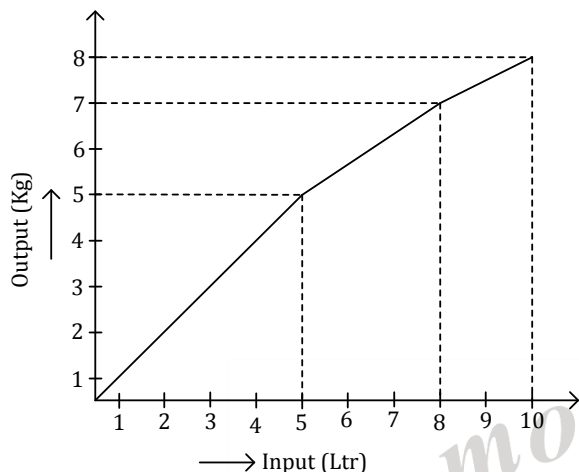# DATA INTERPRETATION – LINE

CLASS WORK

Directions for Q1 to Q5: Answer these questions based on the following information.

The figure shows the relation between the quantity of output (product X in Kg) and the input (diesel in Litres) for a machine.

1. If there is 7 Ltr of diesel and 5 machines are available, then what is the maximum possible output (in Kg)?
    (a) 1   (b) 7   (c) 3   (d) 4

2. What should be the minimum number of machines used to get maximum output from 18.33 Ltr of diesel?
    (a) 4   (b) 5   (c) 6   (d) 7

3. What should be the minimum amount of diesel used to obtain 14 Kg of product X such that not more than 3 machines are used and at least one of the machines works below its maximum efficiency and the minimum quantity of incremental input is 0.5 Litre? (Note: A machine works below its maximum efficiency when the output is less than 5 Kg.)
    (a) 11.5 Ltr   (b) 12.5 Ltr
    (c) 13.5 Ltr   (d) 14.5 Ltr

4. A Person Y who does not have prior knowledge of the relation between the input and output of the machine is given 9 Ltr of diesel and 2 machines. He ignorantly uses all the 9 Ltr in a single machine. What is the difference between the maximum possible output for that quantity of diesel and the actual output obtained by Y?
    (a) 4.5 Kg   (b) 1.5 Kg   (c) 3.5 Kg   (d) 2.5 Kg

5. Two persons A and B were given 12 Ltr of diesel each. A was given 4 machines whereas B was given only 3 machines. What is the difference between the maximum output each got (in Kg)?
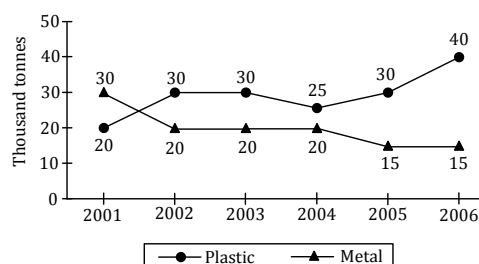   (a) 0   (b) 1   (c) 2   (d) 3

Directions for Q6 to Q10: Answer these questions based on the following line graph.

Import of iron from 2000 to 2006 (in million tonnes)
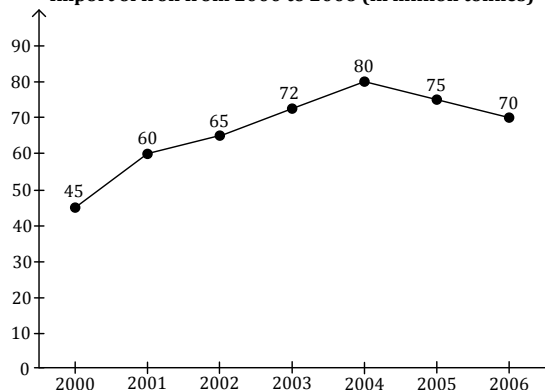
6. In which of the following years is the percentage increase in the quantity of iron import, over that in the previous year, the lowest?
    (a) 2001   (b) 2002   (c) 2003   (d) 2004

7. What is the difference between the average quantity of iron imported in the given period and the quantity of iron imported in 2004 (in million tonnes)?
    (a) 110/13   (b) 82/5
    (c) 93/7   (d) None of these

8. If the price of iron increased by 20% from 2003 to 2004, then the total value of iron imported in 2004 is approximately what percentage of that in the year 2003?
    (a) 126%   (b) 133 1/3%
    (c) 130%   (d) 140 2/5%

9. The quantity of iron imported in 2004 is approximately how many times that in 2000?
    (a) 1.78   (b) 1.67   (c) 1.33   (d) 1.54

10. What is the ratio of the quantity of iron imported in 2000, 2001 and 2003 put together and that in 2002, 2004, 2005 and 2006 put together?
    (a) 112:231   (b) 13:17
    (c) 54:67   (d) None of these

Directions for Q11 to Q15: Answer the questions given as per details given in the graph, which provides the consumption of metal and plastic across 6 years.

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11. What is the number of years for which the consumption of metal was less than the consumption of plastic over the given period?
    (a) 4   (b) 2   (c) 3   (d) 5

12. For how many years has the consumption of metal and plastic put together showed a decrease over the previous year's consumption?
    (a) 2   (b) 1   (c) 3   (d) 4

13. What is the ratio of the total consumption of metal to that of plastic in the given period?
    (a) 4:5   (b) 18:23   (c) 19:23   (d) 24:35

14. What is the percentage increase in the total consumption of the products in 2006, over that in 2005?
    (a) 33 1/3%   (b) 22 2/9%
    (c) 16 2/3%   (d) 37.5%

15. During which period did the consumption of both the products, shows a similar trend (both increasing / decreasing / constant)?
    (a) 2330–04   (b) 2002–03
    (c) 2001–02   (d) 2005–06

Directions for Q16 to Q20: Answer these questions based on the following line graph which shows the performance of students of six schools P, Q, R, S, T and U in a board exam.
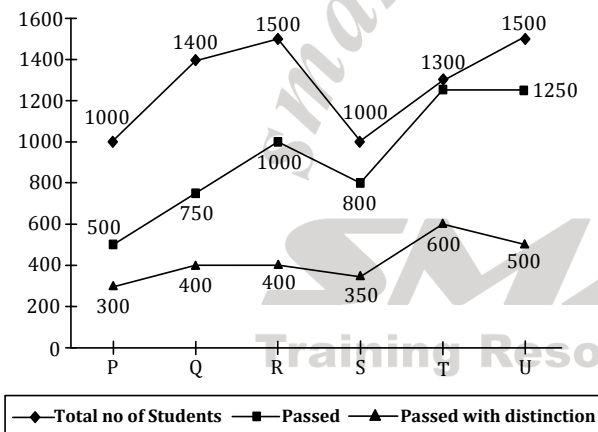
16. In which of the following schools is the percentage of students passing without distinction, the least?
    (a) P   (b) R   (c) S   (d) U

17. In how many schools is the pass percentage at least 80?
    (a) 1   (b) 2   (c) 3   (d) 4

18. In which of the following schools is the ratio of the number of students passing with distinction to those failing, the least?
    (a) Q   (b) R   (c) P   (d) T

19. Considering all the six schools, what percentage of the students has passed with distinction?
    (a) 33.1%   (b) 33.8%   (c) 34.2%   (d) 35.6%

20. What is the ratio of the total number of students who failed to those who passed, in all the six schools together?
    (a) 43:121   (b) 21:37   (c) 43:111   (d) 21:38
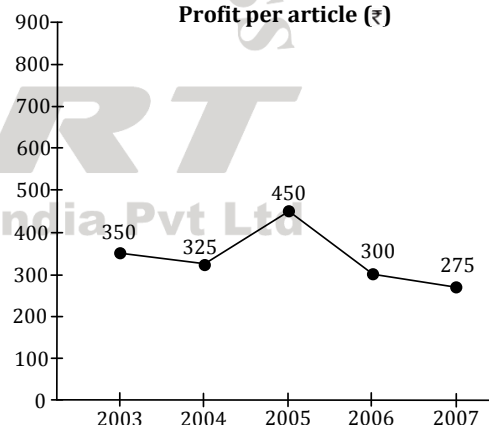
HOME ASSIGNMENT

Directions for Q1 to Q5: Answer these questions based on the following information.

The graph shows the number of articles sold and the profit per article for company ABC.

Number of articles sold
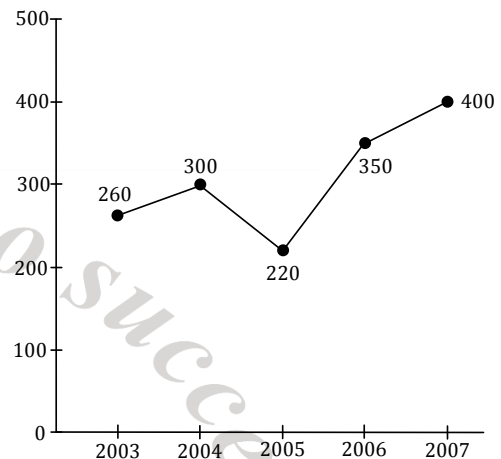
Profit per article (₹)

Note: (1) Cost of each article in any year is the same and all articles produced are sold.

(2) Profit percentage = Profit/cost * 100

1. In which year was the profit of company ABC, the highest?
   (a) 2004   (b) 2005   (c) 2006   (d) 2007

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DATA INTERPRETATION – LINE

2. In 2004, the total profit was 60% of the total cost. Find the total cost in that year.
   (a) Rs.1,75,00   (b) Rs.2,40,000
   (c) Rs.1,62,500   (d) Rs.2,25,000

3. If, in 2006, the selling price of six articles is equal to the cost price of ten articles, then find the selling price per article (in Rs.).
   (a) 450   (b) 750   (c) 600   (d) 500

4. By what percentage is the total profit made in 2005 more/less than that in 2007?
   (a) 15%   (b) 12%   (c) 10%   (d) 8%

5. If the selling price per articles in 2007 was Rs.500, then find the profit percentage in that year?
   (a) 122 2/9%   (b) 130 1/3%
   (c) 66 6/7%   (d) None of these

Directions for Q6 to Q10: The following Line chart gives the ratio of the amounts of imports by a Company to the amount of exports from that Company over the period from 1995 to 2001. Answer the following questions based on following Line graph.

Ratio of value of Imports to Exports

6. In how many of the given years were the exports more than imports?
   (a) 1   (b) 2   (c) 3   (d) 4

7. The imports were minimum proportionate to the exports of the company in the year
   (a) 1997   (b) 1995   (c) 1996   (d) 2000

8. If the imports of the company in 1996 were Rs.272 crores, the exports from the company in 1996 were
   (a) Rs.120 Crores   (b) Rs.220 Crores
   (c) Rs.320 Crores   (d) Rs.420 Crores

9. What was the percentage increase in imports from 1997 to 1998?
   (a) 70   (b) 72
   (c) 74   (d) Data inadequate

10. If the imports in 1998 were Rs.250 crores and the total exports in years 1998 and 1999 together were Rs.500 crores, then the imports in 1999 were
    (a) Rs.320 crores   (b) Rs.420 crores
    (c) Rs.520 crores   (d) Rs.620 crores

ANSWER KEY

1. (d)	2. (c)	3. (b)	4. (c)	5. (a)
6. (d)	7. (a)	8. (c)	9. (d)	10. (b)

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