INFOSYS QUANTS PAPER

A batsman scored 110 runs which included 3 boundaries and 8 sixes. What percent of his total score did he make by running between the wickets?

|  |  |
| --- | --- |
| A | 45% |
|  | 45 ( 5/11) % |
| C | 54 ( 6/11) % |
| D | 55% |

**Question 1 Explanation:**

Number of runs made by running = 110 – (3 x 4 + 8 x 6) = 110 – (60) = 50. Required percentage = (50/110)\*100 = 45 ( 5/11) %

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| **Question 2** |

Two students appeared at an examination. One of them secured 9 marks more than the other and his marks were 56% of the sum of their marks. The marks obtained by them are:

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| --- | --- |
| A | 39, 30 |
| B | 41, 32 |
| C | 42, 33 |
| D | 43, 34 |
| **Question 3** | |

A fruit seller had some apples. He sells 40% apples and still has 420 apples. Originally, he had:

|  |  |
| --- | --- |
| A | 588 apples |
| B | 600 apples |
| C | 672 apples |
| D | 700 apples |

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| **Question 4** |

If A = x% of y and B = y% of x, then which of the following is true?

|  |  |
| --- | --- |
| A | A is smaller than B. |
| B | A is greater than B |
| C | Relationship between A and B cannot be determined. |
| D | If x is smaller than y, then A is greater than B. |
| E | None of these |
| **Question 5** | |

If 20% of a = b, then b% of 20 is the same as:

|  |  |
| --- | --- |
| A | 4% of a |
| B | 5% of a |
| C | 20% of a |
| D | None of these |

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| **Question 6** |

In a certain school, 20% of students are below 8 years of age. The number of students above 8 years of age is 2/3 of the number of students of 8 years of age which is 48. What is the total number of students in the school?

|  |  |
| --- | --- |
| A | 72 |
| B | 80 |
| C | 120 |
| D | 150 |
| E | 100 |
| **Question 7** | |

Two numbers A and B are such that the sum of 5% of A and 4% of B is two-third of the sum of 6% of A and 8% of B. Find the ratio of A : B.

|  |  |
| --- | --- |
| A | 2 : 3 |
| B | 1 : 1 |
| C | 3 : 4 |
| D | 4 : 3 |

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| **Question 8** |

How much 60% of 50 is greater than 40% of 30?

|  |  |
| --- | --- |
| A | 18 |
| B | 13 |
| C | 15 |
| D | 20 |
| **Question 9** | |

The tax on a commodity is diminished by 20% and its consumption increased by 15%. The effect on revenue is?

|  |  |
| --- | --- |
| A | It increases by 8% |
| B | It decreases by 8% |
| C | No change in revenue |
| D | It increases by 10% |
| E | None |

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| **Question 10** |

At an examination in which full marks were 500. A got 10% less than B, B got 25% more than C and C got 20% less than D. If A got 360marks, what percentage of full marks was obtained by D?

|  |  |
| --- | --- |
| A | 70% |
| B | 90% |
| C | 80% |

The price of a product is increased by 20%. If the original price is Rs. 300, what is the final price of the product?

|  |  |
| --- | --- |
| A | 350 |
|  | 360 |
|  | 370 |
| D | 375 |

**Question 1 Explanation:**

Final Price = Initial price + Initial price x 20/100 = Initial price x (1+20/100) = Rs.300x(1.2) = Rs.360

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| **Question 2**  **CORRECT** |

Mukul’s income is 10% more than Sunil’s. How much less is Sunil’s income than that of Mukul’s?

|  |  |
| --- | --- |
| A | 8.09 % |
|  | 9.09 % |
| C | 7.09 % |
| D | 7.90 % |

**Question 2 Explanation:**

Sunil’s income is less than Mukul’s = [(10 / (100 + 10)] × 100 % = ( 1000 / 110 )% = 9.09 %

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| **Question 3**  **WRONG** |

The total population of a country is 294000, out of which 150000 are males. Out of every 100 males, 98 can read and write, but only 53% of the total population can do so. Find the percentage of women who can read and write.

|  |  |
| --- | --- |
|  | 6.125 % |
|  | 5.125 % |
| C | 6.000 % |
| D | 4.125 % |

**Question 3 Explanation:**

Number of men who can read and write = 150000 × (98 ÷ 100) =147000 Number of men and women who can read and write =294000 × (53 ÷ 100) =155820 Number of women who can read and write 155820 – 147000 = 8820 Thus, out of 144000 women 8820 can read and write. Required percentage = (8820 × 100) ⁄ 144000 %= 6.125

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| **Question 4**  **CORRECT** |

(0.756 x 3/4) terms of rate percent is equivalent to ?

|  |  |
| --- | --- |
| A | 18.9% |
| B | 37.8% |
|  | 56.7% |
| D | 75% |

**Question 4 Explanation:**

(0.756 x 3/4) = (756/1000) x (3/4) x 100 % = 56.7%

|  |
| --- |
| **Question 5**  **WRONG** |

If 90% of A = 30% of B and B = C% of A,then the value of C is ?

|  |  |
| --- | --- |
| A | 900 |
|  | 800 |
| C | 600 |
|  | 300 |

**Question 5 Explanation:**

90A/100 = 30B/100 = (30/100) x AC/100 ∴ C = 100 x (100/30) x (90/100) = 300

|  |
| --- |
| **Question 6**  **WRONG** |

If 0.5% of A =85 paise, then the value of A is?

|  |  |
| --- | --- |
|  | Rs. 170 |
|  | Rs. 17 |
| C | Rs. 1.70 |
| D | Rs. 4.25 |

**Question 6 Explanation:**

0.5/100 of A = 85/100 ∴ A = Rs. (85 / 0.5) = Rs. 170

|  |
| --- |
| **Question 7**  **WRONG** |

30 quintals are what percent of 2 metric tonnes?

|  |  |
| --- | --- |
| A | 15% |
|  | 1.5% |
|  | 150% |
| D | 30% |

**Question 7 Explanation:**

Required percent = {30/(2 x 10)} x 100 % = 150%

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| **Question 8**  **WRONG** |

A candidate attempted 12 questions and secured full marks in all of them. If he obtained 60% in the test and each question carried equal marks, then what was the total number of questions in the test?

|  |  |
| --- | --- |
| A | 36 |
|  | 30 |
| C | 25 |
|  | 20 |

**Question 8 Explanation:**

Let the number of question be Y. 60% of Y = 12 60Y / 100 =12 Y = 20

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| **Question 9**  **WRONG** |

Rajesh solved 80 percent of the questions in an examination correctly, out of 41 questions solved by Rajesh 37 questions are correct and of the remaining questions out of 8 questions, 5 questions have been solved by Rajesh correctly then find the total number of question asked in the examination?

|  |  |
| --- | --- |
| A | 75 |
|  | 65 |
|  | 60 |
| D | Can’t be determined |

**Question 9 Explanation:**

Suppose there are 8y questions were asked apart from the 41 question.Then 37 + 5y/41 + 8y = 80% = 4/5 ⇒ 185 + 25y = 164 + 32y ⇒ 7y = 21 ⇒ y = 3 ∴ Total no. of questions = 41 + 8 x 3 = 65.

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| **Question 10**  **WRONG** |

The difference between 78% of a number and 59% of the same number is 323. What is 62% of that number?

|  |  |
| --- | --- |
|  | 1054 |
|  | 1178 |
| C | 1037 |
| D | 1159 |
| E | None of the above |

**Question 10 Explanation:**

Let the number be N. According to the question, (78 – 59)% of N = 323 ⇒ (19 x N)/100 = 323 ∴ N = (323 x 100)/19 = 1700 ∴ 62% of 1700 = (62/100) x 1700 = 1054

**Data Interpretation H**

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| **Question 1**  **WRONG** |

If twenty sweets are distributed among some boys and girls such that each girl gets two sweets and each boy gets three sweets, what is the number of boys and girls? A. The number of girls is not more than five. B. If each girl gets 3 sweets and each boy gets 2 sweets, the number of sweets required for the children will still be the same.

|  |  |
| --- | --- |
|  | Statement 1 alone is sufficient, but Statement 2 alone is not sufficient to answer the question |
|  | Statement 2 alone is sufficient, but Statement 1 alone is not sufficient to answer the question |
| C | Both statements taken together are sufficient to answer the question, but neither statement alone is sufficient |
| D | Each statement alone is sufficient |
| E | Statements 1 and 2 together are not sufficient, and additional data is needed to answer the question |

**Question 1 Explanation:**

Given 2G + 3B = 20. Now if we use statement (A) that number of girls is not more than 5, then we have G = 1, B = 6 OR G = 4, B = 4. Since we cannot get a single solution from this statement it is not sufficient to answer the question. If we use statement (B) 3B + 2G = 20 we have G = 4 and B = 4. Hence, statement (B) alone is sufficient to answer the question.

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| **Question 2**  **WRONG** |

Dream teams are formed by television viewers by selecting five players from the sixteen players namely F1,F2,F3,F4,F5,F6,F7,F8,F9,F10,F11,F12,F13,F14,F15 and F16.The players belong to exactly one of the three teams namely Chesla,Liverpool and United.Every Dream Team must have two players each from Chesla and Liverpool and one player from united.Following information is provided a)F12 is not from United b)F7 is from Chesla. c)F2 and F9 are from liverpool. d)the ‘match fee’ of each player belonging to chesla ,liverpool, and united is Euro 800.Euro775 and euro 725 match played respectively. 8 such dearm teams were formed are mentioned below… Team1=F3,F9,F7,F1,F12 Team2=F12,F11,F13,F6,F9 Team3=F6,F3,F5,F11,F7 Team4=F2,F10,F7,F6,F1 Team5=F1,F4,F16,F11,F10 Team6=F6,F3,F7,F15,F12 Team7=F2,F9,F12,F14,F15 Team8=F4,F8,F13,F11,F10 Q1) In dream team 6 name the united player?

|  |  |
| --- | --- |
| A | F3 |
| B | F6 |
|  | F12 |
|  | F15 |
| **Question 3**  **WRONG** | |

Dream teams are formed by television viewers by selecting five players from the sixteen players namely F1,F2,F3,F4,F5,F6,F7,F8,F9,F10,F11,F12,F13,F14,F15 and F16.The players belong to exactly one of the three teams namely Chesla,Liverpool and United.Every Dream Team must have two players each from Chesla and Liverpool and one player from united.Following information is provided a)F12 is not from United b)F7 is from Chesla. c)F2 and F9 are from liverpool. d)the ‘match fee’ of each player belonging to chesla ,liverpool, and united is Euro 800.Euro775 and euro 725 match played respectively. 8 such dearm teams were formed are mentioned below… Team1=F3,F9,F7,F1,F12 Team2=F12,F11,F13,F6,F9 Team3=F6,F3,F5,F11,F7 Team4=F2,F10,F7,F6,F1 Team5=F1,F4,F16,F11,F10 Team6=F6,F3,F7,F15,F12 Team7=F2,F9,F12,F14,F15 Team8=F4,F8,F13,F11,F10   Q2) How many players belong to Chesla from the given sixteen players?

|  |  |
| --- | --- |
| A | 4 |
|  | 5 |
|  | 6 |
| D | 7 |

|  |
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| **Question 4**  **CORRECT** |

Dream teams are formed by television viewers by selecting five players from the sixteen players namely F1,F2,F3,F4,F5,F6,F7,F8,F9,F10,F11,F12,F13,F14,F15 and F16.The players belong to exactly one of the three teams namely Chesla, Liverpool and United.Every Dream Team must have two players each from Chesla and Liverpool and one player from United.The following information is provided a)F12 is not from United b)F7 is from Chesla. c)F2 and F9 are from liverpool. d)the ‘match fee’ of each player belonging to chesla ,liverpool, and united is Euro 800.Euro775 and euro 725 match played respectively. 8 such dream teams were formed are mentioned below… Team1=F3,F9,F7,F1,F12 Team2=F12,F11,F13,F6,F9 Team3=F6,F3,F5,F11,F7 Team4=F2,F10,F7,F6,F1 Team5=F1,F4,F16,F11,F10 Team6=F6,F3,F7,F15,F12 Team7=F2,F9,F12,F14,F15 Team8=F4,F8,F13,F11,F10 Q3) In team 8 who are from liverpool?

|  |  |
| --- | --- |
|  | F4,F8 |
| B | F10,F11 |
| C | F11,F13 |
| D | F4,F11 |
| **Question 5**  **WRONG** | |

Dream teams are formed by television viewers by selecting five players from the sixteen players namely F1,F2,F3,F4,F5,F6,F7,F8,F9,F10,F11,F12,F13,F14,F15 and F16.The players belong to exactly one of the three teams namely Chesla,Liverpool and United.Every Dream Team must have two players each from Chesla and Liverpool and one player from united.Following information is provided a)F12 is not from United b)F7 is from Chesla. c)F2 and F9 are from liverpool. d)the ‘match fee’ of each player belonging to chesla ,liverpool, and united is Euro 800.Euro775 and euro 725 match played respectively. 8 such dearm teams were formed are mentioned below… Team1=F3,F9,F7,F1,F12 Team2=F12,F11,F13,F6,F9 Team3=F6,F3,F5,F11,F7 Team4=F2,F10,F7,F6,F1 Team5=F1,F4,F16,F11,F10 Team6=F6,F3,F7,F15,F12 Team7=F2,F9,F12,F14,F15 Team8=F4,F8,F13,F11,F10   Q4) What is the total fees per match (in Euros) for the team?

|  |  |
| --- | --- |
| A | 3800 |
|  | 3825 |
|  | 3875 |
| D | None of these |

**Question 5 Explanation:**

2\*(800+775)+725=3875

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| --- |
| **Question 6**  **WRONG** |

Dream teams are formed by television viewers by selecting five players from the sixteen players namely F1,F2,F3,F4,F5,F6,F7,F8,F9,F10,F11,F12,F13,F14,F15 and F16.The players belong to exactly one of the three teams namely Chesla,Liverpool and United.Every Dream Team must have two players each from Chesla and Liverpool and one player from united.Following information is provided a)F12 is not from United b)F7 is from Chesla. c)F2 and F9 are from liverpool. d)the ‘match fee’ of each player belonging to chesla ,liverpool, and united is Euro 800.Euro775 and euro 725 match played respectively. 8 such dearm teams were formed are mentioned below… Team1=F3,F9,F7,F1,F12 Team2=F12,F11,F13,F6,F9 Team3=F6,F3,F5,F11,F7 Team4=F2,F10,F7,F6,F1 Team5=F1,F4,F16,F11,F10 Team6=F6,F3,F7,F15,F12 Team7=F2,F9,F12,F14,F15 Team8=F4,F8,F13,F11,F10   Q5) Which of the following combinations have only Liverpool players?

|  |  |
| --- | --- |
| A | F13,F3 |
|  | F3,F16 |
|  | F16,F14 |
| D | F14,F2 |
| **Question 7**  **WRONG** | |

ABCD are four points in a plane such that ABD and DBC form two triangles.Area of ABD is 10 units and area of ADC is 20 units.What is the ratio of lengths(AD/DC)? i)points ADC are collinear ii)DB is 5 units long and is perpendicular to AC.

|  |  |
| --- | --- |
|  | The question can be answered by using one of the statements alone, but can not be answered by using other statements alone. |
| B | The questions can be answered by using either statement alone |
|  | The question can be answered by using both statements together, but can not be answered using either statement alone. |
| D | The question cannot be answered even by using both statements together. |

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| **Question 8**  **CORRECT** |

What was the percentage profit in selling a liter of milk? i)5-liter milk was sold at cost price after adding 20% of water. ii)Milk was purchased at RS.16 per liter.

|  |  |
| --- | --- |
|  | The question can be answered by using one of the statements alone, but can not be answered by using other statements alone. |
| B | The questions can be answered by using either statement alone. |
| C | The question can be answered by using both statements together, but can not be answered using either statement alone. |
| D | The question cannot be answered even by using both statements together |
| **Question 9**  **WRONG** | |

Sukhbir is taller than Randhir but not as tall as Ajit. If Manoj is taller than Nitin, who is shorter than Ajit, then who among them is the shortest?

|  |  |
| --- | --- |
| A | Nitin |
|  | Sukhbir |
| C | Manoj |
|  | Data inadequate |

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| --- |
| **Question 10**  **WRONG** |

How many liters of 20% alcohol should be mixed with 60 % alcohol to get 32% alcohol (1) We get 70 liters of 32% alcohol (2) We used 21 lit of 60% alcohol, to prepare 32%

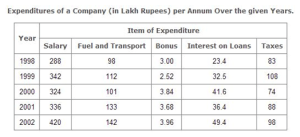
|  |  |
| --- | --- |
| A | The question can be answered by using one of the statements alone, but cannot be answered by using the other statements alone |
|  | The question can be answered by using either statement alone |
|  | The question can be answered by using both statements together, but cannot be answered by using either statement alone |
| D | The question cannot be answered even by using both the statements together |

**Question 10 Explanation:**

20 60 32 28 12 so the mixture will be in 28:12 ratio => 7:3 ratio (1) if we have 70 liters of 32% alcohol that means we have 70\*(7/(7+3)) liter = 49 liter of 20% alcohol (2) if we have 21 liter of 60% alcohol that means 3x = 21(from the ratio) => x = 7 so we have 7 \* 7(from ratio) liter of 20% of alcohol so both statement alone is sufficient

**nfosys Data Interpretation Quiz**

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| **Question 1**  **WRONG** |

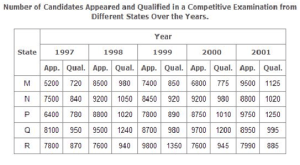
**Paragraph:** Study the following table and answer the questions based on it   The ratio between the total expenditure on Taxes for all the years and the total expenditure on Fuel and Transport for all the years respectively is approximate?

|  |  |
| --- | --- |
|  | 4:7 |
|  | 10:13 |
| C | 15:18 |
| D | 5:8 |

**Question 1 Explanation:**

Explanation: Required ratio = [ (83 + 108 + 74 + 88 + 98)/(98 + 112 + 101 + 133 + 142) ] = [ 451/586] = 1/1.3 = 10/13

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| **Question 2**  **CORRECT** |

**Paragraph:** Study the following table and answer the questions. The total number of candidates qualified from all the states together in 1997 is approximate what percentage of the total number of candidates qualified from all the states together in 1998?

|  |  |
| --- | --- |
| A | 72% |
| B | 77% |
|  | 80% |
| D | 83% |

**Question 2 Explanation:**

Explanation: Required percentage = [ (720 + 840 + 780 + 950 + 870)/(980 + 1050 + 1020 + 1240 + 940) x 100 ]% = [ 4160/5230 x 100 ] % = 79.54% ~= 80%.

|  |
| --- |
| **Question 3**  **CORRECT** |

In which of the given years the number of candidates appeared from State P has the maximum percentage of qualified candidates?

|  |  |
| --- | --- |
| A | 1997 |
| B | 1998 |
| C | 1999 |
|  | 2001 |

**Question 3 Explanation:**

The percentages of candidates qualified to candidates appeared from State P during different years are: For 1997 (780 /6400 x 100 ) % = 12.19%. For 1998 (1020 /8800 x 100 ) % = 11.59%. For 1999 (890 /7800 x 100 ) % = 11.41%. For 2000 (1010 /8750 x 100 ) % = 11.54%. For 2001 (1250 /9750 x 100 ) % = 12.82%. Therefore Maximum percentage is for the year 2001.

|  |
| --- |
| **Question 4**  **WRONG** |

What is the percentage of candidates qualified from State N for all the years together, over the candidates appeared from State N during all the years together?

|  |  |
| --- | --- |
| A | 0.1239 |
|  | 0.1216 |
| C | 0.1147 |
|  | 0.1115 |

**Question 4 Explanation:**

Required percentage = [ (840 + 1050 + 920 + 980 + 1020)/(7500 + 9200 + 8450 + 9200 + 8800) x 100 ] % = [ 4810 /43150 x 100 ] % = 11.15%

|  |
| --- |
| **Question 5**  **WRONG** |

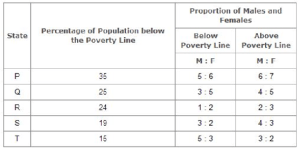
The percentage of the total number of qualified candidates to the total number of appeared candidates among all the five states in 1999 is?

|  |  |
| --- | --- |
| A | 0.1149 |
|  | 0.1184 |
| C | 0.1221 |
|  | 0.1257 |

**Question 5 Explanation:**

Required percentage = [ (850 + 920 + 890 + 980 + 1350)/(7400 + 8450 + 7800 + 8700 + 9800)x 100 ] % = [ 4990/42150 x 100 ] % = 11.84%.

|  |
| --- |
| **Question 6**  **CORRECT** |

Paragraph: The following table gives the percentage distribution of the population of five states, P, Q, R, S and T on the basis of the poverty line and also on the basis of sex.If the male population above the poverty line for State R is 1.9 million, then the total population of State R is?

|  |  |
| --- | --- |
| A | 4.5 Million |
| B | 4.85 Million |
| C | 5.35 Million |
|  | 6.25 Million |

**Question 6 Explanation:**

Let the total population of State R be x million. Then, population of State R above poverty line = [(100 – 24)% of x] million = ( 76/100) million And so, male population of State R above poverty line = [ 2/5x ( 76/100) ] million But, it is given that male population of State R above poverty line = 1.9 million. Thus, 2/5 x (76/100) = 1.9 => x= (5 x 100 x 1.9)/(76 x 2) = 6.25. Therefore Total population of State R = 6.25 million.

|  |
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| **Question 7**  **CORRECT** |

What will be the number of females above the poverty line in the State S if it is known that the population of State S is 7 million?

|  |  |
| --- | --- |
| A | 3 Million |
|  | 2.43 Million |
| C | 1.33 Million |
| D | 5.7 Million |

**Question 7 Explanation:**

Total population of State S = 7 million. Therefore Population above poverty line = [(100 – 19)% of 7] million = (81% of 7) million = 5.67 million. And so, the number of females above poverty line in State S = ( 3/7x 5.67 ) million = 2.43 million.

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| **Question 8**  **WRONG** |

What will be the male population above the poverty line for State P if the female population below the poverty line for State P is 2.1 million?

|  |  |
| --- | --- |
| A | 2.1 Million |
| B | 2.3 Million |
|  | 2.7 million |
|  | 3.3 million |

**Question 8 Explanation:**

Female population below poverty line for State P = 2.1 million Let the male population below poverty line for State P be x million. Then, 5 : 6 = x : 21 => x = (2.1 x 5)/6 = 1.75. Therefore Population below poverty line for State P = (2.1 + 1.75) million = 3.85 million. Let the population above poverty line for State P by y million. Since, 35% of the total population of State P is below poverty line, therefore, 65% of the total population of State P is above poverty line i.e., the ratio of population below poverty line to that above poverty line for State P is 35 : 65. Therefore 35 : 65 = 3.85 : y => y = 65 x 3.85 /35= 7.15. Therefore Population above poverty line for State P = 7.15 million and so, male population above poverty line for State P = ( 6/13 x 7.15 ) million = 3.3 million.

|  |
| --- |
| **Question 9**  **WRONG** |

If the population of males below the poverty line for State Q is 2.4 million and that for State T is 6 million, then the total populations of States Q and T are in the ratio?

|  |  |
| --- | --- |
| A | 1:3 |
|  | 2:5 |
| C | 3:7 |
|  | 4:9 |

**Question 9 Explanation:**

For State Q: Male population below poverty line = 2.4 million. Let the female population below poverty line be x million. Then, 3 : 5 = 2.4 : x => x = 5 x 2.4/3= 4. Therefore Total population below poverty line = (2.4 + 4) = 6.4 million. If Nq be the total population of State Q, then, 25% of Nq = 6.4 million => Nq = ( 6.4 x 100/25 ) million = 25.6 million. For State T: Male population below poverty line = 6 million. Let the female population below poverty line be y million. Then, 5 : 3 = 6 : y => y = 3 x 6/5 = 3.6. Therefore Total population below poverty line = (6 + 3.6) = 9.6 million. If Nt be the total population of State T, then, 15% of Nt = 9.6 million => Nt = ( 9.6/15x 100 ) million = 64 million. Thus, Required ratio = Nq/Nt = 25.6/64 = 0.4 = 2/5.

**Permutation and Combination I**

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| --- |
| **Question 1**  **WRONG** |

6 members have to be selected from different field.10 from java,5 from Microsoft,8 from Oracle,2 from IBM.What is the possible combination?

|  |  |
| --- | --- |
| A | 5 |
| B | 120 |
|  | 12880 |
| D | 25 |
|  | 168000 |

**Question 1 Explanation:**

10C1\*5C1\*8C1\*2C1\*21C2=168000 IN EVERY FIELD ONE MEMBER IS SELECTED AND IN REMAINING 21 WE SELECT 2 MEMN=BER.

|  |
| --- |
| **Question 2**  **WRONG** |

99! how many zero’s?

|  |  |
| --- | --- |
|  | 19 |
| B | 31 |
| C | 14 |
|  | 22 |

**Question 2 Explanation:**

no. of zero’s means check what are the total no. of factors of 2 and 5 when no. is divided by both….consider lowest no. of factors i.e. 99/2=49,,,,49/2=24,,,,24/2=12,,,,12/2=6,,,,6/2=3,,,3/2=1…..therefore total no. of factors of 2=49+24+12+6+3+1=95 now 99/5=19,,,19/5=3…..therefore total no. of factors =19+3=22 now take lowest one….so 22 no. of zero’s in 99!

|  |
| --- |
| **Question 3**  **CORRECT** |

In how many different ways can 5 girls and 5 boys form a circle such that the boys and the girls alternate?

|  |  |
| --- | --- |
|  | 2880 |
| B | 1400 |
| C | 1200 |
| D | 32 |

**Question 3 Explanation:**

five girls can be seated in circle in (5-1)! ways=4!=24 remaining boys can be placed in 5! ways=120 total ways =120\*24=2880

|  |
| --- |
| **Question 4**  **CORRECT** |

  If a die has 1 6 and 3 4 and 2 5 opposite each other how many such dies can be made

|  |  |
| --- | --- |
|  | 12 |
| B | 24 |
| C | 18 |
| D | 36 |

**Question 4 Explanation:**

ans 12 if one face have 1,3,2, then the crossponding face will be occupied by respective pair i.e (6,4,5). so there r 3 place and we have 3 place soit can be arranged in 3! way i.e 6 way and every pair will be suffled in 2 way so ans will be6\*2=12.

|  |
| --- |
| **Question 5**  **CORRECT** |

7 members have to be selected from 12 men and 3 women, Such that no two women can come together. In how many ways we can select them?

|  |  |
| --- | --- |
|  | 12c6\*3c1 + 12c7 |
| B | 12c7 |
| C | 12c6\*3c1 |
| D | None |

**Question 5 Explanation:**

since no two women can come together,therfore women can be selected in 3c1 ways …and men will be chosen in 12c6 so to complete the 7 group members… =12c6\*3c1 and only selection of men also possible = 12c7 so final ans : 12c6\*3c1 + 12c7

|  |
| --- |
| **Question 6**  **WRONG** |

In how ways were team of four can be formed from four boys and three girls such that at least one boy and one girl should be there?

|  |  |
| --- | --- |
|  | 120 |
| B | 64 |
| C | 20 |
|  | 34 |

**Question 6 Explanation:**

34 ways One boy and one girl can be selected as (one boy & three girls) or (two boys & two girls) or (three boys & one girl)=(4C1\*3C3)+(4C2\*3C2)+(4C3\*3C1)=4+18+12=34

|  |
| --- |
| **Question 7**  **WRONG** |

Find the number of different meals of 4 items that you can get from the given menu of 6 items and no need to choose different items.

|  |  |
| --- | --- |
| A | a) 120 |
| B | b) 126 |
|  | c) 5040 |
|  | d) 15 |

**Question 7 Explanation:**

total item : 6 we can select : 4 thus -> 6C4 which = 6C2 :: 6\*5/ 2\*1 = 15

|  |
| --- |
| **Question 8**  **CORRECT** |

In how many ways can 4 men and 3 women can arrange with a condition that each men should not sit together and they must be in the order of their age.

|  |  |
| --- | --- |
| A | a) 210 |
| B | b) 5040 |
| C | c) 120 |
| D | d) none of these |
|  | Answer either None of these or 210(a) |

**Question 8 Explanation:**

d)none of these 4 men can take 4 position which can be done in 4! and women can be sit in 3! ways so 4!\*3! or Given that the total number of people = 7 First we select 4 positions for the men to occupy. These positions could be chosen in 7C4 ways = 7!/4!(7-4)! = (1 x 2 x … x 7)/(1 x 2 x 3 x 4)(1 x 2 x 3) = (5 x 6 x 7)/(1 x 2 x 3) = 35 ways. This leaves 3 positions for the women, and the women can be rearranged amongst themselves in 3! ways = 6 ways. The men, of course, can be in only one order amongst themselves, so the overall number of ways they could line up is given by 35 x 6 = 210 ways. Hence, the answer is 210

|  |
| --- |
| **Question 9**  **WRONG** |

  We need to carve out 125 identical cubes from a cube . what is the minimum number of cuts needed?

|  |  |
| --- | --- |
| A | 16 |
| B | 25 |
|  | 5 |
|  | 12 |

**Question 9 Explanation:**

as Cube has 3 dimensions i.e L,B,H now 1 cut on any side divide cube into 2 parts similarly 4 cuts on any side ( say on L) will divide it in 5 Parts Hence 4 cuts on B will make ( 5\*5 =25 parts ) and 4 cuts on H ( 5\*5\*5 = 125 ) Therefore 4+4+4 =12 cuts required

|  |
| --- |
| **Question 10**  **CORRECT** |

  We need to carve out 125 identical cubes from a cube . what is the minimum number of cuts needed?

|  |  |
| --- | --- |
| A | 16 |
| B | 25 |
| C | 5 |
|  | 12 |

**Question 10 Explanation:**

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|  |
| --- |
| **Question 11**  **CORRECT** |

In a cycle race there are 5 persons named as J, K, L, M, N participated for 5 positions so that in how many number of ways can M make always before N?

|  |  |
| --- | --- |
| A | 24 |
| B | 120 |
|  | 60 |
| D | 720 |

There are 6 boxes numbered 1, 2,…6. Each box is to be filled up either with a red or a green ball in such a way that at least 1 box contains a green ball and the boxes containing green balls are consecutively numbered. The total number of ways in which this can be done is

|  |  |
| --- | --- |
| A | 5 |
|  | 21 |
| C | 33 |
| D | 60 |
| **Question 2**  **CORRECT** | |

In how many ways can 7 different balls be distributed in 5 different boxes if any box can contain any number of balls and no box is left empty?

|  |  |
| --- | --- |
|  | 16800 |
| B | 12400 |
| C | 22000 |
| D | 19700 |

|  |
| --- |
| **Question 3**  **WRONG** |

In how many ways can 7 different balls be distributed in 5 different boxes if box 3 and box 5 can contain only one and two number of balls respectively and rest of the boxes can contain any number of balls?

|  |  |
| --- | --- |
| A | 10100 |
| B | 6200 |
|  | 8505 |
|  | 12800 |

**Question 3 Explanation:**

One ball for box 3 can be selected in 7C1 ways. Two balls for box 5 can be selected in 6C2 ways. Remaining balls = 4 Remaining boxes = 3 In these 4 balls, 1st ball can be put in any of these 3 boxes. Similarly 2nd ball can be put in any of these 3 boxes. 3rd ball can be put in any of these 3 boxes. 4th ball can be put in any of these 3 boxes. i.e., these 4 balls can be arranged in 3 × 3 × 3 × 3 = 3 4 3×3×3×3=34 ways Required number of ways = 7C1 × 6C2 × 3 4 ×34 = 7 × 15 × 81 = 8505

|  |
| --- |
| **Question 4**  **CORRECT** |

Five balls need to be placed in three boxes. Each box can hold all the five balls. In how many ways can the balls be placed in the boxes so that no box remains empty If all balls and boxes are identical but the boxes are placed in a row?

|  |  |
| --- | --- |
| A | 2 |
| B | 4 |
|  | 6 |
| D | 1 |

**Question 4 Explanation:**

Here, the balls and boxes are identical. But the boxes are placed in a row. Hence, we need to consider the boxes as distinct. Therefore, this should be treated as a problem where balls are identical and boxes are distinct. Now it can be solved in any of the following ways.

|  |
| --- |
| **Question 5**  **CORRECT** |

In how many ways can 10 software engineers and 10 civil engineers be seated around a round table so that they are positioned alternatively?

|  |  |
| --- | --- |
|  | 9! × 10! |
| B | 10! × 10! |
| C | 2 × (10!)^2 |
| D | 2 × 9! × 10! |
| **Question 6**  **WRONG** | |

A box contains 20 balls. In how many ways can 8 balls be selected if each ball can be repeated any number of times?

|  |  |
| --- | --- |
|  | 20C7 |
| B | None of these |
| C | 20C8 |
|  | 27C8 |

**Question 6 Explanation:**

Number of combinations of n distinct objects taking r at a time when each object may be repeated any number of times = (n+r-1)Cr

|  |
| --- |
| **Question 7**  **WRONG** |

In a chess competition involving some men and women, every player needs to play exactly one game with every other player. It was found that in 45 games, both the players were women and in 190 games, both players were men. What is the number of games in which one person was a man and other person was a woman?

|  |  |
| --- | --- |
| A | 40 |
|  | 200 |
|  | 180 |
| D | 120 |
| **Question 8**  **CORRECT** | |

There are 12 intermediate stations between two places A and B. Find the number of ways in which a train can be made to stop at 4 of these intermediate stations so that no two stopping stations are consecutive?

|  |  |
| --- | --- |
| A | 108 |
| B | 112 |
|  | 126 |
| D | 140 |

**Question 8 Explanation:**

Initially, let’s remove the 4 stopping stations. Then we are left with 8 non-stopping stations (=12-4) as shown below. Explanation to Problem on Permutations and Combinations (non-stopping stations are marked as 1,2 … 8) Now there are 9 positions (as marked by \* in the above figure) to place the 4 stopping stations such that no two stopping stations are consecutive. This can be done in 9C4 ways. Hence, required number of ways = 9C4

|  |
| --- |
| **Question 9**  **CORRECT** |

There are 6 boxes numbered 1,2,…,6. Each box needs to be filled up either with a red or a blue ball in such a way that at least 1 box contains a blue ball and the boxes containing blue balls are consecutively numbered. The total number of ways in which this can be done is

|  |  |
| --- | --- |
| A | 24 |
| B | 23 |
|  | 21 |
| D | 18 |

**Question 9 Explanation:**

Case 1: Exactly one box contains a blue ball One blue ball can be placed into any of the 6 boxes. i.e, 6 ways of doing this. Red balls can be filled in the remaining boxes. Since red balls are identical, there is only 1 way of doing this. Total number of ways = 6 × 1 = 6 =6×1=6 Case 2: Exactly two boxes contain blue balls Two blue balls can be placed into (box 1 and box 2) or (box 2 and box 3) or (box 3 and box 4) or (box 4 and box 5) or (box 5 and box 6). i.e, 5 ways of doing this. Red balls can be filled in the remaining boxes. Since red balls are identical, there is only 1 way of doing this. Total number of ways = 5 × 1 = 5 =5×1=5 Case 3: Exactly three boxes contain blue balls Three blue balls can be placed into (box 1 , box 2 and box 3) or (box 2, box 3 and box 4) or (box 3 , box 4 and box 5) or (box 4, box 5 and box 6). i.e, 4 ways of doing this. Red balls can be filled in the remaining boxes. Since red balls are identical, there is only 1 way of doing this. Total number of ways = 4 × 1 = 4 =4×1=4 Case 4: Exactly four boxes contain blue balls Four blue balls can be placed into (box 1 , box 2, box 3 and box 4) or (box 2, box 3, box 4 and box 5) or (box 3 , box 4, box 5 and box 6). i.e, 3 ways of doing this. Red balls can be filled in the remaining boxes. Since red balls are identical, there is only 1 way of doing this. Total number of ways = 3 × 1 = 3 =3×1=3 Case 5: Exactly five boxes contain blue balls Five blue balls can be placed into (box 1, box 2, box 3, box 4 and box 5) or (box 2, box 3, box 4, box 5 and box 6). i.e, 2 ways of doing this. Red balls can be filled in the remaining boxes. Since red balls are identical, there is only 1 way of doing this. Total number of ways = 2 × 1 = 2 =2×1=2 Case 6: All the six boxes contain blue balls Six blue balls can be placed into (box 1 , box 2, box 3, box 4, box 5 and box 6). i.e, only 1 way of doing this. Total number of ways = 1 Hence, required number of ways = 6 + 5 + 4 + 3 + 2 + 1 = 21

|  |
| --- |
| **Question 10**  **CORRECT** |

There are three places P, Q and R such that 3 roads connect P and Q and 4 roads connects Q and R. In how many ways can one travel from P to R?

|  |  |
| --- | --- |
| A | 8 |
| B | 101 |
|  | 12 |
| D | 14 |

Two dice are thrown simultaneously. What is the probability that the sum of the numbers shown on the two dices will be a prime number?

|  |  |
| --- | --- |
| A | 17/36 |
| B | ½ |
|  | 15/36 |
| D | 7/18 |

**Question 1 Explanation:**

number of sample solution=36 number of possible outcomes=(1,1),(1,2),(1,4),(1,6),(2,1),(2,3),(2,5),(3,2)(3,4)(4,1)(4,3)(5,2)(5,6)(6,1)(6,5)=15 p=15/36

|  |
| --- |
| **Question 2**  **CORRECT** |

There are 4 baskets. The first basket has 3 apples and 4 oranges, the second one has 4 apples and 5 mangoes, the third one has 6 Mangoes and 2 bananas and the last one has 7 bananas and 2 apples. If a fruit is randomly chosen from any basket and it comes out to be an apple, then what is the probability that it was taken out from the second basket?

|  |  |
| --- | --- |
| A | 18/69 |
| B | 28/41 |
| C | 45/69 |
|  | 28/69 |

**Question 2 Explanation:**

P(A|1)=3/7 P(A|2)=4/9 P(A|3)=0/8 P(A|4)=2/9 Hence event 1,2,3,4 are the partitions of the sample space. The probability of choosing an apple, by the law of total probability P(A)=P(A|1)P(1)+P(A|2)P(2)+P(A|3)P(3)+P(A|4)P(4) =3/7\*1/4+4/9\*1/4+0/8\*1/4+2/9\*1/4 =23/84 By Baye’s theorem, P(2|A)=P(A|2)\*P(2)/P(A) =4/9\*(1/4)/(23/84) =28/69

|  |
| --- |
| **Question 3**  **WRONG** |

3 persons are standing at the middle of edges of a Triangle.All the 3 persons starts moving at same time with same speed in random direction What is the probability of meeting at least 2 persons?

|  |  |
| --- | --- |
|  | 2/3 |
| B | 1 |
| C | ¼ |
|  | ¾ |

**Question 3 Explanation:**

answer will be 3/4 as total no. of cases of possible moves=8 from this in 2 case their will not be collision(all anti clock or all clock wise) so,p=(8-2)/8=3/4 No. of events will be 8. This is because the person can move either inside or outside the triangle. And the no. of favorable events will be 6. This is because we want at least 2 person to meet and we have total 3 person, so 2×3 = 6 Probability = 6/8 = 3/4 Ans= 3/4

|  |
| --- |
| **Question 4**  **CORRECT** |

There is a school were 60% are girls and 35% of the girls are poor. Students are selected at random, what is the probability of selecting a poor girl out of total strength?

|  |  |
| --- | --- |
| A | 14/39 |
| B | 35/100 |
|  | 21/100 |
| D | 22/45 |

**Question 4 Explanation:**

Let take 100 students outoff 100 60 are girls among girls poor girls are =35% 0f 60=21 pbt of selecting poor girl in total strength=21/100

|  |
| --- |
| **Question 5**  **WRONG** |

  What is the probability of drawn an ace or a space or both from a dew of cards.

|  |  |
| --- | --- |
|  | 13/52 |
| B | 26/52 |
|  | 16/52 |
| D | 16/50 |

**Question 5 Explanation:**

There are 13 spades in a standard deck of cards. There are four aces in a standard deck of cards. One of the aces is a spade. So, 13 + 4 – 1 = 16 spades or aces to choose from. Since we have a total of 52 cards, the probability of selecting an ace or a spade is 16 / 52.

|  |
| --- |
| **Question 6**  **WRONG** |

You are given three coins: one has heads on both faces, the second has tails on both faces, and the third has a head on one face and a tail on the other. You choose a coin at random and toss it, and it comes up heads. The probability that the other face is tails is

|  |  |
| --- | --- |
| A | (A) ¼ |
|  | (B) 1/3 |
| C | (C) ½ |
|  | (D) 2/3 |

**Question 6 Explanation:**

ans = 1/3 becoz ther is only one chance to get tail on other side of coin,amnog three coins,according to the question

|  |
| --- |
| **Question 7**  **CORRECT** |

In a horse racing competition, there were 18 numbered 1 to 18.The organizers assigned a probability of winning the race to each horse based on horses health and training the probability that horse one would win is 1/7, that 2 would win is 1/8, and that 3 would win is 1/7.Assuming that tie is impossible. Find the chance that one of these three will win the race?

|  |  |
| --- | --- |
| A | 22/392 |
| B | 1/392 |
|  | 23/56 |
| D | 391/392 |

**Question 7 Explanation:**

CORRECT ANSWER IS 23/56 HORSE 1: 1/7 WINNING PROBABILITY HORSE 2: 1/8 WINNING PROBABILITY HORSE 3: 1/7 WINNING PROBABILITY ONE OF THESE WIN THE RACE: => 1/7 + 1/8 + 1/7 => 8/56 +7/56 + 8/56 (TAKING LCM) => 23/56

|  |
| --- |
| **Question 8**  **CORRECT** |

There are 1000 junior and 800 senior students in a class. And there are 60 sibling pairs where each pair has 1 junior and 1 senior.1 student is chosen from senior and 1 from junior randomly.What is the probability that the two selected students are from a sibling pair?

|  |  |
| --- | --- |
|  | 7140/800000 |
| B | 8450/800000 |
| C | 7455/800000 |
| D | 8230/800000 |

**Question 8 Explanation:**

Junior student = 1000 Senior student = 800 60 sibling pair = 2 x 60 = 120 student Probability that 1 student chosen from senior = 800 Probability that 1 student chosen from junior = 1000 Therefore,1 student chosen from senior and 1 student chosen from junior n(s) = 800 x 1000 = 800000 Two selected student are from a sibling pair n(E) = 120C2 = 7140 Therefore P(E) = n(E)/n(S) = 7140⁄800000

|  |
| --- |
| **Question 9**  **WRONG** |

There were two candidates in an election. Winner candidate received 62% of votes and won the election by 288 votes. Find the number of votes cast to the winning candidate?

|  |  |
| --- | --- |
| A | 456 |
|  | 744 |
|  | 912 |
| D | 1200 |

**Question 9 Explanation:**

W = 62% L = 38% 62% – 38% = 24% 24% ——– 288 62% ——– ? => 744

|  |
| --- |
| **Question 10**  **WRONG** |

A candidate who gets 30% of the marks fails by 50 marks. But another candidate who gets 45% marks gets 25 marks more than necessary for passing. Find the number of marks for passing?

|  |  |
| --- | --- |
| A | 150 |
|  | 200 |
|  | 250 |
| D | 275 |

**Question 10 Explanation:**

30% ———— 50 45% ———— 25 ———————- 15% ————- 75 30% ————– ? 150 + 50 = 200 Marks

**Infosys Probability Question**

|  |
| --- |
| **Question 1**  **CORRECT** |

A man X selects a random number from 1 to 1000 and another man Y selects a random number from 1 to 1000. What is the probability of Y getting a number equal to what X has selected?

|  |  |
| --- | --- |
|  | 1/1000 |
| B | 2/1000 |
| C | 1/2000 |
| D | 2/2000 |

**Question 1 Explanation:**

If X select 1 then the probability of X selecting 1 = 1/1000. Now,Y has only one possibly to select a number which is equal to 1. Then, the probability of Y selecting a random number which is equal to 1 = 1/1000. Therefore, the probability of X selecting 1 and then Y selecting 1 = P1 = 1/1000 x 1/1000 Similarly, the probability of X selecting 2 and then Y selecting 2 = P2 = 1/1000 x 1/1000 And the probability of X selecting 3 and then Y selecting 3 = P3 = 1/1000 x 1/1000 proceeding like this we have, The probability of X selecting 999 and then Y selecting 999 = P999 = 1/1000 x 1/1000 The probability of X selecting 1000 and then Y selecting 1000 = P1000 = 1/1000 x 1/1000 Totally, the required probability is, = P1 + P2 + ….. P1000 = {1/1000 x 1/1000 + 1/1000 x 1/1000 + 1/1000 x 1/1000 +….. +1/1000 x 1/1000} In the above equation, the term “1/1000 x 1/1000” occurs thousands times. Therefore, it can be rewritten as 1000 x (1/1000 x 1/1000) = 1/1000 Hence the required answer is 1/1000.

|  |
| --- |
| **Question 2**  **WRONG** |

From a railway station, trains leave for every 15 minutes and 25 minutes to city A and city B respectively. The first train to city A and city B start at 9 am and 10.15 am respectively. If a man arrives at the station in between 11.25 am and 12.25 pm then the probability of getting train for city A is:

|  |  |
| --- | --- |
|  | ¼ |
|  | 4/7 |
| C | 3/5 |
| D | 2/5 |

**Question 2 Explanation:**

The man wants to go to city A and he arrives station in between 11.25 am and 12.25 pm. First train to city A is at 9 am and there is a train for every 15 minutes. Trains for city A will leave at the following times : 9 am, 9.15 am, 9.30 am,…,11.30 am, 11.45 am, 12 pm, 12.15pm, and so on. Number of trains for city A between 11.25 am and 12.25 pm is 4. First train to city B is at 10.15 am and there is a train for every 25 minutes. Trains for city B will leave at the following times: 10.15 am, 10.40 am, 11.05 am, 11.30 am, 11.55 am, 12.20 pm, and so on. Number of trains for city B between 11.25 am and 12.25 pm is 3. Probability of getting train for city A between 11.25 am and 12.25 pm = Number trains for city A from 11.25 am to 12.25 pm / Total number of trains for city A and B from 11.25 am to 12.25 pm = 4/7.

|  |
| --- |
| **Question 3**  **CORRECT** |

A man X selects a random number from 1 to 1000 and another man Y selects a random number from 1 to 1000. Then what is the probability of Y getting a number unequal to what X has selected?

|  |  |
| --- | --- |
| A | 1 |
| B | 0 |
|  | 999/1000 |
| D | 1/1000 |

**Question 3 Explanation:**

If X selects 1 then the probability of X selecting 1 = 1/1000. Now,Y has 999 possibilities to select a number which is unequal to 1. Then, the probability of Y selecting a random number which is unequal to 1 = 999/1000. Therefore, the probability of X selecting 1 and Y selecting a number unequal to 1 = P1 = 1/1000 x 999/1000 If X selects the number 2 then the probability of X selecting 2 = 1/1000. Now,Y has 999 possibilities to select a number which is unequal to 2. (This is because, Y can select all numbers from 1 to 1000 except the number 2) Then, the probability of Y selecting a random number which is unequal to 2 = 999/1000 Therefore, the probability of X selecting 2 and Y selecting unequal to 2 = P2 = 1/1000 x 999/1000 Similarly, the probability of X selecting 3 and Y selecting unequal to 3 = P3 = 1/1000 x 999/1000 proceeding like this, The probability of X selecting 997 and Y selecting unequal to 997 = P997 = 1/1000 x 999/1000 The probability of X selecting 998 and Y selecting unequal to 998 = P998 = 1/1000 x 999 /1000 The probability of X selecting 999 and Y selecting unequal to 999 = P999 = 1/1000 x 999 /1000 And the probability of X selecting 1000 and Y selecting unequal to 1000 = P1000 = 1/1000 x 999/1000 Totally, the required probability is, = P1 + P2 + ……………… + P1000 = {1/1000 x 999/1000 + 1/1000 x 999/1000 + 1/1000 x 999/1000 +….. +1/1000 x 999/1000} (1000 times) = 1000x(1/1000 x 999/1000) = 999/1000 Hence the answer is 999/1000.

|  |
| --- |
| **Question 4**  **WRONG** |

A man has to go to both Pune and Mumbai. He decides to go by whichever first train he encounters. The first train towards Pune is at 8:00 am and the frequency of Pune trains is 10 minutes. The first train towards Mumbai is at 8:10 am and the frequency of Mumbai trains is 15 minutes. Assume that the man arrives at the railway station at a particular time between 8 and 9 am. What should be his exact arrival time at the station that will leave him really confused on whether to go Pune or Mumbai?

|  |  |
| --- | --- |
|  | 9.00am |
| B | 9.10am |
|  | 8.40am |
| D | 8.25am |

**Question 4 Explanation:**

The man plans to go by first train he encounters. Hence at times when only one of the trains leave, he will never get confused. But if his arrival time is greeted by both the trains (one to Pune and one to Mumbai) starting simultaneously the man will surely be confused. First train to Pune is at 8 am and the frequency is 10 minutes. Therefore Pune trains will leave at the following times : 8 am, 8.10am, 8.20am, 8.30am, 8.40am, 8.50am and so on. First train to Mumbai is at 8.10 am and the frequency is 15 minutes. Therefore Pune trains will leave at the following times : 8.10 am, 8.25am, 8.40am, 8.55am, 9.10am and so on. At 8.40am both the trains will leave simultaneously. This is the time at which the fellow can really be confused.

|  |
| --- |
| **Question 5**  **CORRECT** |

From a railway junction RJ, trains leave from platforms P and Q for every 20 minutes and 30 minutes respectively. Assume all the trains travel at constant speed. The service from platform P starts at 6.00am and the service from platform Q at 6.05 am. Assume that you are waiting at a nearby station. Any train from RJ would require 5 minutes to reach your station. Now, what is the probability that you will be able to board a train from P in between 6 and 6.30 am?

|  |  |
| --- | --- |
|  | 2/3 |
| B | 1/3 |
| C | 1 |
| D | ¼ |

**Question 5 Explanation:**

From Platform P The first train will leave by 6 am and reach your station in 5 minutes, i.e. at 6.05 am Second train will leave after 20 minutes i.e at 6 am and reach your station at 6.25 am From Platform Q The first train will leave by 6.05 am and reach your station at 6.10 am. Second train will leave after 30 minutes i.e at 6.35 am and reach your station at 6.40 am. Inference. Between 6 and 6.30 am, first and second trains from P and first train from Q will reach your station. In other words, you will be able to board 2 trains from P and 1 train from Q. Therefore, probability that you will board a train from P = Trains from P between 6 and 6.30 / Total Trains from P and Q between 6 and 6.30 = 2/3

|  |
| --- |
| **Question 6**  **WRONG** |

There are N coins on a table. There are two players A&B. You can take 1or 2 coins at a time. The person who takes the last coin is the loser. An always starts first. A can win by proper play if N is equal to

|  |  |
| --- | --- |
| A | 13 |
|  | 37 |
| C | 22 |
| D | 34 |
|  | 48 |
| **Question 7**  **CORRECT** | |

There are 6 boxes numbered 1, 2, … 6. Each box is to be filled up either with a red or a green ball in such a way that at least 1 box contains a green ball and the boxes containing green balls are consecutively numbered. The total number of ways in which this can be done is:

|  |  |
| --- | --- |
| A | 5 |
|  | 21 |
| C | 33 |
| D | 60 |
| E | 6 |

**Question 7 Explanation:**

The required number of ways to achieve the stated condition is 21.

|  |
| --- |
| **Question 8**  **WRONG** |

Bag x contains 3 red and 5 black balls and bag y contains 4 red and 4 black balls. One bag is selected at random and from the selected bag one ball is drawn. What is the probability that the ball drawn is red?

|  |  |
| --- | --- |
| A | 7/8 |
|  | 7/16 |
| C | 3/16 |
|  | 4/5 |
| E | 9/16 |

**Areas, Shapes, Perimeter**

|  |
| --- |
| **Question 1**  **CORRECT** |

A rabbit is tied to one end of an equilateral triangle of side 5 m with a rope length of 8 m.The rabbit is not allowed to travel inside the triangle then find the maximum area covered by the rabbit?

|  |  |
| --- | --- |
| A | (96/9)\*pi |
|  | (480/9)\*pi |
| C | (240/9)\*pi |
| D | 190 m^2 |

**Question 1 Explanation:**

Area covered by rabbit = Area of circle(radius 8m) – Area of Triangle(side 5m) = pie\*8\*8 – (sqrt(3)/4)\*5\*5 = 201.06 – 10.82 = 190.24 m^2

|  |
| --- |
| **Question 2**  **CORRECT** |

  No triangles formed in a polygon having 15 sides is?

|  |  |
| --- | --- |
| A | 400 |
| B | 355 |
| C | 353 |
|  | 455 |

**Question 2 Explanation:**

total no. of points=15 no. of points needed to form a triangle=3 thus total no of traingles formed=15C 3=455.

|  |
| --- |
| **Question 3**  **CORRECT** |

A GOLF BALL HAS DIAMETER EQUAL TO 4.1CM. ITS SURFACE HAS 150 DIMPLES EACH OF RADIUS 2MM (0.2 CM).CALCULATE TOTAL SURFACE AREA WHICH IS EXPOSED TO SURROUNDINGS ASSUMING THAT THE DIMPLES ARE HEMISPHERICAL.

|  |  |
| --- | --- |
| A | 51.62 cm2 |
| B | 77.62 cm2 |
|  | 71.62 cm2 |
| D | 45.62 cm2 |

**Question 3 Explanation:**

he total surface area of the golf ball without considering the dimples is 4\*3.14\*sqrt(4.1/2). Due to 150 pits on the surface a there will be a reduction in surface area of ball which will be equal to opening area of the dimples which is 150\*3.04\*sqrt(0.2). again due to formation of the pits there will be an increase in surface area due to hemispherical concave surface of the pits which will be 150\*2\*3.14\*sqrt(0.2) .So, the total surface area will be 4\*3.4\*sqrt(4.1)-150\*3.14\*sqrt(.2)+150\*2\*3.14\*sqrt(.2)=71.62cm2

|  |
| --- |
| **Question 4**  **CORRECT** |

If a goat is tied to a pole at Point A with a rope 12 m long such that it can not enter a triangle ABC with AB=AC=10 m and angle A = 30 deg. How much area can it graze?

|  |  |
| --- | --- |
| A | (i) less than 132 pi |
|  | (ii) more than 132 pi |
| C | (iii) equal to 132 pi |
| D | (iv) none |

**Question 4 Explanation:**

Since the length of the rope is longer than the sides of the triangle it will eat a bit more at the edges than (330/360)\*144pi. Hence more than 132pi.

|  |
| --- |
| **Question 5**  **CORRECT** |

The right angled triangle PQR is to be constructed in the xy-plane, so that the right angle is at P and PR is parallel to the x-axis. The x and y coordinates of P,Q and R are to be integers that satisfy the inequality −4≤x≤5 & 6≤y≤16. How many different triangles with these properties could be constructed?

|  |  |
| --- | --- |
| A | A. 1,100 |
| B | B. 12,100 |
| C | C. 10,000 |
|  | D. 9,900 |

**Question 5 Explanation:**

We have the rectangle with dimensions 10\*11 (10 horizontal dots and 11 vertical). PQ is parallel to y-axis and PR is parallel to x-axis. Choose the (x,y) coordinates for vertex P (right angle): 10C1\*11C1; Choose the x coordinate for vertex R (as y coordinate is fixed by A): 9C1, (10-1=9 as 1 horizontal dot is already occupied by A); Choose the y coordinate for vertex Q (as x coordinate is fixed by A): 10C1, (11-1=10 as 1 vertical dot is already occupied by A). 10C1\*11C1\*9C1\*10C1=9900. Answer: C

|  |
| --- |
| **Question 6**  **CORRECT** |

If PQRST is a parallelogram what it the ratio of triangle PQS & parallelogram PQRST

|  |  |
| --- | --- |
|  | 1:2 |
| B | 2:1 |
| C | 1:3 |
| D | 3:1 |

**Question 6 Explanation:**

1:2 as traingle resides half of parallelogram

|  |
| --- |
| **Question 7**  **CORRECT** |

The length of a rectangular plot is 20 metres more than its breadth. If the cost of fencing the plot @ 26.50 per metre is Rs. 5300, what is the length of the plot in metres?

|  |  |
| --- | --- |
| A | 40 |
| B | 50 |
| C | 120 |
| D | Data inadequate |
|  | None of these |

**Question 7 Explanation:**

Let breadth = x metres. Then, length = (x + 20) metres. Perimeter = 5300 m = 200 m. 26.50 2[(x + 20) + x] = 200 2x + 20 = 100 2x = 80 x = 40. Hence, length = x + 20 = 60 m.

|  |
| --- |
| **Question 8**  **WRONG** |

A rectangular field is to be fenced on three sides leaving a side of 20 feet uncovered. If the area of the field is 680 sq. feet, how many feet of fencing will be required?

|  |  |
| --- | --- |
| A | 34 |
|  | 40 |
| C | 68 |
|  | 88 |

**Question 8 Explanation:**

We have: l = 20 ft and lb = 680 sq. ft. So, b = 34 ft. Length of fencing = (l + 2b) = (20 + 68) ft = 88 ft.

|  |
| --- |
| **Question 9** |

A tank is 25 m long, 12 m wide and 6 m deep. The cost of plastering its walls and bottom at 75 paise per sq. m, is:

|  |  |
| --- | --- |
| A | Rs. 456 |
| B | Rs. 458 |
| C | Rs. 558 |
| D | Rs. 568 |
| **Question 10**  **WRONG** | |

A rectangular park 60 m long and 40 m wide has two concrete crossroads running in the middle of the park and rest of the park has been used as a lawn. If the area of the lawn is 2109 sq. m, then what is the width of the road?

|  |  |
| --- | --- |
| A | 2.91 m |
|  | 3 m |
|  | 5.82 m |
| D | None of these |

**Question 10 Explanation:**

Area of the park = (60 x 40) m2 = 2400 m2. Area of the lawn = 2109 m2. Area of the crossroads = (2400 – 2109) m2 = 291 m2. Let the width of the road be x metres. Then, 60x + 40x – x2 = 291 x2 – 100x + 291 = 0 (x – 97)(x – 3) = 0 x = 3.

An error 2% in excess is made while measuring the side of a square. The percentage of error in the calculated area of the square is:

|  |  |
| --- | --- |
|  | 1.04 |
| B | 2.04 |
| C | 3.04 |
|  | 4.04 |

**Question 1 Explanation:**

100 cm is read as 102 cm. A1 = (100\*100)Sq.cm A2 = (102\*102)Sq.cm (A2 – A1) = 1022−10021022-1002 = (102 + 100) x (102 – 100) = 404 sq.cm.

|  |
| --- |
| **Question 2**  **WRONG** |

If the length of a certain rectangle is decreased by 4 cm and the width is increased by 3 cm, a square with the same area as the original rectangle would result. Find the perimeter of the original rectangle?

|  |  |
| --- | --- |
|  | 20 |
| B | 30 |
| C | 40 |
|  | 50 |

**Question 2 Explanation:**

Let x and y be the length and breadth of the rectangle respectively. Then, x – 4 = y + 3 or x – y = 7 —-(i) Area of the rectangle =xy; Area of the square = (x – 4) (y + 3) (x – 4) (y + 3) =xy <=> 3x – 4y = 12 —-(ii) Solving (i) and (ii), we get x = 16 and y = 9. Perimeter of the rectangle = 2 (x + y) = [2 (16 + 9)] cm = 50 cm

|  |
| --- |
| **Question 3**  **WRONG** |

The length of a rectangle is twice its breadth. If its length is decreased by 5 cm and breadth is increased by 5 cm, the area of the rectangle is increased by 75 sq. cm. Find the length of the rectangle.

|  |  |
| --- | --- |
| A | 10 cm |
|  | 15 cm |
|  | 20 cm |
| D | 18 cm |

**Question 3 Explanation:**

Let breadth = x. Then, length = 2x. Then, (2x – 5) (x + 5) – 2x \* x = 75 => 5x – 25 = 75 => x = 20. Length of the rectangle = 20 cm.

|  |
| --- |
| **Question 4**  **WRONG** |

The sector of a circle has the radius of 21 cm and central angle 135o. Find its perimeter?

|  |  |
| --- | --- |
|  | 91.5 cm |
| B | 93.5 cm |
| C | 94.5 cm |
|  | 92.5 cm |
| E | None of these |

**Question 4 Explanation:**

Perimeter of the sector = length of the arc + 2(radius) = (135/360 \* 2 \* 22/7 \* 21) + 2(21) = 49.5 + 42 = 91.5 cm

|  |
| --- |
| **Question 5**  **CORRECT** |

A plot has a concrete path within its borders on all sides having the uniform width of 4m. The plot is rectangular with sides 20m and 15m. The charge of removing concrete is Rs. 6 per sq.m. How much is spent in removing all the concrete?

|  |  |
| --- | --- |
| A | Rs. 1548 |
|  | Rs. 1296 |
| C | Rs. 1500 |
| D | Rs. 1083 |

|  |
| --- |
| **Question 6**  **CORRECT** |

A tree breaks and falls to the ground such that its upper part is still partially attached to its stem. At what height did it break, if the original height of the tree was 24 cm and it makes an angle of 30° with the ground?

|  |  |
| --- | --- |
| A | 12 cm |
|  | 8 cm |
| C | 9.5 cm |
| D | 7.5 cm |

|  |
| --- |
| **Question 7**  **WRONG** |

A room is 8 meters long and 4 meters wide. How many paving stones each measuring 2.5dm by 2dm are required to pave its floor?

|  |  |
| --- | --- |
| A | 700 |
|  | 720 |
|  | 640 |
| D | 810 |

|  |
| --- |
| **Question 8**  **WRONG** |

The barrel of a fountain pen is cylindrical in shape which radius of the base as 0.7 cm and is 5 cm long. One such barrel in the pen can be used to write 300 words. A barrel full of ink which has a capacity of 14 cu cm can be used to write how many words approximately?

|  |  |
| --- | --- |
|  | 598 |
| B | 656 |
| C | 508 |
|  | 545 |
| E | 687 |

**Question 8 Explanation:**

Volume of the barrel of pen = πr2h = 22/7 \* 0.7\*0.7 \* 5 = 7.7 cu cm A barrel which has capacity 7.7 cu cm can write 300 words So which has capacity 14 cu cm can write = 300/7.7 \* 14 = 545 words

|  |
| --- |
| **Question 9**  **WRONG** |

A vessel is in the form of a hemispherical bowl on which is mounted a hollow cylinder. The diameter of the sphere is 14 cm and the total height of vessel is 15 cm, find the capacity of the vessel.

|  |  |
| --- | --- |
| A | 1977.23 cm3 |
|  | 1999.45 cm3 |
| C | 1840.67 cm3 |
|  | 1950.67 cm3 |
| E | 1833.27 cm3 |

**Question 9 Explanation:**

Diameter is 14, so radius is 7 cm Total height = 15 cm, so height of cylinder = 15-7 = 8 cm (because height of hemisphere is same as its radius) Capacity of vessel = volume of cylinder + vol of hemisphere So = πr2h + 2/3 \*πr3 = 22/7 \* 7 \* 7 \* 8 + 2/3 \* 22/7 \* 7 \* 7 \* 7 = 1232 + 718.67 = 1950.67 cu cm

|  |
| --- |
| **Question 10**  **CORRECT** |

The diameters of the internal and external surfaces of a hollow spherical shell are 10cm and 6 cm respectively. If it is melted and recasted into a solid cylinder of length 8/3 cm, find the diameter of the cylinder.

|  |  |
| --- | --- |
|  | 28√2 cm |
| B | 14√2 cm |
| C | 26√2 cm |
| D | 18√2 cm |
| E | 22√2 cm |

**Question 10 Explanation:**

External diameter of a sphere = 10 cm Internal diameter of the sphere = 6 cm Volume of the sphere = 4/3 π (R3 – r3) = (4/3) (22/7) (103 – 63) = (4/3) (22/7) (784) = 9856 / 3 cm3 Height of the cylinder formed = 8/3 cm Let the radius of the cylinder be ‘r’ cm Volume of the cylinder = πr2h = 22/7 \* r2 \* 8/3 = 22/7 \* r2 \* 8/3 = 9856 / 3 r2 = 392 r = 14√2 cm So Diameter of the cylinder = 2 x 14√2 =28√2 cm

## Speed Time and Distance / Boats and Streams I

|  |
| --- |
| **Question 1**  **CORRECT** |

One gear pulley rotates at a speed of 3 rev/sec another gear roates at 5 rev/sec. if both start together after how many seconds will they be together again?

|  |  |
| --- | --- |
| A | 3 sec |
| B | 20 sec |
|  | 15 sec |
| D | 5 sec |

**Question 1 Explanation:**

3 rotates 3,6,9,12,15 5 rotates 5,10,15 because ans is 15

|  |
| --- |
| **Question 2**  **WRONG** |

An express A starts at 2.30 pm from nampali station and travels towards vizag station at speed of 80 kmph. Another expressstarts at 4.30 pmfrom nampali station to vizag station at speed of 100 kmph. How far awayfrom station Nampali will the two trains meet?

|  |  |
| --- | --- |
| A | A.600 km |
|  | B.700 km |
| C | C.750 km |
|  | D. 800 km |

**Question 2 Explanation:**

Let train A take x hours to reach the point of meeting(let it be P) Then train B will reach the same point in x-2 hours. Distance covered to reach P by train A in x hours=Distance covered by B to reach P in x-2 hrs. 80\*x=100(x-2) 80x=100x-200 x=10 hrs. Distance from Nampali=x\*speed of train A =10\*80 =800 km

|  |
| --- |
| **Question 3**  **WRONG** |

A journey of 600 km, Due to some problem in Vehicle speed was reduced to 200 kmph and it takes 30min extra, Find the Actual time taken for Journey?

|  |  |
| --- | --- |
|  | 1 hour |
| B | 1 hour 10 mins |
|  | 2 hour 40 mins |
| D | 45 mins |

**Question 3 Explanation:**

Here the Distance is constant. So, let the actual time is x. Then, 600/x-600/(x+(1/2))=200 After we solve this we will get 1hr. So, the actual time taken for the journey is 1hr.

|  |
| --- |
| **Question 4**  **CORRECT** |

Two men start from opposite banks of a river . They meet 340 meters away from one of the banks on forward journey. After that they meet at 170 meters from the other bank of the river on their backward journey. What will be the width of the river (in meters)?

|  |  |
| --- | --- |
| A | 1.3kms |
| B | 400 m |
| C | 1 km |
|  | 850 m |

**Question 4 Explanation:**

Let the two opposite ends of the river be X and Y and the distance between them be D meters.(i.e., width = D meters) Let P and Q be the two men starting from the opposite banks(i.e., from X and Y respectively). Let the speed of P and Q be A and B m/hr . I meet : During I meet, P travels 340m from X while Q travels (D – 340)m from Y. Therefore, Time taken for P to travel 340m = Time taken for Q to travel (D – 340) Or 340 / A = (D – 340) / B Or 340 / (D – 340) = A / B …(1) II meet : After crossing spot I, both of them proceed in their respective directions, reach banks and return back to cross each other at Spot II which is 170m from Y. From Spot I to Spot II, P would had travelled a distance of (D – 340) + 170 m From Spot I to Spot II, Q would had travelled a distance of 340 + (D – 170) m Time taken by P to travel from Spot I to Spot II will be the same as that of Q from Spot I to Spot II Therefore, A / (D – 340) + 170 = B / 340 + (D – 170) Or (D – 340) + 170 / 340 + (D – 170) = A / B …(2) From equations I and II, we get, 340 / (D – 340) = (D – 340) + 170 / 340 + (D – 170) 340 / (D – 340) = D – 170 / D + 170 By Cross- Multiplying, 340 (D + 170) = (D – 170) (D – 340) 340D + 57800 = D2 – 170D – 340D + 57800 D2 – 850D = 0 By Factorizing, D(D – 850) = 0 D = 850 Hence the width of the river = 850 m

|  |
| --- |
| **Question 5**  **CORRECT** |

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

|  |  |
| --- | --- |
|  | 75km |
| B | 50km |
| C | 60km |
| D | 85km |

**Question 5 Explanation:**

Let x be the time reached with the speed 60km/h 50km/h —-> x+15 Distance is equal so 60(km/h)× xhr = 50(km/h) × (x+15) hr So 60 x = 50x + 750 So the would be in km And x = 75 So 75km

|  |
| --- |
| **Question 6**  **CORRECT** |

A girl goes to her office for work which is 50 miles. She goes to her office few distance by bicycle and remaining by train. The speed of bicycle is 15 mph and that of train is twice of the bicycle. If she spend 20 min. more on bicycle, then total time taken by her from going to office from her home?

|  |  |
| --- | --- |
| A | 1 hr 30 min |
|  | 2 hr 30 min |
| C | 2 hr 20 min |
| D | 2 hr 50 min |

**Question 6 Explanation:**

Let time travelled in train is x min then in cycle (x+20) min. (30/60)x + (15/60)(x + 20) = 50 or x = 60 Total time taken 60 + (60 + 20) = 2 hr 20 min

|  |
| --- |
| **Question 7**  **WRONG** |

A motorboat, whose speed in 15 km/hr in still water goes 30 km downstream and comes back in a total of 4 hours 30 minutes. The speed of the stream (in km/hr) is

|  |  |
| --- | --- |
|  | 2 km/hr |
| B | 3 km/hr |
| C | 4 km/hr |
|  | 5 km/hr |
| **Question 8**  **WRONG** | |

If Rahul rows 15 km upstream in 3 hours and 21 km downstream in 3 hours, then the speed of the stream is

|  |  |
| --- | --- |
| A | 5 km/hr |
|  | 4 km/hr |
| C | 2 km/hr |
|  | 1 km/hr |

**Question 8 Explanation:**

Rate upstream = (15/3) kmph Rate downstream (21/3) kmph = 7 kmph. Speed of stream (1/2)(7 – 5)kmph = 1 kmph

|  |
| --- |
| **Question 9**  **CORRECT** |

A man rows 750 m in 675 seconds against the stream and returns in 7 and half minutes. His rowing speed in still water is

|  |  |
| --- | --- |
| A | 4 kmph |
|  | 5 kmph |
| C | 6 kmph |
| D | 7 kmph |
| **Question 10**  **CORRECT** | |

A boat can travel with a speed of 16 km/hr in still water. If the rate of the stream is 5 km/hr, then find the time taken by the boat to cover the distance of 84 km downstream.

|  |  |
| --- | --- |
|  | 4 hours |
| B | 5 hours |
| C | 6 hours |
| D | 7 hours |

**Question 10 Explanation:**

It is very important to check, if the boat speed given is in still water or with water or against water. Because if we neglect it we will not reach on right answer. I just mentioned here because mostly mistakes in this chapter are of this kind only. Lets see the question now. Speed downstream = (16 + 5) = 21 kmph Time = distance/speed = 84/21 = 4 hours

|  |
| --- |
| **Question 11**  **CORRECT** |

### A TRAIN LEAVES MEERUT AT 5 A.M. AND REACHES DELHI AT 9 A.M. ANOTHER TRAIN LEAVES DELHI AT 7 A.M. AND REACHES MEERUT AT 10.30 A.M. AT WHAT TIME DO THE TWO TRAINS TRAVEL IN ORDER TO CROSS EACH OTHER ?

|  |  |
| --- | --- |
| A | 08:30 |
| B | 07:25 |
|  | 07:56 |
| D | None |

**Question 11 Explanation:**

First train takes 4 hours and the second train takes 3.5 hours. Time ratio is 8:7. Therefore, the speed ratio will be 7:8. Let the speeds be 7x and 8x, and distance be 28x ( 4×7 or 3.5×8). At 7 AM, the first train must have covered a distance of 14x. Therefore, at 7 A.M. the distance between the two trains is 28x-14x=14x. Time taken to meet = 14x/(7x+8x)=14/15 hour or 56 minutes. Hence, the two trains meet at 7.56 AM.

**Speed Time & Distance Questions**

|  |
| --- |
| **Question 1**  **CORRECT** |

Ram covers a part of the journey at 20 kmph and the balance at 70 kmph taking the total of 8 hours to cover the distance of 400 km. How many hours has been driving at 20 kmph?

|  |  |
| --- | --- |
| A | 2 hours |
| B | 3 hours 20 minutes |
| C | 2 hours 40 minutes |
|  | 3 hours 12 minutes |
| **Question 2**  **CORRECT** | |

A train starts from A towards B with some velocity. Due to an engine problem, after travelling 3/8 of its journey, it slows to 3/5 of its actual velocity. The train reaches B 1 hour later than the actual planned time. If the engine had failed after travelling 80km and if it would have slowed down to 4/5th of its initial velocity for another 80km and covered remaining distance with 1/2 of its initial velocity, the train would have reached the destination one and half hours late. What is the distance between A and B in meters?

|  |  |
| --- | --- |
| A | 10000 |
|  | 48000 |
| C | 24000 |
| D | 52000 |

**Question 2 Explanation:**

Let the distance between A and B be X and the speed initially be V. The train travels 3X/8km with speed V and the remaining distance(X – 3X/8)km with speed 3/5 of V. Ultimately the train was late by 1 hour. According to the above condition with the formula ” distance/speed = time”, we can have [(3X/8)/V]+[(X-(3X/8))/(3V/5)] = [X/V]+1 [3X/8V] + 5(8X-3X)/24V = [X/V]+1 9X+25X-24X / 24V = 1 10X-24V = 0 ……….eqn1 According to the question, if the train travelled 80km with speed V, another 80km with 4/5 th of V and the remaining distance(X-160)km with speed 1/2 of V then [80/V]+[80/(4V/5)]+[(X-160)/(1V/2)] = [X/V]+3/2 80/V + 100/V + (2X-360)/V = X/V + 3/2 X-180 / V = 3/2 2X-3V = 360 ………eqn2 solving eqn1 and eqn2 we have, X=480 and V=200 Thus the distance between A and B is 480km and the speed of the train is 200km/hour. Hence 480km = 480000meters is the answer.

|  |
| --- |
| **Question 3**  **WRONG** |

A bus P leaves from City 1 to City 2 and at the same time bus Q leaves from City 2 to City 1. They meet 720 km away from City 1 and after reaching their destinations, both drivers halt for 2 hours. After that they start back and meet 400 km away from City 2 on their return journey. Find the ratio between the speeds of the two buses.

|  |  |
| --- | --- |
|  | 7:11 |
| B | 7:19 |
| C | 8:17 |
|  | 9:13 |

**Question 3 Explanation:**

Let the distance between two cities d km. Let the speed of the bus P be a km/hr. Then the time taken by p to reach city2 from city1 = d/a Let the speed of the bus Q be b km/hr. Then the time taken by Q to reach city1 from city2 = d/b Given that, they met at 720 km away from city1. Then P reaches 720km of d from city1 while Q reach d -720 km of d from city2. Therefore, the time taken by P to reach 720km = 720/a And the time taken by Q to reach d -720 km = (d-720)/b since they start at the same time then we have, 720/a = (d – 720)/b 720b = (d – 720)a a/b = 720 / (d – 720) ……(1) Also given that they met 400 km away from city2 on their return journey with halting 2 hours. Then time taken by P to reach 400 km from city2 on its return journey = 400/a And the total time taken by p to reach that 400km with halting 2 hours = time taken to reach city2 from city1 + 2 hours + time taken to reach 400km from city2. = d/a + 2 + 400/a Similarly, the total time taken by Q to reach d-400 km with halting 2 hours = time taken to reach city1 from city2 + 2 hours + time taken to reach d-30 km from city1. = d/b + 2 + (d – 400) / b Then we would have, d/a + 2 + 400/a = d/b + 2 + (d-400)/b (d+400) / a = (2d – 400) / b a/b = (d + 400) / (2d – 400)….(2) From (1) and (2) 720 / (d – 720) = (d + 400)/(2d – 400) (2d – 400)720 = (d + 400)(d – 720) d^2 – 720d + 400d – 288000 = 1440d – 288000 d^2 – 320d = 1440d d^2 – 1760d = 0 d(d-1760) = 0 Either d = 0 or d=1760 Therefore the distance between city1 and city2 = 1760 km Now from (1), a/b = 720 / (d – 720) = 720 / 1760-720 = 720 / 1040 = 9/13 Hence the required ratio is 9:13.

|  |
| --- |
| **Question 4**  **CORRECT** |

Three customers want haircut and a shave. In a saloon, two barbers operate at same speed. They take quarter of an hour for the haircut and 5 mins for the shave. How quickly can they finish the haircut and shave of these three customers?

|  |  |
| --- | --- |
| A | 10 minutes |
|  | 30 minutes |
| C | 15 minutes |
| D | 35 minutes |

**Question 4 Explanation:**

3 PERSONS REQUIRE 3 HAIRCUTS + 3 SHAVES The two barbers finish the hair cut of 2 people in 15 minutes Then one barber starts the hair cut of 3rd person, while the first barber focuses on the shave of the 3 persons one by one. In the end they will be working together on the 3rd person cutting hair and shaving at the same time. This will take another 15 mins. So in total 15 + 15 = 30 minutes, they will be done.

|  |
| --- |
| **Question 5**  **WRONG** |

I travel the first part of my journey at 40 kmph and the second part at 60 kmph and cover the total distance of 240 km to my destination in 5 hours. How long did the first part of my journey last?

|  |  |
| --- | --- |
| A | 4 hours |
|  | 2 hours |
|  | 3 hours |
| D | 2 hours 24 minutes |
| **Question 6**  **WRONG** | |

Find the speed of the stream when a boat takes 5 hours to travel 60 kms downstream at a rate of 10 kms per hour in still water?

|  |  |
| --- | --- |
|  | 2 kmph |
| B | 3 kmph |
|  | 4 kmph |
| D | 5 kmph |

**Question 6 Explanation:**

Speed b + s = 60/5 = 12 km ph Speed b = 10 km ph So speed is = 12-10 = 2 km ph

|  |
| --- |
| **Question 7**  **CORRECT** |

A man can row a certain distance downstream in 2 hours while he takes 3 hours to come back. If the speed of the stream be 6 km/hr then the speed of the man in still water is:

|  |  |
| --- | --- |
| A | 15km/hr |
|  | 30km/hr |
| C | 25km/hr |
| D | 29km/hr |

**Question 7 Explanation:**

Let the speed of the man in still water be X km/hr. Given that, speed of the stream = 6 km/hr. Therefore, speed in downstream = (X+6) km/hr (by using formula 2) And, speed in upstream = (X-6) km/hr Distance covered in downstream in 2 hours = (X+6)2 km Distance covered in upstream in 3 hours = (X-6)3 km Therefore, (X+6)2 = (X-6)3 2X+12 = 3X-18 X = 30km/hr.

|  |
| --- |
| **Question 8**  **WRONG** |

A boat takes 7 hours to cover 24 km distance and comes back. And, it can cover 2 km with the stream in the same time as 1.5 km against the stream. The speed of the stream is:

|  |  |
| --- | --- |
|  | 1 km/hr |
|  | 2 km/hr |
| C | 3 km/hr |
| D | 4 km/hr |

**Question 8 Explanation:**

Let the boat takes X hours to cover 2 km in downstream. Then, speed in downstream = (2/X) km/hr and, speed in upstream = (1.5/X)km/hr Given that, the boat takes 7 hours to cover 24 km distance and comes back. That is, 24/(2/X) + 24/(1.5/X) = 7 24X/2 + 48X/3 = 7 168X/6 = 7 X = 42/168 = 1/4 So, speed in downstream = 2/X = 2 /(1/4) = 8 km/hr Speed in upstream = 1.5/X = 1.5 /(1/4) = 6 km/hr. Speed of the stream = (8-6)/2 km/hr (by using the formula 3) = 1 km/hr.

|  |
| --- |
| **Question 9**  **WRONG** |

A man can take the same time to row 13 km downstream and 7 km upstream. His speed in still water 5 km/hr. The speed of the stream is:

|  |  |
| --- | --- |
| A | 5/2 km/hr |
|  | 3/2 km/hr |
|  | 7/2 km/hr |
| D | 2 km/hr |

**Question 9 Explanation:**

Given that, the speed in still water = 5 km/hr Let the speed of the stream be X km/hr. Then speed in downstream = (5+X) km/hr And, speed in upstream = (5-X) km/hr The time taken to cover 13 km downstream = 13/(5+X) The time taken to cover 7 km upstream = 7/(5-X) Therefore, 13/(5+X) = 7/(5-X) 13(5-X) = 7(5-X) 65 – 13X = 35+7X 30 = 20X X = 30/20 = 3/2 Hence the required answer is 3/2 km/hr.

|  |
| --- |
| **Question 10**  **WRONG** |

There are two bus stands, namely X and Y. Buses leave from X for every 30 minutes and its first bus starts at 8.05 am. Every hour number of buses leaving from Y increases by 1 and its first bus starts at 7 am. From Y there is only 1 bus for the 1st hour. Any bus from either of the bus stations takes 15 minutes to reach a nearby bus stop. Suppose a person reaches the stop in between 12.15 pm and 1.15 pm. The probability that the person will get a bus from Y is:

|  |  |
| --- | --- |
|  | 3/4 |
|  | 1/3 |
| C | 1 |
| D | 1/4 |

**Question 10 Explanation:**

From bus stand X : The first bus will leave by 8.05 am and reach the bus stop in 15 minutes, i.e. at 8.20 am Second bus will leave after 30 minutes i.e. at 8.35 am and will reach the stop at 8.50 am Therefore, buses will reach the stop at the following times: 8.20am, 8.50am, 9.20 am,…,12.20 pm, 12.50 pm, 1.20 pm and so on. Between 12.15 pm and 1.15 pm, two buses will reach the stop at 12.20 pm and 1.20 pm. Therefore, the person will get 2 buses from X. From bus stand Y : The first bus will leave by 7 am and reach the bus stop in 15 minutes, i.e. at 7.15 am. There is only one bus for first 1 hour. i.e., the second bus will leave after 8 am. Note that, the number of buses leaving from Y is increased by 1 per hour. From 8 am to 9 am, two buses will leave from Y and reach the stop between 8.15 am to 9.15 am. And from 9 am to 10 am, 3 buses will leave from Y and reach the stop between 9.15 am to 10.15 am. Proceeding like this, we have, From 12 pm to 1 pm, 6 buses will leave from Y and reach the stop between 12.15 pm to 1.15 pm. Therefore, the person will get 6 buses from Y between 12.15 pm to 1.15 pm. Probability of getting bus from Y between 12.15 pm to 1.15 pm = Number buses from Y in between 12.15 pm to 1.15 pm / Total number of buses from X and Y in between 12.15 pm to 1.15pm = 6/(2+6) = 6/8 = 3/4.

**Time and Work Quantitative Aptitude I**

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| --- |
| **Question 1**  **WRONG** |

If A and B can do a piece of work in 7.5 days. If B works 1/2 of work and remaining work was completed by A, taking total time of 20 days to complete the work. If b is more efficient then B can do work in how many days?

|  |  |
| --- | --- |
|  | 11 |
|  | 10 |
| C | 20 |
| D | 8 |

**Question 1 Explanation:**

10 days 1/A + 1/B = 2/15 or (A+B)/AB= 2/15 —-(i) (1/2)/(1/A) + (1/2)/(1/B) = 20 or A/2 + B/2 = 20 or A+B= 40 —-(ii) Substituting A+B= 40 from (ii) in (i), we get AB= 300 Now finding the factors of 300, whose sum is 40, we have 10 and 30 As B is more efficient than A, B can do the work in 10 days.

|  |
| --- |
| **Question 2**  **WRONG** |

An inlet pipe fill a tank in 5 hrs and outlet pipe empty same tank in 36 hrs working individually.how many additional number of outlet pipes of same capacity required to be opened so that tank never overflows?

|  |  |
| --- | --- |
| A | 4 |
|  | 8 |
|  | 7 |
| D | 10 |

**Question 2 Explanation:**

Inlet pipe fills the tank in 5 hr and outlet pipe empties the tank in 36 hr. So inlet pipe is 36/5 = 7.2 times efficient than , ensure that the an outlet pipe. Therefore , in order to tank never overflows , we will need total 8 outlet pipes. Already we have 1 outlet pipe , thus we need only (8-1) = 7 outlet pipes

|  |
| --- |
| **Question 3**  **CORRECT** |

Shanti’s school normally FINISHES AT 4 PM. her mom drives from home to pick her up, reaching the school exactly at 4 pm. one day, a half-holiday is announced and the School finishes for the day at 1 pm. Rather than sitting and Waiting, Shanti decides to start walking towards home. Her mother meets her along the way and as a result they reach home an hour earlier than normal. what is the ratio of the Shanti’s walking speed to her mother’s driving Speed?

|  |  |
| --- | --- |
|  | 1:5 |
| B | 3:9 |
| C | 7:10 |
| D | 3:5 |

**Question 3 Explanation:**

Consider this way…. Shanti walked and as a result she saved the total driving hours= 1 Which means her mom saves half an hour each going up and down since Santi met her on the way. That means both met at 3.30 pm. So Shanti walked what the distance in 2.5 hrs (from 1 pm to 3.30 pm) what her mom would have driven for half an hour. So the ratio of their speeds are 0.5: 2.5 i.e. 1:5. The clue lies in considering the to and fro distance. Hope it is clear now.

|  |
| --- |
| **Question 4**  **CORRECT** |

In a grass field if 40 cows could eat for 40 days.The same grass field can feed 30 cows for 60 days.how long will it feed 20 cows?

|  |  |
| --- | --- |
|  | 80 |
| B | 85 |
| C | 70 |
| D | 60 |

**Question 4 Explanation:**

80 Here if number of cows decrease by 10 has increasing the number of days by 20 therefore, 40cows for 40days 30cows for 60days 20cows for 80days Ans: 80 or you can solve by ratio 40C : 40D –> 1:1 30C : 60D –> 1:2 20C : 80D –> 1:4 ans:80

|  |
| --- |
| **Question 5**  **WRONG** |

5 skilled workers can build a wall in 20days; 8 semi-skilled workers can build a wall in 25 days; 10 unskilled workers can build a wall in 30days. If a team has 2 skilled, 6 semi-skilled and 5 unskilled workers, how long will it take to build the wall?

|  |  |
| --- | --- |
|  | 12 |
|  | 15 |
| C | 14 |
| D | 18 |

**Question 5 Explanation:**

Ans : 15days For Skilled 5 workers ——–20 days 5 workers 1 day work= 1/20 1 worker’s 1 day work= 1/(5\*20) Similarly, For Semi-Skilled—— 1 worker’s 1 day work= 1/(8\*25) For Unskilled—— 1 worker’s 1 day work= 1/(10\*30) For 2 skilled,6 semi-skilled and 5 unskilled workers One day work= 2\*[1/(5\*20)] +6\*[1/(8\*25)] + 5\*[ 1/(10\*30)] = 1/15 Therefore no. of days taken= 15

|  |
| --- |
| **Question 6**  **CORRECT** |

Rajesh can finish 1/5 of his home work in one hour. Seema can finish 3/7 of her homework in 90 minutes and Ramya can finish 3/4 of her homework in three and a half hours. If all of them start their home work at 12.00 PM and can go to play as soon as they all finish their homework. When can they start to play, if they take a break at 3.30 PM for 30 minutes?

|  |  |
| --- | --- |
| A | 5:10 pm |
| B | 6:30 pm |
|  | 5:30 pm |
| D | 5:45 pm |

**Question 6 Explanation:**

Starting homework at 12 PM and Taking a break at 3:30 PM, we came to know that each of them have already spent 3 hrs and 30 minute i.e 210 min After taking break, they started to do their homework at 4 PM 1. Rajesh can finish 1/5 of his work in 1 hr. i.e in 60 min He can finish 1 work in 60\* 5 = 300 min Remaining time to complete his hm work = 300-210= 90 min Starting again at 4 PM,he will finish his homework at 5:30 PM 2. Sema can finish 3/7 of her homework in 90 min She will finish 1 work in 90\*(7/3) = 210 min Therefore she finished her work at 3:30 PM 3. Ramya can finish 3/4 of her work in 210 min She will finish 1 work in 210\*(4/3 ) min= 280 min Remaining time left for Ramya to complete her work =280 – 210 = 70 min Starting to do homework again at 4 PM,she will complete her work at 5:10 PM Since Rajesh takes longer time to finish the work (completing the work at 5:30 PM), hence they all can start to play at 5:30 PM. That’s the only time they all will meet

|  |
| --- |
| **Question 7**  **CORRECT** |

3 person can fill tank in 25 min, a can fill in 30 min , b can fill in 35 min and c can empty the 5 gallon per min then what is the capacity of tank?

|  |  |
| --- | --- |
|  | 230 |
| B | 250 |
| C | 200 |
| D | 180 |

**Question 7 Explanation:**

the answer is approximately 230 gallons and if u want exact then it comes 228.25 explanation is given below: 3 person together fill tank in 25 min hence, calculate the time of person C that in how much time he empty the tank so, (1/A)+(1/B)-(1/C)=1/25 i.e, (1/30)+(1/35)-(1/C)=1/25 ………. we get, 1/C=23/1050, while, its given the C can empty 5 gallon per min. therefore (23/1050)=5 and capacity of tank will get if we solve above expression, we get 228.25

|  |
| --- |
| **Question 8**  **WRONG** |

If Rita spends every day 40 minutes for watering the plants, how much time does Rita spend watering the plants in 20 days?

|  |  |
| --- | --- |
|  | 12hours |
|  | 13.33hours |
| C | 12.5hours |
| D | 15.5hours |
| E | 14.33hours |
| **Question 9**  **CORRECT** | |

If a pipe A can fill a tank in 40 minutes and pipe B fill the same tank in 30 minutes. How long will it take for both pipes together to fill the tank?

|  |  |
| --- | --- |
| A | 17 |
| B | 16 |
| C | 15 |
|  | 120/7 |
| E | 13 |

**Question 9 Explanation:**

Time taken by both pipes together to fill the tank = 1/(1/40 +1/30) = 120/7 min

|  |
| --- |
| **Question 10**  **WRONG** |

3 men finish painting a wall in 8 days. Four boys do the same job in 7 days. In how many days will 2 men and 2 boys working together paint two such walls of the same size?

|  |  |
| --- | --- |
|  | 6 6/13 days |
|  | 3 3/13 days |
| C | 9 2/5 days |
| D | 12 12/13 days |

**Question 10 Explanation:**

1 man’s 1 day work=1/24 1 boy’s 1 day work=1/28 2 men’s 1 day work=(1/24)\*2=1/12 2 boys ‘s 1 day work = (1/28)\*2=1/14 2 men and 2 boys work together=1/12+1/14 =(7+6)/84 =13/84 no of days taken by 2 men and 2 boys=84/13 6 6/13 Option (a) is the ans

**Infosys Time & Work Questions**

|  |
| --- |
| **Question 1**  **CORRECT** |

A completes a work in 2 days, B in 4 days, C in 9 and D in 18 days. They form the group of two such that difference is maximum between them to complete the work. What is the difference in the number of days they complete that work?

|  |  |
| --- | --- |
|  | 14/3 days |
| B | 12/5 days |
| C | 14/5 days |
| D | 13/3 days |

**Question 1 Explanation:**

If C and D form a pair and A and B form a pair the difference is maximum. Now C and D together can complete the work = 9 × 18 9 + 18 9×189+18 = 6 days. A and B together can complete the work = 2 × 4 2 + 4 2×42+4 = 4/3 days. Difference = 6 – 4/3 = 14/3 days.

|  |
| --- |
| **Question 2**  **WRONG** |

Ramesh can finish a work in 20 days and Sushil in 25 days. They both work together for 5 days and then Sushil goes away. In how many days will Ramesh complete the remaining work?

|  |  |
| --- | --- |
| A | 8 days |
| B | 9 days |
|  | 10 days |
|  | 11 days |

**Question 2 Explanation:**

(5 + x)/20 + 5/25 = 1 => x = 11 days

|  |
| --- |
| **Question 3**  **CORRECT** |

5 men are equal to as many women as are equal to 8 boys. All of them earn Rs.90 only. Men’s wages are?

|  |  |
| --- | --- |
|  | Rs.6 |
| B | Rs.5 |
| C | Rs.4.50 |
| D | Rs.5.5 |

**Question 3 Explanation:**

5M = xW = 8B 5M + xW + 8B —– 90 Rs. 5M + 5M + 5M —– 90 Rs. 15M —— 90 Rs. => 1M = 6Rs.

|  |
| --- |
| **Question 4**  **WRONG** |

A can do a piece of work in 12 days. He worked for 15 days and then B completed the remaining work in 10 days. Both of them together will finish it in.

|  |  |
| --- | --- |
|  | 12 1/2 days |
|  | 25 days |
| C | 6 days |
| D | 12 days |

**Question 4 Explanation:**

5/25 + 10/x = 1 => x = 25 1/25 + 1/25 = 2/25 25/2 = 12 1/2 days

|  |
| --- |
| **Question 5**  **WRONG** |

A and B can do a piece of work in 21 and 24 days respectively. They started the work together and after some days A leaves the work and B completes the remaining work in 9 days. After how many days did A leave?

|  |  |
| --- | --- |
| A | 5 |
|  | 7 |
|  | 8 |
| D | 6 |
| **Question 6**  **WRONG** | |

Ram, who is half as efficient as Krish, will take 24 days to complete a work if he worked alone. If Ram and Krish worked together, how long will they take to complete the work?

|  |  |
| --- | --- |
| A | 16 days |
|  | 12 days |
|  | 8 days |
| D | 18 days |

|  |
| --- |
| **Question 7**  **WRONG** |

Ram starts working on a job and works on it for 12 days and completes 40% of the work. To help him complete the work, he employs Ravi and together they work for another 12 days and the work gets completed. How much more efficient is Ram than Ravi?

|  |  |
| --- | --- |
|  | 50% |
| B | 200% |
| C | 60% |
|  | 100% |
| **Question 8**  **WRONG** | |

A and B working together can finish a job in T days. If A works alone and completes the job, he will take T + 5 days. If B works alone and completes the same job, he will take T + 45 days. What is T?

|  |  |
| --- | --- |
| A | 25 |
|  | 60 |
|  | 15 |
| D | None |

**Profit and Loss | Mixtures and Allegation Quantitative Aptitude I**

|  |
| --- |
| **Question 1**  **WRONG** |

Profit and loss problem: I bought a book for Rs 60 , I sold off to a friend for Rs 70 but after a while i felt sorry , that i sold it and bought it back for Rs 80, how much loss did I incur?

|  |  |
| --- | --- |
|  | 12 |
| B | 30 |
| C | 20 |
|  | 10 |

**Question 1 Explanation:**

cp of book=60 sp of book=70 profit=10 again cp=80 then loss =80-70=10

|  |
| --- |
| **Question 2**  **CORRECT** |

Lucia is a wonderful grandmother.Her age is b/w 50 to 70.Each of her sons have as many sons as they have brothers.Their combined number gives Lucia’s present age?what is her age?

|  |  |
| --- | --- |
| A | a)85 |
| B | b)55 |
| C | c)84 |
|  | d)64 |

**Question 2 Explanation:**

If she has x sons each son has x-1 brothers. Total no of grandchildren=x(x-1) Total No OF Sons+Grandchildren= x+x(x-1)=x^2 =>Lucia’s age is a perfect square between 50 and 70. The only number that satisfies this condition is 64.

|  |
| --- |
| **Question 3**  **CORRECT** |

If a 10 lit. mixture contains milk and water in the ratio 2:1 then, how much more mixture should be added to change the ratio to 1:2 ?

|  |  |
| --- | --- |
| A | 8 |
| B | 9 |
|  | 10 |
| D | 11 |

**Question 3 Explanation:**

If you add the same mixture again,the ratio will still remain the same. The question should be how much water to be added In 10 litres, let quantity of milk = 2x and quantity of water = x => 2x + x = 10 => x = 10/3 , 2x = 20/3 Let y litres of water be added to make the ratio 1:2 => (20/3) / (10/3 + y) = 1 / 2 => 40/3 = 10/3 + y => y = 10 liters Therefore,10 liters of water to be added.

|  |
| --- |
| **Question 4**  **CORRECT** |

Suresh invested a sum of Rs. 15000 at 9 percent per annum Simple interest and Rs. 12000 at 8 percent per annum compound interest for a period of 2 years. What amount of interest did Suresh earn in 2 years?

|  |  |
| --- | --- |
| A | 5120 |
| B | 3574 |
| C | 4893 |
|  | 4696.8 |

**Question 4 Explanation:**

S.I = PTR/100 S.I =15000\*9\*2/100 S.I= 2700 C.I =P(1+r/100)^n -P C.I= 12000(1+8/100)^2-12000 C.I=1996.8 total amount in 2 years as interest = S.I +C.I = 2700+1996.8 =4696.8

|  |
| --- |
| **Question 5**  **CORRECT** |

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 |
|  | Rs. 175.50 |
| D | Rs. 180 |
| **Question 6**  **CORRECT** | |

A milk vendor has 2 cans of milk. The first contains 25% water and the rest milk. The second contains 50% water. How much milk should he mix from each of the containers so as to get 12 litres of milk such that the ratio of water to milk is 3 : 5?

|  |  |
| --- | --- |
| A | 4 litres, 8 litres |
|  | 6 litres, 6 litres |
| C | 5 litres, 7 litres |
| D | 7 litres, 5 litres |

|  |
| --- |
| **Question 7**  **WRONG** |

In what ratio must a grocer mix two varieties of tea worth Rs. 60 a kg and Rs. 65 a kg so that by selling the mixture at Rs. 68.20 a kg he may gain 10%?

|  |  |
| --- | --- |
|  | 3 : 2 |
|  | 3 : 4 |
| C | 3 : 5 |
| D | 4 : 5 |
| **Question 8**  **CORRECT** | |

If the list price of a book is reduced by Rs. 5, then a person can buy 5 more books for Rs. 300. The original cost of the book is

|  |  |
| --- | --- |
| A | Rs. 15 |
|  | Rs. 20 |
| C | Rs. 25 |
| D | Rs. 30 |

**Question 8 Explanation:**

If x is earlier price, then 300/(x-5)- 300/x = 5 solving this , we get, x=20 or -15 out of which only 20 is acceptable.

|  |
| --- |
| **Question 9**  **CORRECT** |

A shopkeeper sells 18 mangoes for the purchase price of 20 mangoes. The percent profit made by the shopkeeper is.

|  |  |
| --- | --- |
| A | 10% |
|  | 11.11% |
| C | 9.09% |
| D | 12% |

**Question 9 Explanation:**

let c.p of 1 mango Re 1. then c.p of 18 mangoes= Rs 18 c.p of 20 mangoes Rs 20 = s.p of 18 mangoes profit= s.p of 18 mangoes – c.p of 18 mangoes =20 – 18 = 2 profit %= 2/18\*100 =11.11 ans

|  |
| --- |
| **Question 10**  **WRONG** |

A merchant marks his goods up by 75% above his cost price. What is the maximum % Amount that he can offer so that he ends up selling at no profit or loss?

|  |  |
| --- | --- |
| A | 75% |
|  | 46.67% |
| C | 300% |
|  | 42.85% |

**Infosys Profit & Loss Questions**

|  |
| --- |
| **Question 1**  **WRONG** |

The price of an article reduces to 576 after two successive discounts. The markup is 80% above the cost price of Rs. 500.What is the new profit percentage if instead of two successive discounts the markup price was further increased successively two times by the same percentage?

|  |  |
| --- | --- |
| A | 259.2% |
|  | 59.2% |
|  | 159.2% |
| D | can’t be determined |

**Question 1 Explanation:**

Cost price (CP) = 500 Selling Price (SP) = 576 Markup price (MP) = 900 Again SP = MP [( 1 – r/100)2] [r – rate of discount in %] ? 576 = 900 (1 – r/100)2 ? 24/30 = (1 – r/100) ? r = 20% Again, new SP = MP (1 + r/100)2 = 900 (1 + 20/100)2 = 1296 New, profit percentage = [(SP – CP)/CP] X 100 = [( 1296 – 500 ) / 500 ] x 100 = 159.2%

|  |
| --- |
| **Question 2**  **CORRECT** |

A milkman purchases the milk at Rs. x per litre and sells it at Rs. 2x per litre still he mixes 2 litres water with every 6 litres of pure milk. What is the profit percentage?

|  |  |
| --- | --- |
| A | 116% |
|  | 166.66% |
| C | 60% |
| D | 100% |

**Question 2 Explanation:**

Let the cost price of 1-liter pure milk be Re.1, then {6 liters (milk) → C.P = Rs. 62 liters (water) → C.P = Rs. 0→CP = Rs.6 only6 liters (milk) → C.P = Rs. 62 liters (water) → C.P = Rs. 0→CP = Rs.6 only 8 litre mixture => SP => 8 x 2 = Rs. 16 Profit % = 16 − 66×100 = 10006 = 166.66%

|  |
| --- |
| **Question 3**  **WRONG** |

The percentage profit earned by selling an article for Rs. 1920 is equal to the percentage loss incurred by selling the same article for Rs. 1280. At what price should the article be sold to make 25% profit?

|  |  |
| --- | --- |
|  | Rs. 2000 |
| B | Rs. 2200 |
| C | Rs. 2400 |
|  | Data inadequate |

**Question 3 Explanation:**

Let C.P. be Rs. x. Then,= >1920−xx\*100=x−1280x\*1001920-xx\*100=x-1280x\*100 => 1920 – x = x – 1280 => 2x = 3200 => x = 1600 Required S.P. = 125% of Rs. 1600 =Rs(125/100\*1600) = Rs2000

|  |
| --- |
| **Question 4**  **WRONG** |

If books bought at prices ranging from Rs. 200 to Rs. 350 are sold at prices ranging from Rs. 300 to Rs. 425, what is the greatest possible profit that might be made in selling eight books?

|  |  |
| --- | --- |
| A | 600 |
|  | 1200 |
|  | 1800 |
| D | none of these |

**Question 4 Explanation:**

Least Cost Price = Rs. (200 \* 8) = Rs. 1600. Greatest Selling Price = Rs. (425 \* 8) = Rs. 3400. Required profit = Rs. (3400 – 1600) = Rs. 1800.

|  |
| --- |
| **Question 5**  **WRONG** |

Bhajan Singh purchased 120 reams of paper at Rs 80 per ream. He spent Rs 280 on transportation, paid octroi at the rate of 40 paise per ream and paid Rs 72 to the coolie. If he wants to have a gain of 8 %, what must be the selling price per ream?

|  |  |
| --- | --- |
|  | 90 |
| B | 89 |
|  | 87.48 |
| D | 86 |

**Question 5 Explanation:**

Total investment = Rs. (120 \* 80 + 280 + (40/100) \* 120 + 72). = Rs. (9600 + 280+48 + 72) = Rs, 10000. Sell price of 120 reams = 108% of Rs. 10000 = Rs. 10800. Sell Price per ream = Rs. [10800/120] = Rs. 90.

|  |
| --- |
| **Question 6**  **WRONG** |

A dealer sold two of his cattle for Rs. 500 each. On one of them he lost 10% on the other, he gained 10%. His gain or loss percent in the entire transaction was:

|  |  |
| --- | --- |
|  | 10% loss |
|  | 1% loss |
| C | 1% gain |
| D | Neither loss nor profit |

**Question 6 Explanation:**

Loss%= (common gain or loss % / 10)2 = (10/10)² % = 1%.

|  |
| --- |
| **Question 7**  **WRONG** |

By mixing two qualities of pulses in the ratio 2: 3 and selling the mixture at the rate of Rs 22 per kilogram, a shopkeeper makes a profit of 10 %. If the cost of the smaller quantity be Rs 14 per kg, the cost per kg of the larger quantity is:

|  |  |
| --- | --- |
| A | Rs 23 |
|  | Rs 25 |
|  | Rs 24 |
| D | None of these |

**Question 7 Explanation:**

Cost Price of 5 kg = Rs.(14\*2 + x\*3) = (28 + 3x). Sell price of 5 kg = Rs. (22×5) = Rs. 110. [{110 – (28 + 3x)}/(28 + 3x) ]\* 100 =10 [82-3x/28 + 3x]= 1 / 10 820 – 30x = 28 +3x 33x = 792 x = 24

|  |
| --- |
| **Question 8**  **WRONG** |

Rahul went to purchase a Nokia mobile handset, the shopkeeper told him to pay 20% tax if he asked the bill. Rahul manages to get the discount of 5% on the actual sale price of the mobile and he paid the shopkeeper Rs. 3325 without tax. Besides he manages to avoid to pay 20% tax on the already discounted price, what is the amount of discount that he has gotten?

|  |  |
| --- | --- |
| A | 750 |
|  | 375 |
|  | 875 |
| D | 525 |

**Question 8 Explanation:**

CP = 100, SP (with tax) =120 New SP = 100 – 5 = 95 Effective discount = 120 – 95 = 25 So, at SP of 95 —-> discount = 25 and at SP of 3325 —–> discount = 2595×3325 = 875

* [LINKEDIN](https://in.linkedin.com/company/prepinsta)

# Infosys Verbal English – Sentence Correction Questions

## English Sentence Correction M

|  |
| --- |
| **Question 1**  **CORRECT** |

When it was morning they decided to put at an inn.

|  |  |
| --- | --- |
| A | put out in |
| B | put off at |
| C | put at |
|  | put up at |
| **Question 2**  **CORRECT** | |

He found the gold coin as he cleans the floor.

|  |  |
| --- | --- |
| A | which he is cleaning |
|  | while cleaning |
| C | as he had cleaned |
| D | while he cleans |

|  |
| --- |
| **Question 3**  **WRONG** |

The police has so far succeeded in recovering only a part of the stolen property.

|  |  |
| --- | --- |
| A | so far succeeded to recover |
| B | as for as succeeded in recovery of |
|  | so far succeeded in recovery of |
|  | No correction required |
| **Question 4**  **CORRECT** | |

He is too important for tolerating any delay.

|  |  |
| --- | --- |
|  | to tolerate |
| B | at tolerating |
| C | to tolerating |
| D | with tolerating |

|  |
| --- |
| **Question 5**  **CORRECT** |

Identify which part of the question has error A property dealer was /shoot dead by four unidentified jacket clad men /while taking a morning walk /in a park.

|  |  |
| --- | --- |
| A | A property dealer was |
|  | shoot dead by four unidentified jacket clad men |
| C | while taking a morning walk |
| D | in a park. |
| **Question 6**  **CORRECT** | |

The fact of me/ being a stranger/ does not excuse his conduct.

|  |  |
| --- | --- |
|  | The fact of me |
| B | being a stranger |
| C | does not excuse his conduct |
| D | No error |

|  |
| --- |
| **Question 7**  **CORRECT** |

The number of tourists / is expected to rise / from seven to ten percent / in the next ten years.

|  |  |
| --- | --- |
| A | The number of tourists |
| B | is expected to rise |
|  | from seven to ten percent |
| D | in the next ten years |
| E | No error |
| **Question 8**  **CORRECT** | |

Being that my car is getting / its annual check up. / I will not be / able to pick you up tomorrow morning.

|  |  |
| --- | --- |
|  | Being that my car is getting |
| B | its annual check up. |
| C | I will not be |
| D | able to pick you up tomorrow morning |
| E | No error |

**Question 8 Explanation:**

Change, Being that my car is getting → As my car is getting.

|  |
| --- |
| **Question 9**  **CORRECT** |

The third season of / the popular television show will ends / on a grand note with / celebrities dancing and having fun.

|  |  |
| --- | --- |
| A | The third season of |
|  | the popular television show will ends |
| C | on a grand note with |
| D | celebrities dancing and having fun |
| **Question 10**  **CORRECT** | |

Rose growers in / the city are waking up / to the benefits / of collective action.

|  |  |
| --- | --- |
| A | Rose growers in |
| B | the city are waking up |
|  | to the benefits |
| D | of collective action |
| E | No error |

**Question 10 Explanation:**

Change, to the benefits → of the benefits.

**Infosys Sentence Correction Quiz : OG**

|  |
| --- |
| **Question 1**  **CORRECT** |

Among the litany of threats that many Israelis face, the potential for a nuclear-armed Iran is perhaps the more scary as this scenario could engulf the region in a violent war. This would likely result in historically unseen amounts of destruction, even for a region whose history is marred by perennial violence.

|  |  |
| --- | --- |
| A | perhaps the more |
|  | perhaps the most |
| C | possibly, perhaps the most |
| D | possibly the greatest |
| E | possibly the great |
| **Question 2**  **CORRECT** | |

During the worst years of the Great Depression, America faced tremendous challenges as unemployment topped 25%. Many historians credit the New Deal and the World War II industrial complex for propelling America out of the depression and into a then-unparalleled time of economic prosperity.

|  |  |
| --- | --- |
| A | for propelling |
| B | with having propelled |
| C | as propelling |
| D | to propelling |
|  | with propelling |

|  |
| --- |
| **Question 3**  **CORRECT** |

The mole is a nocturnal insectivorous mammal regarded as pests by gardeners because of their burrowing activity spoiling lawns and gardens.

|  |  |
| --- | --- |
| A | regarded as pests by gardeners because of their burrowing activity spoiling |
| B | regarded to be pests by gardeners because of their burrowing activity’s spoiling |
| C | regarded as a pest by gardeners because of burrowing activity spoiling |
| D | considered as a pest by gardeners because of its burrowing activity spoiling |
|  | regarded as a pest by gardeners because its burrowing activity spoils lawns and gardens. |
| **Question 4**  **WRONG** | |

After the Detroit Lions’ abysmal 0 win and 16 loss season in 2008, the owner of the team fired the head coach. In the days that followed this decision, one professional sporting analyst said: “the prospects of the Lions becoming a competitive franchise depends on if the team can procure a talented and disciplined coach.”

|  |  |
| --- | --- |
| A | depends on if |
|  | depend on whether |
| C | depends on whether |
| D | depend on if |
|  | depend whether |

|  |
| --- |
| **Question 5**  **WRONG** |

After meeting together near Mediolanurn in 313, Roman Emperors Constantine Augustus and Licinius Augustus issued The Edict of Milan in the hopes to ending years of internal religious strife and the persecution of minorities. The Edict expanded religious toleration and ordered the return of property confiscated from Christians, even if it had been subsequently resold.

|  |  |
| --- | --- |
| A | in the hopes to ending |
| B | in the hope to ending |
| C | with the hope to ending |
|  | with the hope of ending |
|  | in the hope to end |
| **Question 6**  **CORRECT** | |

The population of tigers in the National Park is increasing steadily, and this is a source of encouragement to those who have worked so hard to fund the conservation effort.

|  |  |
| --- | --- |
| A | steadily, and this |
| B | steadily: which |
|  | steadily; this trend |
| D | steadily, this increase |
| E | steady, and this |

|  |
| --- |
| **Question 7**  **CORRECT** |

Environmentalists associated with the United Nations Environment Programme predict that if the current trends associated with global warming continue, thousands of acres of pristine land **is in danger to undergo**potentially irrevocable changes that could alter the planet’s ecosystem forever.

|  |  |
| --- | --- |
| A | is in danger to undergo |
|  | are in danger of undergoing |
| C | is in danger of undergoing |
| D | are in danger to undergo |
| E | are in danger for undergoing |
| **Question 8**  **WRONG** | |

If the gardener would sow the seeds in the greenhouse rather than the garden, he might get a better display of flowers.

|  |  |
| --- | --- |
|  | If the gardener would sow the seeds in the greenhouse rather than the garden |
| B | If the gardener sowed the seeds in the greenhouse rather than the garden |
| C | If the gardener would sow the seeds in the greenhouse rather than in the garden |
|  | If the gardener were to sow the seeds in the greenhouse rather than in the garden |
| E | If the gardener would sow the seeds in the greenhouse instead of the garden |

**Sentence Completion – Subject Verb E**

|  |
| --- |
| **Question 1**  **CORRECT** |

…………………it has been raining, game has to be continued.…………………it has been raining, game has to be continued.

|  |  |
| --- | --- |
| A | While |
| B | Since |
|  | Although |
| D | None |
| **Question 2**  **CORRECT** | |

Planting of seeds…………more hard work than I thought.Planting of seeds…………more hard work than I thought.

|  |  |
| --- | --- |
| A | Are |
|  | Is |
| C | have been |
| D | are |

|  |
| --- |
| **Question 3**  **CORRECT** |

The two boars standing silently next to the large tree…………………….not seen by the two hunters.The two boars standing silently next to the large tree…………………….not seen by the two hunters.

|  |  |
| --- | --- |
| A | Was |
|  | Were |
| C | Are |
| D | have been |
| **Question 4**  **WRONG** | |

Satish was endowed ……… a natural talent for music. Satish was endowed ……… a natural talent for music.

|  |  |
| --- | --- |
| A | In |
|  | by |
| C | For |
|  | With |

|  |
| --- |
| **Question 5**  **CORRECT** |

Everyday last week my aunt ………… a plate.Everyday last week my aunt ………… a plate.

|  |  |
| --- | --- |
| A | Breaks |
|  | Broke |
| C | was breaking |
| D | were breaking |
| **Question 6**  **WRONG** | |

I ………………….. for half an hour when it suddenly started to rain. I ………………….. for half an hour when it suddenly started to rain.

|  |  |
| --- | --- |
| A | have walked |
|  | has been walking |
|  | had been walking |
| D | have been walking |

|  |
| --- |
| **Question 7**  **CORRECT** |

There was ……………. competition for electoral seats.There was ……………. competition for electoral seats.

|  |  |
| --- | --- |
| A | Sparse |
|  | cut-throat |
| C | Rapid |
| D | Diligent |
| **Question 8**  **CORRECT** | |

The government is encouraging village upliftment ………………in the country.The government is encouraging village upliftment ………………in the country.

|  |  |
| --- | --- |
| A | Designs |
|  | Programmes |
| C | Propaganda |
| D | Talks |

|  |
| --- |
| **Question 9**  **CORRECT** |

She jumped off the bus while it …………….. She jumped off the bus while it ……………..

|  |  |
| --- | --- |
| A | has moved |
| B | Moved |
| C | had moved |
|  | was moving |
| **Question 10**  **CORRECT** | |

When he lived in Hyderabad, he ……….. to the cinema once a week.When he lived in Hyderabad, he ……….. to the cinema once a week.

|  |  |
| --- | --- |
| A | Goes |
|  | Went |
| C | was going |
| D |  |

**Infosys Sentence Completion Quiz : OG**

|  |
| --- |
| **Question 1**  **WRONG** |

Challenges must be \_\_\_\_\_\_\_\_\_\_ to realize the \_\_\_\_\_\_\_\_\_ of a greater regional economic integration.

|  |  |
| --- | --- |
|  | Overcome….Potential |
|  | Suppressed….power |
| C | Ignored….benefits |
| D | Sustained….Advantages |
| E | Attempted….battles |
| **Question 2**  **CORRECT** | |

I have never \_\_\_\_\_ such a problem and therefore confess I have no\_\_\_\_\_\_\_ to it.

|  |  |
| --- | --- |
| A | left alone….inhibitions |
| B | chickened at ….solution |
| C | dreaded…panacea |
|  | come across….ready-made answer |
| E | marveled at ….. Compulsions |

|  |
| --- |
| **Question 3**  **CORRECT** |

The Maruti has become so \_\_\_\_\_\_ that snobbish customers, who believe their tastes are superior to others, are \_\_\_\_\_\_\_\_ buy this car of the masses

|  |  |
| --- | --- |
| A | reputed….shirking from |
| B | sought after…. queuing to |
|  | ubiquitous …. disinclined to |
| D | affordable …. waiting to |
| E | convenient …. craving to |
| **Question 4**  **CORRECT** | |

The news is too good \_\_\_\_\_\_\_.

|  |  |
| --- | --- |
| A | to be bad |
| B | to be acceptable |
|  | to be true |
| D | and can be credible |
| E | to know |

|  |
| --- |
| **Question 5**  **CORRECT** |

Vinod is clearly \_\_\_\_\_\_\_\_\_ when it comes to speaking English.

|  |  |
| --- | --- |
| A | To a disadvantage |
|  | At a disadvantage |
| C | From a disadvantage |
| D | In a disadvantage |
| E | On a disadvantage |
| **Question 6**  **CORRECT** | |

Sports for the visually challenged \_\_\_\_\_ their confidence and help them to mingle with the \_\_\_\_\_\_\_ of society.

|  |  |
| --- | --- |
| A | enrich …..stalwarts |
| B | plummet…..elite |
|  | boost…..mainstream |
| D | abate…..cream |
| E | curb…..best |

|  |
| --- |
| **Question 7**  **CORRECT** |

Every minister must be made\_\_\_\_\_\_\_ to the public for his/her acts of omission and commission.

|  |  |
| --- | --- |
| A | Menacing |
| B | Acceptable |
| C | approachable |
|  | accountable |
| E | dispensable |
| **Question 8**  **CORRECT** | |

He’s got a sharp \_\_\_\_\_\_\_\_. He might just get into trouble, if he isn’t careful.

|  |  |
| --- | --- |
|  | Tongue |
| B | Mouth |
| C | Intellect |
| D | Vision |
| E | Brain |

|  |
| --- |
| **Question 9**  **CORRECT** |

His moral decadence was marked by his ———– from the ways of integrity and honesty.

|  |  |
| --- | --- |
|  | departure |
| B | obsession |
| C | opprobrium |
| D | declivity |
| **Question 10**  **WRONG** | |

Everyone in this universe is accountable to God ———– his actions.

|  |  |
| --- | --- |
|  | About |
| B | against |
|  | For |
| D |  |

**Analogy I**

|  |
| --- |
| **Question 1** |

Fear : Panic :: Provocation : ?

|  |  |
| --- | --- |
| A | Simulate |
| B | Temper |
| C | Angry |
| D | Tension |
| **Question 2** | |

Ornithologist : Bird :: Archealogist : ?

|  |  |
| --- | --- |
| A | Islands |
| B | Mediators |
| C | Archeology |
| D | Aquatic |

|  |
| --- |
| **Question 3** |

BDF : GIK : : PRT : ……………..

|  |  |
| --- | --- |
| A | UVW |
| B | UVZ |
| C | UWY |
| D | UWX |
| **Question 4** | |

BDF : HIL : : MOQ : ……….

|  |  |
| --- | --- |
| A | XVT |
| B | TVX |
| C | VTX |
| D | STW |

|  |
| --- |
| **Question 5** |

LOGIC : BHFNK : : CLERK : ………….

|  |  |
| --- | --- |
| A | XVRPA |
| B | QBKJA |
| C | LPRTU |
| D | JQDKB |
| **Question 6** | |

Good : Bad : : Roof : ?

|  |  |
| --- | --- |
| A | Window |
| B | Floor |
| C | Walls |
| D | Pillars |

|  |
| --- |
| **Question 7** |

Quartz : Clocks :: Gypsum : ?

|  |  |
| --- | --- |
| A | Glass |
| B | Metal |
| C | Cement |
| D | Powder |
| **Question 8** | |

Lively : Dull

|  |  |
| --- | --- |
| A | Employed : Jobless |
| B | Flower : Bud |
| C | Factory : Labour |
| D | Happy : Gay |

|  |
| --- |
| **Question 9** |

MO : 13 11 :: HJ : ?

|  |  |
| --- | --- |
| A | 19 17 |
| B | 18 16 |
| C | 8 10 |
| D | 16 18 |
| **Question 10** | |

ZRYQ : KCJB :: PWOV : ?

|  |  |
| --- | --- |
| A | GBHA |
| B | ISJT |
| C | ELDK |
| D |  |

**Infosys Analogy Quiz : OG**

|  |
| --- |
| **Question 1**  **WRONG** |

Happiness : Sorrow :: Comfort : ?

|  |  |
| --- | --- |
|  | hardship |
| B | Easy |
|  | difficult |
| D | Erase |
| **Question 2**  **CORRECT** | |

Automobile : Petrol :: ?

|  |  |
| --- | --- |
| A | fire : fuel |
| B | plane : propeller |
| C | diesel : gas |
|  | man : food |

|  |
| --- |
| **Question 3**  **CORRECT** |

Bacteria : Decomposition :: ?

|  |  |
| --- | --- |
| A | volcano : eruption |
| B | oxygen : water |
| C | antibiotic : injection |
|  | yeast : fermentation |
| **Question 4**  **CORRECT** | |

Ship : Captain :: Newspaper : ?

|  |  |
| --- | --- |
| A | Reader |
|  | Editor |
| C | publisher |
| D | Printer |

|  |
| --- |
| **Question 5**  **CORRECT** |

Day : Week :: ?

|  |  |
| --- | --- |
| A | year : week |
| B | second : time |
| C | time : duration |
|  | week : month |

**Question 5 Explanation:**

The second term is the finite collection of the first term.

|  |
| --- |
| **Question 6**  **CORRECT** |

Sculptor : Statue then Poet : ?

|  |  |
| --- | --- |
| A | Canvas |
| B | Pen |
|  | Verse |
| D | Chisel |
| **Question 7**  **CORRECT** | |

SEDATIVE : SLEEP

|  |  |
| --- | --- |
| A | challenging : knowledge |
|  | mnemonic : memory |
| C | vocal : eloquence |
| D | dramatic : story |

|  |
| --- |
| **Question 8**  **CORRECT** |

PALATE : MOUTH ::

|  |  |
| --- | --- |
| A | rivulet : dam |
|  | ceiling : room |
| C | rainbow : sky |
| D | hill : range |
| **Question 9**  **CORRECT** | |

EXPEL: SCHOOL ::

|  |  |
| --- | --- |
| A | export : factory |
| B | study : school |
|  | exile : nation |
| D |  |

**Fill in the Blanks H**

|  |
| --- |
| **Question 1**  **WRONG** |

After the rain the weather …… and the sun came out.

|  |  |
| --- | --- |
|  | cleared out |
|  | cleared up |
| C | cleared away |
| D | cleared off |
| **Question 2**  **CORRECT** | |

When Varun left the cocktail party he was as …… as a judge.

|  |  |
| --- | --- |
| A | Sober |
| B | Drunk |
| C | Brave |
|  | Wise |

|  |
| --- |
| **Question 3**  **CORRECT** |

The building comprises …… sixty rooms.

|  |  |
| --- | --- |
| A | Of |
| B | Onto |
| C | By |
|  | no preposition needed |
| **Question 4**  **CORRECT** | |

Namrata was found to …… the required qualifications for the job.

|  |  |
| --- | --- |
| A | contain |
| B | disclose |
|  | possess |
| D | acquire |

|  |
| --- |
| **Question 5**  **CORRECT** |

Government buildings are …… on the Republic day.

|  |  |
| --- | --- |
| A | enlightened |
| B | lightened |
|  | illuminated |
| D | glowed |
| **Question 6**  **CORRECT** | |

The stenographer is very efficient. He is …… to his firm.

|  |  |
| --- | --- |
| A | a boon |
| B | a credit |
| C | a blessing |
|  | an asset |

|  |
| --- |
| **Question 7**  **CORRECT** |

However, the group’s long-term strategy is to …… on core sector business connected with infrastructure and energy.

|  |  |
| --- | --- |
| A | Breed |
| B | develop |
|  | concentrate |
| D | depend |
| **Question 8**  **CORRECT** | |

Nobody can …… me to do anything which I do not want to do.

|  |  |
| --- | --- |
| A | encourage |
| B | request |
| C | oppose |
|  | compel |

|  |
| --- |
| **Question 9**  **WRONG** |

His conduct is bad, and his honesty is not …… suspicion

|  |  |
| --- | --- |
|  | above |
| B | beyond |
|  | under |
| D | In |
| **Question 10**  **CORRECT** | |

It being an …… issue, it is not correct to introduce questions of morality into the debate.

|  |  |
| --- | --- |
| A | Moral |
| B | immoral |
| C | amoral |
|  | irrelevant |

**Infosys Fill in the Blanks Quiz : OG**

|  |
| --- |
| **Question 1**  **CORRECT** |

I promise to \_\_\_\_\_\_\_\_ you in all circumstances

|  |  |
| --- | --- |
| A | stand up to |
|  | stand with |
| C | stand off |
| D | stand by |
| **Question 2**  **CORRECT** | |

If she is not interested, we will \_\_\_\_\_\_\_\_\_\_ the proposal.

|  |  |
| --- | --- |
| A | vaccant |
|  | abandon |
| C | impulse |
| D | remove |

|  |
| --- |
| **Question 3**  **CORRECT** |

It is certain that human beings \_\_\_\_\_\_ latent power of which they are only vaguely aware

|  |  |
| --- | --- |
| A | exhibit |
|  | possess |
| C | impose |
| D | knowledge |
| **Question 4**  **CORRECT** | |

It is already 5 o’clock. Can you \_\_\_\_\_ time to catch the bus?

|  |  |
| --- | --- |
| A | have it in |
| B | have enough |
|  | make it in |
| D | made it |

|  |
| --- |
| **Question 5**  **WRONG** |

He is blind \_\_\_\_\_\_\_\_\_ one eye.

|  |  |
| --- | --- |
| A | In |
|  | Of |
| C | To |
|  | With |
| **Question 6**  **CORRECT** | |

The lion sprang\_\_\_\_\_\_\_\_\_\_the buffaloes.

|  |  |
| --- | --- |
| A | At |
| B | In |
|  | Upon |
| D | On |

|  |
| --- |
| **Question 7**  **WRONG** |

\_\_\_\_\_\_\_\_\_you wake me up so early on a Sunday?

|  |  |
| --- | --- |
|  | Could |
| B | Dare |
| C | Must |
|  | Will |
| **Question 8**  **CORRECT** | |

That was \_\_\_\_\_\_\_movie I have ever seen.

|  |  |
| --- | --- |
| A | worse |
|  | the worst |
| C | most worst |
| D | Bad |

|  |
| --- |
| **Question 9**  **CORRECT** |

He has many friends, but \_\_\_\_\_\_\_are good ones.

|  |  |
| --- | --- |
| A | a few |
|  | Few |
| C | the few |
| D | the some |
| **Question 10**  **CORRECT** | |

The housewife \_\_\_\_\_\_\_\_\_\_the cakes burning, and ran to switch off the oven.

|  |  |
| --- | --- |
| A | Smell |
| B | smells |
|  | Smelt |
| D |  |

**One Word Substitution H**

|  |
| --- |
| **Question 1**  **WRONG** |

The raison d’etre of a controversy is?

|  |  |
| --- | --- |
|  | The enthusiasm with which it is kept alive |
| B | The fitness with which participants handle it |
|  | The reason or justification for its existence |
| D | The unending hostility the parties concerned have towards each other |
| **Question 2**  **CORRECT** | |

Parts of a country behind the coast or a river’s bank?

|  |  |
| --- | --- |
| A | Isthmus |
| B | Archipelago |
|  | Hinterland |
| D | Swamps |

|  |
| --- |
| **Question 3**  **CORRECT** |

Study of the evolution of man as an animal

|  |  |
| --- | --- |
| A | Archaeology |
|  | Anthropology |
| C | Chronology |
| D | Ethnology |
| **Question 4**  **CORRECT** | |

A disease of mind causing an uncontrollable desire to steal

|  |  |
| --- | --- |
| A | Schizophrenia |
| B | Claustrophobia |
|  | Kleptomania |
| D | Megalomania |

|  |
| --- |
| **Question 5**  **CORRECT** |

To take secretly in small quantities?

|  |  |
| --- | --- |
| A | Robbery |
|  | Pilferage |
| C | Theft |
| D | Defalcation |
| **Question 6**  **CORRECT** | |

Detailed plan of a journey?

|  |  |
| --- | --- |
| A | Travelogue |
| B | Travel kit |
| C | Schedule |
|  | Itinerary |

|  |
| --- |
| **Question 7**  **CORRECT** |

Giving undue favors to one’s own kith and kin

|  |  |
| --- | --- |
|  | Nepotism |
| B | Favouritism |
| C | Wordliness |
| D | Corruption |
| **Question 8**  **CORRECT** | |

Hater of learning and knowledge?

|  |  |
| --- | --- |
|  | Mixologist |
| B | Bibliophile |
| C | Misogynist |
| D | Misanthropist |

|  |
| --- |
| **Question 9**  **CORRECT** |

A place where monks live as a secluded community?

|  |  |
| --- | --- |
| A | Cathedral |
| B | Diocese |
| C | Convent |
|  | Monastery |
| **Question 10**  **CORRECT** | |

Incapable of being seen through?

|  |  |
| --- | --- |
| A | Ductile |
|  | Opaque |
| C | Obsolete |
| D |  |

**Infosys One Word Substitution Quiz : OG**

|  |
| --- |
| **Question 1**  **CORRECT** |

Allowance due to a wife by her divorced husband:

|  |  |
| --- | --- |
| A | Pocket money |
|  | Alimony |
| C | Livelihood |
| D | Sustenance |
| **Question 2**  **CORRECT** | |

The acts of disrespect toward sacred things:

|  |  |
| --- | --- |
| A | Abuse |
|  | Blasphemy |
| C | Indignity |
| D | Profanity |

|  |
| --- |
| **Question 3**  **CORRECT** |

A man of free and easy habits, socially unconventional:

|  |  |
| --- | --- |
| A | Gypsy |
|  | Bohemian |
| C | Free-bird |
| D | Rebel |
| **Question 4**  **CORRECT** | |

A roundabout way of expression:

|  |  |
| --- | --- |
| A | Wordiness |
|  | Circumlocution |
| C | Verbosity |
| D | Euphemism |

|  |
| --- |
| **Question 5**  **CORRECT** |

Cultivation and study of trees or shrubs:

|  |  |
| --- | --- |
| A | Horticulture |
| B | Gardening |
|  | Arboriculture |
| D | Agronom |
| **Question 6**  **CORRECT** | |

Broadcast report or news:

|  |  |
| --- | --- |
| A | Announcement |
| B | Notice |
| C | Publication |
|  | Bulletin |

|  |
| --- |
| **Question 7**  **CORRECT** |

A written statement on oath:

|  |  |
| --- | --- |
| A | Vow |
|  | Affidavit |
| C | Draft |
| D | Promise |
| **Question 8**  **CORRECT** | |

One who abandons one’s religion, cause or party:

|  |  |
| --- | --- |
|  | Apostate |
| B | Atheist |
| C | Treacherous |
| D | Cheat |

|  |
| --- |
| **Question 9**  **CORRECT** |

One who can use both his left and right hands:

|  |  |
| --- | --- |
| A | Double-dealing |
| B | Multi-tasker |
| C | Disingenuous |
|  | Ambidextrous |
| **Question 10**  **CORRECT** | |

Of unknown authorship:

|  |  |
| --- | --- |
| A | Incognito |
| B | Pseudo |
|  | Anonymous |
| D |  |

**Syllogism Logical Reasoning I**

|  |
| --- |
| **Question 1**  **CORRECT** |

* No A is B
* Z is A
* All Z are A

a) some B are Z b)NO Z is A c)None of these

|  |  |
| --- | --- |
| A | A |
| B | B |
|  | C |

**Question 1 Explanation:**

Since all z are a, and no a is b,some b are z i false Since all z are a, second is also wrong So answer is option c

|  |
| --- |
| **Question 2**  **CORRECT** |

AGE+AGE=GOAL find OO+AA=?107

|  |  |
| --- | --- |
| A | 12 |
| B | 5 |
|  | 33 |
| D | 41 |

**Question 2 Explanation:**

107 +107 ——– 0214 ——– O->2,A->1 22 +11 ——– 33 —– this is right answer

|  |
| --- |
| **Question 3**  **CORRECT** |

After world war II three departments did as follows. First department gave some tanks to the 2nd and 3rd department equal to the number they are having. Then 2nd department gave some tanks to 1st and 3rd department equal to the number they are having. Then 3rd department gave some tanks to 1st and 2nd department equal to the number they are having. Then each department has 24 tanks. Find the initial no. of tanks of each department?

|  |  |
| --- | --- |
| A | 6 |
| B | 7 |
| C | 11 |
|  | 12 |

**Question 3 Explanation:**

this one is easy for u start from downwards 24,24,24 take half from both depart me t and give it 2 3rd means 12,12,48 then for second 6,6+12+24,24=6,42,24 then for first6+21+12,21,12=39,21,12

|  |
| --- |
| **Question 4**  **CORRECT** |

Solve the following question based on the information provide i. Students A, B, C, D, E, and F participated in a self-evolution test of Quant‟s and Data (D.I) ii. Total marks of A in quant‟s was just above C and in D.I just above F was just above C in D.I but he scored less than D in Quant‟s iii. Got more marks than D and E in D.I but did not perform as well in Quant‟s as in D.I compared to D and E iv. One is in between C and D in Quant‟s and C and A in D.I Got the highest make in D.I?

|  |  |
| --- | --- |
|  | A |
|  | B |
|  | C |
|  | Data Inadequate |

**Question 4 Explanation:**

Please mark the correct answer in the comments of the page it will be added later on

|  |
| --- |
| **Question 5**  **CORRECT** |

Four students P, Q, R and S each working under the super vision of one of the four professors A, B, C and D made their final year MBA Project Presentations one by one, one each in the areas of Finance, Marketing, Systems and Human Resource Management (HRM). Each professor is an expert in only one of the above areas and supervised exactly one of the above students in his own area. The following are the clues: (i) First presentation was made by R. (ii) Prof. B works in Finance. (iii) Prof. D was P’s supervisor. (iv) The last presentation was in the Systems area. (v) S’s project was in the HRM area. (vi) Prof. B’s student’s presentation followed that of Prof. C’s student. In which area was R’s Project?

|  |  |
| --- | --- |
|  | (a) Marketing |
| B | (b) Finance |
| C | (c) Systems |
| D | (d) HRM |

**Question 5 Explanation:**

order : R …………….. PROF C………..MARKETING Q……………..PROF B………….FINANCE S………………PROF A …………HRM P………………PROF D………….SYSTEM OR R …………….. PROF A………..MARKETING S………………PROF C………… HRM Q……………..PROF B………….FINANCE P………………PROF D………….SYSTEM

|  |
| --- |
| **Question 6**  **CORRECT** |

What is the area of expertise of Prof. D?

|  |  |
| --- | --- |
| A | (a) HRM |
| B | (b) Marketing |
|  | (c) Systems |
| D | (d) Finance |

**Question 6 Explanation:**

order : R …………….. PROF C………..MARKETING Q……………..PROF B………….FINANCE S………………PROF A …………HRM P………………PROF D………….SYSTEM OR R …………….. PROF A………..MARKETING S………………PROF C………… HRM Q……………..PROF B………….FINANCE P………………PROF D………….SYSTEM

|  |
| --- |
| **Question 7**  **CORRECT** |

What is the area of expertise of Prof. D?

|  |  |
| --- | --- |
| A | (a) HRM |
| B | (b) Marketing |
|  | (c) Systems |
| D | (d) Finance |

**Question 7 Explanation:**

order : R …………….. PROF C………..MARKETING Q……………..PROF B………….FINANCE S………………PROF A …………HRM P………………PROF D………….SYSTEM OR R …………….. PROF A………..MARKETING S………………PROF C………… HRM Q……………..PROF B………….FINANCE P………………PROF D………….SYSTEM

|  |
| --- |
| **Question 8**  **CORRECT** |

In which area was the second presentation?

|  |  |
| --- | --- |
|  | (a) Finance |
| B | (b) Marketing |
| C | (c) Systems |
| D | (d) Cannot be determined |

**Question 8 Explanation:**

ORDER : 1. C — R Marketing 2. B — Q Finance 3. A — S HRM 4. D — P Systems

|  |
| --- |
| **Question 9**  **CORRECT** |

Which student’s project did Prof. B supervise?

|  |  |
| --- | --- |
|  | Q |
| B | R |
| C | S |
| D | P |

**Question 9 Explanation:**

ORDER : 1. C — R Marketing 2. B — Q Finance 3. A — S HRM 4. D — P Systems

|  |
| --- |
| **Question 10**  **CORRECT** |

What is the area of expertise of Prof. A?

|  |  |
| --- | --- |
|  | (a) HRM |
| B | (b) Systems |
| C | (c) Marketing |
| D | (d) Either Marketing of HRM |

**Question 10 Explanation:**

ORDER : 1. C — R Marketing 2. B — Q Finance 3. A — S HRM 4. D — P Systems

|  |
| --- |
| **Question 11** |

A murder took place and there were 5 witnesses who give the following description about the murderer…

* witness A-murderer had blue eyes, he was tall, he wore a hat and vest.
* witness B-murderer had black eyes, he was short, he wore a hat and vest
* witness C-murderer had brown eyes, he was Medium sized, he wore a hat and raincoat
* witness D-murderer had grey eyes, he was tall, he didn’t wear a hat and he wore a vest.

Each one of them gave exactly one fact correct.Describe the murderer in terms of eyes, height, hat, vest and raincoat.

|  |  |
| --- | --- |
| A | Check Hint once deduced |
| B | Check Hint once deduced |
| C | Check Hint once deduced |
| D |  |

**Infosys Syllogism Quiz: OG**

|  |
| --- |
| **Question 1**  **CORRECT** |

Two statements are given below followed by two conclusions numbered as I and II respectively. Consider the given statements as true even if they seem to be not. After reading all the conclusions conform which of the given conclusions logically follows, disregarding commonly known facts. Statements: I. Some pigs are bachelors. II. All bachelors are blessed. Conclusions: I. Some pigs are blessed. II. At least some blessed are bachelors.

|  |  |
| --- | --- |
| A | If only conclusion I follows. |
| B | If only conclusion II follows. |
| C | If either conclusion I or II follows. |
| D | If neither conclusion I nor II follows. |
|  | If both conclusion I and II follows. |
| **Question 2**  **CORRECT** | |

Statements:

I. Some pictures are beds.

II. All beds are trees.

Conclusions:

I. Some pictures are trees.

II. At least some trees are beds.

|  |  |
| --- | --- |
| A | If only conclusion I follows. |
| B | If only conclusion II follows. |
| C | If either conclusion I or II follows. |
| D | If neither conclusion I nor II follows. |
|  | If both conclusion I and II follows. |

|  |
| --- |
| **Question 3**  **WRONG** |

Statements: I. Some ninjas are dogs. II. No dogs is a liar. Conclusions: I. No ninja is a liar. II. At least some ninjas are liars.

|  |  |
| --- | --- |
|  | If only conclusion I follows. |
| B | If only conclusion II follows. |
|  | If either conclusion I or II follows. |
| D | If neither conclusion I nor II follows. |
| E | If both conclusion I and II follows. |
| **Question 4**  **CORRECT** | |

Statements: I. Some necklace are diagrams. II. No diagram is a lollipop. Conclusions: I. No necklace is a lollipop. II. At least some necklaces are letters.

|  |  |
| --- | --- |
| A | If only conclusion I follows. |
| B | If only conclusion II follows. |
|  | If either conclusion I or II follows. |
| D | If neither conclusion I nor II follows. |
| E | If both conclusion I and II follows. |

|  |
| --- |
| **Question 5**  **CORRECT** |

Statements: I. Some mangos are brinjals. II. Some carrots are brinjals. Conclusions: I. All mangos are carrots. II. At least some brinjals are not carrots.

|  |  |
| --- | --- |
| A | If only conclusion I follows. |
| B | If only conclusion II follows. |
| C | If either conclusion I or II follows. |
|  | If neither conclusion I nor II follows. |
| E | If both conclusion I and II follows. |
| **Question 6**  **CORRECT** | |

Statements: I. Some rifles are bombs. II. Some cigars are bombs. Conclusions: I. All rifles are cigars. II. At least some bombs are not cigars.

|  |  |
| --- | --- |
| A | If only conclusion I follows. |
| B | If only conclusion II follows. |
| C | If either conclusion I or II follows. |
|  | If neither conclusion I nor II follows. |
| E | If both conclusion I and II follows. |

|  |
| --- |
| **Question 7**  **WRONG** |

Statements: I. No cake is a ginger. II. Some gingers are garlic. Conclusions: I. No cake is a garlic. II. Some garlics are not cakes.

|  |  |
| --- | --- |
| A | If only conclusion I follows. |
|  | If only conclusion II follows. |
| C | If either conclusion I or II follows. |
| D | If neither conclusion I nor II follows. |
|  | If both conclusion I and II follows |
| **Question 8**  **WRONG** | |

Statements: I. No cash is a flash. II. Some flashes are bears. Conclusions: I. No cash is a bear. II. Some bears are not cash.

|  |  |
| --- | --- |
| A | If only conclusion I follows. |
|  | If only conclusion II follows. |
| C | If either conclusion I or II follows. |
| D | If neither conclusion I nor II follows. |
|  | If both conclusion I and II follows. |

|  |
| --- |
| **Question 9**  **WRONG** |

Statements: I. No pizza is a burger. II. No chautney is a burger. Conclusions: I. Some pizzas are not chautneys. II. Some burgers are chautneys.

|  |  |
| --- | --- |
| A | If only conclusion I follows. |
|  | If only conclusion II follows. |
| C | If either conclusion I or II follows. |
|  | If neither conclusion I or II follows. |
| E | If both conclusion I and II follows. |
| **Question 10**  **CORRECT** | |

Statements: I. All fingers are levers. II. Some levers are fringe. Conclusions: I. Some fringe are levers. II. No fingers is a fringe.

|  |  |
| --- | --- |
|  | If only conclusion I follows. |
| B | If only conclusion II follows. |
| C | If either conclusion I or II follows. |
| D | If neither conclusion I or II follows. |
| E | If both conclusion I and II follows |

**Coding Decoding Logical Reasoning**

|  |
| --- |
| **Question 1**  **CORRECT** |

4,25,49,121,?

|  |  |
| --- | --- |
| A | 196 |
| B | 225 |
|  | 169 |
| D | None |

**Question 1 Explanation:**

13^2= 169 because follow sequence of square of the prime numbers

|  |
| --- |
| **Question 2**  **CORRECT** |

7,14,55,110,?

|  |  |
| --- | --- |
| A | 140 |
| B | 155 |
|  | 121 |
| D | 1255 |

**Question 2 Explanation:**

7 + 7=14 reverse the 14 so 41 41+14=55 55 reverse so 55 55 +55=110 reverse the 110 is 011 so 110+011=121(ans).

|  |
| --- |
| **Question 3**  **CORRECT** |

What is the next number in the series? 2,4,7,10,15,18,….

|  |  |
| --- | --- |
|  | 23 |
| B | 25 |
| C | 26 |
| D | 27 |

**Question 3 Explanation:**

23 Adding (0,1,2,3,4,5,6,7) to the prime numbers. 2+0=2 3+1=4 5+2=7 7+3=10 11+4=15 13+5=18 17+6=23

|  |
| --- |
| **Question 4**  **WRONG** |

  if “HAT” = 58, then “KEEP” = ?

|  |  |
| --- | --- |
| A | 68 |
|  | 64 |
|  | 74 |
| D | 78 |

**Question 4 Explanation:**

H is 8th alphabet a is 1st and T is 20th sum is 29 and its double is 58 In the same way keep sums out to be 37 and 37×2 =74

|  |
| --- |
| **Question 5**  **CORRECT** |

If in a code language, COULD is written as BNTKC and MARGIN is written as LZQFHM, how will MOULDING be written in that code ?

|  |  |
| --- | --- |
| A | CHMFINTK |
| B | LNKTCHMF |
|  | LNTKCHMF |
| D | NITKHCMF |
| E | None of these |
| **Question 6**  **WRONG** | |

In a certain code, COMPUTER is written as RFUVQNPC. How is MEDICINE written in the same code ?

|  |  |
| --- | --- |
|  | EOJDJEFM |
| B | EOJDEJFM |
|  | MFEJDJOE |
| D | MFEDJJOE |
| E | None of these |

|  |
| --- |
| **Question 7**  **CORRECT** |

If in a certain code, TWENTY is written as 863985 and ELEVEN is written as 323039, how is TWELVE written in that code ?

|  |  |
| --- | --- |
|  | 863203 |
| B | 863584 |
| C | 863903 |
| D | 863063 |
| **Question 8**  **CORRECT** | |

If in a certain language if ENTRY is coded as 12345 and STEADY is coded as 931785, then state which is the correct code for below word. NEATNESS

|  |  |
| --- | --- |
| A | 25196577 |
|  | 21732199 |
| C | 21362199 |
| D | 21823698 |

|  |
| --- |
| **Question 9**  **WRONG** |

In a certain code, a number 13479 is written as AQFJL and 5268 is written as DMPN. How is 396824 wriitten in that code ?

|  |  |
| --- | --- |
| A | QLPNKJ |
|  | QLPNMF |
| C | QLPMNF |
|  | QLPNDF |
| E | None of these |
| **Question 10**  **CORRECT** | |

In a certain code, 15789 is written as AXBTC, 2346 is written as MPDU. How is 23549 written in that code ?

|  |  |
| --- | --- |
| A | MPXDT |
| B | MPADC |
| C | MPXCD |
|  | MPXDC |
| E | None of these |

**Infosys Coding Decoding Quiz : OG**

|  |
| --- |
| **Question 1**  **WRONG** |

In a certain code ‘MISSIONS’ is written as ‘MSIISNOS’. How is ‘ONLINE’ written in that code?

|  |  |
| --- | --- |
|  | OLNNIE |
| B | ONILEN |
|  | NOILEN |
| D | LNOENI |
| E | ONNLIE |

**Question 1 Explanation:**

 First and last letter remain same. The others interchange their positions.

|  |
| --- |
| **Question 2**  **CORRECT** |

In certain code ‘TIGER’ is written as ‘QDFHS’. How is ‘FISH’ written in that code?

|  |  |
| --- | --- |
| A | GERH |
|  | GRHE3 |
| C | GREH4 |
| D | GHRE5 |
| E | GEHR |

**Question 2 Explanation:**

 Reverse the word and move each letter –1.

|  |
| --- |
| **Question 3**  **WRONG** |

In certain code ‘FROZEN’ is written as ‘OFAPSG’. Then how would ‘MOLTEN’ be written in that code?

|  |  |
| --- | --- |
| A | OFPOMN |
| B | OFSMPN |
|  | OFUMPN |
| D | OFUNPM |
|  | OFUMON |

**Question 3 Explanation:**

 Reverse the word and move each letter +1.

|  |
| --- |
| **Question 4**  **CORRECT** |

In a certain code ‘ROAR’ is written as ‘URDU’. How is ‘URDU’ written in that code?

|  |  |
| --- | --- |
| A | V X D Q |
|  | XUGX |
| C | ROAR |
| D | VSOV |
| E | V Z C P |

**Question 4 Explanation:**

Each letter moves +3.

|  |
| --- |
| **Question 5**  **WRONG** |

In a certain code ‘LIMCA’ is written as ‘HJLDZ’. Which of the following words is written as ‘IFWJBP’?

|  |  |
| --- | --- |
|  | M E X I C O |
| B | MERCURY |
|  | JAPAN |
| D | MIDNIGHT |
| E | H O N D U S |

**Question 5 Explanation:**

Each letter moves +1, -1, …. except for L, which is –4.

|  |
| --- |
| **Question 6**  **WRONG** |

In certain code ‘HILTON’ is written as ‘I H T L N O’. How is ‘BILLION’ written in that code?

|  |  |
| --- | --- |
| A | IBLLION |
|  | IBOILLN |
|  | IBLLOIN |
| D | IBLOILN |
| E | IBOLLIN |

**Question 6 Explanation:**

 Letters are interchanged in each pair.

|  |
| --- |
| **Question 7**  **CORRECT** |

If in the English alphabet, every alternate letter from B onwards is written in small letters while others are written in capitals, then how will the 3rd day from Tuesday will be coded?

|  |  |
| --- | --- |
| A | W e D N e S d A Y |
| B | W E d n E S d A Y |
| C | T H U R S d A Y |
| D | T h U r S d A Y |
|  | f r I d A Y |

**Question 7 Explanation:**

The small letters are b, d, f, h, j, l, n, p, r, t, v, x, z. The third day from tuesday will be friday and code will be frIdAY.

|  |
| --- |
| **Question 8**  **WRONG** |

If the letters of the word ‘CYCLINDER’ are arranged alphabetically, then which letter would be farthest from the first letter of word?

|  |  |
| --- | --- |
| A | N |
|  | E |
|  | Y |
| D | R |
| E | None of these |

**Question 8 Explanation:**

Last letter is ‘Y’.

|  |
| --- |
| **Question 9**  **WRONG** |

In a certain code ‘CERTAIN’ is coded as ‘BFQUZJM’. How is ‘MUNDANE’ coded in that code?

|  |  |
| --- | --- |
|  | LVMEZOD |
| B | NTCOMBF |
| C | NTOCNBF |
| D | LTMCZOF |
|  | None of these |

**Question 9 Explanation:**

Each letter moves -1, +1……

|  |
| --- |
| **Question 10**  **WRONG** |

In a certain code ‘SEQUENCE’ is coded as ‘FDOFVRFT. How is ‘CHILDREN’ coded in that code?

|  |  |
| --- | --- |
| A | OFESJMID |
|  | OFSEMJID |
|  | OFSEJMID |
| D | OFSEJMID |
| E | None of these |

**Question 10 Explanation:**

Reverse the word and +1 to each letter. Therefore, the code of CHILDREN becomes OFSEMJID.

**Number Series Logical Reasoning**

|  |
| --- |
| **Question 1**  **CORRECT** |

2,5,10,17,?,41

|  |  |
| --- | --- |
| A | 44 |
|  | 28 |
| C | 31 |
| D | 23 |

**Question 1 Explanation:**

There is a simple pattern in this sequence: it begins with 0 and then the prime numbers are added to consecutive elements in ascending order I.e., 2 is added to the first element 3 is added to second element 5 is added to third element and so on. So, 0+2 = 2 2+ 3 = 5 5+ 5 = 10 10+ 7 = 17 17+ 11 = 28 28+ 13 = 41

|  |
| --- |
| **Question 2**  **WRONG** |

8. 1, 1, 2, 3, 6, 7, 10, 11, ?

|  |  |
| --- | --- |
| A | 12 |
|  | 13 |
|  | 14 |
| D | 15 |

**Question 2 Explanation:**

The given pattern is (Prime number – consecutive numbers starting with 1). 1 = 2 – 1 1 = 3 – 2 2 = 5 – 3 3 = 7 – 4 6 = 11 – 5 7 = 13 – 6 10 = 17 – 7 11 = 19 – 8 14 = 23 – 9

|  |
| --- |
| **Question 3**  **CORRECT** |

What is the 8th term in the series 1, 4, 9, 18, 35, 68, . . .

|  |  |
| --- | --- |
|  | 262 |
| B | 148 |
| C | 342 |
| D | 112 |

**Question 3 Explanation:**

1, 4, 9, 18, 35, 68, . . . The pattern is 1 = 21 – 1 4 = 22 – 0 9 = 23 + 1 18 = 24 + 2 35 = 25 + 3 68 = 26 + 4 So 8th term is 28 + 6 = 262

|  |
| --- |
| **Question 4**  **WRONG** |

8 11 21 15 18 21 22

|  |  |
| --- | --- |
| A | 25 18 |
|  | 25 21 |
|  | 25 29 |
| D | 24 21 |
| E | 22 26 |
| **Question 5**  **CORRECT** | |

Look at this series: 2, 6, 18, 54, … What number should come next?

|  |  |
| --- | --- |
| A | 108 |
| B | 148 |
|  | 162 |
| D | 216 |

|  |
| --- |
| **Question 6**  **CORRECT** |

Look at this series: F2, \_\_, D8, C16, B32, … What number should fill the blank?

|  |  |
| --- | --- |
| A | A16 |
| B | G4 |
|  | E4 |
| D | E3 |
| **Question 7**  **CORRECT** | |

Look at this series: V, VIII, XI, XIV, \_\_, XX, … What number should fill the blank?

|  |  |
| --- | --- |
| A | IX |
| B | XXIII |
| C | XV |
|  | XVII |

|  |
| --- |
| **Question 8**  **WRONG** |

Look at this series: 4, 7, 25, 10, \_\_, 20, 16, 19, … What number should fill the blank?

|  |  |
| --- | --- |
|  | 13 |
|  | 15 |
| C | 20 |
| D | 28 |
| **Question 9**  **CORRECT** | |

6 10 14 18 22 26 30

|  |  |
| --- | --- |
| A | 36 40 |
| B | 33 37 |
| C | 38 42 |
| D | 34 36 |
|  | 34 38 |

|  |
| --- |
| **Question 10**  **WRONG** |

1,3,5,9,15,?,41,?

|  |  |
| --- | --- |
|  | 31 & 53 |
| B | 15 & 21 |
| C | 27 & 81 |
|  | 25 and 67 |

**Question 10 Explanation:**

Way two solve is sum of last two digits + 1

**Infosys Number Series Quiz : OG**

|  |
| --- |
| **Question 1**  **CORRECT** |

2 44 4 41 6 38 8

|  |  |
| --- | --- |
| A | 10 12 |
| B | 35 32 |
| C | 34 9 |
|  | 35 10 |
| E | 10 52 |

**Question 1 Explanation:**

Here, there are two alternating patterns, one addition and one subtraction. The first starts with 2 and increases by 2; the second starts with 44 and decreases by 3.

|  |
| --- |
| **Question 2**  **WRONG** |

122, 213, 340, 509, 726, ?

|  |  |
| --- | --- |
|  | 942 |
|  | 997 |
| C | 919 |
| D | 950 |
| E | 922 |
| **Question 3**  **WRONG** | |

13860, 6930, ?, 462, 66, 6

|  |  |
| --- | --- |
|  | 2272 |
| B | 2414 |
|  | 2310 |
| D | 2388 |
| E | 2339 |

|  |
| --- |
| **Question 4**  **CORRECT** |

2√3, 2√5, √30, √42, 2√14, ?

|  |  |
| --- | --- |
|  | 6√2 |
| B | √60 |
| C | 5√3 |
| D | 3√5 |
| E | √50 |
| **Question 5**  **WRONG** | |

77, 28, 64, 39, 55, X

|  |  |
| --- | --- |
|  | 11 |
| B | 31 |
| C | 47 |
| D | 44 |
|  | 46 |

|  |
| --- |
| **Question 6**  **CORRECT** |

31, 29, 24, 22, 17, … What number should come next?

|  |  |
| --- | --- |
|  | 15 |
| B | 14 |
| C | 13 |
| D | 12 |
| E | 11 |
| **Question 7**  **WRONG** | |

36 31 29 24 22 17 15

|  |  |
| --- | --- |
| A | 13 11 |
|  | 10 5 |
| C | 13 8 |
| D | 12 7 |
|  | 10 8 |

|  |
| --- |
| **Question 8**  **CORRECT** |

1448, 1446, 720, 236, ?, 5

|  |  |
| --- | --- |
| A | 62 |
| B | 75 |
|  | 55 |
| D | 28 |
| E | 39 |
| **Question 9**  **WRONG** | |

Look at this series: 201, 202, 204, 207, … What number should come next?

|  |  |
| --- | --- |
| A | 205 |
| B | 208 |
|  | 210 |
|  | 211 |
| E | 220 |

|  |
| --- |
| **Question 10**  **CORRECT** |

Look at this series: 80, 10, 70, 15, 60, … What number should come next?

|  |  |
| --- | --- |
|  | 20 |
| B | 25 |
| C | 30 |
| D | 50 |
| E |  |

**Cryptarithmetic I**

|  |
| --- |
| **Question 1**  **CORRECT** |

If KANSAS + OHIO = OREGON ? Then find the value of G+R+O+S+S?

|  |  |
| --- | --- |
| A | 11 |
| B | 20 |
| C | 12 |
| D | 18 |
|  | 10 |

**Question 1 Explanation:**

KANSAS+OHIO=OREGON given the value of O=5

KANSAS=497292

OHIO=5865

OREGON=503157

G+R+O+S+S=1+0+5+2+2=10

|  |
| --- |
| **Question 2**  **CORRECT** |

HERE=COMES-SHE,(Assume s=8) Find the value of R+H+O.

|  |  |
| --- | --- |
| A | 19 |
| B | 12 |
|  | 14 |
| D | 15 |

**Question 2 Explanation:**

We shall write it as, HERE + SHE = COMES

E + E = S = 8 => E = 4.

3 digit number + 4 digit number = 5 digit number

C = 1, O = 0, H = 9 etc

So 9454 + 894 = 10348

10348 – 894 = 9454

R + H + O

= 5 + 9 + 0 = 14

10348

– 894

————-

9454

————–

c=1

o=0

m=3

e=4

s=8

h=9

r=5

You can find Detailed Solution for this on this page –

<http://prepinsta.com/here-she-comes-assume-s8-find-value-rho/>

|  |
| --- |
| **Question 3**  **CORRECT** |

  if is+this=here then value of numeric value of t\*e+i\*r\*h-s

|  |  |
| --- | --- |
| A | 221 |
| B | 178 |
|  | 157 |
| D | 149 |

**Question 3 Explanation:**

t h i s

(8 9 6 5)

+ i s

(6 5)

——————

h e r e

(9 0 3 0)

8\*0+6\*3\*9-5 = 157

|  |
| --- |
| **Question 4**  **CORRECT** |

If POINT + ZERO = ENERGY, then E + N + E + R + G + Y = ?

|  |  |
| --- | --- |
| A | 12 |
|  | 17 |
| C | 11 |
| D | 20 |

**Question 4 Explanation:**

POINT

+ZERO

\_\_\_\_\_\_\_\_

ENERGY

Now, P has to be 9, to make sum a 6 digit number.

Also O+Z has to be 10 or greater.

We have, P=9.

9OINT

+ZERO

\_\_\_\_\_\_\_\_

ENERGY

The digit in the sum corresponding to P(9), i.e. N has to be 0.

Because, maximum carry we can have is 1 and 9+1=0 with carry 1.

This 1[carry] translates to be E.

We have P=9, N=0, E=1.

9OI0T

+Z1RO

\_\_\_\_\_\_\_\_

1N1RGY

Now, G+1= R. So, T+O must be greater than 10, but not 10 or 11 because,

Y cannot be 0 or 1, those values are already taken.

Let’s assume that T+O is 12 and assume that T=4 and O=8.

Now,

94I04

+Z1R8

\_\_\_\_\_\_\_\_

101RG2

Till now, we have P=9, N=0, E=1, T=4, O=8 and Y=2.

The numbers remaining are 3, 5, 6, 7.

Z has to be 3 as 8+Z=11.

I, R and G are consecutive numbers.

So they are 5, 6 and 7.

Now,

P=9

O=8

I=5

N=0

T=4

Z=3

E=1

R=6

So, E+N+E+R+G+Y=17.

|  |
| --- |
| **Question 5**  **CORRECT** |

GO+TO=OUT, O+U+T=?

|  |  |
| --- | --- |
| A | 10 |
| B | 8 |
| C | 5 |
|  | 3 |

**Question 5 Explanation:**

Basically you start with a few assumptions:

1. Each letter is a number from 0 to 9.

2. Each number can only be assigned to one of the letters.

We know that O+O=T and T has to be less than 10,

therefore O can be a number from 0 to 4.

G+T cannot be over 20

(as the max. number possible in an addition is 9+9=18

plus any carry over from a previous sum (which at the most can be 1)

and therefore O can only be 0 and 1.

If O is 0 then T is also 0 and one of our

assumptions is broken so O equals 1 and T

equals double that (2).

So GO+TO=G1+21=OUT=1U2, G+T=OU

so G has to be 8 or 9, if G=9

then U would be 1 and that breaks our second assumptions

so G=8 and U=0.

At the O+U+T=1+0+2=3

|  |
| --- |
| **Question 6**  **CORRECT** |

  USA+USSR=PEACE FIND P+E+A+C+E

|  |  |
| --- | --- |
|  | 10 |
| B | 14 |
| C | 25 |
| D | 12 |

**Question 6 Explanation:**

USA+

USSR=

PEACE

Here P is carry , P=1

when p=1, E=0 with carry 1 AND U=9

A+R=E=0 with carry 1.so, A=2 and R=8

U+S=A=2 with carry 1, S=3

S+S+1=C, 3+3+1=c=7

932+9338=10270

so,P+E+A+C+E=1+0+2+7+0=10

ANS 10

|  |
| --- |
| **Question 7**  **CORRECT** |

  tee+let=All where E=5 find A+L+L

|  |  |
| --- | --- |
| A | 17 |
| B | 9 |
|  | 10 |
| D | 12 |

**Question 7 Explanation:**

T E E

+ L E T

= A L L

SO, suppose E=5 and L =6, then L=1(carry 1),

again E +E i.e 5+5+(carry 1)=1, again (carry 1);

earlier we have taken T=6 and after summation L= 1

so, T+L=6+1+(carry 1)=8

so, A=8, L=1

A+L+L=8+1+1=10

|  |
| --- |
| **Question 8**  **CORRECT** |

If Ever + Since = Darwin then D + A + R + W + I + N is ?

|  |  |
| --- | --- |
|  | 23 |
| B | 41 |
| C | 34 |
| D | 16 |

**Question 8 Explanation:**

As it’s a sum of 3 numbers hence the maximum

value of D could be 2 or 1, but then we look at S

which could have maximum value 9 and if it

gets a carry of 1 then the value of A will be 0

and the D=1.

2. Then we looks at E and I which results in R, as

9 is already occupied by S so E could be 8 and I

could be 7 and R will be 5 with carry 1.

3. Then we place the values of R=5 and E=8

resulting in N=3 with carry 1.

4. In ten’s digits – E=8 and and value of C could

be 3,4,6 (As all others are occupied) and To

make I=7 (previously assigned in step 2) E must

be added by 9 which is already occupied by S.

So this hit ends here.

Now start again with reduced value of E or I,

repeat above steps until you get a correct

answer or a dead end.

5. Repeating above steps one time comes with

E=5 and I=7 which results in R=3 carry=1.

6. Placing R=3 and E=5 in unit digits and their

sum gives 8.

7. in ten’s digits place E=5 now you can add 2 to

make I=7 hence C=2.

8. in 100’s digits you have N=8 (from step 6)

and only digits that are left now are 4 and

6 hence. So placing V=4 you will get W=2 which

is not true because it is already assigned to C.

So we are left with only V=6 as the ultimate

choice and this leads the result in to W=4.

Hence this way we got the answer

….5 6 5 3

….E V E R

..9 7 8 2 5

+ S I N C E

———————-

D A R W I N

1 0 3 4 7 8

Hence D+A+R+W+I+N = 1+0+3+4+7+8 =23

|  |
| --- |
| **Question 9**  **CORRECT** |

If (HE)^H=SHE, where the alphabets take the values from (0-9) & all the alphabets are single digit then find the value of (S+H+E)?

|  |  |
| --- | --- |
| A | 14 |
| B | 19 |
|  | 13 |
| D | 15 |

**Question 9 Explanation:**

arrange A-J(0-9) likewise K-L(0-9)

and U-Z(0-5)

the code is S=8,H=7,E=4 so 8+7+4=19

or

(HE)^H must be in the range 21 to 29

so that result must be less then 999

(3 digit ,as SHE) .so as per rule sol is

(25)^2=625.

so S+H+E=6+2+5=13 ANS

|  |
| --- |
| **Question 10**  **CORRECT** |

EAT+EAT+EAT=BEET if t=0 then what will the value of TEE+TEE

|  |  |
| --- | --- |
|  | 088 |
| B | 077 |
| C | 066 |
| D | 055 |

**Question 10 Explanation:**

EAT+EAT+EAT = BEET.

As T=0, no carry for A+A+A(3A).

Possible values of A and E can be calculated by

1) 3A= E

2) 3A = 10 +E

3) 3A = 20 + E

Here Largest carry generated by addition of

three one digit number is 27(9+9+9).

Hence value of E is less than 7 for equation 3.

For Equation 3)

Assume value of E is 7. Therefore value of A=9

now carry + E + E + E = BE.

(2) + (7) + (7) + (7) = 23.

but 7 is not equal to 3. Contradict to our assumption.

Try another value of E as 4 for equation 3

E=4 therefore, A = 8.

now carry + E + E + E = BE.

(2) + (4) + (4) + (4) = 14.

hence value satisfied with our prediction.

hence E=4 A=8 and B=1

now TEE + TEE = TAA

044 + 044 = 088

In Above Equations A is integer. So take only

those values which are divisible by 3.

|  |
| --- |
| **Question 11**  **CORRECT** |

If CROSS + ROADS = DANGER then D+A+N+G+E+R=?

|  |  |
| --- | --- |
|  | 31 |
| B | 21 |
| C | 11 |
| D | 16 |

**Question 11 Explanation:**

CROSS= 96233

ROADS=62513

DANGER=158746

Ans 31

<http://www.sureshimr.in/2016/03/solution-of-problem-cross-roads-in.html>

Solution here

|  |
| --- |
| **Question 12**  **CORRECT** |

WORLD+TRADE=CENTER value of C+E+N+T+E+R

|  |  |
| --- | --- |
|  | 27 |
| B | 24 |
| C | 12 |
| D | 19 |

**Question 12 Explanation:**

WORLD+TRADE=CENTER

53684+ 76042=129726

ANSWER CENTER

so,start from last ‘c’ the value is 1 always.

Next W+T=E right.

By adding numbers we should get 1 as a carry (which is ‘C’ value).

so,take W as 5 and T as 7 and add now which is 12.

NO TWO ALPHABETS SHOULD HAVE SAME VALUES ALWAYS.

Do it accordingly.

|  |
| --- |
| **Question 13**  **CORRECT** |

Fine+Nine= Wives then W+I+V+E+S=?

|  |  |
| --- | --- |
| A | 15 |
|  | 22 |
| C | 33 |
| D | 37 |

**Question 13 Explanation:**

4 digit + 4digit = 5 digit. fine

nine

=

wives

so clearly w=1 as f+n=i+10(it generates a carry over)

now,n+n = e,therefore 2n = e.

e+e=s, so we can write 2n+2n=s 0r 4n=s.

we can see that s is 4 times of n.

possible digit between 0-9 that satisfy this condition are

1,4 and 2,8 for n and e respectively.

but n cannot be one as the value of w is alreay 1 so the only choice we have is 2,8.

therefore n=2 and s=8.

from n=2 we can get e=4

now we can put i as 3,5,6,7,9

but if we put i as 5 or above then while

finding the value of ” f ” from eqn f+n=i+10 in

double digits so i has to be 3.

therefore i=3.

now i+i=v, so v=6

so finally we get

w=1

n=2

e=4

s=8

i=3

v=6

summation of wives =22.

|  |
| --- |
| **Question 14**  **CORRECT** |

USA + USSR = PEACE ; P + E + A + C + E = ?

|  |  |
| --- | --- |
| A | 8 |
| B | 9 |
|  | 10 |
| D | 11 |

**Question 14 Explanation:**

3 Digit number + 4 digit number = 5 digit number.

So P is 1 and U is 9, E is 0.

Now S repeated three times,

A repeated 2 times. Just give values for S.

We can easily get the following table.

USA = 932

USSR = 9338

PEACE = 10270

P + E + A + C + E

= 1 + 0 + 2 + 7 + 0 = 10

|  |
| --- |
| **Question 15**  **CORRECT** |

SEND + MORE = MONEY. Then what is the value of M + O + N + E + Y ?

|  |  |
| --- | --- |
|  | 14 |
| B | 15 |
| C | 16 |
| D | 17 |

**Question 15 Explanation:**

Observe the diagram. M = 1. S + 1 = a

two digit number. So S = 1 and O

cannot be 1 but 0.

Also E and N are consecutive. Do trial and error.

SEND = 9567, MORE = 1085,

MONEY = 10652

SO M + O + N + E + Y = 1 + 0 + 6 + 5 + 2 = 14

|  |
| --- |
| **Question 16**  **CORRECT** |

LET + LEE = ALL if E=5 then A+L+L=?

|  |  |
| --- | --- |
|  | E i.e 5 |
| B | 4 |
| C | 2 |
| D | 1 |

**Question 16 Explanation:**

L=1 E=5 T=6

So,

1 5 6

1 5 5 (+)

——-

3 1 1

——-

A=3 So, 3+1+1=5 ==> E

**Clocks and Calendar T**

|  |
| --- |
| **Question 1**  **CORRECT** |

In a clock the long hand is of 8cm and the short hand is of 7cm. if the clock runs for 4 days find out the total distance covered by both the hands?

|  |  |
| --- | --- |
|  | 1296 pie |
|  | 1380 pie |
|  | 84 pie |
|  | 1500 pie |

**Question 1 Explanation:**

Please give correct Explanation

|  |
| --- |
| **Question 2**  **CORRECT** |

In a particular year, the month of january had exactly 4 thursdays, and 4 sundays. On which day of the week did january 1st occur in the year?

|  |  |
| --- | --- |
|  | Monday |
| B | Tuesday |
| C | Wednesday |
| D | Thursday |

**Question 2 Explanation:**

If a month has 31 days, and it starts with sunday, Then Sundays, Mondays, tuesdays are 5 for that month. If this month starts with monday, then mondays, tuesdays, and wednesdays are 5 and remaining days are 4 each. so this month start with Monday.

|  |
| --- |
| **Question 3**  **WRONG** |

What is the angle between two hands when time is 5:30?

|  |  |
| --- | --- |
|  | 20 Degrees |
| B | 18.75 Degrees |
| C | 160 Degrees |
|  | 15 Degrees |

**Question 3 Explanation:**

15° At 5:30 minute hand will be at position 6 and hour hand will be exactly between 5 and 6 and will cover 15°, so angle between two hands=30 -15 = 15°

|  |
| --- |
| **Question 4**  **CORRECT** |

The famous church in the city of Kumbakonam has a big clock tower and is said to be over 300 years old. Every Monday 10.00 A M the clock is set by Antony, doing service in the church. The Clock loses 6 minutes every hour. What will be the actual time when the faulty clock shows 3 P.M on Friday?

|  |  |
| --- | --- |
|  | 1.10 am. |
| B | 1.40 am. |
| C | 12.10 am. |
| D | 12.10 pm. |

**Question 4 Explanation:**

Let us start from Monday 10 am to friday 3.00 pm…..total hours=4 days 5 hrs.=4\*24+5=101 hrs. so total time loses=101\*6 minutes=606 minutes=606/60=10 hrs 10 minutes so actual time=friday 3.00 pm +10 hrs 10 minutes=staurday 1.10 am.

|  |
| --- |
| **Question 5**  **CORRECT** |

How many times do the hands of a clock coincide in 5 hours?

|  |  |
| --- | --- |
| A | 5 |
|  | 4 |
| C | 6 |
| D | 3 |

**Question 5 Explanation:**

hour hand and minute hand coincide every 65:5 minute, so in 5 hour they will coincide 4 times The hour hand covers 2\*360 degrees in 24 hours, i.e 1440 minutes. So, in one minute, it covers 1440/720 = 1/2 degree. Difference in angular distance travelled by the minute hand and the hour hand in one minute is thus 6-1/2 = 11/2 degrees. So, on a full rotation (360ᵒ), any similar event between them will be repeated every 360/(11/2) = 65 5/11 minutes.

|  |
| --- |
| **Question 6**  **CORRECT** |

What is the chance that a leap year selected at random contains 53 Fridays?

|  |  |
| --- | --- |
| A | 1/7 |
| B | 3/7 |
|  | 2/7 |
| D | 2/13 |

**Question 6 Explanation:**

ans- 2/7 in aleap year there are 366 days means 52 weeks and 2days. so already we have 52 fridays. now the rest two days can be (sun, mon), (mon,tues),(tues, wed), (wed, thrus), (thrus, fri),(fri, sat), (sat, sun) so, the probability of 53 fridays= 2/7

|  |
| --- |
| **Question 7**  **CORRECT** |

Between 9 a.m and 9 p.m of a particular day for how many times are the minute and hour hands together?

|  |  |
| --- | --- |
|  | 11 |
| B | 12 |
| C | 13 |
| D | 9 |

**Question 7 Explanation:**

11..the hands will be together for once per hour..e.g 9.45,10.50..but between 11 and 12 the coming together will be counted as 1 for both hence in 12 hrs time they will be together for 12-1=11 times

|  |
| --- |
| **Question 8**  **CORRECT** |

How many palindromes are there in a clock from noon to midnight ( For Example 5.45 is a palindrome)?

|  |  |
| --- | --- |
| A | 43 |
| B | 51 |
|  | 57 |
| D | 58 |

**Question 8 Explanation:**

57 after 12 o’clock 12:21…….=1 from 1 to 9 it is 1.01, 1.11, 1.21, 1.31, 1.41, 1.51.= 6 similarly 2.02,2.12,…………….. 6\*9=54+1=55 after 10 o’clock 10:01, 11:11 Ans: 55+2=57

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| **Question 9**  **WRONG** |

One quarter of the time till now from midnight and half of the time remaining from now up to midnight adds to the present time. What is the present time?

|  |  |
| --- | --- |
| A | 9:38 |
|  | 9:56 |
|  | 9:36 |
| D | 9:16 |

**Question 9 Explanation:**

x is present time 1/4(x)+1/2(24-x)=x solve it then x = 9:36

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| --- |
| **Question 10**  **CORRECT** |

A clock loses 1% time during first week and then gains 2% time during the next one week. if the clock was set right at 12noon on Sunday what will be the the time exactly that the clock will show 14days from the time it was set right?

|  |  |
| --- | --- |
| A | 1 : 30 : 48 P.M. |
|  | 1 : 40 : 48 P.M. |
| C | 1 : 40 : 38 P.M. |
| D | 1 : 30 : 48 A.M. |

**Question 10 Explanation:**

The clock loses 1% time during the first week. In a day there are 24 hours and in a week there are 7 days. Therefore, there are 7 \* 24 = 168 hours in a week. If the clock loses 1% time during the first week, then it will show a time which is 1% of 168 hours less than 12 Noon at the end of the first week = 1.68 hours less. Subsequently, the clock gains 2% during the next week. The second week has 168 hours and the clock gains 2% time = 2% of 168 hours = 3.36 hours more than the actual time. As it lost 1.68 hours during the first week and then gained 3.36 hours during the next week, the net result will be a -1.68 + 3.36 = 1.68 hour net gain in time. So the clock will show a time, which is 1.68 hours more than 12 Noon two weeks from the time it was set right. 1.68 hours = 1 hour and 40.8 minutes = 1 hour + 40 minutes + 48 seconds. i.e. 1 : 40 : 48 P.M.