Choose the correct answer.

Q251) If a, b, c, d, e are five consecutive odd numbers, their average is:
a) 5 a + 4 b) abcde/5 c) 5 a + b + c + d + e **d) None of these**
Ans: d)

Q252) (x % of 932) + 30 = 309.6 Find x.
a) 25 **b) 30** c) 35 d) 40
Ans: b)

Q253) Which of the following multipliers will cause a number to be increased by 29.7% ?
a) **1.297** b) 12.97 c) 129.7 d) 1297
Ans: a)

Q254) If 2A = 3B and 4B = 5C, then A: C is:
a) 4 : 3 b) 8 : 15 **c) 15 : 8** d) 3 : 4
Ans: c)

Q255) 0.4777 . . . is the recurring decimal for the fraction:
a) 4777/100000 b) 477/100 c) 437/1000 **d) 43/90**
Ans: d)

Q256) 0.8888 ÷ 0.011 is equal to:
a) 8.08 **b) 80.8** c) 0.808 d) None of these
Ans: b)

Q257) The ascending order of rational numbers -7/10, 5/-8, 2/-3 is:
a) **-7/10, 2/-3, 5/-8** b) -7/10, 5/-8, 2/-3
c) 5/-8, -7/10, 2/-3 d) 2/-3, 5/-8, -7/10
Ans: a)

Q258) If A is real and $1 + A + A^2 + A^3 = 40$, then A is equal to:
a) 3 b) -1 c) 1 **d) 3**
Ans: d)

Q259) 1 + 3 + 5 + … + 3983) / 1992 = ?
a) 1988 **b) 1992** c) 1990 d) None of these
Ans: b)

Q260) Which one of the following should be added to $25p^2 + 16q^2$, so that the resulting sum becomes a perfect square?
a) 20pq b) 30pq **c) 40pq** d) $50p^2q^2$
Ans: c)

Q261) Choose the correct answer. $1.0816^{1/2}$= ?
a)'0.14' b) '1.4' c) '1.004' **d) '1.04'**,
Ans: d)

Q262) If the digit in the units place of a square natural number is 6, then the digit in the tens place will be:
a) 1 b) 3 c) Even **d) Odd**
Ans: d)

Q263) The square no. which contains 6 at units place maybe 16 or 36 in which at tens place the digit is odd

Q264) Choose the correct answer. $(a+b)^3 - (a-b)^3$ can be factorized as:

a) **$2b3a^2+b^2$** b) $2a3a^2+b^2$ c) $2b3b^2+a^2$ d) $2aa^2+3b^2$

Ans: a)

Q265) Choose the correct answer. If $9x^2+3px+6q$ when divide by $3x+1$ leaves a remainder $-3/4$ and $qx^2+4px+7$ is exactly divisible by $x+1$, then the values of p and q respectively will be:

a) 7/4 b) -7/4, 0 c) Same **d) 7/4, 0**

Ans: d)

Q266) The equations $2x+3y-7=0$ and $10x+15y-35=0$ are:

a) Consistent and have unique solution **b) Consistent and have infinitely many solutions**

c) inconsistent d) none of these

Ans: b)

Q267) The solution of the simultaneous equations $(1/2)x + (1/3)y = 2$ and $x+y=1$ is:

a) $x = 0, y = 1$ b) $x = 1, y = 0$ c) $x = 2/3, y = 3/2$ **d) x = 10, y = -9**

Ans: d)

Q268) If the equation x²-2k+1)x+9/2)k=0 has two identical roots then the values of k are:

a) k=1, 2 **b) k=2 or 1/2** c) k=3, 1/2 d) none of these

Ans: b)

Q269) The number which should be subtracted from $5a^2-3ab+7b^2$to make it equal to a^2+ab+b^2, is:

a) **$4a^2-4ab+6b^2$** b) $4a^2-4ab+5b^2$ c) $4a^2+4ab+6b^2$ d) $4a^2-3ab+6b^2$

e) None of these

Ans: a)

Q270) 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:

a) 0 **b) -q** c) 2 d) None of these

Ans: b)

Q271) The roots of the quadratic equation $6x^2-5x+1=0$ are:

a) 2,3 **b) 1/2,1/3** c) 3,4 d) 1/3,1/4 e) None of these

Ans: b)

Q272) If a = 16, b=25, the value of $1/a^{-1/2} - b^{-1/2}$ is:

a) 10 b) 15 **c) 20** d) 25 e) 30

Ans: c)

Q273) Choose the correct answer. $3a^2(ab+bc+ca)$ =

a) $3a^2+3a^2bc+3a^3c$

b) $3a^3b+3a^2bc+3c$

c) $3a^3b+3a^2bc+3a^3c$

d) $a^3b+abc+a^2c$

e) None of these
Ans: c)

Q274) Choose the correct answer. x^4y-xy^4 = ?
a) **$(xyx-y)x^2+xy+y^2$** b) $(xyx+y)x^2-xy+y^4$ c) $(xxy-1)x^2-xy+y$
d) $(x^3+y^2)xy$ e) None of these
Ans: a)

Q275) Factors of $6a^2-25a+4$ are:
a) (a+4)(a-6) b) (a-4)(6a+1) **c) (a-4)(6a-1)** d) (a-6)(a-4) e) None of these
Ans: c)

Q276) Choose the correct answer. 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:
a) m=x+y+z **b) 2m=a+b+c** c) m=x-y-z d) 2m=x-y-z e) None of these\
Ans: b)

Q277) Choose the correct answer. If $r = at^2$ and s = 2at, the relation among s, r and a is:
a) **$s^2=4ar$** b) s=ar c) s=2ar d) $s^2=ar$ e) None of these
Ans: a)

Q278) If a+b=6, ab=5, the value of a-b is:'
a) '4' b) '5' c) '6' d) '7' e) '9'
Ans: a)

Q279) Choose the correct answer.', '|X - 5| + 4 > 0 and $|X^2| < 4$. Then x can be:',
a)'4' b) '2' **c) '0.5'** d) 'All of these',
Ans: c)

Q280) If (fx) = sum of all the digits of x, where x is a natural number, then what is the value of f)+f102)+f103)+ .. +f200)?'
a) '1000' b) '784' c) '999' **d) '1001'**,
Ans; d)

Q281) 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 ?',
a)'2' b) '4' **c) '3'** d) 'None of these',
Ans: c)

Q282) What is the highest power of 82 contained in 83!-82! ?'
a) '3' b) '2' c) '164' d) 'None of these',
Ans: a)

Q283) If x = 0.75, then what is the value of the expression $1+x+x^2 + x^3/1-x$?
a)'0.25' **b) '4'** c) '1.75' d) '1'
Ans: b)

Q284) 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 a^2-b^2?
a) '-4' b) '4' **c) '32/7'** d) '- 28/6',
Ans: c)

Q285) If a, b, c are roots of the equation $1x^3-4x^2+6.5x + 3.5 = 0$, then what is the value of $a^2 + b^2 + c^2$?'
a) '1' b) '64' c) '169' **d) '3'**
Ans: d)

Q286) If |x| + |y| = 7, then what is the sum of minimum and maximum values of x + y?'
a) '3/2' b)'-7' c) '7' **d) '0'**
Ans: d)

Q287) 832.58-242.31 =779.84- ?'
a) 179.57' b) '199.57' c) '295.05' **d) 'None of these'**,
Ans: d)

Q288) Which is the closest approximation to the product 0.3333 * 0.25 * 0.499 * 0.125 * 24 ?'
a)'1/8' b) '3/4' c) '3/8 d) '2/5'
Ans: a)

Q289) The simplification of 0.2 * 0.2 + 0.02 * 0.02 - 0.4 * 0.02) / 0.36',
a)'0.009' **b) '0.09'** c) '0.9' d) '9'
Ans: b)

Q290) If $1^3 + 2^3+ 3^3+ \ldots\ldots\ldots+ 9^3 = 2025$,then the value of $0.11^3 + 0.22^3 + \ldots.+ 0.99^3$ is close to:
a)'0.2695' b) '0.3695' c**) '2.695'** d) '3.695',
Ans: c)

Q291) 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?
a) 4/7' b) '1/2' **c) '2/3'** d) '5/6'
Ans: c)

Q292) A, B and C are three students who attend the same tutorial classes. If the probability that on a particular day exactly one out of A and B attends the class is 7/10; exactly one out of B and C attends is 4/10; exactly one out of C and A attends is 7/10.
a)46/100' b) '63/100' c) '74/100' **d) '99/100',**
Ans: d)

Q293) A box contains 10 balls numbered 1 through 10. Anuj, Anisha and Amit pick a ball each, one after the other, each time replacing the ball. What is the probability that Anuj picks a ball numbered less than that picked by Anisha, who in turn picks a lesser n',
a)'3/25' b) '1/6' c) '4/25' d) '81/400',
Ans: a)

Q294) 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 ?
a)'5/24' b) '9/160' c) '1/30' **d) '7/160'**
Ans: d)

Q295) 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',

a)'3/14' b) '4/17' **c) '1/5'** d)'5/24'
Ans: c)

Q296) Which among the following is greatest: $5^{1/2}$, $11^{1/3}$, $123^{1/6}$?
a) $5^{1/2}$ b) $11^{1/3}$
c)$123^{1/6}$ d)All are equal
Ans: a)

Q297) What are the unit"s digits of 3^{69}, 6^{864}, 4^{725} respectively ?
a)9,6 and 6' b) '6, 6 and 6' **c) '3,6 and 4'** d) 'None of these',
Ans: c)

Q298) A = $1^1 * 2^2 * 3^3 * 4^4 * 5^5 * ……..10^{10}$. How many zeroes will be there at the end of A ?
a)'6' **b) '15'** c) '10' d) 'None of these'
Ans; b)

Q299) If $x = 3 + 3^{1/2}$, then what is the value of $x^2 + 9/x^2$?
a) $15 + 3 * 3^{1/2}$ b) $18 + 3 * 3^{1/3}$ c) $27 + 3 * 3^{1/2}$ **d) None of these**
Ans: d)

Q300) If x⁴ + 1/x⁴ = 47, then find the value of $x^3 + 1/x^3$
Ans: 18

Q301) The product of two numbers is 2028 and their H.C.F. is 13. The number of such pairs is:
a)'1' **b) '2'** c) '3' d) '4'
Ans: b)

Q144) In how many different ways can the letters of the word " HARDWARE" be arranged in such a way that the vowels always come together.
a) '120' **b) '1080'** c) '1440' d) '4320' e) '720'
Ans: b)

Q145) In how many ways a committee, consisting of 4 men and 10 women can be formed from 6 men and 10 women?'
a) 266 b)50 **c)15** d)8640 e)none of these
Ans: c)

Q146) Out of 7 consonants and four vowels ,how many words of three consonants and 2 vowels can be formed?'
a)210 b)1050 **c) 25200** d) 21400 e)none of these
Ans: c)

Q147) 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 .
a) 1440 b)1956 c) 720 d) none of these
Ans: a)

Q148) The number of possible selections of one or more questions from 8 given questions, each question having an alternative, is',
a) 2⁸-1 **b) '3⁸-1'** c)4⁸-1' d)none of these'
Ans: b)

Q149)'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'
a) '216' b) '240' c) '600' d) '3125'
Ans: a)

Q150) Let A be containing 10 distinct elements ,then the total number of distinct functions from A to A IS',
a)10! **B)10¹⁰** c)2¹⁰ d)'2¹⁰-1'
Ans: b)

Q151) A polygon has 44 diagonals, the number of its sides is', 0, '', 4, '10', '11', '12', '22', '', 2, '', 4, 0, '', '0000-00-00 00:00:00', '0000-00-00 00:00:00', '', 'Permutations and Combinations', 'Quantitative', 0.5843, 13.8317, 0.3389, 0, 1.0000, 0),
Ans: 11

Q152) Choose the correct answer.', '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', 0, '', 4, '105', '115', '175', '185', '', 4, '', 5, 0, '', '0000-00-00 00:00:00', '0000-00-00 00:00:00', '', 'Permutations and Combinations', 'Quantitative', 0.4993, 9.1041, 0.1224, 0, 1.0000, 0),
Ans: 185

Q153) Choose the correct answer.', 'There are 5 letters and five addressed envelops. the number of ways in which all the letters can be put in wrong envelops is', 0, '', 4, '119', '44', '59', '40', '', 2, '', 5, 0, '', '0000-00-00 00:00:00', '0000-00-00 00:00:00', '', 'Permutations and Combinations', 'Quantitative', 0.6700, 49.4656, 0.3256, 0, 1.0000, 0),
Ans; 44

Q154) 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', 0, '', 4, '960', '2880', '288', '576', '', 2, '', 4, 0, '', '0000-00-00 00:00:00', '0000-00-00 00:00:00', '', 'Permutations and Combinations',
'Quantitative', 0.5283, 4.2170, 0.0000, 0, 1.0000, 0),
Ans: 288

Q155) 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', 0, '', 4, '25', '30', '32', 'none of these', '', 4, '', 5, 0, '', '0000-00-00 00:00:00', '0000-00-00 00:00:00', '', 'Permutations and Combinations', 'Quantitative', 0.4878, 5.6266, 0.0000, 0, 1.0000, 0),

Ans:25

Q156) There are n different books and p copies of each. the number of ways in which a selection can be made from them is
a) 'n^p' b) 'pⁿ'
c) 'p+1)ⁿ -1' d) 'n+1)^p-1'
Ans: c)

Q157) 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',
a) 220' b) '204' **c) '205'** d) 195',
Ans: c)

Q158) 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',
a)'56' b) 126 **c) 91** d)none of these'
Ans: c)

Q159) 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
a)'15' b) '81' **c) 255'** d)256'
Ans: c)

Q160) 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?
a)1260', b)'210'
c) ¹⁰C₆ * 6!' d)'¹⁰C₅ * 6',
Ans: a)

Q161) There are 10 yes or no questions. How many ways can these be answered?
a) 1084 b)2048 **c)1024** d)100'
Ans: c)

Q162) '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?'
a) '24' b)31 **c) 32** d)30
Ans: c)

Q163) 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:
a)1/22' b)3/22 **c)2/91** d)2/77

Q164)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:
a) '4/19' **b)7/19** c)12/19 d)21/95'
Ans: b)

Q165) 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 ?
a)'2/5' b)3/4 c)3/5 d)3/10'
Ans: a)

Q166) 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'
a)'1/18' b) '1/3' **c)'1/6'** d) '2/3',
Ans: c)

Q167) If A and B are 2 independent events and PA)=0.5 and PB) = 0.4, find PA/B):
a) '0.5' b) '0.4' c) '0.88' d) 'None of these'
Ans: a)

Q168) 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?
a) '1/4' **b) '1/5'** c) '2/5' d)1/120'

Ans: b)

Q169) In a single throw of dice, what is the probability to get a number greater or equal to 4?', 0,
a) 4 b)1/3 **c)2/3** d)1/2 e)None of these'
Ans: c)

Q170) 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?
a) '3.5/12' **b) '7/12'** c)'5/12' d) , 'None of these'
Ans: b)

Q171) 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?'
a) '4/7' b) '8/49' c) '7/8' **d) '15/49'**
Ans: d)

Q172) 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?'
a) '2/3' b) '3/7' c) '2/21' **d) 'None of these'**
Ans: d)

Q173) The probability of having at least one tail in 5 throws of a coin is'
a)'1/32' **b) '31/32'** c) '1/5' d) 'None of these'
Ans: b)

Q174) 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?
a)'5/108' b) '1/6' c) '5/18' **d) '4/9'**
Ans: d)

Q175) A single letter is drawn at random from the word, "ASPIRATION", the probability that it is a vowel is?
a)'1/2' b) '1/3' c) '3/5' d) '2/5'
Ans: a)

Q176) 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:
a) 291/364' b) '371/464' c) '471/502' **d) '459/512**
Ans: d)

Q177) 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:
a) '8/27' b)'1/27' c) '26/27' d) '2/3'
Ans: a)

Q178) 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?

a)'0.3' **b) '0.4'** c) '0.7' d) 'None of these
Ans: b)

Q179) An unbiased coin is tossed 5 times. If tail appears on first four tosses, then probability of tail appearing on the fifth toss is:
a)'1/2' b) '1' c) '0' d) '4/5'
Ans: a)

Q180) 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:
a)'1/3' b) '1/5' c) '1/2' d) '1/10'
Ans: a)

Q181) 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:
a) '55/2048' b) '3/4096' c)'1/1024' d)None of these
Ans: a)

Q182) 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?
a) '9/11' **b)'2/11'** c)'1/11' d) 'None of these
Ans: b)

Q183) Three numbers are chosen from 1 to 30 randomly. The probability that they are not consecutive is:
a)'1/145' **b)'144/145** c) '139/140' d) '1/140'
Ans: b)

Q184) 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?
a) '1' b) '0' c) '1/2' d) 'None of these
Ans: a)

Q185) 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?
a)'1' b) '5/6' **c) '1/6'** d) 'None of these
Ans: c)

Choose the correct answer:

Q186) 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?
a) '25' **b) '50'** c) '12' d) 'None of these
Ans:b)

Q187) What is the probability for a day to be Sunday?'
a)'1/7' b) '1/5' c) '52/365' d) 'None of these
Ans: a)

Q188) 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.

a)1/8' b) '1/2' c) '1/3' d) 'None of these
Ans: a)

Q189) 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?
a)'1/2' b) '1/4' c) '1' d) 'None of these'
Ans: a)

Q190) 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?
a)'1/16' b) '3/8' **c) '1/8'** d) 'None of these
Ans: c)

Q191) 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?
a) '0.7' b)'0.1' **c) '0.12'** d) 'Cannot be determined'
Ans: c)

Q192) 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?
a) '0.1' **b) '0'** c) '1' d) 'Cannot be determined'
Ans: b)

Q193) 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?
a)'0.85' b) '0.75' c) '0' d)'Cannot be determined'
Ans: a)

Q194) 10% of the voters did not cast their vote in an election between two candidates. 10% of the votes polled were found invalid. The successful candidate got 54% of the valid votes and won by a majority of 1620 votes. The number of voters enrolled on the vo
a)'25000' b) '33000' c) '35000' d) '40000'
Ans: a)

Q195) A, B, C started a business with their investments in the ratio 1:3:5. After 4 months, A invested the same amount as before and B as well as C withdrew half of their investments. The ratio of their profits at the end of the year is:
a) '4:3:5' b) '5:6:10' c) '6:5:10' d) '10:5:6'
Ans: b)

Q196) 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:
a)Rs. 169.50' b)'Rs. 170' **c) 'Rs. 175.50'** d) 'Rs. 180'
Ans: c)

Q197) 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 ?
a) '10' b) '20' **c) '21'** d)'25'
Ans: c)

Q198) 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% ?'
a) Rs 4' b)'Rs 5' **c) 'Rs 6'** d) 'Rs 7
Ans: c)

Q199) 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
a) Rs.12.50 **b)'Rs. 13.50'** c)Rs. 14.50' d) 'Rs. 15.50' e) 'None of these'
Ans: b)

Q200) 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.
a)'200' b)'250' c) '300' d) '400',
Ans: a)

Q201) 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:
a) Rs. 110' b) 'Rs.120' c) 'Rs. 125' **d) 'Rs. 150'**
Ans: d)

Q202) Choose the correct answer.', '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:
a) Rs. 50' b) 'Rs. 160' **c) 'Rs. 200'** d) 'Rs. 225'
Ans: c)

Q203) 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',
a) '1 and 3 are correct' **b) '2 alone is correct'**
c) '3 alone is correct' d) '2 and 3 are correct'
Ans. b)

Q204) The difference between simple interest and compound interest on Rs.1200 for one year at 10% per annum reckoned half-yearly is:
a)Rs. 2.50' **b) 'Rs. 3'** c), 'Rs. 3.75' d) 'Rs. 4' e) 'None of these
Ans: b)

Q205) 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:
a) Rs. 10,000 **b)'Rs. 20,000'** c)'Rs. 40,000' d) 'Rs. 50,000'
Ans: b)

Q206) The simple interest on Rs. 10 for 4 months at the rate of 3 paise per rupee per month is:',
a) Rs. 1.20' b) 'Rs. 1.60' c) 'Rs. 2.40' d) Rs. 3.60'
Ans: a)

Q207) Choose the correct answer.', '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:
a)Rs. 400' b) 'Rs. 450' c) 'Rs. 460' **d) 'Rs. 480'**
Ans: d)

Q208) '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', 0, '', 4, '4.92 km', '13.44 km', '14.375 km', '15.476 km', '', 1, ''

Q209) 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:
a)'120' b)'160' c) '280' d) '300'
Ans: a)

Q210) Find a whole number such that when one of its digit is erased, the resulting number is equal to one-ninth of the original number. The resulting number is also a multiple of 9.
a) '90' b)'83438' **c) '25'** d) '70847'
Ans: c)

Q211) 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?
a) '4 km' b) '8 km' **c) '6 km'** d) '12 km
Ans: c)

Q212) In a town the population grows at a simple rate of 10% in a decade and compounds from decade to decade. Find the population at the beginning of the 1970s if the population at the beginning of the 1990s is 3,63,000 people.
a) 30,000' **b) '3,00,000'** c) '30,00,000' d) '3,15,000'
Ans: b)

Q213) In approximately how many years will a certain sum of money triple itself at 22% simple interest?
a)'10 years' b) '11 years' **c) '9 years'** d) '12 years'
Ans: c)

Q214) 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.
a)1 km/hr b)6 km/hr c) '3 km/hr' d) '4 km/hr'
a)

Q215) 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',
a) '4 km/hr' **b) '5 km/hr'** c) '20 km/hr' d) '25 km/hr'
Ans: b)

Q216) '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',
a) 90 m **b) '45 m** c) '26.5m' d)Data insufficient
Ans: b)

Q217) 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?
a) '4' **b) '5'** c) '6' d) '7'

Ans: b)

Q218) 36 men can complete a piece of work in 18 days. In how many days will 27 men complete the same work ?
a)'12' b) '18' c)22' **d) '24'** e) 'None of these
Ans: d)

Q219) 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 ?
a)'10' **b) 13'** c)14' d)15'
Ans: b)

Q220) If 7 spiders make 7 webs in 7 days, then 1 spider will make 1 web in how many days ?
a) '1' b)'7/2' **c)'7'** d)'49'
Ans: c)

Q1. Three different containers contain 496 litres, 403 litres and 713 litres of mixtures of milk and water respectively. What biggest measure can measure all the different quantities exactly ?',

a) '1 litre' b) '7 litre' **c) '31 litre'** d) 41 litre',

Ans: " c "

Q2. Six bells commence tolling together and toll at intervals of 2, 4, 6, 8, 10 and 12 seconds respectively. In 30 minutes, how many times do they toll together ?',
a) '4' b) '10' c) '15' **d) '16'**
Ans." d "

Q3. 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:
a) '12 midnight' b)3 a.m. c) 6 a.m. **d) '9 a.m.',**
Ans: d)

Q4. The number of prime factors of 3 x 5)¹² 2 x 7)¹⁰ 10)²⁵ is:',
a) '47' b) c) '60', '72', **d)'None of these',**
Ans: d)

Q5. What least value must be assigned to * so that the number 63576*2 is divisible by 8?
a) '1' b) '2' **c)'3'** d)'4',
Ans: c)

Q5 Which of the following numbers is exactly divisible by 24 ?'
a) '35718' b) '63810' c) 537804' d) **'3125736'**,
Ans: d)

Q6. The number nearest to 15207, which is divisible by 467, is:
a) '14342' b)'15211' c)'14944' d) **15411'**

Ans: d)

Q7. The smallest number, which is a perfect square and contains 7936 as a factor is:
a) '251664' b) '231564' c) **246016'**, d) '346016'
Ans: c)

Q8. In a division problem, the divisor is twenty times the quotient and five times the remainder. If remainder is 16, the number will be:',
a) '3360' b)**'336'** c) '1616' d) '20516'
Ans: b)

Q9. 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:'
a) **'1600'** b) '1800' c) '2200' d) '2600'
Ans: a)

Q10) The L.C.M. of two numbers is 140. If their ratio is 2:5, then the numbers are:
a) **'28,70'** b) '28,7' c) '8,70' d) '8,40'
Ans: a)

Q11) If a number is exactly divisible by 85, then what will be the remainder when the same number is divided by 17?',
a) '3' b) '1' c) '4' d) **'0'**,
Ans:d)

Q12) The least perfect square number which is exactly divisible by 3, 4, 7, 10 and 12 is:
a) '8100' b) '17600' c) **'44100'** d) 'None of these',
Ans.c)

Q13) 'xⁿ+yⁿ) is divisible by x-y):
a) 'for all values of n' b) 'only for even values of n',
c) 'only for odd values of n', **d)'for no values of n'**,
Ans:d)

Q14) The greatest number that will divide 63, 138 and 228 so as to leave the same remainder in each case:',
a)**'15'**, b) '20' c) '35', d) '40', "
Ans: a)

Q15) 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.', '
a) 422' b) **'842'** c) '12723' d) 'None of these',
Ans: b)

Q16) 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?
a)**'10'** b)'12' c)'14' d) 'None of these',
Ans: a)

Q17) If a and b are natural numbers and a-b is divisible by 3, then a³-b³ is divisible by:
a)'3 but not by 9' b) **'9'** c) '6', d) '27'
Ans: b)

Q18)'What is the greatest positive power of 5 that divides 30! exactly?',
a)'5' b) '6' c)**'7'** d) '8',
Ans: c)

Choose the correct answer.

Q19) In how many ways can a number 6084 be written as a product of two different factors ?',
a) '27' b) '26' c) **'13'** d) '14'
Ans: c)

Q20) 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?
a) '1043' b) '1073' c)'1103' **d) 'None of these',**
Ans: d)

Q21) 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:
a) '11' b) '121' c) **'242'** d) 'None of these',
Ans: c)

Q22) 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:
a) '4' b) '5' c) '3' d) **'Does not exist'**
Ans: d)

Q23) 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:
a) **'14 times'** b) '15 times' c) '13 times' d) '11 times',
Ans: a)

Q24) The product of two numbers is 16200. If their LCM is 216, find their HCF.
a) **'75'** b) '70' c) '80' d) 'Data inconsistent'
Ans: a)

Q25) 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.
a) **'5'** b) '7' c) '11' d) '17'
Ans: a)

Q26) 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?
a) 'K*L=A', ' b) K*A=L' c**) 'L*A=K'** d) 'None of these',
Ans: c)

Q27) On dividing a number by 999,the quotient is 366 and the remainder is 103.The number is:
a)'364724' b) '365387' c) **'365737'** d) '366757',
Ans:c)

Q28) 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:
a) '240' b) **'270'** c) '295' d) '360'

Ans: b)

Q29) The ratio of two numbers is 3:4 and their HCF is 4.Their LCM is:
'12', '16', '24', **'48'**,
Ans:d)

Q30) 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?
a)14 cm' b) **'21 cm'** c) '42 cm' d) None of these
Ans: b)

Q31) The least perfect square which is divisible by 3, 4, 5, 6, 8 is:
a) '900' b) 1200' c)2500' d) **3600**
Ans: d)

Q32) What will be obtained if 8 is subtracted from the HCF of 168, 189, and 231?
a) 4 b) '15' c) '10' d) **'21'**
Ans: d)

Q33) The largest four digit number which is a multiple of 8, 10,12 and 15 is:
'120', '9600', '9840', **'9960'**, '', 4, ''

Q34) If log_x 0.1) = -1/3, then the value of x is:
a) '10' b) '100' c) **'1000'** d) '1/1000'
Ans: c)

Q35) If a^x = b^y, then:
a) 'loga/b) = x/y' b) 'loga) / logb) = x/y'
c)**'loga) / logb) = y/x'** d) 'None of these'
Ans:c)

Q36) If log₈ x + log₈ 1/6) = 1/3 then the value of x is:
a) **'12'** b) '16' c) '18' d) '24',
Ans: a)

Q37) If log x + log y = log x + y), then:
a) 'x = y' b) 'xy=1' c) 'y = x-1)/x' d**) 'y = x/x-1)**'
Ans: d)

Q38) If log₁₀ 7 = a, then log₁₀1/70) is equal to:
a**) '-1 + a)'** b) '1 + a)⁻¹' c) 'a/10' d) '1/10a'
Ans: a)

Choose the correct answer:

Q39) If log{a+b)/3} = 0.5log a + log b), then the correct relation between a and b is:', 0, '', 5, 'a²+b² = **7ab',** 'a²-b² = 7ab', 'a+b)² = 2', 'a+b)/3 = 1/2)a+b)', 'None of these
Ans: a)

Q40) 'If log x = log 3 + 2 log 2- 3/4) log 16. The value of x is:
a)'1/2' b) '1' **c) '3/2'** d) '2'

Ans:c)

Q41) If log x =1/2) log y = 1/5) log z, the value of x⁴y³z⁻² is:
a) '1' b) **'2'** c) '3' d) 'None of these
Ans: b)

Q42) If log₁₀₀₀₀ x = -1/4, then x is given by:
a) '1/100' **b)'1/10'** c) '1/20' d)'none of these'
Ans: b) 'formula am=x; implies m=logax',

Q43) The value of 3<sup>-1/2 log_{_₃}9) is:
a)'3' **b)'1/3'** c) '2/3' d) 'none of these'
Ans: b)

Q44) log_e xy - log_e |x| equals to:
a) log_e x', b) 'log_e |x|',
c) '- log_e x', **d) 'none of these'**,
Ans: d) 'correct ans is logexy/ 1x1)'

Q45) The value of log_a n) / log_{ab} n) is given by:',
a)'1 + log_a b' b) '1 + log_b a'
c) 'log_a b' d) 'log_b a'
Ans: a) 'formula logbx =logx/logb',

Q46) If a⁴ - 2a²b² + b⁴)^{x-1} = a-b)^{2x} a+b)⁻², then x equals to:
a) 'a - b) / a + b)', b) log a² - b²)'
c) 'log a + b) / log a - b)' d) log a - b) / log a + b)'
Ans: d)

Q47) If a, b, and c are in geometric progression then log_a n, log_b n and log_c n are in:
a) 'AP' b) 'GP' c) **'HP'** d) 'None of these'
Ans: c)

Q48) What is the value of antilog₁₀100?
a) '2' **b) '10¹⁰⁰'** c) '100' d) '10',
Ans: b)

Q49) If antilog _x 5 = 30, what can you infer about x?'
a) x is a number between 1 and 2' b) 'x is 30⁵'
c) 'x is a number between 2 and 3' d) 'None of these'
Ans: a)

Q50) Every time x is increased by a given constant number, y doubles and z becomes three times. How will logy) and logz) behave as x is increased by the same constant number?
a) Both will grow linearly with different slopes' b) 'Both will grow linearly with same slopes', c)'y will grow linearly, while z will not', d)'z will grow linearly, while y will not',
Ans: a)

Q51) x triples every second. How will log₂x change every second?

a) 'It will double every second' b) 'It will triple every second',
c) 'It increases by a constant amount every second.' d) 'None of these',
Ans: c)

Q52) f(x) grows exponentially with x, how will flogx)) grow?
a) 'Exponentially' **b)'Linearly'** c) 'Quadratically' d)'None of these',
Ans: b)

Q53) What is the value of log₅₁₂8? (log 8 to base 512)
a) 3' **b) 1/3'** c) 3' d)-1/3'
Ans: b)

Q54) What is the value of log₇ 1/49)?' (log 1/49 to base 7)
a) '2' b) '1/2' c) '-1/2' **d) '-2',**
Ans: d)

Q55) Given that log₆₄ x = 2/6, what is the value of x?
a) '2' **b) 4** c) 6 d) '8'
Ans: b)

Q56) If 7^x = 85, what is the value of x?
a) 'log₇85' b) 'log₈₅7'
c) 'log₁₀7' d) 'log₁₀85',
Ans: a)

Q57) If log₁₀2 = 0.3010, what is the number of digits in 2⁶⁴
a) '19' **b) '20'** c)'18' d) 'None of these',
Ans: b)

Choose the correct answer:

Q58) What is log₁10?
a) '1' b) '10' c) '0' d) **'Tends to infinity'**
Ans: d)

Q59) What is log₁₀0 ?
a) '0' b) '10' c) '1' d**) 'Not defined'**
Ans: d)

Q60) What is the value of log₃ -9)?
a) '3' b) '1/3' c) '-3' d**) 'Not defined'**
Ans: d)

Q61) Rajeev multiplies a number by 10, the log to base 10) of this number will change in what way?'
a) 'Increase by 10' **b) 'Increase by 1'** c) 'Multiplied by 10' d) 'None of these
Ans: b)

Q62) The logarithm of a very small positive number will tend to which of the following?
a) 'negative infinity' **b) 'positive infinity'** c) '1',
Ans: b)

Q63) 'If n numbers are in geometric progression, the logarithm of the number will be in which of the following?'
a) 'Geometric Progression' **b) 'Arithmetic Progression',**
c) 'Harmonic Progression' d) 'None of these'
Ans: b)

Q64) Which of the following is equivalent to loga + b) ?
a) 'log a + log b' b) 'log a * log b' c) 'log a - log b' **d) 'None of these'**
Ans: d)

Q65) What is the value of log₃ 1/9) + log ₉ 81 ?
a) '2' b)'-2' c)**'0'** d) '4'
Ans: c)

Q66) What is the value of log₃ 1.5 + log₃ 6 ?
a) '2' b) '2.7' c) '1.8' d) 'None of these',
Ans: a)

Q67) Which of the following is log₈ x equivalent to?'
a) 'log₂ x/3)' b) 'log₂ 3x)'
c)'log₂x)/ 3', d) 'None of these'
Ans: c)

Q68) If n numbers are in arithmetic progression, the logarithm of the number will be in which of the following?
a) 'Exponentially' b) 'Linearly' c) 'Quadratically' **d) 'None of these'**
Ans: d)

Q69) What is the value of log₂₀ 1 ?
a) '0' b) '1' c) '20' d) 'None of these
Ans. a)

Q70) The unit"s digit in the product 7⁷¹ x 6⁵⁹ x 3⁶⁵) is',
a) '1' b) '2' **c) '4'** d) '6'
Ans: c)

Q71) 1.5²* 0.0225^{1/2} = ?
a) '0.0375' **b) '0.3375'** c) '3.275' d) '32.75'
Ans: b)

Q72) 'If x^{1/2} / 441^{1/2} = 0.02, the value of x is:
a) '0.1764' b) '1.764' c) '1.64' d) '2.64'
Ans: a)

Q73) The value of 2^{1/2} upto three places of decimal is',
a)'1.41' b) '1.412' c) '1.413' **d) '1.414'**
Ans: d)

Q74) The value of 8⁻²⁵- 8⁻²⁶) is:
a) '7 x 8⁻²⁵' **b) '7 x 8⁻²⁶'**
c) '8 x 8⁻²⁶' d) 'None of these',

Ans: b)

Q75) 'If 2²ⁿ⁻¹ = 1 / 8ⁿ⁻³) then the value of n is:
a) '3' **b) '2'** c) '0' d) '-2'
Ans: b)

Q76) 'If 2^x = 3^y = 6^{-z}, then 1/x + 1/y + 1/z)
is equal to:
a) **'0'** b) '1' c) '3/2' d) '-0.5'
Ans: a)

Q77) What is the remainder when 17²³ is divided by 16?
a) '0' **b) '1'** c) '2' d), '3'
Ans: b)

Choose the right answer:

Q78) What will be the remainder when 13³⁶ is divided by 2196?'
a) '0' **b) '1'** c) '12' d) '2195'
Ans: b)

Q79) The roots of the equation 4^x-3*2^{x+2}+32=0 would include-
a) '2, 3' b) '1, 2, 3' c) '1, 2' d) '4, 8'
Ans: a)

Q80) If a^x =b, b^y=c and c^z =a, then the value of xyz is:',
a) '0' **b) '1'** c) '2' d) '3'
Ans: b) 'ax=b implies logab=x, logbc=y ,logca=z thus x*y*z=logaa=1', 4, 0, '',

Q81) If x = 1+2^{1/2} and y=1-2^{1/2}, then x²+y² is –
a) '2' b) '3' c**) '6'** d) '0'
Ans: c) 'x2=1+21/2)2 & y2=1-21/2)2 thus ,x2+y2=6', 5, 0, '',

Q82) If 4^{x+3} = 2^{x+7}, then the value of x is:
a) '3' b) '2' **c) '1'** d)'None of these
Ans: c)

Q83) '2^{x+y} = 2*2)^{1/2} and 2^{x-y} = 2^{1/2},the value of x is:
a) '1' b)'2' c)'3' d) '4' e) 'None of these',
Ans: a)

Q84) If x = 8, y = 27, the value of x^{4/3}+y^{2/3})^{1/2} is:
a) '5' b) '6' c) '7' d) '8' e) 'None of these
Ans: a)

Q86) 'If x^y = y^x and x = 2y, the value of y is:
a) '1' **b) '2'** c)'3' d) '4' e) 'None of these
Ans: b)

Q87) 'If 2^x * 3^y = 18 and 2^{2x} * 3^y= 36, the value of x is:

a) '0', **b)'1'** c) '2' d) '3' e) 'None of these
Ans: b)

Q88) 'What is the value of 50⁰ ?'
a) '0' **b)'1'** c) '50' d) 'None of these'
Ans: b)

Q89) What is the value of 6⁻² ?
a) '1/36' b) '36' c)'-36' d) 'None of these',
Ans: a)

Q90) 'What is the value of 0⁻¹⁰ ?
a) '0' b) '1' c) '-10' **d) 'None of these'**
Ans: d)

Q91) 'What is the value of 25^{1.5} ?'
a) '325' b) '32.5' **c) '125'** d) 'None of these'
Ans: c)

Q92) What is the value of 0.027)^{1/3}?'
a) '0.3' b) '0.03' c) '0.003' d) 'None of these
Ans: a)

Q93) What is the value of 0.016)^{1/4}?
a) '0.2' b) '0.02' c) '0.002' ' **d)None of these',**
Ans: d)

Q95) 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
a) '1 hour' **b) '1 hr 12min'** c) '1 hr 15 min' d) '1 hr 20 min'
Ans: b)

Q96) 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 ?
a) '2 : 1' b) '3 : 2' **c) '8 : 3'** d) 'Cannot be determined e) 'None of these
Ans: c)

Q97) 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:
a) '21 m' b) '26 m' **c) '28 m'** d) '29 m',
Ans: c)

Q98) 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:
a) '16' **b) '17'** c) '18' d) 'None of these
Ans: b)

Q99) The price of sugar is increased by 25%. In order not to increase the expenditure a lady must reduce her consumption by:
a)'25%' **b)'20%**' c)'30%' d) 'None of these',
Ans: b)

Q100) 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:
a)'240 pages' b) 230 pages' c) '340 pages' d) '140 pages' e) 'None of these',
Ans: a)

Q101) In an examination, 70% of students passed in physics, 65% in chemistry, 27% failed in both subjects. The percentage of students who passed is:
a) '66%' **b) '62%'** c) '69%' d) 'None of these'
Ans: b)

Q102) 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:
a) 'Rs. 2100' b)'Rs. 2200' **c) 'Rs. 2300'** d) 'Rs. 2400' e) 'None of these
Ans: c)

Q103) 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:
a)'Rakesh loses Rs. 100' b)'Rakesh loses Rs. 1100' c) 'Rakesh gains Rs. 100'
d)'Rakesh gains Rs. 1100' e)'None of these
Ans: d)

Q104) 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:
a)'Rs. 229.50' b)'Rs.231.50' c) 'Rs.232.50' d) 'Rs. 234.50' e) 'None of these'
Ans: a)

Q105) The rate of compound interest at which a sum of Rs. 8000 amounts to Rs. 8820 in 2 years, is:
a) '5%' b) '4%' c) '6%' d) '7%' e) None of these
Ans: a)

Q106) 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:
a) '37 seconds' b) '48 seconds' **c) '72 seconds'** d) '68 seconds' e) 'None of these'
Ans: c)

Q107)'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:
a) '4 hours' **b) '19/4 hours'** c) '9/2 hours' d) '17/4 hours' e) 'None of these',
Ans: b)

Q108) 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:
a) '4800' **b) '5000'** c) '5060' d) '6000'

Ans: b)
Let the no. of men in the village be x.
Therefore no. of women in the village is 8000-x.then 6% of men and 10% of women added ,population becomes 8600. Therefore x106/100)+8000-x)110/100)=8600', 6, 0,

Q109) '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?
a)'40' b) '60' c)'100' **d) '160',**
Ans: d)

Q110)'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?'
a) '12' b) '15' c) '18' d) '24',
Ans: a) Ratio of gents and ladies is 1:2 .Therefore 1x-2)/2x-2)=1/3.x=4', 5, 0, '',

Q111) '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?
a)'Rs. 9.50' b) 'Rs. 8.50' **c) 'Rs. 10.50'** d) 'Rs. 12.00',
Ans: c)

Q112) '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?
a)'Rs. 926.10' b)Rs. 903.33' c) 'Rs. 928.30' d) 'Rs. 940.50'
Ans: a)

Q113) 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?
a) '6000' b) '10000/144'**,** **c)'6400'** d) '7600'
Ans: c)

Q114)'A certain sum of money at simple interest becomes Rs. 1062 in 2 years and Rs. 1183.50 in 3½ years. What is rate of interest per annum?'
a) '7%' b) '6%' **c) '9%'** d) '5%',
Ans: c)

Q115)'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:
a)'Rs. 86.80' b) 'Rs. 86.10' c)'Rs. 88.65' **d)'Rs. 81.60'**
Ans:d)

Choose the correct answer:

Q116) '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?',
a) '30' **b) '31.25'** c) '31', d) '33',
Ans: b)

Q117) 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?
a) '8.45 a.m.' **b) '8.56 a.m.'** c) '9.20 a.m.' d) 9.56 a.m.'
Ans; b)

Q118)'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?

a) '24 L' b) '22.5 L', **c)'6 L',** d) '17.5 L',
Ans: c)

Q119)'If x is a positive number and y = x², then which of the following is true?
a) 'y is always more than x' b) 'x is always more than y'
c) 'x is always equal to y' **d) 'None of these',**
Ans: d)

Q120) 'Rajiv has a number x in his mind. He finds out that the square of x is less than x. What is the range of x?
a) 'x is more than 0' b) 'x is less than 1'
c) 'x is more than 0, but less than 1', d) 'This is not possible'
Ans: c)

Q121) What is the value of: x^{1.5} * x² ?'
a) 'x³**,** **b)'x^{3.5}',** c)'x^{0.75}' d) 'None of these',
Ans: b)

Q122) What is the value of: 3³*81²*2⁰)/9⁵ ?'
a) '0' **b) '3'** c) '1/3' d) 'None of these',
Ans: b)

Q123) What number should be divided by 0.81)^{1/2} to give the result as 81?
a) '9' b) '81' **c) '72.9'** d) '0.9'
Ans: c)

Q124) 'If 6^{x-3)} = 36^{x-5)}, then what is the value of x?',
a) '2' b) 'No value will agree', c) '-1' d)'7',
Ans:

Q125) Which is the largest among 2^{1/2}, 5^{1/3} and 4^{1/4} ?',
a) '2)^{1/2}**,** **b) '5^{1/3}'**,
c) '4^{1/4}' d) 'None of these',
Ans: b)

Q126) What is the value of 1000⁹/100⁴?'
a) '100⁵' b) '10⁵' **c) '10¹⁹**' d) 'None of these'
Ans: c)

Q127) 'In how many different ways can the letters of the word "OPTICAL" be arranged so that the vowels always come together ?'
a)120' **b) '720'** c)'4320' d) '2160' e) 'None of these'
Ans: b)

Q128) 'In how many different ways can the letters of the word "CORPORATION" be arranged so that the vowels always come together ?'
a) 810' b) '1440' c) '2880' **d) '50400'** e) '5760'
Ans: d)

Q129) 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 ?
a)'5' b) '10' c) '15' **d) '20'**

Ans: d)

Q130)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?'
a) '3,724' b) '3,630' **c) '4,914'** d) '5,670'
Ans: c)

Q131) '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 ?
a) '64,974' b) '62,252' c) '69,447' **d) '1,592,500'**,
Ans: d)

Q132) '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).
a)'8' b)'9' **c) '10'** d) '15'
Ans: c)

Q133) In how many ways can 4 ladies and 4 men form two mixed doubles teams for a tennis match?
a) '72', b) '108' c) '36' d) '84',
Ans: a)

Q134) *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':*
a) '2,500' b) '2,250' c) '2,750' d) '3,250'

Q135) 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 ?
a) '560' **b) '240'** c) '420' d) '36'
Ans: b)

Q136) *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', 0, '', 4, '0', '2', '3', '4', '', 4, '', 6, 0, '', '0000-00-00 00:00:00', '0000-00-00 00:00:00', '', 'Permutations and Combinations', 'Quantitative', 0.6124, 18.1036, 0.0872, 0, 1.0000, 0);*

Q137) 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 ?'
a) '7!x8!' b) '7x8!' c) '7!x8' **d) '56'**
Ans: d)

Q138) 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 ?
a) '212' **b) '266'** c) '272' d) '312',
Ans: b)

Q139) 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 ?
a)'18' b)'33' c)'56' **d) '90'**
Ans: d)

Q140) 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 this be done
a)'30' **b)'36'** c)'44' d)'None of these
Ans: b)

Q141) In how many ways can the letters of the word "ERGONOMICS" be rearranged such that the vowels always appear together?
a) '6! /2!' b) '6!*4!' c) '7! /2!' **d) '7! * 4!)/2!'**
Ans: d)'

Q142) 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?'
a) '8' b) '3' c) '6' d) '7!/5!'
Ans: a)

Q143) The value of ⁷⁴P₂ is'
a) '2775' b)'150' **c) '5402'** d) 'none of these
Ans: c)

Q221) 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:
a)'6 days' b)'4 days c) '3 days d) '12 days'
Ans: c)

Q222) 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 ?
a)'7 hours 30 minutes' b)'8 hours' **c) '8 hours 15 minutes',** d)'8 hours 25 minutes',
Ans: c)

Q223) 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:
a) '5 days' b)'47/6 days' **c) '10 days'** d) '47/3 days'
Ans: c)

Q224) 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:
a)'28/3 days' **b) '11 days'** c) '49/4 days' d) '49/3 days'
Ans: b)

Q225) 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:
a) '8 days' b) '10 days' **c) '12 days'** d) '15 days'
Ans: c)

Q226) 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

a)'15 days' b)16 days' **c) '25 days'** d)'50 days'

Ans; c)

Q227) 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:

a)'81 min', b)'108 min' **c) '144 min'** d) '192 min',

Ans: c)

Q228) 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 ?

a) 15 min' b) '20 min' c) '27.5 min' **d) '30 min'**

Ans: d)

Q229) 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

a)'6 hrs.' b) '20/3 hrs' **c) '7 hrs'** d) '15/2 hrs'

Ans: c)

Q230) 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:

a) '60 gallons' b)'100 gallons' **c) '120 gallons'** d) '180 gallons'

Ans: c)

Q231) 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?'

a) '12' b) '17' c)'16' d) '15'

Ans: a)

Q232) 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?

a)'7 hours' **b) '6 hours'** c) '5 hours' d) '4 hours'

Ans: b)

Q233) If 5 persons can do 5 times of a work in 5 days, then 10 persons can do 10 times of that work in:

a)'10 days' b)'8 days' **c) '5 days'** d) '2 days'

Ans: c)

Q234) 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?

a)'5.67 min' b) '6.25 min' c) '5 min'**,** **d)'45/7 min'**

Ans: d)

Q235) 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:

a)'30 min' b) '35 min' **c) '28 min'** d) '42 min'
Ans: c)

Q236) 49 pumps can empty a reservoir in 6½ days, working 8 hours a day. If 196 pumps are used for 5 hours a day, then the same work will be completed in:
a) '2.6 days' b)'3 days' c) '2.5 days' d) '2 days'
Ans: a)

Q237) 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 ?
a)'48' b) '36' c) '30' **d) '16'**
Ans: d)

Q238) 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:
a) 30 days b) '40 days c) '50 days' d) '60 days' e) 'None of these'
Ans: a)

Q239) 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:
a) '21 hours' b) '22 hours c) 23 hours **d) '24 hours'** e) None of these'
Ans: d)

Q240) 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.
a) 99' **b) , '100'** c) 120',
Ans: b)

Q241) 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)
a) 42 **b) 36** c) 90 d) 100
Ans: b)

Q242) Which of the following fractions is less than 7/8 and greater than 1/3 ?
a) 1/4 b) 23/24 c) 11/12 **d) 11/24**
Ans: d)

Q243) 892.7 - 573.07 - 95.007 = ?

a) **224.623** b) 224.777 c) 233.523 d) 414.637
Ans: a)

Q244) Which is the closest approximation to the product 0.3333 x 0.25 x 0.499 x 0.125 x 24 ?
a) **1/8** b) 3/4 c) 3/8 d) 2/5
Ans: a)

Q245) Find the value of X : 0.009/X = 0.01
a) 0.0009 b) 0.09 **c) 0.9** d) 9
Ans: c)

Q246) The least among the following is:
a) 0.2 b) 1/0.2 c) 0.22222222 **d) 0.2^2**
Ans: d)

Q247) In the following expression, there are two missing digits: * and #. Find the value of *. 1*5#4 / 148 = 78
a) **1** b) 4 c) 6 d) 8 e) None of these
Ans: a)

Q248) What is the value of -5)4)2)-1/2)3/4) ?
a) -30 b) -15 **c) 15** d) 30
Ans: c)

Q249) If x * y = $x^2 + y^2$ - xy, then the value of 9 * 11 is:
a) 93 **b) 103** c) 113 d) 121
Ans: b)

Q250) If a = 0.1039, then the value of $4a^2 - 4a + 1^{1/2} + 3a$ is:
a) 0.1039 b) 0.2078 **c) 1.1039** d) 2.1039
Ans: c)

Q169) In a single throw of dice, what is the probability to get a number greater or equal to 4?', 0,
a) 4 b)1/3 **c)2/3** d)1/2 e)None of these'
Ans: c)

Q170) 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?
a) '3.5/12' **b) '7/12'** c)'5/12' d) , 'None of these'
Ans: b)

Q171) 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?'
a) '4/7' b) '8/49' c) '7/8' **d) '15/49'**
Ans: d)

Q172) 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?'
a) '2/3' b) '3/7' c) '2/21' **d) 'None of these'**
Ans: d)

Q173) The probability of having at least one tail in 5 throws of a coin is'
a)'1/32' **b) '31/32'** c) '1/5' d) 'None of these'
Ans: b)

Q174) 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?
a)'5/108' b) '1/6' c) '5/18' **d) '4/9'**
Ans: d)

Q175) A single letter is drawn at random from the word, "ASPIRATION", the probability that it is a vowel is?
a)'1/2' b) '1/3' c) '3/5' d) '2/5'
Ans: a)

Q176) 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:
a) 291/364' b) '371/464' c) '471/502' **d) '459/512**
Ans: d)

Q177) 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:
a) '8/27' b)'1/27' c) '26/27' d) '2/3'
Ans: a)

Q178) 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?
a)'0.3' **b) '0.4'** c) '0.7' d) 'None of these
Ans: b)

Q179) An unbiased coin is tossed 5 times. If tail appears on first four tosses, then probability of tail appearing on the fifth toss is:
a)'1/2' b) '1' c) '0' d) '4/5'
Ans: a)

Q180) 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:
a)'1/3' b) '1/5' c) '1/2' d) '1/10'
Ans: a)

Q181) 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:
a) '55/2048' b) '3/4096' c)'1/1024' d)None of these
Ans: a)

Q182) 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?
a) '9/11' **b)'2/11'** c)'1/11' d) 'None of these
Ans: b)

Q183) Three numbers are chosen from 1 to 30 randomly. The probability that they are not consecutive is:
a)'1/145' **b)'144/145** c) '139/140' d) '1/140'
Ans: b)

Q184) 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?
a) '1' b) '0' c) '1/2' d) 'None of these
Ans: a)

Q185) 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?
a)'1' b) '5/6' **c) '1/6'** d) 'None of these
Ans: c)

Q186) 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?
a) '25' **b) '50'** c) '12' d) 'None of these
Ans:b)

Q187) What is the probability for a day to be Sunday?'
a)'1/7' b) '1/5' c) '52/365' d) 'None of these
Ans: a)

Q188) 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.
a)1/8' b) '1/2' c) '1/3' d) 'None of these
Ans: a)

Q189) 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?
a)'1/2' b) '1/4' c) '1' d) 'None of these'
Ans: a)

Q190) 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?
a)'1/16' b) '3/8' **c) '1/8'** d) 'None of these
Ans: c)

Q191) 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?
a) '0.7' b)'0.1' **c) '0.12'** d) 'Cannot be determined'
Ans: c)

Q192) 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?
a) '0.1' **b) '0'** c) '1' d) 'Cannot be determined'
Ans: b)

Q193) 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?

a)'0.85' b) '0.75' c) '0' d)'Cannot be determined'

Ans: a)