closest disciple and soon to be India's first Prime Minister, provided it. "Long years ago, we made a tryst with destiny," he said. "At the stroke of the midnight hour, while the world sleeps, India will awaken to life and freedom. A moment comes, which comes but rarely in history, when we step out from the old to the new, when an age ends, and when the soul of a nation, long suppressed, finds utterance."

Posterity has enshrined this speech, as Nehru clearly intended. But today his quaint phrase "tryst with destiny" resonates ominously, so enduring have been the political and psychological scars of partition. The souls of the two new nation-states immediately found utterance in brutal



enmity. In Punjab, armed vigilante groups, organized along religious lines and incited by local politicians, murdered countless people, abducting and raping thousands of women. Soon, India and Pakistan were fighting a war-the first of three-over the disputed territory of Kashmir. Gandhi, reduced to despair by the seemingly endless cycle of retaliatory mass murders and displacement, was shot dead in January, 1948, by a Hindu extremist who believed that the father of the Indian nation was too soft on Muslims. Jinnah, racked with tuberculosis and overwork, died a few months later, his dream of a secular Pakistan apparently buried with him.

In the view of author what is the phrase 'tryst with destiny' symbolize today?

a celebration of Indian independence

An inspirational quote

A reminder of Gandhi's assassination

**A symbol of ills of the partition**

What does the author imply about the future of Pakistan?

It becomes a secular country

It becomes unsecular

**It is unprosperous**

It becomes a rogue state

Why was Gandhiji assassinated?

Because he was favouring the muslim

**His assassin thought he was partial to the muslim**

He got killed in the violence after partition

None of these

The author persists on talking about the 'bob Hope Movies' in the article. Why?

Because the movie was a classic of 1947

He thinks it caused the partition of the sub-continent

**He uses it to show the apathy of the britishers towards the sub-continent**

It was Mountbatten's favourite movie

Mallika, Maneni, Pallavi, Nikita and Suhana are seated in a conference hall facing the stage which is in the North. They are all seated in such a manner that they do not occupy adjacent seats. The seating arrangement is as given below:

1 Maneni is seated 10 seats away, to the right of Suhana.

2 Pallavi is seated 20 seats away, to the left of Nikita.

3 Mallika is seated 30 seats in front of Suhana,

4 Nikita is seated 15 seats to the right of Suhana.

Who amongst the given options are **NOT** seated in a linear pattern?

Pallavi, Suhana, Maneni

**Mallika, Suhana, Maneni**

Pallavi, Suhana, Nikita

Pallavi, Maneni, Nikita

Excessive amounts of mercury in drinking water, associated with certain types industrial pollution have been shown to cause Hobson's disease. Island L has an economy based on subsistence level agriculture; modern industry of any kind is unknown. The inhabitants of Island L have high incidence of Hobson's disease.

Mercury in drinking water is actually perfectly safe

Mercury in drinking water must have sources other than industrial pollution

Hobson's disease must have causes other than mercury

Both a and b

**Both b and c.**

of all the fitness and wellness activities customary in India, Artistic yoga is the new kid in town. It has successfully earned a pat on the back from whoever has lent an ear to the latest advancements. artistic yoga combines the suaveness of yoga and the frenzy of modern cardiovascular exercises. the technique involves performance of various aasanas and parayanas followed by walking on tread mill, stair climbing, cycling and so on. The activities are performed in a cyclic order and the asana and parayanas that is done in the beginning is repeated in the end. This helps an Individual at the physical level as well as the mental and spiritual level, thus helping bring about a complete transformation of body. Mind and soul.

Artistic yoga helps in the overall development of those who practice it

Artistic yoga has been adopted by modern people since it is in fashion these days

All the activities performed at the beginning of artistic yoga are also repeated in the end

**Since it combines yoga and excercises, artistic yoga will replace other fitness and wellness programmes.**

## AMCAT VERBAL PART

### ODD WORDS

1. POLICY:NPJIAZ :: INSURANCE :

**A) GOQVPBLDC**

B) GOQVQBLDC

C) GOQVRBLDC

D) GOQVPBLEC

2. Coal: Burn::Bomb:

**A) Explosion**

B) Fire

C) Noise

D) Smoke

3. ADBC:EFHG::ILJK : ?

- A) KLMO
- B) MPON
- C) MPNO**
- D) KMLO

4, If SAME is coded as VDPH, then IDENTICAL is coded as:

- A) KFHPVKEDN
- B) LACITNEDI
- C) LGHQWLFDO**
- D) KACITNEDI

## ANTONYMS

1 EMPATHY

- A) Care
- B) Sympathy
- C) Discontent
- D) Indifference**

2. Select the option that is the most nearly OPPOSITE in meaning to the given word.  
GRATIFY(OPPOSITE)

- A) Oblige
- B) Humor
- C) Indulge
- D) Upset**

3. Select the option that is the most nearly OPPOSITE in meaning to the given word.  
GHOULISH(OPPOSITE)

- A. Gruesome
- B. Pleasant**
- C. Peevish
- D. Garrulous

4. Select the option that is most nearly OPPOSITE in meaning to the given word.

PERIL (OPPOSITE)

### **Safety**

- Leisure
- Secretly
- Haunted

5. FUTILE (opposite)

- a) Barren
- b) Useless
- c) Alive

**d) Productive**

6. Pompous (opposite)

- a) Benevolent
- b) Boastful

**c) Modest**

- c) Opulent

7. Diminish (opposite)

**a) Rise**

- b) Connect
- c) Rough
- d) Limit

8 WEIRD (OPPOSITE)

Friendly

**Normal**

Creepy

D, Genuine

9 SEIZURE (OPPOSITE)

Confiscation

**Liberation**

Abduction

Apprehension

10 AVAILABLE (OPPOSITE)

Short

**Lack**

Cheap

Interested

11 AMPLE (opposite)

Slow

Abundant

**Meager**

Low

12 Incarcerate (opposite)

Constrain

Settle

**Liberate**

Fetter

13 Legitimate (opposite)

Illegal

Remissible

Illicit

**Logical**

14 Eminent (opposite)

**a) Inferior**

b) Credited

c) Prestigious

d) Important

15. Possession (opposite)

a) Custody

b) Conservation

**c) Liberation**

d) Disposition

16) Available (opposite)

a) Short

**b) lack**

c) cheap

d) interested

17 PERIL(OPPOSITE)

**A. safety**

B. leisure

C. secretly

D. haunted

**SYNONYMS**

1. NOVICE

Neophyte

**beginner**

probationer

greenhorn

2. ACCENTUATE

Exaggerate

**Increase**

Suppress

Low

3. Select the word or phrase which best expresses the meaning of the given word

LUMINIOUS

A. Transparent

B. Dull

**C. Glowing**

D. Lame

4. Select the word or phrase which best expresses the MEANING of the given word.

FEROCIOUS

**A) Violent**

B) Timid

C) Fst

D) Unbearable

5. PREAMBLE (synonym)

Rules

Law

Rights

**Introduction**

## ANALOGIES

1. 7, 9, 3, 18, 6, 36, 12, ...

24

48

60

**72**

2. 6, 9, \_, 24, 36

a) 10

**b) 15**

c) 12

d) 18

3. 2, 35, 104, 209, ...

**350**

308

418

D 362

4. 24:50 :: 102:?

204  
**206**  
152  
156

5. 10,7,12,10,14,.....  
18  
12  
**13**  
16

6. 9, .....,24,36  
**15**  
10  
12  
18

7. 6,9, ...,24,36  
**15**  
10  
12  
18

## READING COMPREHENSIONS

### 1. Read the passage and answer the questions given below

Give people power and discretion, and whether they are grand viziers or border guards, some will use their position to enrich themselves. The problem can be big enough to hold back a country's development. One study has shown that bribes account for 8% of the total cost of running a business in Uganda. Another found that corruption boosted the price of hospital supplies in Buenos Aires by 15%. Paul Wolfowitz, the head of the World Bank, is devoting special efforts during his presidency there to a drive against corruption.

For most people in the world, though, the worry is not that corruption may slow down their country's GDP growth. It is that their daily lives are pervaded by endless hassles, big and small. And for all the evidence that some cultures suffer endemic corruption while others are relatively clean, attitudes towards corruption, and even the language describing bribery, is remarkably similar around the world. In a testament to most people's basic decency, bribe-takers and bribe-payers have developed an elaborate theatre of dissimulation. This is not just to avoid detection. Even in countries where corruption is so common as to be unremarkable and unprosecutable and even when the transaction happens far from snooping eyes a bribe is almost always dressed up as some other kind of exchange. Though most of the world is plagued by corruption, even serial offenders try to conceal it.

One manifestation of this is linguistic. Surprisingly few people say: 'You are going to have to pay me if you want to get that done.' Instead, they use a wide variety of euphemisms. One type is quasi-official terminology. The first bribe paid by your correspondent, in Ukraine in 1998, went to two policemen so they would let him board a train leaving the country. On the train into Ukraine, the customs officer had absconded with a form that is needed again later to leave the country. The policemen at the station kindly explained that there was a *shtraf*, a 'fine' that could be paid instead of producing the document. The policemen let him off with the minimum *shtraf* of 50 hryvnia (\$25).

A second type of euphemism dresses up a dodgy payment as a friendly favour done by the bribe-payer. There is plenty of creative scope. Nigerian policemen are known to ask for "a little something for the weekend". A North African term is "un petit cadeau", a little gift. Mexican traffic police will suggest that you buy them a refresco, a soft drink, as will Angolan and Mozambican petty officials, who call it a *gazoso* in Portuguese. A businessman in Iraq told Reuters that although corruption there is quite overt, officials still insist on being given a "good coffee"

Double meaning can help soothe the awkwardness of bribe-paying. Baksheesh, originally a Persian word now found in many countries of the Middle East, can mean "tip", "alms" and "bribe". Swahili-speakers can take advantage of another ambiguous term. In Kenya a machine-gun-wielding guard suggested to a terrified Canadian aid worker: "Perhaps you would like to discuss this over tea" The young Canadian was relieved: the difficulty could be resolved with some chai, which means both "tea" and "bribe".

Along with the obscurantist language, bribe-taking culture around the world often involves the avoidance of physically handing the money from one person to another. One obvious reason is to avoid detection, which is why bribes are known as "envelopes" in countries from China to Greece. But avoidance of a direct hand-over is common even where there is no chance of detection. There will always be some officials who will take money right from a bribe-payer's hands, but most seem to prefer to find some way to hide the money from view. A bribe to a border guard may be folded into a passport. A sweetener to a traffic cop is often placed in the ticket-book that is handed to the driver. Parag Khanna, who is writing a book about countries on the edge of the rich world that are trying to get rich themselves, describes a bribe-taker he spotted in Georgia who he was sure was a rookie. Why? The scrawny young soldier, forgoing any subtleties, merely rubbed his fingers together in an age-old gesture.

Rich Westerners may not think of their societies as plagued by corruption. But the definition of bribery clearly differs from person to person. A New Yorker might pity the third-world businessman who must pay bribes just to keep his shop open. But the same New Yorker would not think twice about slipping the maitre d' \$50 to sneak into a nice restaurant without a reservation. Poor people the world over are most infuriated by the casual corruption of the elites rather than by the underpaid, "tip"-seeking soldier or functionary.

What is the author most likely to agree to?

People generally do not try to hide money taken as bribe.

People hide money taken as bribe primarily to avoid detection

**People hide money taken as bribe from view even if detection possibility is low.**

None of these



## JUMBLED SENTENCES

### SENTENCE CORRECTION

1 They were busy because they are **preparing** for the party at their house next Sunday.

**A) Will have been preparing**

B) Will be preparing

C) Were preparing

D) have prepared

E) No improvement needed

2 They were forced to **retreat** the camp.

A) Protect

B) Rest at

C) Destroy

D) Go back to

3. I have an **extensive** library of old recipe books.(opposite)

**A) An intensive**

B) A narrow

C) A complete

D) An increasing

4. A writer **always is having** his own vision of life

A) Always has

B) Always had

**C) Always have**

D) Have always

E) No Improvement needed

5. A writer **always is having** his own vision of life

A) Always has

B) Always had

**C) Always have**

D) Have always

E) No Improvement needed

6. In India, women \_\_\_\_\_ only three percent of senior management.

A) Contain

- B) Involve
- C) Compose
- D) Contains
- E) Comprises**

7. It is sad, the way she has \_\_\_\_\_ a ‘once a lifetime’ opportunity.

- A) Utilized
- B) Squandered**
- C) Developed
- D) Extended

8 she decided to \_\_\_\_\_ a famous actor in order to impress the crowd

- A) Imitate
- B) Review
- C) Neglect
- D) Provoke**

9 he stated that it was **a privilege** for him to come and speak with the students

- A) A restriction
- B) Beneficial
- C) An alteration**
- D) Inevitable

10 The movie can be categorized as average, \_\_\_\_\_ the thrilling and unexpected ending.

- a) Apart
- b) Except**
- c) In spite of
- d) Despite

11) With a hope to inspire hundreds of students, both the participants \_\_\_\_\_ their stories the next weekend

- a) shared
- b) will have shared
- c) will share**
- d) had shared

12. Inflation can be \_\_\_\_\_ only if people limit their consumption, which will in turn reduce the demand of products.

- a) Reduced**
- b) Reduces
- c) Reduce
- d) Reduction

13. The fire-fighting team reached the venue quickly and extinguished the fire, \_\_\_\_\_ saving many lives

- a) therefore
- b) hence**
- c) thereby
- d) then

14. These students \_\_\_\_\_ Innovate, creators and entrepreneurs by the time the new policy is launched

**A. have been coming**

B. are coming

C. become

D. will have become

15. The film tells the story of a merchant who spends nearly two decades in prison for the murder of his wife and her lover \_\_\_\_\_ his claims of innocence.

A. though

**B. In spite**

C. despite

D. through

16. Roima avoids travelling by flight as she feels afraid during take \_\_\_\_\_ and landing.

A. on

B. up

**C. Off**

D. away

17. TRANQUIL

A. Disturbing

B. Agitated

C. numb

**D. calm**

18. The seller has guaranteed \_\_\_\_\_ in case we did not like the product

A. sacrifice

B. reward

**C. refund**

D. satisfaction

## SENTENCE FORMATION

1. Sunitha has a flair \_\_\_\_\_ music

At

To

With

**For**

2. All members will have a fixed five year .....

Tenet

Tenor

**Tenure**

Tenement

3. I think I know \_\_\_\_\_ he finished his assignment early

Until

By when

**how**

when

4. They \_\_\_\_\_ to the same mall since the last two years

**Have been going**

Have gone

Went

Go

5. Ask her to come here \_\_\_\_\_ we don't have time..

Quickly

**Quick**

Very quicker

Too quicker

6 The worker insisted on the fact that absolutely nobody had \_\_\_\_\_ the drilling process.

Interfered with

Obliged to

**Apologized to**

Daimed to

7. An honest man never \_\_\_\_\_ to lies in order to fulfil his goals.

a. helps

b. tells

**c. resorts**

d. forms

8 I would like to \_\_\_\_ a reservation for next Wednesday

a) seek

b) look

c) keep

**d) book**

9. Dravid played a brilliant series for \_\_\_\_ he was given man of the series award

a) it

b) for

**c) which**

d) whom

10. He echoed his manager's statement saying that a decline in profit would ruin the company

a) Reversed

b) Repeated

**c) Retorted**

d) Opposed

## SPOTTING ERRORS

1. (A) She decide to(B) go to UK for(C) her higher studies

**(A)**

(B)

(C)

No error

2. Read the sentence to find out whether there is any grammatical error in it. The error, if any will be in one part of the sentence. The letter of that part is the answer. Ignore the error of punctuation ,if any

(A)The kid stopped crying (B) as soon as his mother (C) bringed chocolates for him (D) No error

A. (A)

B. (B)

**C. (C)**

D. (D)

3. (A)It hence proven that/(B) distinction between two view points/(C) is often Blurred(D)No error.

**(A)**

(B)

(C)

(D)

5 (A)It have been /(B) ages since I/(C) palyed the guitar /(D)No error

**(A)**

(B)

(C)

(D)

6. (A) Sita has a hobby of writing poems, (B) whenever she had been (C) free and in the mood of writing.

(A)

**(B)**

(C)

(D)

13 (A) The reviewer suggested that the first camera was more better (B) than the other camera for experienced users (C) since it features a lightweight and sturdy design.

(A)

(B)

(c)

**No error**

Spot the error

**(A)** They had saw how the team works **(B)** and the only thing now left is to try **(C)** and improve the work dynamics

a) A

b) B

c) C

**d) No error**

A) He makes sure that he gets (B) the best information from his resource (c) t make the best decision possible.

A.(A)

B.(B)

C. (C)

**D. No error**

16 **(A)** There is a lots / **(B)** of milk left in the jar / **(C)** for the rest of us / (D) No error

**a) A**

b) B

c) C

d) D

## SELECTING WORDS

## SENTENCE COMPLETION

**Select the correct option that fills the blanks to make the sentence meaningfully complete.**

2. We were thinking \_\_\_\_\_ it \_\_\_\_\_ something like a requiem for our age.

A. for, because

B. for, as

C. of, since

**D. of, as**

3. Select the correct option that fills the blank .to make the sentence meaningfully complete.

Hardly a day goes \_\_\_\_\_ when I don't remember all those great people who had gathered \_\_\_\_\_ my home on his birthday.

A. out,in

**B. by, in**

C. through, on

D. for, on

4. Reena Avoids travelling by avoid flight during afraid to take \_\_\_\_ landing

A.do

B. up

C. off

D. away

5, They protracted illness has reduced him \_\_\_\_ skeleton

**A. Till**

B. Round

C. Through

D. To

E. From by

6. We need to call the \_\_\_\_moneka demanded

A. out

**B. us**

C. of

D. away

8. The bellboy responsible \_\_\_\_incoming wake up calls

A. to

B. of

**C. for**

D. in

9. Hardly a day goes \_\_\_\_\_ when I don't remember all those great people who had gathered \_\_\_\_\_ my home on his birthday.

out, in

**by, in**

through, on

for, on

Select the correct option that fills the blank(s) to make the sentence meaningfully complete.

After being promoted, she is not bothered \_\_\_\_\_ the office gossip about her private life.

for

**in**

from

by

The Interview panel asked her to wait \_\_\_\_ Friday for the final decision

**a) upto**

b) till

c) for

d) since

She climbed over the stairs instead of waiting for the elevator to come.

On

Up

**At**

Toward

No improvement needed

**14.** Select the correct option that fills the blank(s) to make the sentence meaningfully complete.

Ravi put \_\_\_\_\_ the light and slept.

For  
**Down**  
In  
Out  
They are expecting the new administration to enact the new policy only if it wasn't for the CEO to drop. It altogether.

Are being expected  
**Have expected**  
Expects  
Would have expected  
No improvement needed

A writer always is having his own vision of life.  
Always has  
**Always had**  
Always have  
Have always  
No improvement needed

11. Although \_\_\_\_\_ a good start, slacking off later has refused in delay in project competition.  
He is making  
He has make  
He make  
**Has been making**

The store started \_\_\_\_\_ credit card for payment.  
Accepted  
Accepting  
Accept  
**Accepts**

**13 )** I did not go to school in a week after an accident  
Until  
**For**

Through  
Within  
14 \_\_\_\_ she excited about visiting her grandmother this summer  
Weren't  
Wasn't  
Doesn't  
**Won't**

**15** The much she interacted with them, the more her behaviour reflected lack of interest in the party  
Lot she interacted  
More she interacted  
Few she interacted  
Enough she interacted  
**No improvement needed**

16 ) I think I know \_\_\_\_ he finished his assignment early.



## How

By when

Until

Who

## SENTENCE IMPROVEMENT

**Improve the sentence by selecting the correct alternative to the italicized part of the sentence.**

The institute reserves the right to make any change in the items\_\_\_\_\_in the itinerary

Contains

Contained

**Contain**

Includes

The great epics of ancient India took shape in the course of several hundred years, and \_\_\_\_\_ many additions were made to them

A. Following

B. Then

C. **Subsequently**

D. Otherwise

7. Astronauts have completed a major mission in space it was \_\_\_\_a replacement of the fuel tanks

**A. Concerns**

B. Concern

C. Concerning

D. Concerned

Heritage languages which form a part of India's rich culture are becoming \_\_\_\_\_

Extinctive

Extinguish

Extinction

**Extinct**

Even though the region was prone to hurricanes, the \_\_\_\_of the tornado was\_\_\_\_

a) levity lethal

b) Impact awesome

c) Inevitability mercurial

**d) Ferocity unprecedented**

The cab service launched its first campaign last summer to \_\_\_\_some of the most common complaints of the customers

Overlook

**Exploit**

Utilize  
Address

One could clearly see the **INVASION** of the beach by the migratory birds  
Breach

Encroachment

**Disturbance**

Abandonment

17. Identify the sentences that is grammatically correct

At the end of the function, a lot of food was throwed away in the dustbin.

At the end of the function, a lot of food were throwed away in the dustbin.

At the end of the function, a lot of food was thrown away in the dustbin.

At the end of the function, a lot of food was threw away in the dustbin.

**At the end of the function, a lot of food were thrown away in the dustbin.**

18. **PARTIAL**(meaning)

Equitable

Unblased

Half

**Incomplete**

19. He found nothing but **salvation** in their sorrow(opposite)

Deseperation

Compensation

Liberation

**Loss**

20 The spectacular landscape of Switzerland makes it one of the most visited \_\_\_\_ in the world  
Place

Destination

**Areas**

Country

21 The boss was unsure as to what triggered the argument between Shyam and Shankar

Spread

Broke

Halted

**Provoked**

22 The minister decided to create a new model to \_\_\_\_ resources across the city

Dispose

Settle

**Allocate**

Induce

23The members of the team **disagreed** over the reasons for the financial success of the company.

A. clashed

**B. consented**

C. berated

D. retained

## SENTENCE SELECTION

## PARAGRAPH FORMATION

1. In the question each passage consists of six sentences. The First and the sixth sentences are given in the beginning. The middle four sentences have been removed and jumbled up. These are labeled P, Q, R and S. Select the proper order for the four sentences.

S1: We were planning to watch “Harry Potter and the Half Blood Prince”

S6: Finally last Saturday, we were able to watch the movie.

P: We had booked the tickets two weeks earlier

Q: In order to watch the movies of their preference, people usually book in advance.

R: But we were still falling three tickets short.

S. But it is so hard to obtain ticket on weekends.

A. PQRS

B. SQPR

C. RPSQ

**D. QSPR**

3. In the question each passage consists of six sentences. The first and the sixth sentences are given in the beginning. The middle four sentences have been removed and jumbled up. These are labelled P, Q, R and S. Select the proper order for the four sentences.

S1: Soumitra lost his wallet today in the market.

S6: Apart from calling the bank, he should also lodge an FIR.

P: He had all his cards and money in the wallet.

R: He is more worried about the credit cards than the money.

S: The best thing would be to call the bank and block all his cards.

Q: This surely would avoid any kind of credit card forgery.

RSQP

**PRSQ**

QPRS

SQPR

Arrange the sentences

S1. The Physics exam paper was quite tough this year.

S6. Hopefully the school will have higher passing percentage this year.

P: The physics test paper is now being designed by some junior teacher.

Q: Thus has asked all failed students to appear for exam again.

R: Only 40% of the total students scored the pass marks.

S: The principal was quite disappointed with the result.

SPRQ

QSRP

**RSQP**

PSQR

5 Arrange the sentences

S1: He has always been actively involved in the charity work

S6: Wish we had more such people coming up for good causes like this

P: Recently he donated 50 thousand to a school

Q: Every year, more than 500 slum children get free education from there

R: They are also considering opening more branches in India

S: It was education for slum children

**QRSP**

PSQR

QPRS

SQRP

Statement 1: A lot of kids were complaining of stomach ache

Statement 6: However the authorities were not ready to take responsibility

P: They also have asked the school authorities to close down the school

Q: Parents have asked the food sample to be tested

R: The problem was started after their mid-day meal was served

S: Thus, it had to be something in the food they had eaten.

SRQP

**RSQP**

PRQS

QSPR

## PROGRAMMING MCQ'S

1. Srishti writes a program to find an element in the array A(5) with following elements in order .8 30 40 45 70. she runs the program to find a number X. X is found in the first iteration of binary search, What is value of X?

**40**

8

70

30

2. The maximum number of nodes on level I of a binary tree is which of the following?  
(Root is Level 1)

$2^{I-1}$

$3^{I-1}$

**$2^I$**

$2^{-1}$

3. A language has 28 different letters in total. Each word in the language is composed of maximum 7 letters. You want to create a data-type to store a word of this language you decide to store the word as an array of letters. How many bits will you assign to the data-type to be able to store all kinds of the language

7

**35**

28

196

4. Vrinda writes an sufficient program to tow square diagonal matrices (matrices with elements only on diagonal). The size of each matrix is  $n \times n$ . What is the time complexity Of vinnda's algorithm?

**$\theta(n^2)$**

$\theta(n)$

$V(n \cdot \log(n))$

None of these

5. Function print\_me(integer n ) // Statement 1

{

If (n < 1 ) return // Statement 2

Print n // Statement 3

Print\_me(n-1) // Statement 4

Pooja has written the following code to print numbers form 0 to n in reverse order using the recursive approach. Find if there exists any error in the given code.

Statement 1

**Statement 2**

Statement 3

There is no error

6. A complete binary tree with the property that we value at each node is atleast as large as the values at its children is know as.

**Binary Search Tree**

AVL Tree

Completely Balanced Tree

Heap

7. The average time required to perform a successful sequential search for an element in an array A(1: n) is given by

**$(n+1)/2$**

$\log_2 n$

$n(N+1)/2$

$n^2$

8.Neha wants to write a program that converts a decimal number into a binary number. Which of the following data structures should she use to implement the same?

**Queue**

Stack

Array

Linked list

9. Smithi wants to make a program to print the sum of square of the first 5 whole number (0...4) She writes the following program.

```
Integer I = 0 // statement 1
Integer sum = 0 // statement 2
While ( I < 5 ) // statement 3
{
    Sum = i*I // statement 4
    I = I + 1 // statement 5
}
Print sum // statement 6
```

Is her program correct? If not which statement will you modify to correct it?

No error. the program is correct.

Statement 1

Statement 6

**Statement 4**

10. Consider the following pseudo-code

```
Class brush
{
    Private:
        Integer size, colourcode
    Function getdata() {...} // statement 1
    Public
        Integer name // statement 2
        Function putdata() {...}
}
Function main
{
    Brush b1, b2
    Print b1.name // statement 3
    B2. getdata() // statement 4
}
```

Deleting which line will correct the error in the code?

Statement 1

**Statement 2**

Statement 3

Statement 4

11.Shravali writes the following program:

```
Integer i = 0, j
```

```

While ( i< 2)
{
j =0;
while ( j<= 3*i)
{
Print j
Print blank space
J = j +3
}
Print end of line // takes the cursor to the next line
I = I + 1
}

```

What will be the output of the program?

0  
0 3  
**0 3**  
**0 3 6**  
**0 3 6**  
0 3 6 9  
0 3 6 9 12

12. Which one of the following is the lowest level format to which the computer converts a higher language program before execution?

English code

**Machine code**

Assembly language

System language

13. Function g(int n)

```

{
If (n > 0) return 1;
Else return -1;
}
Function f(int a, int b)
{
If (a > b) return g (a-b);
If (a < b) return g(-b+a);
Return 0;
}

```

If f (a,b) is called what is returned?

Always + 1

**1 if a > b, -1 if a < b, 0 otherwise**

-1 if a > b, 1 if a < b, 1 if a < b, 0 otherwise

0 if a equals b, -1 otherwise

14. Atzal write a piece of code, Where a set of three lines occur around 10 times in different parts of the program. What programming concept can he use to shorten his program code length?

Use for loops

**Use functions**

Use array

Use classes

15. \_\_\_\_\_ is the compile time binding whereas \_\_\_\_\_ is run time of function  
function overriding, function overloading  
Abstraction, Encapsulation

**Function overloading, function overriding**

Varies from program to program

16. Consider the following pseudo-code

Class rocket

```
{  
Private:  
Integer height, weight  
Public: // statement 1  
function input( int a ,int b)  
{  
Height = a;  
Weight = b;  
}  
}  
function main ()  
{  
rocket rocket1, Rocket2  
}
```

What can we infer from this code?

rocket is a class with rocket1 and rocket2 as its objects. Height and weight are attributes of a rocket.

**rocket is a class with rocket1 and rocket2 as its attributes. Height and weight are attributes of a rocket.**

rocket is a class with rocket1, rocket2, height and weight as its attributes

rocket is a class with rocket1, rocket2, height and weight as its objects

17. Integer a = 40, b = 35, c = 20, d = 10

Comment about the output of the following two statements:

Print a \* b / c - d

Print a \* b / (c - d)

**Differ by 80**

Same

Differ by 50

Differ by 160

18. A destructor may be invoked in which of the following situations?

When the object is created

When the object assigned value 0.

Only at the end of the code

**When the scope of the object is over**

19. There are loops which are nested. This implies which one of the following?

Two loops, one after the other

**Two loops, one inside the other**

One loop with two different iteration counts

Two loops with the same iteration count



20. A sort which uses the binary tree concept such that any number in the tree is larger than all the numbers in the subtree below it. Is called

Selection Sort

Insertion Sort

**Heap Sort**

Quick Sort

21. Which of the following options is exception to being a part of composite data types?

Union

Array

Structure

**Stack**

22. In an implementation of a linked list. Each node contains data and address. Which of the following could the address field possibly contain?

**Address of next node in sequence**

It's own of last node

Address of last node

Address of first node

23. Ravi is writing program in C++ C++ uses the 'for' keyword for loops. Due to distraction. Ravi writes 'gor' instead of 'for'. What will this result fo?

The code will not give an error while in execution

**The code will not compile**

The code may work for some inputs and not for others

It will create no problems

24. Consider an array which bubble sort is used. The bubble sort would compare the element add to which of the following elements in a single iteration?

$A[X+1]$

**$A[X+2]$**

$A[X+2X]$

All of these

25. Sorting is not possible by using which of the following methods?

**Insertion**

Selection

Exchange

Deletion

26. A pseudo-code is used. Assume that when two data-types are processed through an operator, the answer maintains the same data-types as the input data-types. Assume that all data-types have enough range to accommodate any number. If two different data-types are operated on, the result assumes the more expressive data-type.

Passage:

What will be the output of the following pseudo-code statements?

integer a=456, b, c, d=10

b = a/d

c = a-b

print c

410

410.4

411.4

**411**

**27.** Choose the correct answer

Passage:

What is implied by the argument of a function?

**The variables passed to it when it is called**

The value it returns on execution

The execution code inside it

Its return type

**28.** Tanuj writes the code for a function that takes as input n and calculates the sum of first n natural numbers

```
function sum(n)
{
    if(??)
        return 1
    else
        return(n + sum(n-1))
    end
}
```

Fill in ?? in the code.

**n equals**

n equals 2

n>=1

n>1

29. \_\_\_\_\_ returns a value unlike \_\_\_\_\_.

Procedure, Subroutine

Procedure, Function

**Function, Method**

Function, Procedure

30. There are two loops which are nested. This implies which one of the following?

Two loops, one after the other

**Two loops, one inside the other**

One loop with two different iteration counts

Two loops with the same iteration count

Choose the correct answer. A pseudo-code which is similar to that of C++ and self-explanatory.

An accessible member function or data member for an object is accessed by the statement  
objectname.functionname or objectname.datamembername respectively.

Passage:

Consider the following pseudo-code

```

class rocket
{
    private:
    integer height, weight
    public:
    function input(int a, int b)
    {
        height = a;
        weight = b;
    }
}

function main()
{
    rocket rocket1, rocket2
}

```

What can we infer from this code?

**rocket is a class with rocket1 and rocket2 as its objects, height and weight are attributes of a rocket.**

rocket is a class with rocket1 and rocket2 as its attributes height and weight are objects of the class rocket.

rocket is a class with rocket1, rocket2, height and weight as its attributes.

rocket is a class with rocket1, rocket2, height and weight as its objects.

Choose the correct answer

Passage:

Afzal writes a piece of code, where a set of three line around 10 times in different parts of the program. What programming concept can be used to shorten his program code length?

Use for loops

**Use functions**

Use arrays

Use classes

Choose the correct answer

Passage:

In an implementation of a linked list, each node contains data and address. Which of the following could the address field possibly contain?

**Address of next node in sequence**

Its own address

Address of last node

Address of first node

Yashi wants to implement priority queues using arrays. What is the minimum number of arrays that she should use to serve the purpose?

- 1
- 2**
- 3
- 4

Choose the correct answer

Passage:

Saloni writes the code for a function that takes as input n, an even integer and calculates the sum of first n even natural numbers.

```
function sum(n)
{
    if (n equals 2)
        return 2
    else
        return (n + sum(n-2))
    end
}
```

She then calls the function by the statement, sum(30), How many times will the function sum be called to compute this sum?

- 1
- 30
- 15**
- 6

Choose the correct answer

Passage:

A destructor may be invoked in which of the following situations?

- When the object is created
- When the object is assigned value 0.
- Only at the end of the code
- When the scope of the object is over.**

Choose the correct answer

Passage:

A variable cannot be used...

**Before it is declared**

After it is declared

in the function it is declared in

Can always be used

Choose the correct answer

Passage:

A sort, which uses the binary tree concept such that any number in the tree is larger than all the numbers in the subtree below it is called

Selection sort

Insertion sort

**Heap sort**

Quick sort

Choose the correct answer

Passage:

A is an empty stack. The following operations are done on it.

PUSH (1)

PUSH (2)

POP

PUSH (5)

PUSH (6)

POP

What will the stack contain after these operations? (Top of the stack is underlined)

5 6

**1 5**

5 6

1 5

38, Choose the correct answer

Passage:

In breadth-first search, which of the following options is true?

Beginning from a node, first all its adjacent nodes are traversed.

Beginning from a node, each adjacent node is fully explored before traversing the next adjacent node.

**Beginning from a node, nodes are traversed in cyclical order**

None of these

39, Choose the correct answer

Passage:

Which of the following options describe a tree?

An unconnected

A connected graph

**A connected acyclic graph**

A complete graph

Choose the correct answer

Passage:

A full binary tree with  $n$  non-leaf nodes contains

$(\log n)$  nodes

**$n + 1$  nodes**

$2n+1$  nodes

$2n$  nodes

Choose the correct answer

Passage:

While calculating time complexity of an algorithm, the designer concerns himself/herself primarily with the run time and not the compile time. Why?

Run time always more than compile time.

Compile time is always more than run time.

Compile time is a function of run time.

**A program needs to be compiled once but can be run several times.**

Choose the correct answer

Passage:

Shahaana has a 10,000 line code. She is trying to debug it. She knows there is a logical error in the first 25 lines of the code. Which of the following options will be an efficient way of debugging?

Compile the whole code and step into it line by line

**Use an interpreter on the first 25 lines**

Compile the whole code and run it

None of these

Choose the correct answer

Passage:

Pankaj and Mythili were both asked to write the code to evaluate the following expression:

$$a - b + c / (a - b) + (a - b)^2$$

Pankaj writes the following code statements (Code A):

```
print (a - b) + c / (a - b) + (a-b)*(a b)
```

Mythili writes the following code statements (Code B)

```
d = (a - b)
```

```
print d + c/d + d*d
```

If the time taken to load a value in a variable, for addition, multiplication or division between two operands is same, which of the following is true?

**Code A uses lesser memory and is slower than code B**

Code A uses lesser memory and is faster than code B

Code A uses more memory and is faster than code B

Code A uses more memory and is slower than code B

Choose the correct answer

How is the Bubble Sort algorithm different from the modified Bubble Sort algorithm?

Former uses more space than the latter

Former is comparatively easier to implement in terms of codes

**Former does not stop comparing once the array is sorted unlike the latter**

There is no different the two

Choose the correct answer

Passage:

As part of the maintenance work, you are entrusted with the work of rearranging the library books in a shelf in proper order, at the end of each day. The ideal choice will be

Bubble Sort

**Insertion Sort**

Selection Sort

Heap Sort

Choose the correct answer

Passage:

Srujan writes a sorting algorithm. The algorithm takes different amount of time to sort, two different lists of equal size. What is the possible different between the two lists?

All numbers in one list are more than 100, while in the other are less than 100.

**The ordering of numbers with respect to magnitude in the two list has different properties.**

One list has all negative number, while the other has all positive numbers.  
One list contains 0 as an element, while the other does not.

47, Number '1' is a:

a) **Prime number** b) Composite number c) Positive integer d) Both A and C

program

Given an integer N, Print N lines in a following manner

For Eg: N=4

1  
3\*2  
4\*5\*6  
10\*9\*8\*7

The input to the method or class **NumberPattern** should contain the integer N

Assume(  $1 \leq N \leq 100$ )

**Testcase 1:**

N=3  
1  
3\*2  
4\*5\*6

**Testcases 2:**

N=5  
1  
3\*2  
4\*5\*6  
10\*9\*8\*7  
11\*12\*13\*14\*15

48, You are given an integer N and a start value start, print  $2*N$  lines in the following manner- if N=4 and start =3 ,then the pattern would be:

3  
44  
555  
6666  
555  
44  
3

49. The input to the method IncrementPatternPrint of class IncrementPattern shall consist of a positive integer start value start and an integer N(Assume  $0 \leq N \leq 100$ ).

Do not return anything from the method. Print the required pattern using System.out.print() or System.out.print().

Charlie has a magic mirror. The mirror shows right rotated version of a given word. To generate different right-rotations of a word. Write the word in a circle in clockwise order, then start reading from any given character in clockwise order till you have covered all the characters. For example, in a word "sample". if we start with 'P', we get the right rotated word as "plesam"there are six such right rotations of " sample " including itself.



Test case1:

abc, cab

expected return value : 1

test case 2:

ab, aa

expected return value : -1

50. Write a program to print a pattern

1111112

3222222

3333334

5444444

5555556

7666666

Given an integer N. Print 2\*N lines in the following manner

If N=4,

1

2\*3

4\*5\*6

7\*8\*9\*10

7\*8\*9\*10

4\*5\*6

2\*3

1

The input to the method TrianglePattern shall contain an integer N. Assume( $1 \leq N \leq 100$ )

Testcase:

N=3,

1

2\*3

4\*5\*6

4\*5\*6

2\*3

1

Given an integer array arr of len and k. Write a program to sort first k elements in ascending order and remaining elements in descending order.

The input to the method SortArray shall contain len and k. The method should the array of k elements in ascending order and remaining as descending order.

Testcase

Input: {1,2,3,4,5,6,7,8,9,10},10,5

Output: {1,2,3,4,5,10,9,8,7,6}

Choose the correct answer. A pseudo-code which is similar to that of C++ and self-explanatory. An accessible member function or data member for an object is accessed by the statement objectname.functionname or objectname.datamembername respectively.

Passage:

Consider the following pseudo-code

```

class brush
{
    private:
        integer size, colorcode
        function getdata() {...} //Statement 1
    public:
        integer name //Statement 2
        function putdata() {...}
}

function main
{
    brush b1,b2
    print b1.name //Statement 3
    b2.getdata() //Statement 4
}

```

Deleting which line will correct the error in the code?

Statement 1

Statement 2

Statement 3

**Statement 4**