Mindtree Quant Section:

Amcat-Q1: The probability that a student passes Subject A, B or C is 98%. The probability that he or she passes A is 41%, B is 59%. The probability that he or she passes A and C is 25% and B and C is 20%. The probability that he or she passes all the 3 subjects is 14%. What is the probability that he or she passes subject C?

Ans. 29

P(AUBUC) = P(A)+P(B)+P(C)-P(AnB)-P(BnC)-P(AnC)+P(AnBnC)

98 = 41+59+c-0-20-25+14

c = 29

Amcat-Q2: Ritu has 3 shirts in shades of red, 4 in yellow shades and 5 in green shades . Three shirts are picked at random . the probability that all of those are in red shades is :

Ans. 3c3/12c3

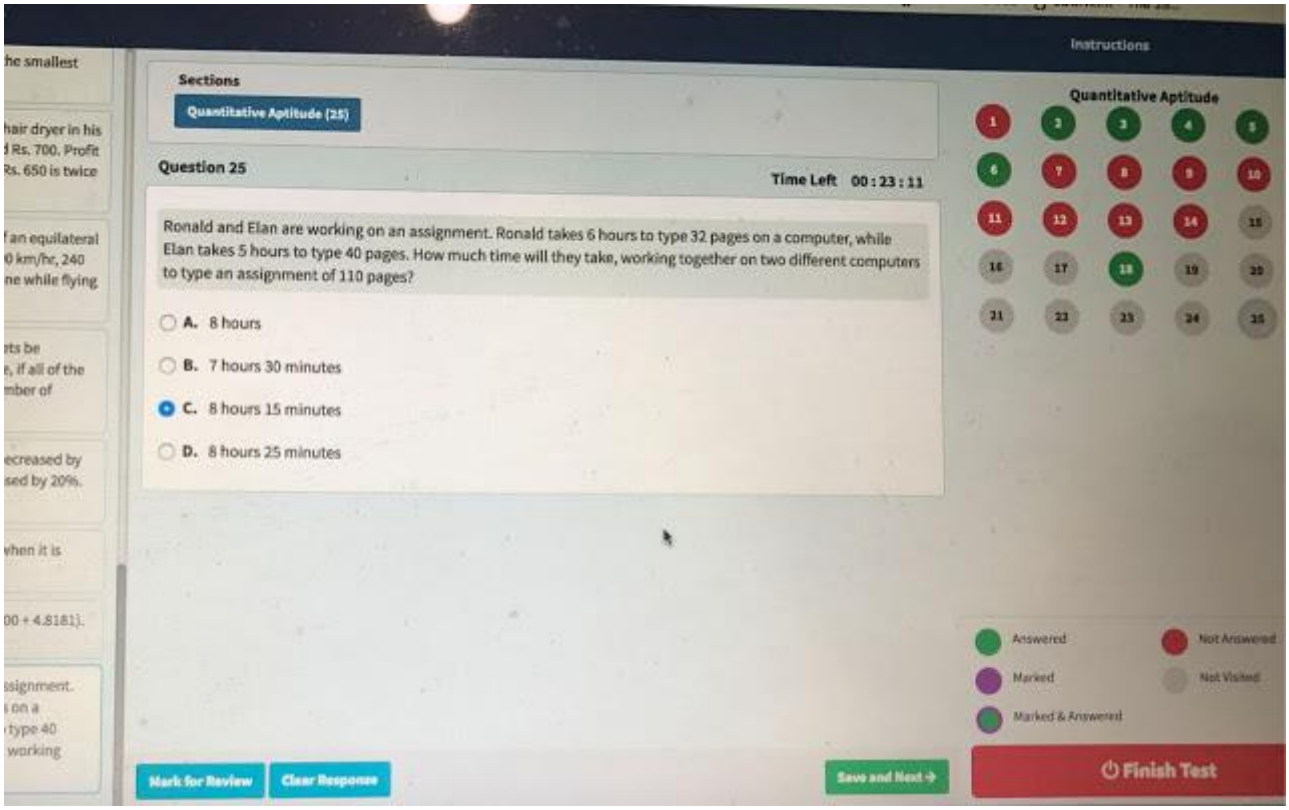
Amcat-Q3: Sangeeta invested rs.20,000 at 8 % per annual . if the interest is compounded half yearly , then total interest earned by Sangeeta at the end of the year is:

Ans. 1632

8% interest yearly can be taken as 4% compounded interest for 2 half years

So Total interest earned=20000[1+(4/100)]^2 - 20000 =21632- 20000= 1632

Amcat-Q4



(Image taken while taking AMCAT Test)

Amcat-Q5: Express 4.33333 in p/q form

Answer: 4.33333 can be written as

4+(1/3) since 1/3=.33333

so the answer is 13/3

Amcat-Q6: Two train each 500 m long, are running in opposite directions on parallel tracks. If their speeds are 45 km/hr and 30 km/hr respectively, the time taken by the slower train to pass the driver of the faster one is

A. 50 sec
B. 58 sec
C. 24 sec
D. 22 sec

Answer: C
Relative speed = = (45 + 30) km/hr = 125/6 m/sec
We have to find the time taken by the slower train to pass the DRIVER of the faster train and not the complete train.
So, distance covered = Length of the slower train.
Therefore, Distance covered = 500 m.
Therefore Required time = 500 x 6/125= 24 sec.

Amcat-Q7: How many seconds will a 500 meter long train moving with a speed of 63 km/hr, take to cross a man walking with a speed of 3 km/hr in the direction of the train ?

A. 42
B. 50
C. 28
D. 30

Answer: D
Speed of the train relative to man = (63 - 3) km/hr
= 60 km/hr
=60 x 5/18 m/sec
=50/3 m/sec.
Therefore Time taken to pass the man
= 500 x 3/50 sec
= 30 sec.

Amcat-Q8: The cost price of a Rs. 100 stock at 4 discount, when brokerage is 15% is

A. Rs. 96.25
B. Rs. 96.2
C. Rs. 97.25
D. Rs. 97.5

Answer: A
CP = 100 - 4+ 1/4 = 96.25

Amcat-Q9: A man invests some money partly in 12% stock at 105 and partly in 8% stock at 88. To obtain equal dividends from both, he must invest the money in the ratio:

A. 31 : 44
B. 35 : 44
C. 16 : 15
D. 31 : 27

Answer : B

Amcat-Q10: Which pair of rational numbers lie between 1/5 and 2/5 –

A) 262/1000, 275/1000
B) 362/1000, 562/1000
C) 451/1000, 552/1000

D) 121/1000,131/1000

Answer : A

Amcat-Q11: The market value of a 10.5% stock, in which an income of Rs. 756 is derived by investing Rs. 9000, brokerage being 1⁄4 %, is:

A. Rs. 124.75
B. Rs. 108.25
C. Rs. 125.25
D. Rs. 112.20

Answer: A
For an income of Rs. 756, investment = Rs. 9000.
For an income of Rs.21/2, investment = Rs.(9000/756 x 21/2) = Rs. 125.
For a Rs. 100 stock, investment = Rs. 125.
Market value of Rs. 100 stock = Rs.125 -1/4 = Rs. 124.75

Amcat-Q12: What is the value of 100P2 ?
A. 9801
B. 12000
C. 5600
D. 9900

Answer : D
We have a permutation formula nPr= n! /(n-r)!
Hence 100P2 will be 100! / (100-2)!
100P2 = 100*99
=9900

Amcat-Q13: One pipe can fill a tank four times as fast as another pipe. If together the two pipes can fill the tank in 36 minutes, then the slower pipe alone will be able to fill the tank in:
A. 144 min
B. 180 min.
C. 126 min
D. 114 min

Answer : D
Let the slower pipe alone fill the tank in x minutes.
Then, faster pipe will fill it in x/3 minutes.

1/x + 3/x = 1
4/x = 1/36
x = 144 min.

Amcat-Q14: A leak in the bottom of a tank can empty the full tank in 6 hours. An inlet pipe fills water at the rate of 4 liters a minute. When the tank is full, the inlet is opened and due to the leak, the tank is empty in 24 hours. How many liters does the cistern hold?
A. 4010 liter
B. 2220 liter
C. 1920 liter
D. 2020 liter

Answer : C

Amcat-Q15: A cistern can be filled by a tap in 3 hours while it can be emptied by another tap in 8 hours. If both the taps are opened simultaneously, then after how much time will the cistern get filled?
A. 4.8 hr
B. 2.4 hr
C. 3.6 hr
D. 1.8 hr

Answer : A
When we have question like one is filling the tank and other is empting it, then we subtraction as,

Filled in 1 hour = 1/3
Empties in 1 hour = 1/8

Net filled in 1 hour = 1/3 - 1/8
= 5/24
So cistern will be filled in 24/5 hours i.e. 4.8 hours

Amcat-Q16: Two taps A and B can fill a tank in 5 hours and 20 hours respectively. If both the taps are open then due to a leakage, it took 40 minutes more to fill the tank. If the tank is full, how long will it take for the leakage alone to empty the tank?
A. 22 hr
B. 16 hr
C. 28 hr
D. 32 hr

Answer : C
Part filled by (A + B) in 1 hour = (1/5 + 1/20)
= 1/4.
So, A and B together can fill the tank in 4 hours.
With leak it requires 9/2 (4+40/60) hour to fill,
Solve this further to get Ans as 28 hours

Amcat-Q17: Bucket P has thrice the capacity as bucket Q. It takes 80 turns for bucket P to fill the empty drum. How many turns it will take for both the buckets P and Q, having each turn together to fill the empty drum?
A. 30
B. 45
C. 60
D. 80

Answer : C

If capacity of Q is x units, then capacity of P is 3x and capacity of drum is 80*3x = 240 x.

It will take 240x/4x = 60 turns it will take for both the buckets P&Q, having each turn together to fill the empty drum.

so option a)60

Amcat-Q18: How many 3-letter words with or without meaning, can be formed out of the letters of the word, 'LOGARITHMS', if repetition of letters is not allowed?
A. 720
B. 420
C. None of these

D. 5040

Answer : A
'LOGARITHMS' contains 10 different letters.

Required number of words = Number of arrangements of 10 letters, taking 4 at a time.
Thus 10P4 = 5040

Amcat-Q19: In how many different ways can the letters of the word 'LEADING' be arranged such that the vowels should always come together?
A. None of these
B. 720
C. 420
D. 122

Answer : B
The word 'LEADING' has 7 different letters.
When the vowels EAI are always together, they can be supposed to form one letter.
Then, we have to arrange the letters LNDG (EAI).
Now, 5 (4 + 1) letters can be arranged in 5! = 120 ways.
The vowels (EAI) can be arranged among themselves in 3! = 6 ways.
Required number of ways = (120 x 6) = 720.

Amcat-Q20: A coin is tossed 3 times. Find out the number of possible outcomes.
A. None of these
B. 1
C. 2
D. 8

Answer : D
Since possibilities =2 power n = 2^3=8

Amcat-Q21: In how many different ways can the letters of the word 'DETAIL' be arranged such that the vowels must occupy only the odd positions?
A. None of these
B. 64
C. 120
D. 36

Answer : D
There are 6 letters in the given word, out of which there are 3 vowels and 3 consonants.
Let us mark these positions as under:

(1) (2) (3) (4) (5) (6)

Now, 3 vowels can be placed at any of the three places out 4, marked 1, 3, 5.
Number of ways of arranging the vowels = 3P3 = 3! = 6.
Also, the 3 consonants can be arranged at the remaining 3 positions.
Number of ways of these arrangements = 3P3= 3! = 6.
Total number of ways = (6 x 6) = 36.

Amcat-Q22: A bag contains 2 white balls, 3 black balls and 4 red balls. In how many ways can 3 balls be drawn from the bag, if at least one black ball is to be included in the draw?

A. 64
B. 128
C. 32
D. None of these

Answer : A
From 2 white balls, 3 black balls and 4 red balls, 3 balls are to be selected such that at least one black ball should be there.

Hence we have 3 choices
All three are black
Two are black and one is non black
One is black and two are non black
Total number of ways
= 3C3 + (3C2 x 6C1) + (3C1 x 6C2) [because 6 are non black] =64

Amcat-Q23: What is the HCF of 13, 23 and 14 ?
A. 2/3
B. 1/3
C. 1/4
D. 1/12

Answer : D

Amcat-Q24: Two trains, one from P to Q and the other from Q to P, start simultaneously. After they meet, the trains reach their destinations after 9 hours and 16 hours respectively. The ratio of their speeds is
A. 2 : 3
B. 2 :1
C. 4 : 3
D. 3 : 2

Answer : C
Let distance = x, a as speed of train a & b as speed of train b

9 * a = x
16 * b= x
9a = 16b
a/b = 16/9, simplify this with square root both up & down we get 4/3 & ratio 4:3.

Amcat-Q25: A train having a length of 1/4 mile , is traveling at a speed of 75 mph. It enters a tunnel 3 ½ miles long. How long does it take the train to pass through the tunnel from the moment the front enters to the moment the rear emerges?
A. 3 min
B. 4.2 min
C. 3.4 min
D. 5.5 min

Answer : A
Total distance covered
=7/2 +1/4 miles
=15/4 miles.

Therefore Time taken
=15/4 x 75hrs
=1/20hrs
=1/20x 60min.
= 3 min.

Paper 2

Amcat-Q1: A can do a particular work in 6 days . B can do the same work in 8 days. A and B signed to do it for Rs. 3200. They completed the work in 3 days with the help of C. How much is to be paid to C?

1) Rs. 380
2) Rs. 600
3) Rs. 420
4) Rs. 400

Answer : 4

C's 1 day's work = 1/3-(1/6+1/8)=1/3-7/24 =1/24 .

A's wages : B's wages : C's wages = 1/6:1/8:1/24 = 4 : 3 : 1.
C's share (for 3 days) = Rs.3 x1/24x 3200= Rs. 400.

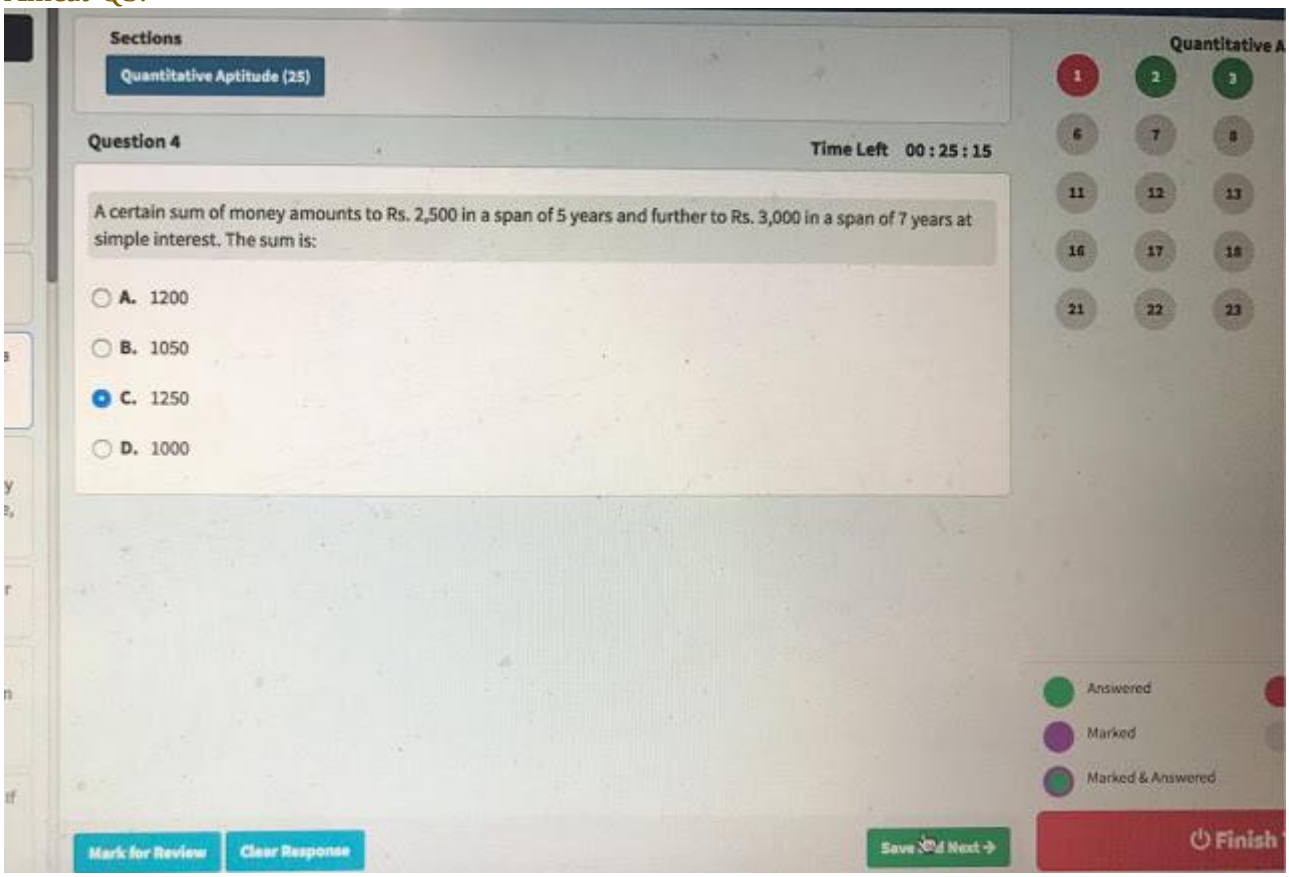
Amcat-Q2: P works twice as fast as Q. If Q alone can complete a work in 12 days, P and Q can finish the work in --- days

1) 1
2) 2
3) 3
4) 4

Answer : 4

Work done by Q in 1 day = 1/12
Work done by P in 1 day = 2 × (1/12) = 1/6
Work done by P and Q in 1 day = 1/12 + 1/6 = ¼
=> P and Q can finish the work in 4 days

Amcat-Q3:



(Image Taken While taking AMCAT Test)

Amcat-Q4: Four different electronic devices make a beep after every 30 minutes, 1 hour, 3/2 hour and 1 hour 45 minutes respectively. All the devices beeped together at 12 noon. They will again beep together at:
Op 1: 12 midnight
Op 2: 3 a.m.
Op 3: 6 a.m.
Op 4: 9 a.m.

Answer : Op 4

Interval after which the devices will beep together = (L.C.M. of 30, 60, 90, 105) min.
= 1260 min. = 21 hrs.
So, the devices will again beep together 21 hrs. after 12 noon i.e., at 9 a.m.

Amcat-Q5: An integer X is saved as an unsigned 8-bit number, 00001011.What is X?
Op 1 : 22
Op 2 : 11
Op 3 : 10
Op 4 : None of these

Answer : op 2
0*2^7+0*2^6+0*2^5+0*2^4+1*2^3+0*2^2+1*2^1+1*2^0=11

Amcat-Q6: What is the greatest number which on dividing 1223 and 2351 leaves remainders 90 and 85 respectively?
A. 1133
B. 127
C. 42
D. 1100

Answer : A

The numbers are 1223 and 2351 leaving remainders 90 and 85 respectively..
The numbers that are exactly divisible are 1223–90 and 2351–85 , i.e.,
1133 and 2266.
Now the greatest no. dividing the two is their HCF.
11|1133 , 2266
103|103 , 206
|1, 2
Therefore HCF = 11 * 103 = 1133
So the greatest no. which on dividing 1223 and 2351 leaves remainder 90 and 85 respectively.

Amcat-Q7: What is the least multiple of 7 which leaves a remainder of 4 when divided by 6, 9, 15 and 18 ?
A. 364
B. 350
C. 343
D. 371

Answer : A

L.C.M. of 6, 9, 15 and 18 is 90.
Let required number be 90k + 4, which is multiple of 7.

Least value of k for which (90k + 4) is divisible by 7 is k = 4.
Required number = (90 x 4) + 4 = 364.

Amcat-Q8: Two trains, each 100 m long are moving in opposite directions. They cross each other in 8 seconds. If one is moving twice as fast the other, the speed of the faster train is
A. 75 km/hr
B. 60 km/hr
C. 35 km/hr
D. 70 km/hr

Answer : B

speed of two train is x and 2x
so,
3x*8=200
x=25/3*18/5=30
speed of faster train is 60

Amcat-Q9: Two stations P and Q are 110 km apart on a straight track. One train starts from P at 7 a.m. and travels towards Q at 20 kmph. Another train starts from Q at 8 a.m. and travels towards P at a speed of 25 kmph. At what time will they meet?
A. 10.30 a.m
B. 10 a.m.
C. 9.10 a.m.
D. 11 a.m.

Answer : B

Since P and Q are moving towards each other, they are travelling at a speed at 30+25=55 km/hour towards each other.

Since distance to be covered is 110Km,
It would take the trains 110/2 = 2 hours to meet.

Therefore, the trains would meet at 10 am

Amcat-Q10: A train overtakes two persons who are walking in the same direction to that of the train at 2 kmph and 4 kmph and passes them completely in 9 and 10 seconds respectively. What is the length of the train?
A. 62 m
B. 54 m
C. 50 m
D. 55 m

Answer :C
Let the length of train be x km & its speed be y km/hr
Then, x/(y-2) = 9/(60*60)
and x/(y-4) = 10/(60*60)
9y - 3600x = 18
and 10y - 3600x = 40
y-400x = 2 and y - 360x = 4
Therefore
40x = 2 or x = (2/40 *1000)m = 50 metres

Amcat-Q11: A company needs to choose a team of 4 from a group of 3 content managers, 3 R&D engineers and 5 client engagement managers for the completion of a project. What is the probability that exactly 3 of them are client engagement managers?

Answer : 2/11

Total members = 3+3+5 = 11
Total no. of ways of selection 4 members is 11C4 = 330

No. of ways of selecting exactly 3 client eng managers are
3 from client (AND) 1 from content managers
(OR)
3 from client (AND) 1 from R&D
=> 5C3*3C1 + 5C3*3C1 = 30 + 30 = 60
Prob. ll be 60/330 = 2/11

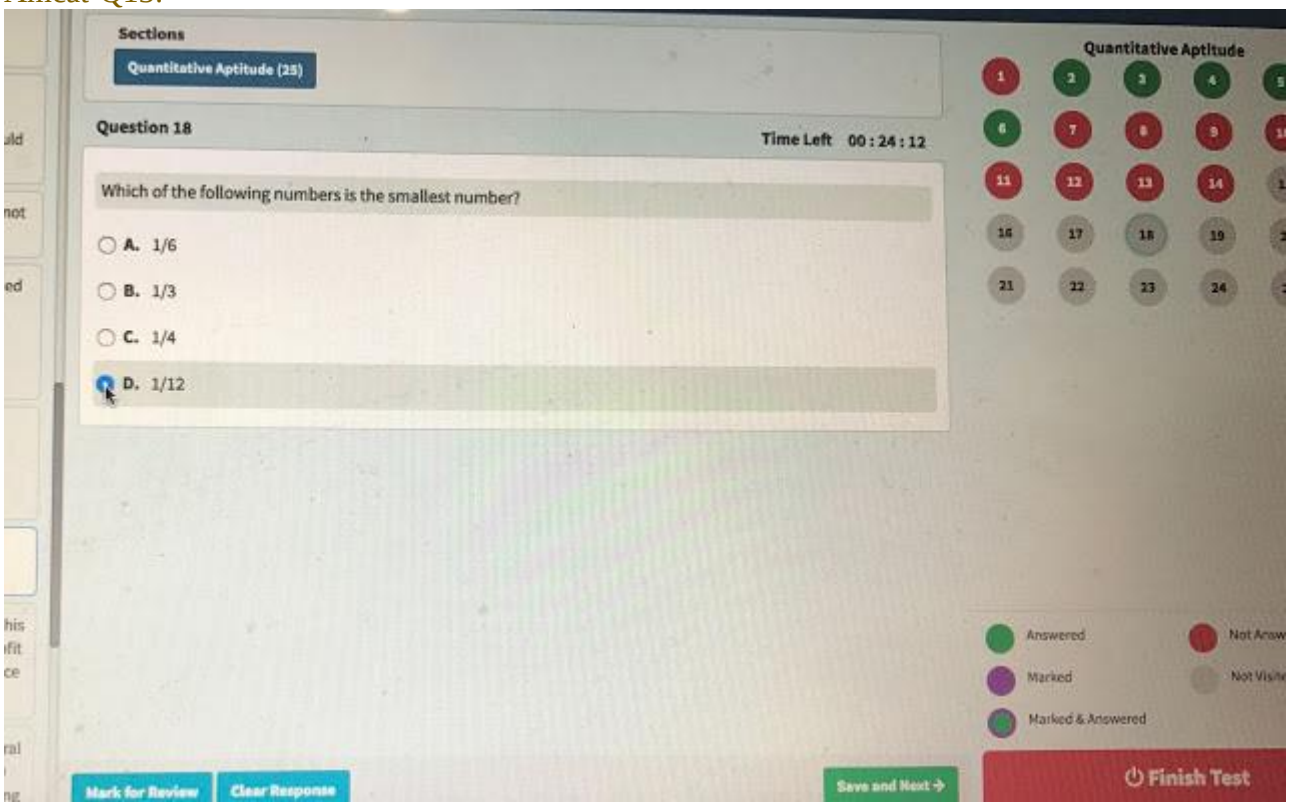
Ans : 2/11

Amcat-Q12: Three successive discounts of 6%,10%,15% is equal to a single discount of
a 25%
b 28.90%
c 30%
d 31%
e 28.09%

Answer : e

Let the initial amount be 100 on which discounts are offered. After a discount of 6%, we are left with 94. Further discount of 15% means deduction of 9.4 + 4.7 = 14.1 i.e. remaining amount is 94 - 14.1 = 79.9. And after third discount of 10%, the remaining amount is = 79.9*0.9 = 71.91. So the final (single) discount availed is = 100 - 71.91 = 28.09 %.

Amcat-Q13:



(Image Taken While Taking AMCAT Test)

Amcat-Q14: if ab,c are gp then loga, logb, logc are in
a) ap
b) gp

c) hp
d) None

Answer : a

Amcat-Q15: In a purse there are 30 coins, twenty one-rupee and remaining 50-paise coins. Eleven coins are picked simultaneously at random and are placed in a box. If a coin is now picked from the box, find the probability of it being a rupee coin?

Op 1: 4/7
Op 2: 1/2
Op 3: 2/3
Op 4: 5/6

Answer : op 3

it will be 2/3.
initial probability is 2/3
so no matter how many u choose it will always remain 2/3

Amcat-Q16: 47,322 buld are to be packed insevaral boxs. Each box should contain"s equal Numbers of bulbs and no bulb should be unpacked number of boxed used can be:
1. 12
2. 11
3. 8
4. 14

Answer : 2

47322 = 2 * 3^2 * 11 * 239
ie the number is divisor of it

so check the answers we will get 11
ans : 2

Amcat-Q17: A, B, C, D and E play the following game. Each person picks one card from cards numbered 1 through 10. The person who picks the greatest numbered card loses and is out of the game. Now the remaining four return their cards to the pack and draw again, and
Op 1: 3/14
Op 2: 4/17
Op 3: 1/5
Op 4: 5/24

Answer : op 3

answer=probability of A picking the highest no=1/5
probability of A not picking up highest num=1-1/5=4/5
similarly probability of A not picking in second round=3/4
and so on.....
now the probability of A winning=4/5*3/4*2/3*1/2=1/5
ans=1/5

Amcat-Q18: What is price of a pair of sandles is decreased by 10% the number of pair sold incresed by 20%. what is next effect on sells?

1.8% decreses
2.10% decreses
3.10% increses
4. 8% increses

Answer : 4

Let the S.P be Rs 100 / shoe
Let 100 shoes are sold out
cost of shoe 10% decreased = (100- 10)= 90 Rs
20% Increase in sales therefore 120 shoes sold out
90*120=10800
100*100=10000
therefore (10800-10000)/100=800
=> 8% increase in sales

Amcat-Q19: How money factors does 400 have?
A) 8
B) 10
C) 12
D) 15

Answer : D

1,2,4,5,8,10,16,20,25,40,50,80,100,200,400,

Amcat-Q20: A lady gives dinner party to five guests to be selected from 9 friends .The number of ways of forming the party of 5,given that two of the friends will not attend the party together is

Answer : 140

total no of ways to select 6 frm 10=10C6=210
total ways of selecting the 2 always = 2C2*8C4=70
so req no ways = 210 - 70 = 140

Amcat-Q21: There are 5 letters and five addressed envelops. the number of ways in which all the letters can be put in wrong envelops is

Answer : 44

Number of ways in which 'n' objects can be placed on 'n' positions in such a manner that none of them is correct is given by the Dearrangement formula.

Dearr(n) = n!(1/0! - 1/1! + 1/2! - 1/3!.... 1/n!)

In this question, we need to place 5 objects (letters) in 5 positions (addresses) such that none of them is correct. This can be done in

Dearr(5) = 5! (1/0! - 1/1! + 1/2! - 1/3! + 1/4! - 1/5!)
=> Dearr(5) = 120 (1 - 1 + 1/2 - 1/6 + 1/24 - 1/120)
=> Dearr(5) = 60 - 20 + 5 - 1 = 44

So, we can send the 5 letters, such that all are delivered at wrong adresses, in 44 different ways.

Amcat-Q22: log3 9-log4 256+log5 125=?

Answer : 1

Amcat-Q23: What is the greatest 4-digit perfect square, which is exactly divisible by 3, 5, 7 and 9?
1. 9999
2. None of these
3. 9801
4. Cannot be determined
5. 11025

Answer : 2

I think it is none of these because 11025 is not a 4 digit number

Amcat-Q24: Which is more-successive discount of 40% of 30 % OR flat 70% ?

Answer : flat 70%

let the marked price be 100
successive discount,
100 on 40% discount gives 60 and 60 when 30% discount gives 42
but flat 70% on 100 gives 30
30

Amcat-Q25: The probability that a student passes Subject A, B or C is 98%. The probability that he or she passes A is 41%, B is 59%. The probability that he or she passes A and C is 25% and B and C is 20%. The probability that he or she passes all the 3 subjects is 14%. What is the probability that he or she passes subject C?
Ans. 29

P(AUBUC)=P(A)+P(B)+P(C)-P(AnB)-P(BnC)-P(AnC)+P(AnBnC)
98=41+59+c-0-20-25+14
c=29

Paper 3

Amcat-Q1: What is the greatest number which on dividing 1223 and 2351 leaves remainders 90 and 85 respectively?
A. 1133
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Answer : A

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A. 62 m
B. 54 m
C. 50 m
D. 55 m

Answer : C

Amcat-Q6: Ritu has 3 shirts in shades of red, 4 in yellow shades and 5 in green shades . Three shirts are picked at random . the probability that all of those are in red shades is :

Ans. Probability of picking red shirt is 3/12. Hence 3/12*3/12*3/12=1/64

Amcat-Q7: sangeeta invested rs.20,000 at 8 % per annual . if the interest is compounded half yearly , then total interest earned by sangeeta at the end of the year is:

Ans. 1632

Amcat-Q8: The difference between a discount of 35% and two successive discounts of 20% and 20% on a certain bill was Rs. 22. Find the amount of the bill.
(1) Rs. 1100
(2) Rs. 200
(3) Rs. 2200
(4) Data inadequate

Answer : 3) Rs. 2200

Amcat-Q9: Express 4.33333 in p/q form
Answer: 4.33333 can be written as
4+(1/3) since 1/3=.33333
so the answer is 13/3

Amcat-10: Two train each 500 m long, are running in opposite directions on parallel tracks. If their speeds are 45 km/hr and 30 km/hr respectively, the time taken by the slower train to pass the driver of the faster one is
A. 50 sec
B. 58 sec
C. 24 sec
D. 22 sec

Answer: C

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A. 2 : 3
B. 2 :1
C. 4 : 3
D. 3 : 2

Answer : C

Amcat-Q21: A train having a length of 1/4 mile , is traveling at a speed of 75 mph. It enters a tunnel 3 ½ miles long. How long does it take the train to pass through the tunnel from the moment the front enters to the moment the rear emerges?
A. 3 min
B. 4.2 min
C. 3.4 min
D. 5.5 min

Answer : A

Amcat-Q22: How many seconds will a 500 meter long train moving with a speed of 63 km/hr, take to cross a man walking with a speed of 3 km/hr in the direction of the train ?
A. 42
B. 50
C. 28
D. 30

Answer: D

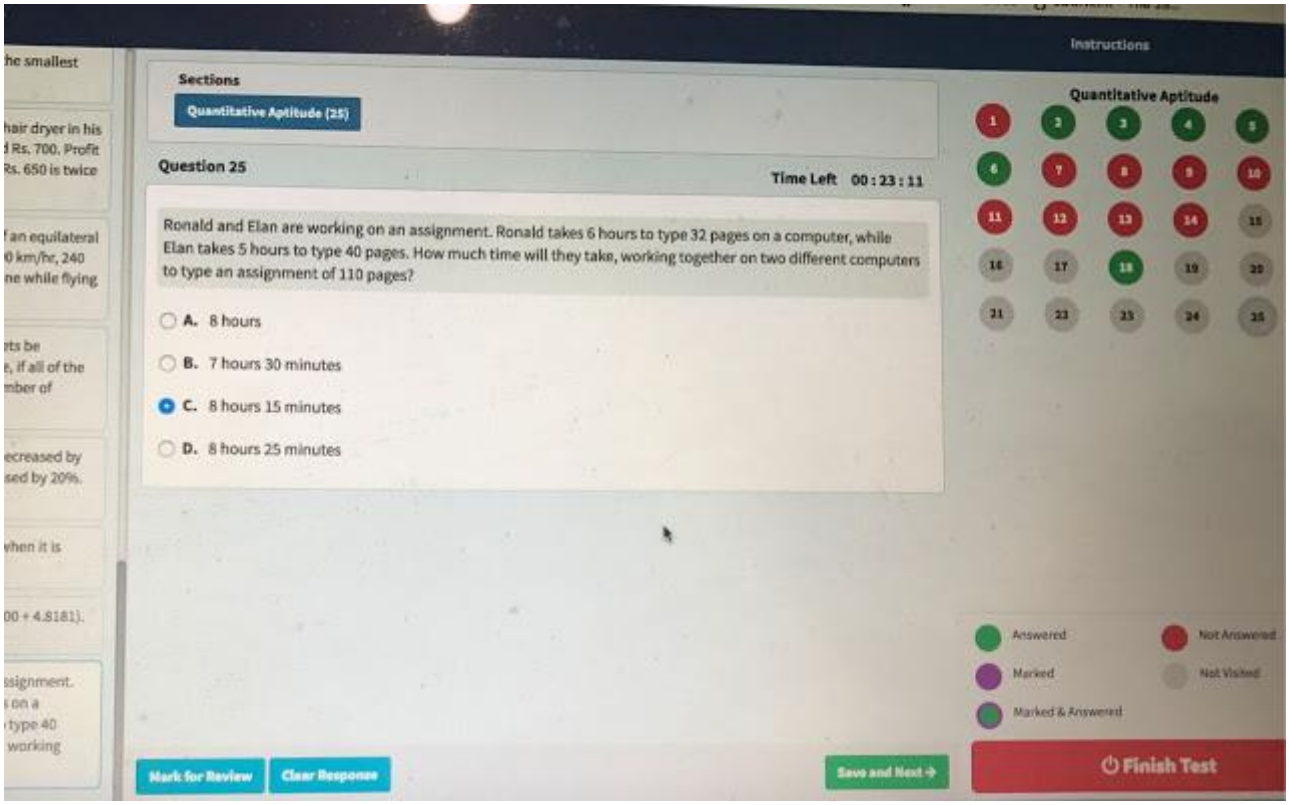
Amcat-Q23: The cost price of a Rs. 100 stock at 4 discount, when brokerage is 15% is
A. Rs. 96.25
B. Rs. 96.2
C. Rs. 97.25
D. Rs. 97.5

Answer: B

Amcat-q24: A man invests some money partly in 12% stock at 105 and partly in 8% stock at 88. To obtain equal dividends from both, he must invest the money in the ratio:

A. 31 : 44
B. 35 : 44
C. 16 : 15
D. 31 : 27

Answer : B



(Image Taken While Taking AMCAT Test)

Ques. The number of prime factors of $(3 \times 5)^{12}\ (2 \times 7)^{10}\ (10)^{25}$ is:
Op 1: 47
Op 2: 60
Op 3: 72

Op 4: None of these
Op 5: 80

Correct Op : 4

Ques. What least value must be assigned to * so that the number 63576*2 is divisible by 8?

Op 1: 1
Op 2: 2
Op 3: 3
Op 4: 4
Op 5:

Correct Op : 3

Ques. Which of the following numbers is exactly divisible by 24 ?

Op 1: 35718
Op 2: 63810
Op 3: 537804
Op 4: 3125736
Op 5:

Correct Op : 4

Ques. The number nearest to 15207, which is divisible by 467, is:

Op 1: 14342
Op 2: 15211
Op 3: 14944
Op 4: 15411
Op 5: None of these

Correct Op : 4

Ques. The smallest number, which is a perfect square and contains 7936 as a factor is:

Op 1: 251664
Op 2: 231564
Op 3: 246016
Op 4: 346016
Op 5: None of these

Correct Op : 3

Ques. In a division problem, the divisor is twenty times the quotient and five times the remainder. If
remainder is 16, the number will be:

Op 1: 3360
Op 2: 336
Op 3: 1616
Op 4: 20516
Op 5: None of these

Correct Op : 2

Ques. If a number is exactly divisible by 85, then what will be the remainder when the same number is
divided by 17?

Op 1: 3
Op 2: 1
Op 3: 4
Op 4: 0
Op 5:

Correct Op : 4

Ques. The least perfect square number which is exactly divisible by 3, 4, 7, 10 and 12 is:
Op 1: 8100
Op 2: 17600
Op 3: 44100
Op 4: None of these

Op 5:

Correct Op : 3

Ques . $(x^n + y^n)$ is divisible by (x-y):
Op 1: for all values of n
Op 2: only for even values of n
Op 3: only for odd values of n
Op 4: for no values of n
Op 5:

Correct Op : 4

Ques. The greatest number that will divide 63, 138 and 228 so as to leave the same remainder in each
case:
Op 1: 15
Op 2: 20
Op 3: 35
Op 4: 40
Op 5:

Correct Op : 1

Ques. Find the largest number, smaller than the smallest four-digit number, which when divided by 4,5,6 and 7 leaves a remainder 2 in each case.
Op 1: 422
Op 2: 842
Op 3: 12723
Op 4: None of these
Op 5:

Correct Op : 2

Ques. What is the highest power of 5 that divides 90 x 80 x 70 x 60 x 50 x 40 x 30 x 20 x 10?
Op 1: 10
Op 2: 12
Op 3: 14
Op 4: None of these
Op 5:

Correct Op : 1

Ques. If a and b are natural numbers and a-b is divisible by 3, then $a^3 - b^3$ is divisible by:
Op 1: 3 but not by 9
Op 2: 9

Op 3: 6
Op 4: 27
Op 5:

Correct Op : 2

Ques. What is the greatest positive power of 5 that divides 30! exactly?
Op 1: 5
Op 2: 6
Op 3: 7
Op 4: 8
Op 5:

Correct Op : 3

Ques. In how many ways can a number 6084 be written as a product of two different factors ?
Op 1: 27
Op 2: 26
Op 3: 13
Op 4: 14
Op 5:

Correct Op : 3

Ques. What is the smallest four-digit number which when divided by 6, leaves a remainder of 5 and
when divided by 5 leaves a remainder of 3?
Op 1: 1043
Op 2: 1073
Op 3: 1103
Op 4: None of these
Op 5:

Correct Op : 4

Ques. P is an integer. P>883. If P-7 is a multiple of 11, then the largest number that will always divide
(P+4) (P+15) is:
Op 1: 11
Op 2: 121
Op 3: 242
Op 4: None of these
Op 5:

Correct Op : 3

Ques. Let C be a positive integer such that C + 7 is divisible by 5. The smallest positive integer n (>2) such
that C + n2 is divisible by 5 is:
Op 1: 4
Op 2: 5
Op 3: 3
Op 4: Does not exist
Op 5:
Correct Op : 4

Ques. Four bells begin to toll together and then each one at intervals of 6 s, 7 s, 8 s and 9 s respectively.
The number of times they will toll together in the next 2 hr is:
Op 1: 14 times

Op 2: 15 times
Op 3: 13 times
Op 4: 11 times
Op 5:

Correct Op : 1

Ques. On dividing a number by 999,the quotient is 366 and the remainder is 103.The number is:
Op 1: 364724
Op 2: 365387
Op 3: 365737
Op 4: 366757
Op 5:

Correct Op : 3

Ques. The difference between two numbers is 1365.When the larger number is divided by the smaller
one ,the quotient is 6 and the remainder is 15.The smaller number is:
Op 1: 240
Op 2: 270
Op 3: 295
Op 4: 360
Op 5:

Correct Op : 2

Ques. The least perfect square which is divisible by 3, 4, 5, 6, 8 is:
Op 1: 900
Op 2: 1200
Op 3: 2500
Op 4: 3600
Op 5:

Correct Op : 4

Ques. What is the remainder when 1723 is divided by 16?
Op 1: 0
Op 2: 1
Op 3: 2
Op 4: 3
Op 5:

Correct Op : 2

Ques. What will be the remainder when 1336 is divided by 2196?
Op 1: 0
Op 2: 1
Op 3: 12
Op 4: 2195
Op 5:

Correct Op : 2
LCM HCF

Ques. If the sum of two numbers is 55 and the H.C.F. and L.C.M of these numbers are 5 and 120 respectively, then the sum of the reciprocals of the numbers is equal to:
Op 1: 55/601
Op 2: 601/55

Op 3: 11/120
Op 4: 120/11
Op 5:

Correct Op : 3

Ques. The L.C.M. of two numbers is 4800 and their G.C.M. is 160. If one of the numbers is 480, then the
other number is:
Op 1: 1600
Op 2: 1800
Op 3: 2200
Op 4: 2600
Op 5: None of these

Correct Op : 1

Ques. The L.C.M. of two numbers is 140. If their ratio is 2:5, then the numbers are:
Op 1: 28,70
Op 2: 28,7
Op 3: 8,70
Op 4: 8,40
Op 5: None of these

Correct Op : 1

Ques. The product of two numbers is 16200. If their LCM is 216, find their HCF.
Op 1: 75
Op 2: 70
Op 3: 80
Op 4: Data inconsistent
Op 5:

Correct Op : 1

Ques. M and N are two distinct natural numbers. HCF and LCM of M and N are K and L respectively. A is
also a natural number, which of the following relations is not possible?
Op 1: K*L=A
Op 2: K*A=L
Op 3: L*A=K
Op 4: None of these
Op 5:

Correct Op : 3

Ques. The ratio of two numbers is 3:4 and their HCF is 4.Their LCM is:
Op 1: 12
Op 2: 16
Op 3: 24
Op 4: 48
Op 5:

Correct Op : 4

Ques. What will be obtained if 8 is subtracted from the HCF of 168, 189, and 231?
Op 1: 15
Op 2: 10
Op 3: 21
Op 4: None of these

Op 5:

Correct Op : 4

Ques. The product of two numbers is 2028 and their H.C.F. is 13. The number of such pairs is:
Op 1: 1
Op 2: 2
Op 3: 3
Op 4: 4
Op 5:

Correct Op : 2
Ques. There are four prime numbers written in ascending order of magnitude. The product of first three
is 385 and that of last three is 1001. Find the first number.
Op 1: 5
Op 2: 7
Op 3: 11
Op 4: 17
Op 5:

Correct Op : 1

Ques. A rectangular courtyard 3.78 meters long and 5.25 meters wide is to be paved exactly with square
tiles ,all of the same size. What is the largest size of the tile which could be used for the purpose?
Op 1: 14 cm
Op 2: 21 cm
Op 3: 42 cm
Op 4: None of these
Op 5:

Correct Op : 2

Ques. The largest four digit number which is a multiple of 8, 10,12 and 15 is:
Op 1: 120
Op 2: 9600
Op 3: 9840
Op 4: 9960
Op 5:

Correct Op : 4

Ques. Rajeev multiplies a number by 10, the log (to base 10) of this number will change in what way?
Op 1: Increase by 10
Op 2: Increase by 1
Op 3: Multiplied by 10
Op 4: None of these
Op 5:

Correct Op : 2

Ques. The unit's digit in the product (771 x 659 x 365) is
Op 1: 1
Op 2: 2
Op 3: 4
Op 4: 6
Op 5:

Correct Op : 3

Ques. 1.52 * 0.02251/2 = ?
Op 1: 0.0375
Op 2: 0.3375
Op 3: 3.275
Op 4: 32.75
Op 5:

Correct Op : 2

Ques. If x1/2 / 4411/2 = 0.02, the value of x is:
Op 1: 0.1764
Op 2: 1.764
Op 3: 1.64
Op 4: 2.64
Op 5:

Correct Op : 1

Ques. The value of 21/2 upto three places of decimal is
Op 1: 1.41
Op 2: 1.412
Op 3: 1.413
Op 4: 1.414
Op 5:

Correct Op : 4

Ques. The value of (8-25- 8-26) is:
Op 1: 7 x 8-25
Op 2: 7 x 8-26
Op 3: 8 x 8-26
Op 4: None of these
Op 5:

Correct Op : 2

Ques. If 22n-1 = (1 / 8n-3) then the value of n is:
Op 1: 3
Op 2: 2
Op 3: 0
Op 4: -2
Op 5:

Correct Op : 2

Ques. If 2x = 3y = 6-z, then (1/x + 1/y + 1/z)
is equal to:
Op 1: 0
Op 2: 1
Op 3: 3/2
Op 4: -0.5
Op 5:

Correct Op : 1

Ques. The roots of the equation 4x-3*2x+2+32=0 would include-
Op 1: 2, 3
Op 2: 1, 2, 3

Op 3: 1, 2
Op 4: 4, 8
Op 5:

Correct Op : 1

Ques. If ax =b, by=c and cz =a, then the value of xyz is:
Op 1: 0
Op 2: 1
Op 3: 2
Op 4: 3
Op 5:

Correct Op : 2

Ques. If x = 1+21/2 and y=1-21/2, then x2+y2 is -
Op 1: 2
Op 2: 3
Op 3: 6
Op 4: 0
Op 5:

Correct Op : 3

Ques. If 4x+3 = 2x+7, then the value of x is:
Op 1: 3
Op 2: 2
Op 3: 1
Op 4: None of these
Op 5:

Correct Op : 2

Ques. 2x+y = 2*(2)1/2 and 2x-y = 21/2,the value of x is:
Op 1: 1
Op 2: 2
Op 3: 3
Op 4: 4
Op 5: None of these

Correct Op : 1

Ques. If x = 8, y = 27, the value of (x4/3+y2/3)1/2 is:
Op 1: 5
Op 2: 6
Op 3: 7
Op 4: 8
Op 5: None of these

Correct Op : 1

Ques. If xy = yx and x = 2y, the value of y is:
Op 1: 1
Op 2: 2
Op 3: 3
Op 4: 4
Op 5: None of these

Correct Op : 2

Ques. If 2x * 3y = 18 and 22x * 3y= 36, the value of x is:

Op 1: 0

Op 2: 1

Op 3: 2

Op 4: 3

Op 5: None of these

Correct Op : 2

Ques. What is the value of 500 ?

Op 1: 0

Op 2: 1

Op 3: 50

Op 4: None of these

Op 5:

Correct Op : 2

Ques. What is the value of 6-2 ?

Op 1: 1/36

Op 2: 36

Op 3: -36

Op 4: None of these

Op 5:

Correct Op : 1

Ques. What is the value of 0-10 ?

Op 1: 0

Op 2: 1

Op 3: -10

Op 4: None of these

Op 5:

Correct Op : 4

Ques. What is the value of 251.5 ?

Op 1: 325

Op 2: 32.5

Op 3: 125

Op 4: None of these

Op 5:

Correct Op : 3

Ques. What is the value of (0.027)1/3?

Op 1: 0.3

Op 2: 0.03

Op 3: 0.003

Op 4: None of these

Op 5:

Correct Op : 1

Ques. What is the value of (0.016)1/4?

Op 1: 0.2

Op 2: 0.02

Op 3: 0.002

Op 4: None of these

Op 5:

Correct Op : 4

Ques. What is the value of: x1.5 * x2 ?

Op 1: x3

Op 2: x3.5

Op 3: x0.75

Op 4: None of these

Op 5:

Correct Op : 2

Ques. What is the value of: (33*812*20)/95 ?

Op 1: 0

Op 2: 3

Op 3: 1/3

Op 4: None of these

Op 5:

Correct Op : 2

Ques. What number should be divided by (0.81)1/2 to give the result as 81?

Op 1: 9

Op 2: 81

Op 3: 72.9

Op 4: 0.9

Op 5:

Correct Op : 3

Ques. If 6(x-3) = 36(x-5), then what is the value of x?

Op 1: 2

Op 2: No value will agree

Op 3: -1

Op 4: 7

Op 5:

Correct Op : 4

Ques. Which is the largest among 21/2, 51/3 and 41/4 ?

Op 1: (2)1/2

Op 2: 51/3

Op 3: 41/4

Op 4: None of these

Op 5:

Correct Op : 2

Ques. What is the value of 10009/1004?

Op 1: 1005

Op 2: 105

Op 3: 1019

Op 4: None of these

Op 5:

Correct Op : 3

Ques. Which of the following fractions is less than 7/8 and greater than 1/3 ?

Op 1: 1/4

Op 2: 23/24

Op 3: 11/12

Op 4: 11/24

Op 5:

Correct Op : 4

Ques. 892.7 - 573.07 - 95.007 = ?

Op 1: 224.623

Op 2: 224.777

Op 3: 233.523

Op 4: 414.637

Op 5:

Correct Op : 1

Ques. Which is the closest approximation to the product 0.3333 x 0.25 x 0.499 x 0.125 x 24 ?

Op 1: 1/8

Op 2: 3/4

Op 3: 3/8

Op 4: 2/5

Op 5:

Correct Op : 1

Ques. Find the value of X :

0.009/X = 0.01

Op 1: 0.0009

Op 2: 0.09

Op 3: 0.9

Op 4: 9

Op 5:

Correct Op : 3

Ques. The least among the following is:

Op 1: 0.2

Op 2: 1/0.2

Op 3: 0.22222222

Op 4: (0.2)2

Op 5:

Correct Op : 4

Ques. In the following expression, there are two missing digits: * and #. Find the value of *.

1*5#4 / 148 = 78

Op 1: 1

Op 2: 4

Op 3: 6

Op 4: 8

Op 5: None of these

Correct Op : 1

Ques. What is the value of (-5)(4)(2)(-1/2)(3/4) ?

Op 1: -30

Op 2: -15

Op 3: 15

Op 4: 30

Op 5:

Correct Op : 3

Ques. If x * y = x2 + y2 - xy, then the value of 9 * 11 is:

Op 1: 93

Op 2: 103

Op 3: 113

Op 4: 121

Op 5:

Correct Op : 2

Ques. If a = 0.1039, then the value of (4a2 - 4a + 1)1/2 + 3a is:

Op 1: 0.1039

Op 2: 0.2078

Op 3: 1.1039

Op 4: 2.1039

Op 5:

Correct Op : 3

Ques. If a, b, c, d, e are five consecutive odd numbers, their average is:

Op 1: 5 (a + 4)

Op 2: (abcde/5)

Op 3: 5 (a + b + c + d + e)

Op 4: None of these

Op 5:

Correct Op : 4

Ques. (x % of 932) + 30 = 309.6

Find x.

Op 1: 25

Op 2: 30

Op 3: 35

Op 4: 40

Op 5:

Correct Op : 2

Ques. Which of the following multipliers will cause a number to be increased by 29.7% ?

Op 1: 1.297

Op 2: 12.97

Op 3: 129.7

Op 4: 1297

Op 5:

Correct Op : 1

Ques. If 2A = 3B and 4B = 5C, then A: C is:

Op 1: 4 : 3

Op 2: 8 : 15

Op 3: 15 : 8

Op 4: 3 : 4

Op 5:

Correct Op : 3

Ques. 0.4777 . . . is the recurring decimal for the fraction:

Op 1: 4777/100000

Op 2: 477/100

Op 3: 437/1000

Op 4: 43/90

Op 5:

Correct Op : 4

Ques. 0.8888 ÷ 0.011 is equal to:

Op 1: 8.08

Op 2: 80.8

Op 3: 0.808

Op 4: None of these

Op 5:

Correct Op : 2

Ques. The ascending order of rational numbers -7/10, 5/-8, 2/-3 is:

Op 1: -7/10, 2/-3, 5/-8

Op 2: -7/10, 5/-8, 2/-3

Op 3: 5/-8, -7/10, 2/-3

Op 4: 2/-3, 5/-8, -7/10

Op 5:

Correct Op : 1

Ques. If A is real and 1 + A + A2 + A3 = 40, then A is equal to:

Op 1: -3

Op 2: -1

Op 3: 1

Op 4: 3

Op 5:

Correct Op : 4

Ques. (1 + 3 + 5 + ... + 3983) / 1992 = ?

Op 1: 1988

Op 2: 1992

Op 3: 1990

Op 4: None of these

Op 5:

Correct Op : 2

Ques. Which one of the following should be added to 25p2 + 16q2, so that the resulting sum becomes a

perfect square?

Op 1: 20pq

Op 2: 30pq

Op 3: 40pq

Op 4: 50p2q2

Op 5:

Correct Op : 3

Ques. (1.0816) 1/2= ?
Op 1: 0.14
Op 2: 1.4
Op 3: 1.004
Op 4: 1.04
Op 5:

Correct Op : 4

Ques. If the digit in the units place of a square natural number is 6, then the digit in the tens place will
be:
Op 1: 1
Op 2: 3
Op 3: Even
Op 4: Odd
Op 5:

Correct Op : 4

Ques. (a+b)3-(a-b)3 can be factorized as:
Op 1: 2b(3a2+b2)
Op 2: 2a(3a2+b2)
Op 3: 2b(3b2+a2)
Op 4: 2a(a2+3b2)
Op 5:

Correct Op : 1

Ques. If 9x2+3px+6q when divide by 3x+1 leaves a remainder -3/4 and qx2+4px+7 is exactly divisible by
x+1, then the values of p and q respectively will be:
Op 1: 0, 7/4
Op 2: -7/4, 0
Op 3: Same

Op 4: 7/4, 0
Op 5:

Correct Op : 4

Ques. The equations 2x+3y-7=0 and 10x+15y-35=0 are:
Op 1: Consistent and have unique solution
Op 2: Consistent and have infinitely many solutions
Op 3: inconsistent
Op 4: none of these
Op 5:

Correct Op : 2

Ques. The solution of the simultaneous equations (1/2)x + (1/3)y = 2 and x+y=1 is:
Op 1: x = 0, y = 1
Op 2: x = 1, y = 0
Op 3: x = 2/3, y = 3/2
Op 4: x = 10, y = -9
Op 5:

Correct Op : 4

Ques. If the equation x2-2(k+1)x+(9/2)k=0 has two identical roots then the values of k are:
Op 1: k=1, 2
Op 2: k=2 or 1/2
Op 3: k=3, 1/2
Op 4: none of these
Op 5:

Correct Op : 2

Ques. The number which should be subtracted from 5a2-3ab+7b2 to make it equal to a2+ab+b2, is:
Op 1: 4a2-4ab+6b2
Op 2: 4a2-4ab+5b2
Op 3: 4a2+4ab+6b2
Op 4: 4a2-3ab+6b2
Op 5: None of these

Correct Op : 1

Ques. If x = (1/2) (2p+2q-r), y = (1/3) (-p-2q+3r) and z=(1/5) (3p-4r+5q), then the value of 2x-3y-5z is:
Op 1: 0
Op 2: -q
Op 3: 2
Op 4: None of these
Op 5:

Correct Op : 2

Ques. The roots of the quadratic equation 6x2-5x+1=0 are:
Op 1: 2,3
Op 2: 1/2,1/3
Op 3: 3,4
Op 4: 1/3,1/4
Op 5: None of these

Correct Op : 2

Ques. If a = 16, b=25, the value of 1/(a-1/2 - b-1/2) is:
Op 1: 10

Op 2: 15
Op 3: 20
Op 4: 25
Op 5: 30

Correct Op : 3

Ques. 3a2 (ab+bc+ca) =
Op 1: 3a2+3a2bc+3a3c
Op 2: 3a3b+3a2bc+3c
Op 3: 3a3b+3a2bc+3a3c
Op 4: a3b+abc+a2c
Op 5: None of these

Correct Op : 3

Ques. x4y-xy4 =
Op 1: xy(x-y)(x2 + xy + y2)
Op 2: xy(x+y)(x2-xy+y4)
Op 3: x(xy-1)(x2-xy+y)
Op 4: (x3+y2)xy
Op 5: None of these

Correct Op : 1

Ques. Factors of 6a2-25a+4 are:
Op 1: (a+4) (a-6)
Op 2: (a-4) (6a+1)
Op 3: (a-4)(6a-1)
Op 4: (a-6) (a-4)
Op 5: None of these

Correct Op : 3

Ques. The correct relationship after eliminating x, y and z from x+y = a, y+z=b and z+x = c and x+y+z = m,
is:
Op 1: m=x+y+z
Op 2: 2m=a+b+c
Op 3: m=x-y-z
Op 4: 2m=x-y-z
Op 5: None of these

Correct Op : 2

Ques. If r = at2 and s = 2at, the relation among s, r and a is:
Op 1: s2=4ar
Op 2: s=ar
Op 3: s=2ar
Op 4: s2=ar
Op 5: None of these

Correct Op : 1

Ques. If a+b=6, ab=5, the value of a-b is:
Op 1: 4
Op 2: 5
Op 3: 6
Op 4: 7
Op 5: 9

Correct Op : 1

Ques. |X - 5| + 4 > 0 and |X2| < 4. Then x can be:
Op 1: 4
Op 2: 2
Op 3: 0.5
Op 4: All of these
Op 5:

Correct Op : 3

Ques. If f(x) = sum of all the digits of x, where x is a natural number, then what is the value of f(101)+f(102)+f(103)+ .. +f(200)?
Op 1: 1000
Op 2: 784
Op 3: 999
Op 4: 1001
Op 5:

Correct Op : 4

Ques. Pawan is a very confused person. Once he wrote 1+2+3+4+5+6+7+8+9+10 = 100. In how many
places you need to change '+' with ' * ' to make the equality hold good ?
Op 1: 2
Op 2: 4
Op 3: 3
Op 4: None of these
Op 5:
Correct Op : 3
Explanation - Apart from the mathematical correction, through the logical reasoning, the answer is 1×2+3×4+5+6+7×8+9+101×2+3×4+5+6+7×8+9+10
=2+12+5+6+56+9+10=2+12+5+6+56+9+10 =14+11+65+10=14+11+65+10
=25+65+10=25+65+10 =100

Ques. What is the highest power of 82 contained in 83!-82! ?
Op 1: 3
Op 2: 2
Op 3: 164
Op 4: None of these
Op 5:

Correct Op : 1

Ques. If x = 0.75, then what is the value of the expression (1+x+x2) + x3/(1-x) ?
Op 1: 0.25
Op 2: 4
Op 3: 1.75
Op 4: 1
Op 5:

Correct Op : 2

Ques. If a lies between 2 and 3, both included, and b lies between 4 and 6, both included, then what is
the ratio of minimum and maximum limits of a2-b2?
Op 1: -4
Op 2: 4
Op 3: 32/7
Op 4: - 28/6
Op 5:

Correct Op : 3

Ques. If a, b, c are roots of the equation 1x3-4x2+6.5x + 3.5 = 0, then what is the value of a2 + b2 + c2?

Op 1: 1
Op 2: 64
Op 3: 169
Op 4: 3
Op 5:

Correct Op : 4

Ques. If |x| + |y| = 7, then what is the sum of minimum and maximum values of x + y?
Op 1: 3/2
Op 2: -7
Op 3: 7
Op 4: 0
Op 5:

Correct Op : 4

Ques. 832.58-242.31 =779.84- ?
Op 1: 179.57
Op 2: 199.57
Op 3: 295.05
Op 4: None of these
Op 5:

Correct Op : 4

Ques. Which is the closest approximation to the product 0.3333 * 0.25 * 0.499 * 0.125 * 24 ?
Op 1: 1/8
Op 2: 3/4
Op 3: 3/8
Op 4: 2/5
Op 5:

Correct Op : 1

Ques. The simplification of (0.2 * 0.2 + 0.02 * 0.02 - 0.4 * 0.02) / 0.36
Op 1: 0.009
Op 2: 0.09
Op 3: 0.9
Op 4: 9
Op 5:

Correct Op : 2

Ques. If 13 + 23+ 33+ .....+ 93 = 2025 ,then the value of (0.11)3 + (0.22)3 + ...+ (0.99)3 is close to:
Op 1: 0.2695
Op 2: 0.3695
Op 3: 2.695
Op 4: 3.695
Op 5:

Correct Op : 3

Ques. In a purse there are 30 coins, twenty one-rupee and remaining 50-paise coins. Eleven coins are
picked simultaneously at random and are placed in a box. If a coin is now picked from the box, find the
probability of it being a rupee coin?
Op 1: 4/7
Op 2: 1/2
Op 3: 2/3
Op 4: 5/6

Op 5:

Correct Op : 3

Ques. Which among the following is greatest: 51/2, 111/3, 1231/6 ?
Op 1: 51/2
Op 2: 111/3
Op 3: 1231/6
Op 4: All are equal
Op 5:

Correct Op : 1

Ques. What are the unit's digits of 369, 6864, 4725 respectively ?
Op 1: 9,6 and 6
Op 2: 6, 6 and 6
Op 3: 3,6 and 4
Op 4: None of these
Op 5:

Correct Op : 3

Ques. A = 11 * 22 * 33 * 44 * 55 * .....1010. How many zeroes will be there at the end of A ?
Op 1: 6
Op 2: 15
Op 3: 10
Op 4: None of these
Op 5:

Correct Op : 2

Ques. If x = 3 + 31/2, then what is the value of x2 + 9/x2 ?
Op 1: 15 + 3 * 31/2
Op 2: 18 + 3 * 31/2
Op 3: 27 + 3 * 31/2
Op 4: None of these
Op 5:
Correct Op : 4

Ques. If x4 + 1/x4 = 47, then find the value of x3 + 1/x3
Op 1: 18
Op 2: 27
Op 3: 9
Op 4: 12
Op 5:

Correct Op : 1

Ques. An article was sold for Rs. 2770. Had it been sold for Rs. 3000 there would have been an additional

gain of 10%. Cost Price of the article is:

Op 1: Rs. 2100

Op 2: Rs. 2200

Op 3: Rs. 2300

Op 4: Rs. 2400

Op 5: None of these

Correct Op : 3

Ques. Rakesh buys a scooter worth Rs. 10,000. He sells it to Mohan at a profit of 10%. If after sometime

Mohan sells it back to Rakesh at a loss of 10%, then totally:

Op 1: Rakesh loses Rs. 100

Op 2: Rakesh loses Rs. 1100

Op 3: Rakesh gains Rs. 100

Op 4: Rakesh gains Rs. 1100

Op 5: None of these

Correct Op : 4

Ques. The list price of an electric iron is Rs. 300. If two successive discounts of 15% and 10% are allowed,

its selling price will be:

Op 1: Rs. 229.50

Op 2: Rs.231.50

Op 3: Rs.232.50

Op 4: Rs. 234.50

Op 5: None of these

Correct Op : 1

Ques. The rate of compound interest at which a sum of Rs. 8000 amounts to Rs. 8820 in 2 years, is:

Op 1: 5%

Op 2: 4%

Op 3: 6%

Op 4: 7%

Op 5: None of these

Correct Op : 1

Ques. Prabodh bought 30 kg of rice at the rate of Rs. 8.50 per kg and 20 kg of rice at the rate of Rs. 9.00

per kg. He mixed the two. At what price (App.) per kg should he sell the mixture in order to get 20%

profit?

Op 1: Rs. 9.50

Op 2: Rs. 8.50

Op 3: Rs. 10.50

Op 4: Rs. 12.00

Op 5:

Correct Op : 3

Ques. The cash price of a television is Rs. 4022. A customer paid Rs. 1500 in cash and promised to pay

the remaining money in 3 monthly equal instalments at the rate of 5% per annum compound interest.

What is the value of each instalment?

Op 1: Rs. 926.10

Op 2: Rs. 903.33

Op 3: Rs. 928.30

Op 4: Rs. 940.50

Op 5:

Correct Op : 1

Ques. The population of a village decreases at the rate of 20% per annum. If its population 2 years ago

was 10000, what is its present population?

Op 1: 6000

Op 2: 10000/144

Op 3: 6400

Op 4: 7600

Op 5:

Correct Op : 3

Ques. A certain sum of money at simple interest becomes Rs. 1062 in 2 years and Rs. 1183.50 in 3⁄2

years. What is rate of interest per annum?

Op 1: 7%

Op 2: 6%

Op 3: 9%

Op 4: 5%

Op 5:

Correct Op : 3

Ques. If the simple interest on a sum at 4% per annum for 2 years is Rs. 80, then the compound interest

on the same sum for the same period is:

Op 1: Rs. 86.80

Op 2: Rs. 86.10

Op 3: Rs. 88.65

Op 4: Rs. 81.60

Op 5:

Correct Op : 4

Ques. A man covers a distance of 1200 km in 70 days resting 9 hours a day, if he rests 10 hours a day and

walks with speed 1½ times of the previous in how many days will he cover 750 km?

Op 1: 30

Op 2: 31.25

Op 3: 31

Op 4: 33

Op 5:

Correct Op : 2

Ques. A man bought a number of clips at 3 for a rupee and an equal number at 2 for a rupee. At what

price per dozen should he sell them to make a profit of 20% ?

Op 1: Rs 4

Op 2: Rs 5

Op 3: Rs 6

Op 4: Rs 7

Op 5:

Correct Op : 3

Ques. Padam purchased 30 kg of rice at the rate of 17.50 per kg and another 30 kg rice at a certain rate.

He mixed the two and sold the entire quantity at the rate of Rs. 18.60 per kg and made 20% overall

profit. At what price per kg did he purchase the lot

Op 1: Rs.12.50

Op 2: Rs. 13.50

Op 3: Rs. 14.50

Op 4: Rs. 15.50

Op 5: None of these

Correct Op : 2

Ques. The manufacturer of a certain item can sell all he can produce at the selling price of Rs. 60 each. It

costs him Rs. 40 in materials and labour to produce each item and he has overhead expenses of Rs. 3000

per week in order to operate the plant. The numb

Op 1: 200

Op 2: 250

Op 3: 300

Op 4: 400

Op 5:

Correct Op : 1

Ques. A sells a bicycle to B at a profit of 20%. B sells it to C at a profit of 25%. If C pays Rs. 225 for it, the

cost price of the bicycle for A is:

Op 1: Rs. 110

Op 2: Rs.120

Op 3: Rs. 125

Op 4: Rs. 150

Op 5:

Correct Op : 4

Ques. If 5% more is gained by selling an article for Rs. 350 than by selling it for Rs. 340, the cost of the

article is:

Op 1: Rs. 50

Op 2: Rs. 160

Op 3: Rs. 200

Op 4: Rs. 225

Op 5:

Correct Op : 3

Ques. Consider the following statements : If a sum of money is lent at simple interest, then the

1. Money gets doubled in 5 years if the rate of interest is 50/3 %.

2. Money gets doubled in 5 years if the rate of interest is 20%.

3. Money becomes

Op 1: 1 and 3 are correct

Op 2: 2 alone is correct

Op 3: 3 alone is correct

Op 4: 2 and 3 are correct

Op 5:

Correct Op : 2

Ques. The difference between simple interest and compound interest on Rs.1200 for one year at 10%

per annum reckoned half-yearly is:

Op 1: Rs. 2.50

Op 2: Rs. 3

Op 3: Rs. 3.75

Op 4: Rs. 4

Op 5: None of these

Correct Op : 2

Ques. A sum of money lent at compound interest for 2 years at 20% per annum would fetch Rs. 482

more, if the interest was payable half-yearly than if it was payable annually. The sum is:

Op 1: Rs. 10,000

Op 2: Rs. 20,000

Op 3: Rs. 40,000

Op 4: Rs. 50,000

Op 5:

Correct Op : 2

Ques. The simple interest on Rs. 10 for 4 months at the rate of 3 paise per rupee per month is:

Op 1: Rs. 1.20

Op 2: Rs. 1.60

Op 3: Rs. 2.40

Op 4: Rs. 3.60

Op 5:

Correct Op : 1

Ques. If the compound interest on a sum for 2 years at 25/2 % per annum is Rs. 510, the simple interest

on the same sum at the same rate for the same period of time is:

Op 1: Rs. 400

Op 2: Rs. 450

Op 3: Rs. 460

Op 4: Rs. 480

Op 5:

Correct Op : 4

Ques. I started on my bicycle at 7 a.m. to reach a certain place. After going a certain distance, my bicycle

went out of order. Consequently, I rested for 35 minutes and came back to my house walking all the

way. I reached my house at 1 p.m. If my cycling s

Op 1: 4.92 km

Op 2: 13.44 km

Op 3: 14.375 km

Op 4: 15.476 km

Op 5:

Correct Op : 1

Ques. A bag contains 10-paisa, 20-paisa and 25-paisa coins in the ratio 7:4:3. If the total value is Rs. 90,

the number of 25-paisa coins in the bag is:

Op 1: 120

Op 2: 160

Op 3: 280

Op 4: 300

Op 5:

Correct Op : 1
Ques. In approximately how many years will a certain sum of money triple itself at 22% simple interest?

Op 1: 10 years

Op 2: 11 years

Op 3: 9 years

Op 4: 12 years

Op 5:

Correct Op : 3

Ques. Walking 6/7th of his usual speed, a man is 12 minutes too late. The usual time taken by him to

cover that distance is:

Op 1: 1 hour

Op 2: 1 hr 12min

Op 3: 1 hr 15 min

Op 4: 1 hr 20 min

Op 5:

Correct Op : 2

Ques. A boat running upstream takes 8 hours 48 minutes to cover a certain distance, while it takes 4

hours to cover the same distance running downstream. What is the ratio between the speed of the boat

and speed of the water current respectively ?

Op 1: 2 : 1

Op 2: 3 : 2

Op 3: 8 : 3

Op 4: Cannot be determined

Op 5: None of these

Correct Op : 3

Ques. In a 100 m race, A can beat B by 25 m and B can beat C by 4 m. In the same race, A can beat C by:

Op 1: 21 m

Op 2: 26 m

Op 3: 28 m

Op 4: 29 m

Op 5:

Correct Op : 3

Ques. In a family, the father took 1/5 of the cake and he had 4 times as much as others had, then the

family members are:

Op 1: 16

Op 2: 17

Op 3: 18

Op 4: None of these

Op 5:

Correct Op : 2

Ques. The price of sugar is increased by 25%. In order not to increase the expenditure a lady must

reduce her consumption by:

Op 1: 25%

Op 2: 20%

Op 3: 30%

Op 4: None of these

Op 5:

Correct Op : 2

Ques. I read 3/8 of a book on one day, and 4/5 of the remainder on another day. If now there were 30

pages unread, the book contains:

Op 1: 240 pages

Op 2: 230 pages

Op 3: 340 pages

Op 4: 140 pages

Op 5: None of these

Correct Op : 1

Ques. A car is 250 metres behind the bus. The car and bus are moving with speed 60 km/hr and 35

km/hr respectively. The car will be ahead of bus by 250 metres in:

Op 1: 37 seconds

Op 2: 48 seconds

Op 3: 72 seconds

Op 4: 68 seconds

Op 5: None of these

Correct Op : 3

Ques. Mohan walks a certain distance and rides back in 6 hours and 15 minutes. If he walks both ways

he takes 7 hours and 45 minutes. If Mohan rides both ways the time which he will take will be:

Op 1: 4 hours

Op 2: 19/4 hours

Op 3: 9/2 hours

Op 4: 17/4 hours

Op 5: None of these

Correct Op : 2

Ques. A train leaves Delhi at 6.00 a.m. and reaches Agra at 10.00 a.m. Another train leaves Agra at 8.00

a.m. and reaches Delhi at 11.30 a.m. At what time do the two trains cross each other if the distance

between Delhi and Agra is 200 km?

Op 1: 8.45 a.m.

Op 2: 8.56 a.m.

Op 3: 9.20 a.m.

Op 4: 9.56 a.m.

Op 5:

Correct Op : 2

Ques. A ship is moving at a speed of 30 kmph. To know the depth of the ocean beneath it, it sends a

radiowave which travels at a speed 200 m/s. The ship receives back the signal after it has moved 500 m.

What is the depth of the ocean?

Op 1: 4 km

Op 2: 8 km

Op 3: 6 km

Op 4: 12 km

Op 5:

Correct Op : 3

Ques. A man rows a boat at a speed of 5 km/hr in still water. Find the speed of a river if it takes him 1 hr

to row a boat to a place 2.4 km away and return back.

Op 1: 1 km/hr

Op 2: 6 km/hr

Op 3: 3 km/hr

Op 4: 4 km/hr

Op 5:

Correct Op : 1

Ques. A boat covers 40 km upstream and 90 km downstream in 5 hr. It can also cover 60 km upstream

and 60 km downstream in 5 hr. The speed of the water current is

Op 1: 4 km/hr

Op 2: 5 km/hr

Op 3: 20 km/hr

Op 4: 25 km/hr

Op 5:

Correct Op : 2

Ques. Two champion swimmers start a two-length swimming race at the same time, but from opposite

ends of the pool. They swim at constant but different speeds. They first pass at a point 18.5 m from the

deep end. Having completed one length, each swimmer take

Op 1: 90 m

Op 2: 45 m

Op 3: 26.5m

Op 4: Data insufficient

Op 5:

Correct Op : 2

Ques. A and B start together from the same point on a circular track and walk in the same direction till

they both again arrive together at the starting point. A completes one circle in 224 s and B in 364 s. How

many times will A have passed B?

Op 1: 4

Op 2: 5

Op 3: 6

Op 4: 7

Op 5:

Correct Op : 2

Ques. 36 men can complete a piece of work in 18 days. In how many days will 27 men complete the

same work ?

Op 1: 12

Op 2: 18

Op 3: 22

Op 4: 24

Op 5: None of these

Correct Op : 4

Ques. A locomotive engine, without any wagons

attached to it, can go at a speed of 40 km/hr. Its speed is diminished by a quantity that varies

proportionally as the square root of the number of wagons attached. With 16 wagons, its speed is 28

km/hr. The

Op 1: 99

Op 2: 100

Op 3: 101

Op 4: 120

Op 5:

Correct Op : 2

Ques. Population of a village is eight thousand. If 6% men and 10% women are added, population

becomes 8,600, then the number of men in the village was:

Op 1: 4800

Op 2: 5000

Op 3: 5060

Op 4: 6000

Op 5:

Correct Op : 2

Ques. If 15 oxen or 20 cows can eat the grass of a field in 80 days, then in how many days will 6 oxen

and 2 cows eat the same grass?

Op 1: 40

Op 2: 60

Op 3: 100

Op 4: 160

Op 5:

Correct Op : 4

Ques. At a certain party the ratio of gents and ladies was 1 : 2. But when 2 gents and 2 ladies left the

party, the ratio became 1 : 3. How many people were initially present in the party?

Op 1: 12

Op 2: 15

Op 3: 18

Op 4: 24

Op 5:

Correct Op : 1

Ques. How many litres of a 90% solution of concentrated acid needs to be mixed with a 75% solution of

concentrated acid to get a 30 L solution of 78% concentrated acid?

Op 1: 24 L

Op 2: 22.5 L

Op 3: 6 L

Op 4: 17.5 L

Op 5:

Correct Op : 3

Ques. Tea worth Rs. 126 per kg and Rs. 135 per kg are mixed with a third variety in the ratio 1:1:2. If the

mixture is worth Rs. 153 per kg, the price of the third variety per kg will be:

Op 1: Rs. 169.50

Op 2: Rs. 170

Op 3: Rs. 175.50

Op 4: Rs. 180

Op 5:

Correct Op : 3

Ques. A can contains a mixture of two liquids A and B in the ratio 7:5. When 9 litres of mixture are

drawn off and the can is filled with B, the ratio of A and B becomes 7:9. How many litres of liquid A was

contained by the can initially ?

Op 1: 10

Op 2: 20

Op 3: 21

Op 4: 25

Op 5:

Correct Op : 3

Ques. 39 persons can repair a road in 12 days, working 5 hours a day. In how many days will 30 persons,

working 6 hours a day, complete the work ?

Op 1: 10

Op 2: 13

Op 3: 14

Op 4: 15

Op 5:

Correct Op : 2

Ques. If 7 spiders make 7 webs in 7 days, then 1 spider will make 1 web in how many days ?

Op 1: 1

Op 2: 7/2

Op 3: 7

Op 4: 49

Op 5:

Correct Op : 3

Ques. Some persons can do a piece of work in 12 days. Two times the number of such persons will do

half of that work in:

Op 1: 6 days

Op 2: 4 days

Op 3: 3 days

Op 4: 12 days

Op 5:

Correct Op : 3

Ques. 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 ?

Op 1: 7 hours 30 minutes

Op 2: 8 hours

Op 3: 8 hours 15 minutes

Op 4: 8 hours 25 minutes

Op 5:

Correct Op : 3

Ques. A and B can do a work in 12 days, B and C in 15 days, C and A in 20 days. If A, B and C work

together, they will complete the work in:

Op 1: 5 days

Op 2: 47/6 days

Op 3: 10 days

Op 4: 47/3 days

Op 5:

Correct Op : 3

Ques. A and B can do a job together in 7 days. A is 7/4 times as efficient as B. The same job can be done

by A alone in:

Op 1: 28/3 days

Op 2: 11 days

Op 3: 49/4 days

Op 4: 49/3 days

Op 5:

Correct Op : 2

Ques. A and B can complete a work in 15 days and 10 days respectively. They started doing the work

together but after 2 days B had to leave and A alone completed the remaining work. The whole work

was completed in:

Op 1: 8 days

Op 2: 10 days

Op 3: 12 days

Op 4: 15 days

Op 5:

Correct Op : 3

Ques. A, B and C together can complete a piece of work in 10 days. All the three started working at it

together and after 4 days A left. Then B and C together completed the work in 10 more days. A alone

could complete the work in:

Op 1: 15 days

Op 2: 16 days

Op 3: 25 days

Op 4: 50 days

Op 5:

Correct Op : 3

Ques. One pipe can fill a tank three times as fast as another pipe. If together the two pipes can fill the

tank in 36 minutes, then the slower pipe alone will be able to fill the tank in:

Op 1: 81 min

Op 2: 108 min

Op 3: 144 min

Op 4: 192 min

Op 5:

Correct Op : 3

Ques. A large tanker can be filled by two pipes A and B in 60 minutes and 40 minutes respectively. How

many minutes will it take to fill the tanker from empty state if B is used for half the time and A and B fill

it together for the other half ?

Op 1: 15 min

Op 2: 20 min

Op 3: 27.5 min

Op 4: 30 min

Op 5:

Correct Op : 4

Ques. Three taps A, B and C can fill a tank in 12, 15 and 20 hours respectively. If A is open all the time

and B and C are open for one hour each alternately, the tank will be full in:

Op 1: 6 hrs.

Op 2: 20/3 hrs

Op 3: 7 hrs

Op 4: 15/2 hrs

Op 5:

Correct Op : 3

Ques. Two pipes can fill a tank in 20 and 24 minutes respectively and a waste pipe can empty 3 gallons

per minute. All the three pipes working together can fill the tank in 15 minutes. The capacity of the tank

is:

Op 1: 60 gallons

Op 2: 100 gallons

Op 3: 120 gallons

Op 4: 180 gallons

Op 5:

Correct Op : 3

Ques. Ram and Shyam together do a work in 8 days. Both of them began to work. After 3 days Ram fell

ill. Shyam completed the remaining work in 15 days. In how many days can Ram complete the whole

work?

Op 1: 12

Op 2: 17

Op 3: 16

Op 4: 15

Op 5:

Correct Op : 1

Ques. Two workers A and B were employed for a work. A takes 8 hour more than the time taken by A

and B together. If B takes 4.5 hours more than the time taken by A and B together, how long would A

and B take together to complete the work?

Op 1: 7 hours

Op 2: 6 hours

Op 3: 5 hours

Op 4: 4 hours

Op 5:

Correct Op : 2

Ques. If 5 persons can do 5 times of a work in 5 days, then 10 persons can do 10 times of that work in:

Op 1: 10 days

Op 2: 8 days

Op 3: 5 days

Op 4: 2 days

Op 5:

Correct Op : 3

Ques. Two taps can fill a cistern in 6 min. and 7 min. respectively. If these taps are opened alternatively

for a minute, in what time will the cistern be filled?

Op 1: 5.67 min

Op 2: 6.25 min

Op 3: 5 min

Op 4: 45/7 min

Op 5:

Correct Op : 4

Ques. Two taps A and B can fill a cistern in 28 min. and 42 min. respectively. Third tap C can empty it in

42 min. If all the three taps are opened, the time taken to fill the cistern is:

Op 1: 30 min

Op 2: 35 min

Op 3: 28 min

Op 4: 42 min

Op 5:

Correct Op : 3

Ques. 49 pumps can empty a reservoir in 6⁄2 days, working 8 hours a day. If 196 pumps are used for 5

hours a day, then the same work will be completed in:

Op 1: 2.6 days

Op 2: 3 days

Op 3: 2.5 days

Op 4: 2 days

Op 5:

Correct Op : 1

Ques. 16 men complete one-fourth of a piece of work in 12 days. What is the additional number of men

required to complete the work in 12 more days ?

Op 1: 48

Op 2: 36

Op 3: 30

Op 4: 16

Op 5:

Correct Op : 4

Ques. A takes thrice as long to do a piece of work, as B takes. A and B together can do a piece of work in

7.5 days. A alone can do in:

Op 1: 30 days

Op 2: 40 days

Op 3: 50 days

Op 4: 60 days

Op 5: None of these

Correct Op : 1

Ques. A cistern can be filled by two pipes A and B in 10 and 15 hours respectively and is then emptied by

a tap in 8 hours. If all the taps are opened, the cistern will be fill in:

Op 1: 21 hours

Op 2: 22 hours

Op 3: 23 hours

Op 4: 24 hours

Op 5: None of these

Ques. If 33 untrained labourers can do a work in 15 days of 12 hr. each, how many trained labourers can

do 50% more work in 11 days of 9 hr each ? (It may be assumed that it takes 2 trained labourers to do

the work of 5 untrained labourers)

Op 1: 42

Op 2: 36

Op 3: 90

Op 4: 100

Op 5:

Correct Op : 2

Ques. If logx (0.1) = -1/3, then the value of x is:

Op 1: 10

Op 2: 100

Op 3: 1000

Op 4: 1/1000

Op 5:

Correct Op : 3

Ques. If ax = by, then:

Op 1: log(a/b) = x/y

Op 2: log(a) / log(b) = x/y

Op 3: log(a) / log(b) = y/x

Op 4: None of these

Op 5:

Correct Op : 3

Ques. If log8 x + log8 (1/6) = 1/3 then the value of x is:

Op 1: 12

Op 2: 16

Op 3: 18

Op 4: 24

Op 5:

Correct Op : 1

Ques. If log x + log y = log (x + y), then:

Op 1: x = y

Op 2: xy=1

Op 3: y = (x-1)/x

Op 4: y = x/(x-1)

Op 5:

Correct Op : 4

Ques. If log10 7 = a, then log10(1/70) is equal to:

Op 1: -(1 + a)

Op 2: (1 + a)-1

Op 3: a/10

Op 4: 1/10a

Op 5:

Correct Op : 1

Ques. If log{(a+b)/3} = 0.5(log a + log b), then the correct relation between a and b is:

Op 1: a2+b2 = 7ab

Op 2: a2-b2 = 7ab

Op 3: (a+b)2 = 2

Op 4: (a+b)/3 = (1/2)(a+b)

Op 5: None of these

Correct Op : 1

Ques. If log x = log 3 + 2 log 2- (3/4) log 16. The value of x is:

Op 1: 1/2

Op 2: 1

Op 3: 3/2

Op 4: 2

Op 5: None of these

Correct Op : 3

Ques. If log x =(1/2) log y = (1/5) log z, the value of x4y3z-2 is:

Op 1: 0

Op 2: 1

Op 3: 2

Op 4: 3

Op 5: None of these

Correct Op : 2

Ques. If log10000 x = -1/4, then x is given by:

Op 1: 1/100

Op 2: 1/10

Op 3: 1/20

Op 4: none of these

Op 5:

Correct Op : 2

Ques. The value of 3-1/2 log3(9) is:

Op 1: 3

Op 2: 1/3

Op 3: 2/3

Op 4: none of these

Op 5:

Correct Op : 2

Ques. loge xy - loge |x| equals to:

Op 1: loge x

Op 2: loge |x|

Op 3: - loge x

Op 4: none of these

Op 5:

Correct Op : 4

Ques. The value of (loga n) / (logab n) is given by:

Op 1: 1 + loga b

Op 2: 1 + logb a

Op 3: loga b

Op 4: logb a

Op 5:

Correct Op : 1

Ques. If (a4 - 2a2b2 + b4)x-1 = (a-b)2x (a+b)-2, then x equals to:

Op 1: (a - b) / (a + b)

Op 2: log (a2 - b2)

Op 3: log (a + b) / log (a - b)

Op 4: log (a - b) / log (a + b)

Op 5:

Correct Op : 4

Ques. If a, b, and c are in geometric progression then loga n, logb n and logc n are in:

Op 1: AP

Op 2: GP

Op 3: HP

Op 4: None of these

Op 5:

Correct Op : 3

Ques. What is the value of antilog10100?

Op 1: 2

Op 2: 10100

Op 3: 100

Op 4: 10

Op 5:

Correct Op : 2

Ques. If antilog x 5 = 30, what can you infer about x?

Op 1: x is a number between 1 and 2

Op 2: x is 305

Op 3: x is a number between 2 and 3

Op 4: None of these

Op 5:

Correct Op : 1

Ques. Every time x is increased by a given constant number, y doubles and z becomes three times. How

will log(y) and log(z) behave as x is increased by the same constant number?

Op 1: Both will grow linearly with different slopes

Op 2: Both will grow linearly with same slopes

Op 3: y will grow linearly, while z will not

Op 4: z will grow linearly, while y will not

Op 5:

Correct Op : 1

Ques. x triples every second. How will log2x change every second?

Op 1: It will double every second

Op 2: It will triple every second

Op 3: It increases by a constant amount every second.

Op 4: None of these

Op 5:

Correct Op : 3

Ques. f(x) grows exponentially with x, how will f(log(x)) grow?

Op 1: Exponentially

Op 2: Linearly

Op 3: Quadratically

Op 4: None of these

Op 5:

Correct Op : 2

Ques. What is the value of log512 8?

Op 1: 3

Op 2: 1/3

Op 3: -3

Op 4: -1/3

Op 5:

Correct Op : 2

Ques. What is the value of log7 (1/49)?

Op 1: 2

Op 2: 1/2

Op 3: -1/2

Op 4: -2

Op 5:

Correct Op : 4

Ques. Given that log64 x = 2/6, what is the value of x?

Op 1: 2

Op 2: 4

Op 3: 6

Op 4: 8

Op 5:

Correct Op : 2

Ques. If 7x = 85, what is the value of x?

Op 1: log785

Op 2: log857

Op 3: log107

Op 4: log1085

Op 5:

Correct Op : 1

Ques. If log102 = 0.3010, what is the number of digits in 264

Op 1: 19

Op 2: 20

Op 3: 18

Op 4: None of these

Op 5:

Correct Op : 2

Ques. What is log110?

Op 1: 1

Op 2: 10

Op 3: 0

Op 4: Tends to infinity

Op 5:

Correct Op : 4

Ques. What is log100 ?

Op 1: 0

Op 2: 10

Op 3: 1

Op 4: Not defined

Op 5:

Correct Op : 4

Ques. What is the value of log3 (-9)?

Op 1: 3

Op 2: 1/3

Op 3: -3

Op 4: Not defined

Op 5:

Correct Op : 4

Ques. The logarithm of a very small positive number will tend to which of the following?

Op 1: 0

Op 2: negative infinity

Op 3: positive infinity

Op 4: 1

Op 5:

Correct Op : 2

Ques. If n numbers are in geometric progression, the logarithm of the number will be in which of the

following?

Op 1: Geometric Progression

Op 2: Arithmetic Progression

Op 3: Harmonic Progression

Op 4: None of these

Op 5:

Correct Op : 2

Ques. Which of the following is equivalent to log(a + b) ?

Op 1: log a + log b

Op 2: log a * log b

Op 3: log a - log b

Op 4: None of these

Op 5:

Correct Op : 4

Ques. What is the value of log3 (1/9) + log 9 81 ?

Op 1: 2

Op 2: -2

Op 3: 0

Op 4: 4

Op 5:

Correct Op : 3

Ques. What is the value of log3 1.5 + log3 6 ?

Op 1: 2

Op 2: 2.7

Op 3: 1.8

Op 4: None of these

Op 5:

Correct Op : 1

Ques. Which of the following is log8 x equivalent to?

Op 1: log2 (x/3)

Op 2: log2 (3x)

Op 3: (log2x)/ 3

Op 4: None of these

Op 5:

Correct Op : 3

Ques. If n numbers are in arithmetic progression, the logarithm of the number will be in which of the

following?

Op 1: Exponentially

Op 2: Linearly

Op 3: Quadratically

Op 4: None of these

Op 5:

Correct Op : 4

Ques. What is the value of log20 1 ?

Op 1: 0

Op 2: 1

Op 3: 20

Op 4: None of these

Op 5:

Correct Op : 1

Ques. In how many different ways can the letters of the word 'OPTICAL' be arranged so that the vowels

always come together ?

Op 1: 120

Op 2: 720

Op 3: 4320

Op 4: 2160

Op 5: None of these

Correct Op : 2

Ques. In how many different ways can the letters of the word 'CORPORATION' be arranged so that the

vowels always come together ?

Op 1: 810

Op 2: 1440

Op 3: 2880

Op 4: 50400

Op 5: 5760

Correct Op : 4

Ques. How many 3 digit numbers can be formed from the digits 2, 3, 5, 6, 7 and 9, which are divisible by

5 and none of the digits is repeated ?

Op 1: 5

Op 2: 10

Op 3: 15

Op 4: 20

Op 5:

Correct Op : 4

Ques. A committee is to be formed comprising 7 members such that there is a simple majority of men

and at least 1 women. The shortlist consists of 9 men and 6 women. In how many ways can this be

done?

Op 1: 3,724

Op 2: 3,630

Op 3: 4,914

Op 4: 5,670

Op 5:

Correct Op : 3

Ques. From a pack of 52 playing cards, 4 cards are removed at random. In how many ways can the 1st

place and 3rd place cards be drawn out such that both are black ?

Op 1: 64,974

Op 2: 62,252

Op 3: 69,447

Op 4: 1,592,500

Op 5:

Correct Op : 4

Ques. In how many ways can the digits 2,3,5,7 and 9 be placed to form a three-digit number so that the

higher order digit is always greater than the lower order digits? (Assume digits are all different).

Op 1: 8

Op 2: 9

Op 3: 10

Op 4: 15

Op 5:

Correct Op : 3

Ques. In how many ways can 4 ladies and 4 men form two mixed doubles teams for a tennis match?

Op 1: 72

Op 2: 108

Op 3: 36

Op 4: 84

Op 5:

Correct Op : 1

Ques. In CAT entrance examination paper there are 3 sections, each containing 5 questions. A candidate

has to solve 5, choosing at least one from each section. The number of ways he can choose is

Op 1: 2,500

Op 2: 2,250

Op 3: 2,750

Op 4: 3,250

Op 5:

Correct Op : 2

Ques. A boy has 4 different boxes and 5 different marbles. In how many ways can he place the marbles

in the boxes such that each box has at least one marble ?

Op 1: 560

Op 2: 240

Op 3: 420

Op 4: 36

Op 5:

Correct Op : 2

Ques. A teacher was trying to form the groups of students in such a way that every group has equal

number of students and that number should be a prime number. She tried for first 5 prime numbers, but

on each occasion exactly one student was left behind. If t

Op 1: 0

Op 2: 2

Op 3: 3

Op 4: 4

Op 5:

Correct Op : 4

Ques. Ram buys 7 novels from a book fair. Shyam buys 8 novels from the fair, none of which is common

with those bought by Ram. They decide to exchange their books one for one. In how many ways can

they exchange their books for the first time ?

Op 1: 7!x8!

Op 2: 7x8!

Op 3: 7!x8

Op 4: 56

Op 5:

Correct Op : 4

Ques. In an examination 10 questions are to be answered choosing at least 4 from each of part A and

part B. If there are 6 questions in part A and 7 in part B, in how many ways can 10 questions be

answered ?

Op 1: 212

Op 2: 266

Op 3: 272

Op 4: 312

Op 5:

Correct Op : 2

Ques. A box contains 20 tickets of identical appearance, the tickets being numbered 1, 2, 3, ..., 20. In

how many ways can 3 tickets be chosen such that the numbers on the drawn tickets are in arithmetic

progression ?

Op 1: 18

Op 2: 33

Op 3: 56

Op 4: 90

Op 5:

Correct Op : 4

Ques. A company could advertise about its new product in 4 magazines, 3 newspapers and 2 television

channels. But in a later move it decided to give advertisements in only 2 of the magazines, one of the

newspapers and one the TV channels. In how many ways can

Op 1: 30

Op 2: 36

Op 3: 44

Op 4: None of these

Op 5:

Correct Op : 2

Ques. In how many ways can the letters of the word 'ERGONOMICS' be rearranged such that the vowels

always appear together?

Op 1: 6! /2!

Op 2: 6!*4!

Op 3: 7! /2!

Op 4: (7! * 4!)/2!

Op 5:

Correct Op : 4

Ques. How many different four letter words can be formed (the words need not be meaningful) using

the letters of the word PACIFIC such that the first letter is P and the last letter is F?

Op 1: 8

Op 2: 3

Op 3: 6

Op 4: 7!/5!

Op 5:

Correct Op : 1

Ques. The value of 74P2 is

Op 1: 2775

Op 2: 150

Op 3: 5402

Op 4: none of these

Op 5:

Correct Op : 3

Ques. In how many different ways can the letters of the word ' HARDWARE' be arranged in such a way

that the vowels always come together.

Op 1: 120

Op 2: 1080

Op 3: 1440

Op 4: 4320

Op 5: 720

Correct Op : 2

Ques. In how many ways a committee, consisting of 4 men and 10 women can be formed from 6 men

and 10 women?

Op 1: 266

Op 2: 50

Op 3: 15

Op 4: 8640

Op 5: none of these

Correct Op : 3

Ques. Out of 7 consonants and four vowels ,how many words of three consonants and 2 vowels can be

formed?

Op 1: 210

Op 2: 1050

Op 3: 25200

Op 4: 21400

Op 5: none of these

Correct Op : 3

Ques. 3 books of mathematics and 5 books of physics are placed on a shelf so that the books on the

same subject always remain together .The possible arrangements are .

Op 1: 1440

Op 2: 1956

Op 3: 720

Op 4: none of these

Op 5:

Correct Op : 1

Ques. The number of possible selections of one or more questions from 8 given questions, each

question having an alternative, is

Op 1: 28-1

Op 2: 38-1

Op 3: 48-1

Op 4: none of these

Op 5:

Correct Op : 2

Ques. A five -digit number divisible by 3 is to be formed using numerals 0,1,2,3,4 and 5 without

repetition. The total number of ways this can be done is

Op 1: 216

Op 2: 240

Op 3: 600

Op 4: 3125

Op 5:

Correct Op : 1

Ques. Let A be containing 10 distinct elements ,then the total number of distinct functions from A to A IS

Op 1: 10!

Op 2: 1010

Op 3: 210

Op 4: 210-1

Op 5:

Correct Op : 2

Ques. A polygon has 44 diagonals, the number of its sides is

Op 1: 10

Op 2: 11

Op 3: 12

Op 4: 22

Op 5:

Correct Op : 2

Ques. The number of triangles that can be formed by choosing the vertices from a set of 12 points,

seven of which lie on the same straight line is

Op 1: 105

Op 2: 115

Op 3: 175

Op 4: 185

Op 5:

Correct Op : 4

Ques. There are 5 letters and five addressed envelops. the number of ways in which all the letters can

be put in wrong envelops is

Op 1: 119

Op 2: 44

Op 3: 59

Op 4: 40

Op 5:

Correct Op : 2

Ques. The number of ways in which 8 different flowers can be strung to form a garland so that 4

particular flowers are never separated is

Op 1: 960

Op 2: 2880

Op 3: 288

Op 4: 576

Op 5:

Correct Op : 2

Ques. At an election there are five candidates and three members to be elected , and a voter may vote

for any number of candidates not greater than the number to be elected. Then the number of ways in

which a voter may vote is

Op 1: 25

Op 2: 30

Op 3: 32

Op 4: none of these

Op 5:

Correct Op : 4

Ques. There are n different books and p copies of each. the number of ways in which a selection can be

made from them is

Op 1: np

Op 2: pn

Op 3: (p+1)n -1

Op 4: (n+1)p-1

Op 5:

Correct Op : 3

Ques. The sides AB, BC, CA of a triangle ABC have 3,4 and 5 interior points respectively on them. The

total number of triangles that can be constructed by using these points as vertices is

Op 1: 220

Op 2: 204

Op 3: 205

Op 4: 195

Op 5:

Correct Op : 3

Ques. A lady gives dinner party to five guests to be selected from 9 friends .The number of ways of

forming the party of 5,given that two of the friends will not attend the party together is

Op 1: 56

Op 2: 126

Op 3: 91

Op 4: none of these

Op 5:

Correct Op : 3

Ques. Each question has four choices out of which only one is correct. A candidate has to answer four

questions. The number of ways he fails to give all answers correctly, is

Op 1: 15

Op 2: 81

Op 3: 255

Op 4: 256

Op 5:

Correct Op : 3

Ques. A college has 10 basketball players. A 5-member team and a captain will be selected out of these

10 players. How many different selections can be made?

Op 1: 1260

Op 2: 210

Op 3: 10C6 * 6!

Op 4: 10C5 * 6

Op 5:

Correct Op : 1

Ques. There are 10 yes or no questions. How many ways can these be answered?

Op 1: 1084

Op 2: 2048

Op 3: 1024

Op 4: 100

Op 5:

Correct Op : 3

Ques. If the letters of the word CHASM are rearranged to form 5 letter words such that none of the

word repeat and the results arranged in ascending order as in a dictionary what is the rank of the word

CHASM?

Op 1: 24

Op 2: 31

Op 3: 32

Op 4: 30

Op 5:

Correct Op : 3

Ques. A bag contains 4 white, 5 red and 6 blue balls. Three balls are drawn at random from the bag. The

probability that all of them are red, is:

Op 1: 1/22

Op 2: 3/22

Op 3: 2/91

Op 4: 2/77

Op 5:

Correct Op : 3

Ques. A box contains 20 electric bulbs, out of which 4 are defective. Two bulbs are chosen at random

from this box. The probability that at least one of these is defective, is:

Op 1: 4/19

Op 2: 7/19

Op 3: 12/19

Op 4: 21/95

Op 5:

Correct Op : 2

Ques. In a class, 30% of the students offered English, 20% offered Hindi and 10% offered both. If a student is selected at random, what is the probability that he has offered English or Hindi ?

Op 1: 2/5

Op 2: 3/4

Op 3: 3/5

Op 4: 3/10

Op 5:

Correct Op : 1

Ques. A box contains 6 red balls, 7 green balls and 5 blue balls. Each ball is of a different size. The probability that the red ball being selected is the smallest red ball, is

Op 1: 1/18

Op 2: 1/3

Op 3: 1/6

Op 4: 2/3

Op 5:

Correct Op : 3

Ques. If A and B are 2 independent events and P(A)=0.5 and P(B) = 0.4, find P(A/B):

Op 1: 0.5

Op 2: 0.4

Op 3: 0.88

Op 4: None of these

Op 5:

Correct Op : 1

Ques. A 5-digit number is formed by the digits 1,2,3,4 and 5 without repetition. What is the probability

that the number formed is a multiple of 4?

Op 1: 1/4

Op 2: 1/5

Op 3: 2/5

Op 4: 1/120

Op 5: 4

Correct Op : 2

Ques. In a single throw of dice, what is the probability to get a number greater or equal to 4?

Op 1: 1/3

Op 2: 2/3

Op 3: 1/2

Op 4: None of these

Op 5:

Correct Op : 3

Ques. A bag contains 5 oranges, 4 bananas and 3 apples. Rohit wants to eat a banana or an apple. He

draws a fruit from the bag randomly. What is the probability that he will get a fruit of his choice?

Op 1: 3.5/12

Op 2: 7/12

Op 3: 5/12

Op 4: None of these

Op 5:

Correct Op : 2

Ques. There are two boxes A and B. Box A has three red and four blue balls. Box B has five red and two

blue balls. Anya draws a ball from each bag randomly. What is the probability that both balls are red?

Op 1: 4/7

Op 2: 8/49

Op 3: 7/8

Op 4: 15/49

Op 5:

Correct Op : 4

Ques. Ravi has a bag full of 10 Nestle and 5 Cadbury chocolates. He draws two chocolates. What is the

probability that he got at least one Nestle chocolate?

Op 1: 2/3

Op 2: 3/7

Op 3: 2/21

Op 4: None of these

Op 5:

Correct Op : 4

Ques. The probability of having at least one tail in 5 throws of a coin is

Op 1: 1/32

Op 2: 31/32

Op 3: 1/5

Op 4: None of these

Op 5:

Correct Op : 2

Ques. A bag contains 5 yellow and 4 brown pencils. If two pencils are drawn, what is the probability that

the pencils are of the same colour?

Op 1: 5/108

Op 2: 1/6

Op 3: 5/18

Op 4: 4/9

Op 5:

Correct Op : 4

Ques. A single letter is drawn at random from the word, "ASPIRATION", the probability that it is a vowel

is?

Op 1: 1/2

Op 2: 1/3

Op 3: 3/5

Op 4: 2/5

Op 5:

Correct Op : 1

Ques. The probability that a man can hit a target is 3/4. He tries 5 times. The probability that he will hit

the target at least three times is:

Op 1: 291/364

Op 2: 371/464

Op 3: 471/502

Op 4: 459/512

Op 5:

Correct Op : 4

Ques. An unbiased dice is rolled 3 times. The probability that the value on the dice is not more than 4 in

any of the 3 rolls is:

Op 1: 8/27

Op 2: 1/27

Op 3: 26/27

Op 4: 2/3

Op 5:

Correct Op : 1

Ques. Probability of occurrence of event A is 0.5 and that of event B is 0.2. The probability of occurrence

of both A and B is 0.1. What is the probability that none of A and B occur?

Op 1: 0.3

Op 2: 0.4

Op 3: 0.7

Op 4: None of these

Op 5:

Correct Op : 2

Ques. An unbiased coin is tossed 5 times. If tail appears on first four tosses, then probability of tail appearing on the fifth toss is:

Op 1: 1/2

Op 2: 1

Op 3: 0

Op 4: 4/5

Op 5:

Correct Op : 1

Ques. X and Y are two independent events. The probability that X and Y occur is 1/12, and the probability that neither occur is 1/2, the probability of occurrence of X can be:

Op 1: 1/3

Op 2: 1/5

Op 3: 1/2

Op 4: 1/10

Op 5:

Correct Op : 1

Ques. An unbiased coin is tossed n times. If the probability of getting 4 tails equals the probability of getting 7 tails, then the probability of getting two tails is:

Op 1: 55/2048

Op 2: 3/4096

Op 3: 1/1024

Op 4: None of these

Op 5:

Correct Op : 1

Ques. Sudhanshu and Pankaj stand in a circle with 10 other persons. If the arrangement of the person is

at random, then the probability that there are exactly 3 persons between Sudhanshu and Pankaj is?

Op 1: 9/11

Op 2: 2/11

Op 3: 1/11

Op 4: None of these

Op 5:

Correct Op : 2

Ques. Three numbers are chosen from 1 to 30 randomly. The probability that they are not consecutive

is:

Op 1: 1/145

Op 2: 144/145

Op 3: 139/140

Op 4: 1/140

Op 5:

Correct Op : 2

Ques. A bag is full of 20 bananas and no other fruit. Rajeev draws a fruit from the bag. What is the

probability that he will draw a banana?

Op 1: 1

Op 2: 0

Op 3: 1/2

Op 4: None of these

Op 5:

Correct Op : 1

Ques. An unbiased dice is rolled 5 times and the outcomes are 1, 2, 3, 4 and 5 respectively. If it is rolled

again, what is the probability that the outcome is 6?

Op 1: 1

Op 2: 5/6

Op 3: 1/6

Op 4: None of these

Op 5:

Correct Op : 3

Ques. The probability of drawing an apple from a bag of fruits is 6/25. How many apples should Ravi

draw, so that there is a chance he will draw 12 apples on average?

Op 1: 25

Op 2: 50

Op 3: 12

Op 4: None of these

Op 5:

Correct Op : 2

Ques. What is the probability for a day to be Sunday?

Op 1: 1/7

Op 2: 1/5

Op 3: 52/365

Op 4: None of these

Op 5:

Correct Op : 1

Ques. Rani has a bag with three blue and three yellow coins. She takes out a coin, sees its colour and

puts it back in the bag. She does this thrice. What is the probability that she saw all blue coins.

Op 1: 1/8

Op 2: 1/2

Op 3: 1/3

Op 4: None of these

Op 5:

Correct Op : 1

Ques. Shikhar has a bag with 2 balls, each of which can be black or white with equal probability. Now, he

draws out a ball and it turns out to be black. After this event, what is the probability that both balls are

black?

Op 1: 1/2

Op 2: 1/4

Op 3: 1

Op 4: None of these

Op 5:

Correct Op : 1

Ques. A coin is tossed thrice. What is the probability that the first toss of coin lands head, second tail and third lands tail as well?

Op 1: 1/16

Op 2: 3/8

Op 3: 1/8

Op 4: None of these

Op 5:

Correct Op : 3

Ques. The probability of occurrence of event A is 0.3 and that of event B is 0.4. The events are independent. What is the probability of occurrence of both A and B?

Op 1: 0.7

Op 2: 0.1

Op 3: 0.12

Op 4: Cannot be determined

Op 5:

Correct Op : 3

Ques. The probability of occurrence of event A is 0.1 and that of event B is 0.2. The events are mutually exclusive. What is the probability of occurrence of both A and B?

Op 1: 0.1

Op 2: 0

Op 3: 1

Op 4: Cannot be determined

Op 5:

Correct Op : 2

Ques. The probability of occurrence of event X is 0.8 and that of event Y is 0.05. The events are mutually exclusive. What is the probability of occurrence of either X or Y?

Op 1: 0.85

Op 2: 0.75

Op 3: 0

Op 4: Cannot be determined

Op 5:

Correct Op : 1

Ques. A biased die has a probability of 1/4 of showing a 5, while the probability of any of 1, 2, 3, 4, or 6

turning up is the same . If three such dice are rolled, what is the probability of getting a sum of atleast 14

without getting a 6 on any die ?

Op 1: 5/24

Op 2: 9/160

Op 3: 1/30

Op 4: 7/160

Op 5:

Correct Op : 4

Ques. A, B, C, D and E play the following game. Each person picks one card from cards numbered 1

through 10. The person who picks the greatest numbered card loses and is out of the game. Now the

remaining four return their cards to the pack and draw again, and

Op 1: 3/14

Op 2: 4/17

Op 3: 1/5

Op 4: 5/24

Op 5:

Correct Op : 3