**IRMA Solved Paper 2007**

**Directions for next five questions:** In the following number series only one number is wrong. Find out the wrong number.  
  
51, 26, 29, 42, 86, 217.5

|  |
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|  |
|  | A. 29 |
|  | B. 217.5 |
|  | C. 86 |
|  | D. 42 |
|  | E. None of these |

4, 7, 24, 196, 5488, 1075648

|  |
| --- |
|  |
|  | A. 24 |
|  | B. 1075648 |
|  | C. 196 |
|  | D. 5488 |
|  | E. None of these |

288, 432, 648, 972, 1456, 2187

|  |
| --- |
|  |
|  | A. 2187 |
|  | B. 648 |
|  | C. 1456 |
|  | D. 972 |
|  | E. None of these |

12, 35, 136, 677, 4010, 28045

|  |
| --- |
|  |
|  | A. 4010 |
|  | B. 677 |
|  | C. 136 |
|  | D. 28045 |
|  | E. None of these |

93, 309, 434, 498, 521, 533

|  |
| --- |
|  |
|  | A. 533 |
|  | B. 498 |
|  | C. 434 |
|  | D. 309 |
|  | E. None of these |

18 men can complete a piece of work in 63 days. 9 women take 189 days to complete the same piece of work. How many days will 4 men, 9 women and 12 children together take to complete the piece of work if 7 children alone can complete the piece of work in 486 days?

|  |
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|  |
|  | A. 76 |
|  | B. 63 |
|  | C. 54 |
|  | D. 81 |
|  | E. None of these |

The total compound interest earned on an amount @ 15 p.c.p.a. at the end of three years is Rs 9844.5375. What is the amount?

|  |
| --- |
|  |
|  | A. Rs 17,500 |
|  | B. Rs 18,900 |
|  | C. Rs 19,700 |
|  | D. Rs 19,400 |
|  | E. None of these |

A shopkeeper sold an Air-conditioner for Rs 25,935 with a discount of 9% and earned a profit of 3.74%. What would have been the percentage of profit earned if no discount were offered?

|  |
| --- |
|  |
|  | A. 15.6% |
|  | B. 16% |
|  | C. 12.3% |
|  | D. Cannot be determined |
|  | E. None of these |

**Directions for next five questions:** In the following questions two equations numbered I and II are given. You have to solve both the equations and  
  
I.  p^2 = 23409   
II.  q = \sqrt{23409} 

|  |
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|  |
|  | A.  p > q |
|  | B.  p \geq q |
|  | C.  p < q |
|  | D.  p \leq q |
|  | E. p q or the relationship between p andq cannot be established. |

I. 4p + 3q = 19  
II. 5p + 5q = 27

|  |
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|  |
|  | A.  p > q |
|  | B.  p \geq q |
|  | C.  p < q |
|  | D.  p \leq q |
|  | E. p q or the relationship between p and q cannot be established. |

I.  14p^2 + 51p + 7 = 0   
II.  18q^2 - 79q = 9 

|  |
| --- |
|  |
|  | A.  p > q |
|  | B.  p \geq q |
|  | C.  p < q |
|  | D.  p \leq q |
|  | E. p q or the relationship between p and q cannot be established. |

I.  11p^2 + 27p + 10 = 0   
II.  12q^2 - 19q = 10 

|  |
| --- |
|  |
|  | A.  p > q |
|  | B.  p \geq q |
|  | C.  p < q |
|  | D.  p \leq q |
|  | E. p q or the relationship between p and q cannot be established |

I.  p = |q|   
II.  q^2 = 256 

|  |
| --- |
|  |
|  | A.  p > q |
|  | B.  p \geq q |
|  | C.  p < q |
|  | D.  p \leq q |
|  | E. p q or the relationship between p and q cannot be established. |

**Directions for next five questions:** What should come in place of the question mark (?) in the following questions?  
  
 187.5 \times 49.5 \div 4.5 + 18.33 

|  |
| --- |
|  |
|  | A. 1862.26 |
|  | B. 406.54 |
|  | C. 533.43 |
|  | D. 2080.83 |
|  | E. None of these |

 16\cfrac{11}{13} - 3\cfrac{4}{9} + 18\cfrac{21}{26} = ? 

|  |
| --- |
|  |
|  | A.  23\cfrac{11}{234} |
|  | B.  49\cfrac{31}{234} |
|  | C.  11\cfrac{23}{234} |
|  | D.  32\cfrac{49}{234} |
|  | E. None of these |

 \sqrt{97344} + (21)^2 = (\ ?)^2 - 31 

|  |
| --- |
|  |
|  | A. 34 |
|  | B. 614656 |
|  | C. 28 |
|  | D. 784 |
|  | E. None of these |

37.1% of 780 â€“ ?% of 280 = 12% of 322

|  |
| --- |
|  |
|  | A. 49.8 |
|  | B. 37.6 |
|  | C. 52.4 |
|  | D. 39.6 |
|  | E. None of these |

 18\cfrac{3}{4}\ \times\ ? \div \cfrac{6}{37} = 1480 

|  |
| --- |
|  |
|  | A.  11\cfrac{7}{12} |
|  | B.  12\cfrac{12}{25} |
|  | C.  11\cfrac{12}{15} |
|  | D.  12\cfrac{5}{12} |
|  | E. None of these |

A farmer owns a circular plot with diameter 56 metres. He builds a 7 metres wide garden around (outside) the plot which costs Rs 260 per square metre. What is the total cost borne by the farmer for building the entire garden?

|  |
| --- |
|  |
|  | A. Rs 4,16,550 |
|  | B. Rs 2,28,700 |
|  | C. Rs 4,08,220 |
|  | D. Rs 3,60,360 |
|  | E. None of these |

In a year, a man manages to sell only 65% of the chicken he owns. How many chicken should the man own to sell 47,775 chicken in a year?

|  |
| --- |
|  |
|  | A. 73,000 |
|  | B. 68,500 |
|  | C. 82,500 |
|  | D. 55,000 |
|  | E. None of these |

**Directions for next five questions:** What **approximate** value should come in place of the question mark (?) in the following questions?  
  
 18.864 + 394.995 \div 25.031 =\ ? 

|  |
| --- |
|  |
|  | A. 17 |
|  | B. 43 |
|  | C. 22 |
|  | D. 11 |
|  | E. 35 |

 \sqrt[3]{27800} = \ ? 

|  |
| --- |
|  |
|  | A. 24 |
|  | B. 18 |
|  | C. 30 |
|  | D. 12 |
|  | E. 45 |

18.2% of 547 + 23.6% of 128.5 = ?

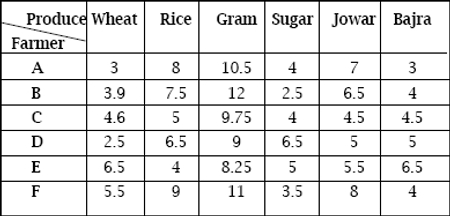
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|  |
|  | A. 116 |
|  | B. 158 |
|  | C. 121 |
|  | D. 130 |
|  | E. 148 |

 (42.54)^2 - (17.22)^2 =\  ? 

|  |
| --- |
|  |
|  | A. 1520 |
|  | B. 1580 |
|  | C. 1480 |
|  | D. 1420 |
|  | E. 1450 |

 11.925 \times 95.990 \div 24.144 \times 2.999 =\  ? 

|  |
| --- |
|  |
|  | A. 16 |
|  | B. 142 |
|  | C. 166 |
|  | D. 29 |
|  | E. 108 |

**Directions for next five questions:** Study the table carefully to answer the following questions.  
  
  
  
If farmer D sells 40 kilos of each of the six produces, what is the total money earned by him?

|  |
| --- |
|  |
|  | A. Rs 1,260 |
|  | B. Rs 1,540 |
|  | C. Rs 1,360 |
|  | D. Rs 1,480 |
|  | E. None of these |

Which produce has the lowest average selling price?

|  |
| --- |
|  |
|  | A. Wheat |
|  | B. Sugar |
|  | C. Jowar |
|  | D. Bajra |
|  | E. None of these |

If each farmer sells 250 kilos of Wheat and 150 Kilos of Gram, which farmer earns the maximum money?

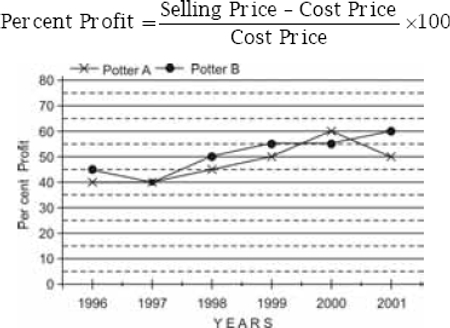
|  |
| --- |
|  |
|  | A. B |
|  | B. C |
|  | C. E |
|  | D. F |
|  | E. None of these |

Farmer B sells 170 kilos of Jowar and 120 kilos of Bajra. Farmer A sells 120 kilos of Jowar and 170 kilos of Bajra. What is the difference between the total money earned by each farmer from both produces together?

|  |
| --- |
|  |
|  | A. Rs 145 |
|  | B. Rs 260 |
|  | C. Rs 235 |
|  | D. Rs 195 |
|  | E. None of these |

Average selling price of sugar is approximately what per cent of average selling price of rice?

|  |
| --- |
|  |
|  | A. 64% |
|  | B. 76% |
|  | C. 52% |
|  | D. 48% |
|  | E. 83% |

**Directions for next five questions:** Study the graph carefully to answer the following questions.  
**Per cent profit earned by two Potters over the years**  
  
  
  
If Potter A sold 3,650 pots in the year 1999 at the price of Rs 12 per pot, what is the cost price of all pots together?

|  |
| --- |
|  |
|  | A. Rs 22,600 |
|  | B. Rs 28,500 |
|  | C. Rs 25,300 |
|  | D. Rs 29,200 |
|  | E. None of these |

If the amount of profit earned by Potter B in the year 1996 is Rs 40,500, what was the selling price of all the pots in that year?

|  |
| --- |
|  |
|  | A. Rs 1,30,500 |
|  | B. Rs 2,06,200 |
|  | C. Rs 1,44,500 |
|  | D. Rs 1,87,500 |
|  | E. None of these |

If in the year 2000, the total selling price of Potter B is equal to the total cost price of Potter A, what is the respective ratio of their selling prices?

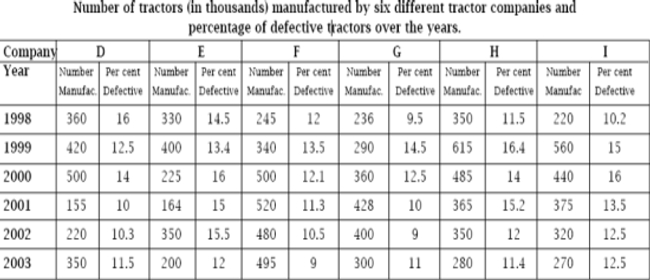
|  |
| --- |
|  |
|  | A. 7 : 8 |
|  | B. 5 : 8 |
|  | C. 5 : 7 |
|  | D. 7 : 9 |
|  | E. None of these |

Which of the following statement(s) is/are **definitely true?**

|  |
| --- |
|  |
|  | A. Amount of profit earned by Potter B in the year 1999 and 2000 is the same |
|  | B. Potter A earned the highest amount of profit in the year 2000 |
|  | C. Amount of profit earned by Potter A and B is the same in the year 1997 |
|  | D. All of the above |
|  | E. None of these |

What is the **approximate** per cent rise in per cent profit of Potter **B** in the year 2001 from the previous year?

|  |
| --- |
|  |
|  | A. 16% |
|  | B. 4% |
|  | C. 9% |
|  | D. 19% |
|  | E. 12% |

**Directions for next five questions:** Study the table carefully to answer the following questions.  
  
  
  
What is the respective ratio of non-defective tractors manufactured by Company G in the year 1999 to the non-defective tractors manufactured by Company E in the same year?

|  |
| --- |
|  |
|  | A. 4366 : 6225 |
|  | B. 4959 : 6928 |
|  | C. 6225 : 4366 |
|  | D. 6928 : 4959 |
|  | E. None of these |

What is the total number of defective tractors manufactured by Company H over the years?

|  |
| --- |
|  |
|  | A. 13,38,410 |
|  | B. 4,27,340 |
|  | C. 3,12,568 |
|  | D. 4,41,534 |
|  | E. None of these |

In which year were maximum number of tractors manufactured?

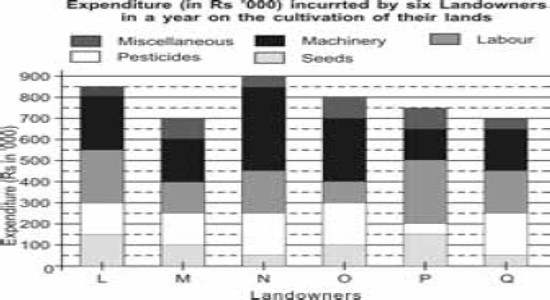
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| --- |
|  |
|  | A. 1998 |
|  | B. 2001 |
|  | C. 2003 |
|  | D. 2000 |
|  | E. None of these |

Which Company has manufactured the lowest number of defective tractors over the years?

|  |
| --- |
|  |
|  | A. F |
|  | B. I |
|  | C. G |
|  | D. D |
|  | E. None of these |

Total number of non-defective tractors manufactured by Company F over the years is **approximately** what per cent of the total tractors manufactured by it over the years?

|  |
| --- |
|  |
|  | A. 78 |
|  | B. 94 |
|  | C. 66 |
|  | D. 89 |
|  | E. 72 |

**Directions for next five questions:** Study the graph carefully to answer the following questions.  
  
  
  
What is the amount of expenditure incurred by P on Machinery?

|  |
| --- |
|  |
|  | A. Rs 1,00,000 |
|  | B. Rs 15,000 |
|  | C. Rs 2,00,000 |
|  | D. Rs 25,000 |
|  | E. None of these |

+The amount of expenditure incurred by L on pesticides is what per cent of the amount of expenditure incurred by Q on pesticides?

|  |
| --- |
|  |
|  | A. 75 |
|  | B. 60 |
|  | C. 50 |
|  | D. 85 |
|  | E. None of these |

What is the total amount of expenditure incurred on Labour by all Landowners together?

|  |
| --- |
|  |
|  | A. Rs 12,000 |
|  | B. Rs 1,20,000 |
|  | C. Rs 12,00,000 |
|  | D. Rs 1,200 |
|  | E. None of these |

Expenditure on Seeds by Q is **approximately** what per cent of its total expenditure?

|  |
| --- |
|  |
|  | A. 12 |
|  | B. 18 |
|  | C. 3 |
|  | D. 7 |
|  | E. 15 |

Miscellaneous expenditure incurred by all Landowners together is approximately what per cent of the total expenditure incurred on all items together by all Landowners?

|  |
| --- |
|  |
|  | A. 6 |
|  | B. 10 |
|  | C. 15 |
|  | D. 20 |
|  | E. 17 |

**Directions for next five questions:** Study the information carefully to answer the questions that follow.  
  
In a school of 2,500 students, the students are taught four different languages viz., English, Hindi, Marathi and Sanskrit. The ratio of girls to boys in the school is 3 : 2 respectively. 16% of the boys learn only Marathi. 23% of the girls learn only Marathi and Hindi. 14% of the total number of students learn only English. Boys learning only Marathi and Hindi are 120% of the girls learning the same. One-tenth of the boys learn only Sanskrit. Girls learning only Marathi are 130% of the boys learning the same. 19% of the boys learn only English. Remaining boys learn only Sanskrit, Hindi and English. 32% of the girls learn only Hindi and Sanskrit. Remaining girls learn only Hindi, English and Sanskrit.  
  
**What is the total number of girls learning English and Sanskrit?**

|  |
| --- |
|  |
|  | A. 787 |
|  | B. 867 |
|  | C. 947 |
|  | D. 897 |
|  | E. None of these |

What is the total number of students learning Marathi?

|  |
| --- |
|  |
|  | A. 1017 |
|  | B. 1464 |
|  | C. 1024 |
|  | D. 1127 |
|  | E. None of these |

How many students study at least two languages at a time?

|  |
| --- |
|  |
|  | A. 1582 |
|  | B. 1462 |
|  | C. 1670 |
|  | D. 1550 |
|  | E. None of these |

What is the total number of boys learning Hindi?

|  |
| --- |
|  |
|  | A. 480 |
|  | B. 550 |
|  | C. 620 |
|  | D. 650 |
|  | E. None of these |

How many girls do not learn Hindi?

|  |
| --- |
|  |
|  | A. 368 |
|  | B. 416 |
|  | C. 346 |
|  | D. 428 |
|  | E. None of these |