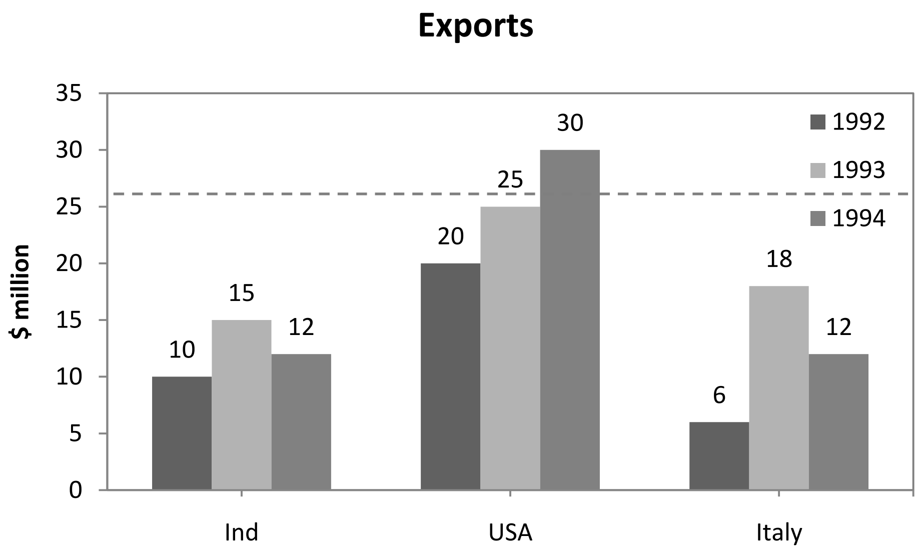
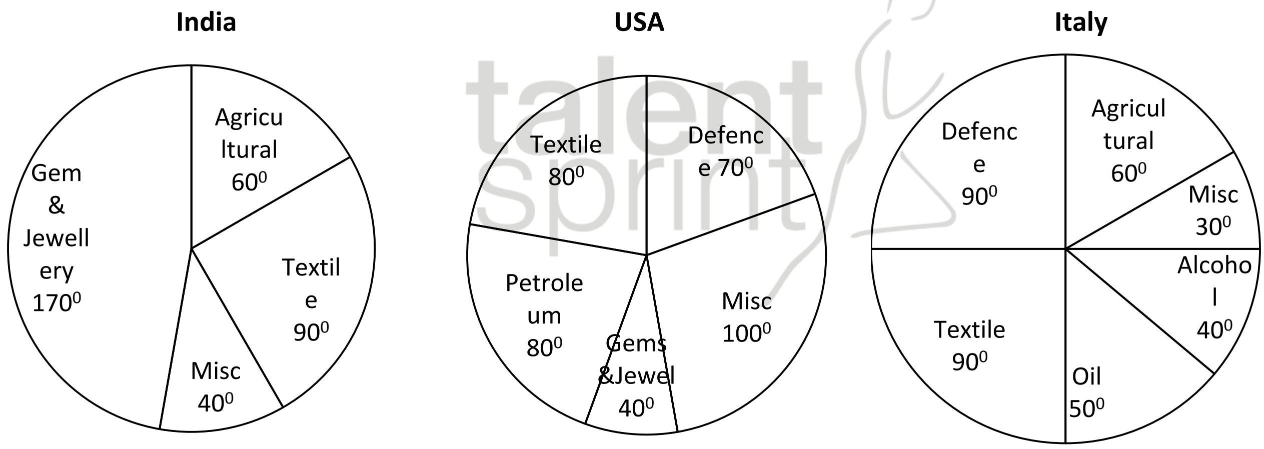
9. Mixed Varieties

E 1: The following graphs show the exports of 3 countries- India, USA and Italy for 3years. Each year's section wise break up for each country has been shown separately by pie charts.





Exports Breakup

1. The average agricultural exports of India over the three years is higher than that of the average agricultural exports of Italy by what percent?

   1) 0.8% 2) 2.5% 3) 8.0% 4) 25% 5)None of these

   Sol. Average exports for the three years for India = 37/3 = $12.3 million

   % of agriculture = 60/360 x 100 = 100/6%.

   =>Average agriculture exports = 1/6 x 12.3 = $2.05 million

   Similarly for Italy, average exports = 36/3 = $12 million

   % of agriculture = 60°/360° x 100 = 100/6%.

   So Average agriculture exports = $2 million.

   The required percentage increase = (2.05 - 2)/2 × 100 = 0.05/2 × 100 = 2.5% **Ans. 2)**

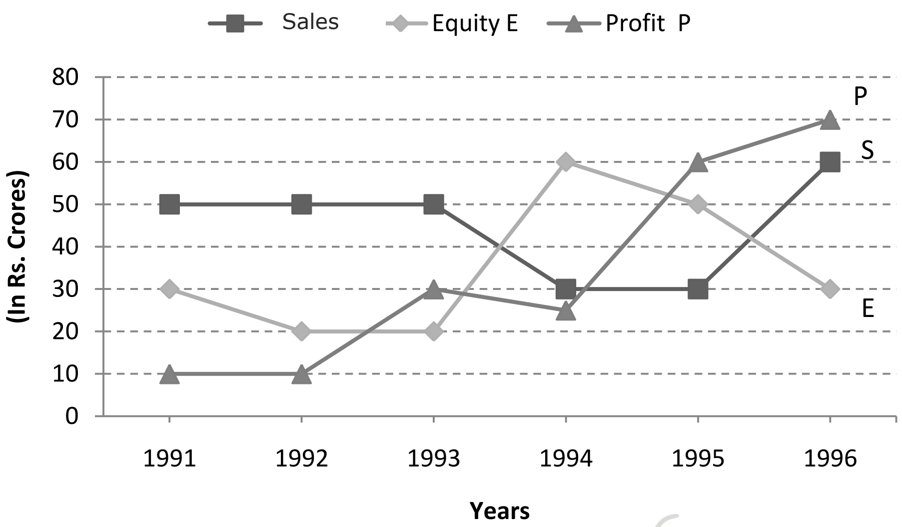
2. The petroleum exports of USA in 93 bear to the oil exports of Italy in 92, a ratio of
   1) 2.4 2) 12.13 3) 9 4) 6.67 5)None of these
   Sol. Petroleum exports of USA in 1993 = 80/360 × 25 = $5.55 million.
   Oil exports of Italy in 1992 = 50/360 × 6 = $0.83.million.
   Ratio = 5.55 / 0.83 = 6.68. **Ans. 4)**

3. The gems and jewellery exports of USA in '93 and '94 forms what percent of the oil and alcohol exports of Italy in '92 and '93?
   1) 76.3% 2) 51% 3) 45.64% 4) 96.25% 5)None of these
   Sol. Gems and jewellery exports of USA in 1993 and 1994 = 30/360 (25 + 30) = 1/12 × 55 = $4.58 million.
   Oil and Alcohol export of Italy in 1992 and 1993
   = 50/360 (6+ 18) + 40/360 (6 + 18) = 24(90/360) = $6 million.
   Required percentage 4.58/6 × 100 = 76.3 % **Ans. 1)**

4. The maximum value of any exports in any category in any year bears to the minimum value of any exports in any category in any year a ratio of (for any country)
   1) 4.92 2) 16.6 3) 4.8 4) 9.3 5)None of these

5. The exports due to textile sector in '92 and '93. for India is greater than the total defence exports of USA and Italy in ’92, by what percent?
   1) 6.4 % 2) 29.21 %3) 36% 4) 16% 5)None of these
   Sol. Exports from the textile sector in 1992 and 1993 for Indian = 90/360 (25)=25/4=$6.25 million. Defence exports in 1992, by: USA = 70/360 × 20 = $3.89 million
   Italy = 90/360 x 6 = $1.5 million
   Net = 3.89 + 1.5 = $5.39 million
   Required percentage = (6.25 - 5.39)/5.39× 100 = 15.95% **Ans.4)**

E 2: The following line graph shows the sales, equity and profit of a particular company. Each of the sales, equity and profit were influenced by various factors. The tables shows the influence that each factor had in percentages on all the three items i.e., sales, equity and profits.



Each of S, E and P were influenced by the following

1) Consumer demand 2) Efficiency3) Market 4) Management

The pattern of influence for all the years for all S, E and P is as follows

Management	14%
Consumer Demand	22%
Efficiency	24%
Market	40%

6. The profit due to consumer demand in 1992, is what percent of sales due to market in 1995?

   1) 18.30% 2) 6.41%3)17.3% 4) 27.1%5) None of these

   Sol. Profit due to consumer demand in 1992 = 10 × 22% = 2.2crore

   Sales due to market in 1995 = 30 × 40% = 12 crore

   Required percentage = $\frac{2.2}{12}$ ×100 = 18.3%. Ans.1)

7. In year 1996 the ratio of sales and equity due to efficiency to the profit due to market is approximately

   1) 1.72 2) 0.46 3)0.77 4) 1.1 5) None of these

   Sol. Sales and equity due to efficiency, in 1996 = (60 + 30) × $\frac{24}{100}$ = 21.6 crore.

   Profit due to market in 1996 = 70 × $\frac{40}{100}$ = 28 crore

Ratio = 21.6/28 = 0.77. Ans. 3)

8. The net profits due to efficiency for the whole time duration shown is what % of net sales for the same period due to management?

1) 130%   2) 200% 3) 86% 4) 49% 5)None of these

Sol. Net profits = 10 + 10 + + 70 = 205 crore

Net sales = 50 + 50 + + 60 = 270 crore

Profit due to efficiency = 0.24 × 205 = 49.2 crore

Sales due to management = 0.14 × 270 = 37.8 crore

Required percentage = 37.8 × 100 = 130% (approx.). Ans.1)

9. During the whole period influence of consumer demand resulted in generation of sales worth (₹ crore)

1) 49 2) 60 3) 654) 745) None of these

Sol. Total sales = 270 crore.

Sales due to consumer demand = 0.22 × 270 = 59.4 crore. Ans.2)

10. $\frac{\text{NetProfit} + \text{NetSale}}{\text{Net equity}}$ due to consumer demand, for the whole period is

1) 2.80 2) 2.94 3) 2.26 4) 1.36 5) None of these

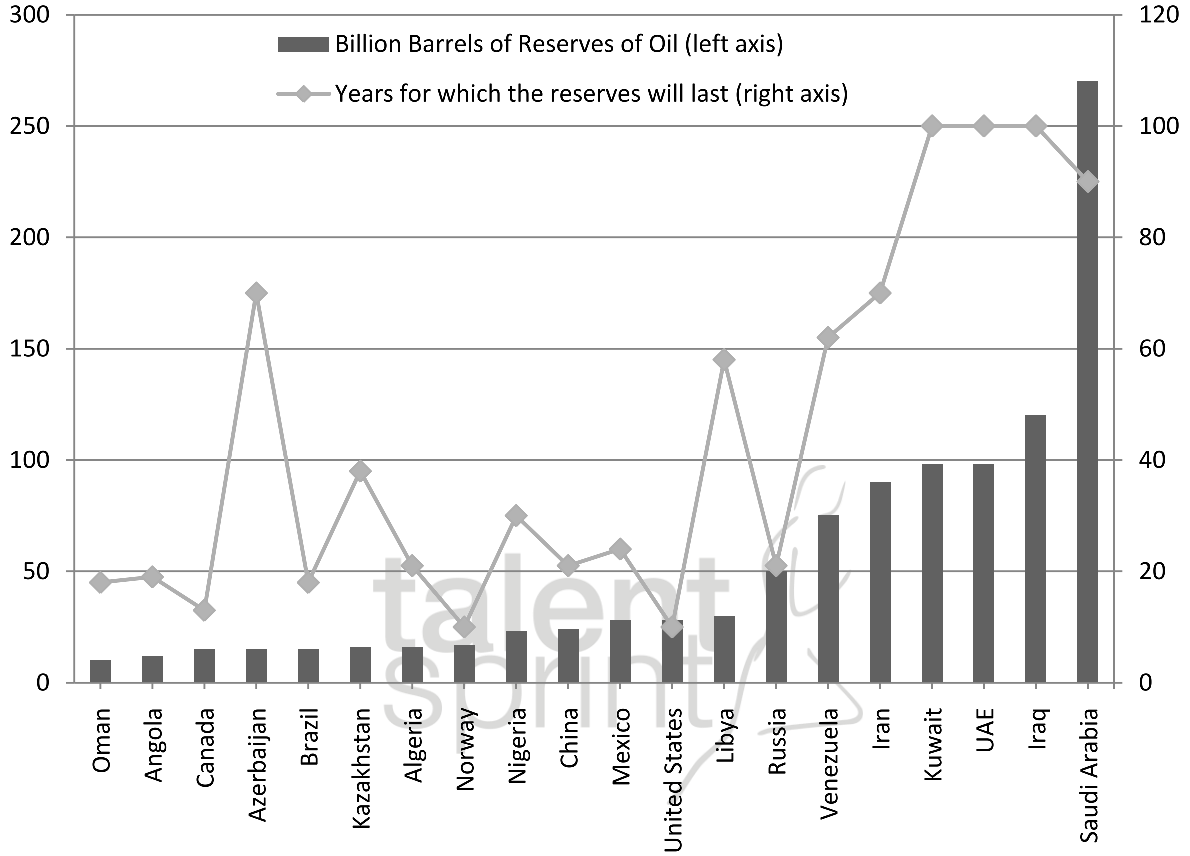
Sol. Net profit = 205 crore. Net sales = 270 crore.

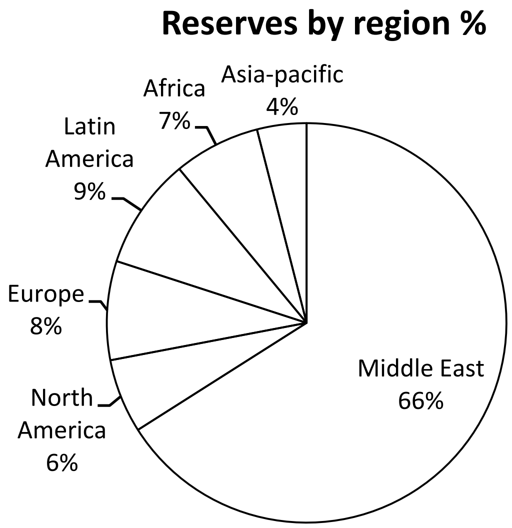
Net equity = 210 crore, so we have $\frac{205+270}{210}$ = 2.26.

Since all the quantities are equally effected by consumer demand result should be 2.26. Ans.3)

Practice Exercise:

The bar graph shows the oil reserves and the line graph shows the estimated number of years for which the reserves will last at the present oil extraction rates fat various countries. The pie-chart shows the percentage distribution of the oil reserves region wise.





1. What is the ratio of oil extracted by Saudi Arabia to that of Mexico per year? (in billion barrels)
   1) 0.4 2) 2.67 3) 5.68 4) 15.23 5) None of these

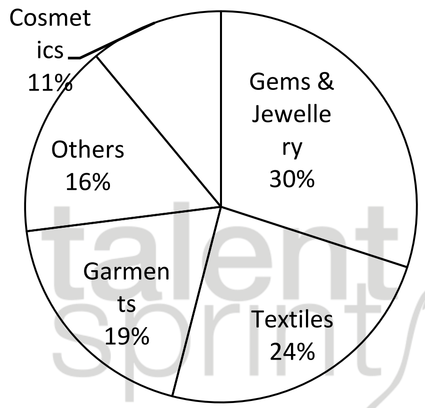
2. If the Oil reserves held by Saudi Arabia form 32% of the share of middle east countries then what percentage share of global oil reserve is in Iraq?
   1) 20.92% 2) 16.82% 3) 22.08% 4) 9.6% 5) None of these

3. What will be the difference between countries extracting maximum amount of oil to that extracting minimum amount of oil? (in billion barrels)
   1) 1.57 2) 2.85 3) 4.14 4) 0.98 5) None of these

4. The ratio of number of years for which the reserves will last to the total available reserves in billions of barrel for two countries would be maximum for
   1) Azerbaijan, Libya 2) Libya, Saudi Arabia 3) USA, Kuwait
   4) Russia, Venezuela 5) None of these

5. If Russia consumes double of its production and it imports only from Saudi Arabia and Saudi Arabia exports only to Russia then what is the ratio of oil consumption by Russia& Saudi Arabia?
   1) 4.93 2) 9.39 3) 6.21 4) 2.36 5) None of these

The following bar graph shows the total Indian Export (in $ billion) during a period of 8 months. The pie charts show the breakup of this Export during this period.



6. The exports of Textiles and Others in the month of July is approximately equal to the exports of Gems & Jewellery and Others in the month of
   1) April 2) August 3) October 4) November 5) None of these

7. What is the ratio of exports of first four months to the last four months?
   1) 1.12 2) 0.89 3) 1.5 4) 0.75 5) None of these

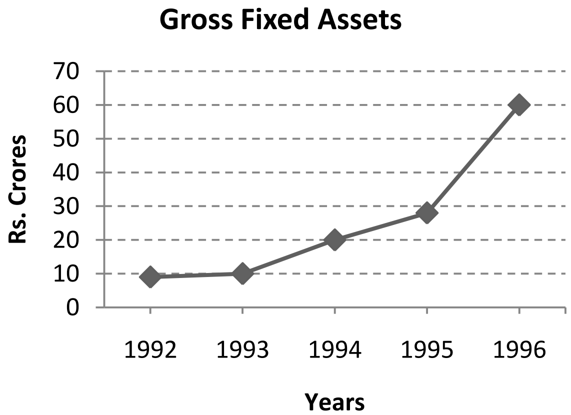
8. If the target for the export of Gems and Jewellery for the complete year is set at $120 billion, then what should be the total value of export of the same for the remaining four months (assume April - March as the Financial Year)?
   1) $46 billion 2) $38 billion3) $22 billion4) $44 billion5) None of these

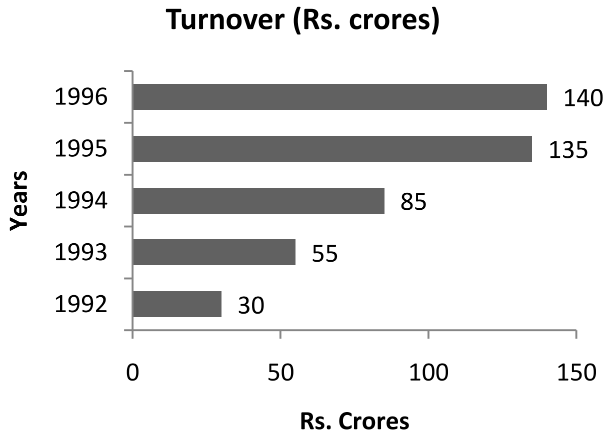
9. The ratio of cosmetics export in April to the export in November is
   1)14: 13 2) 11: 10 3) 18 : 17 4) 8 : 7 5) None of these

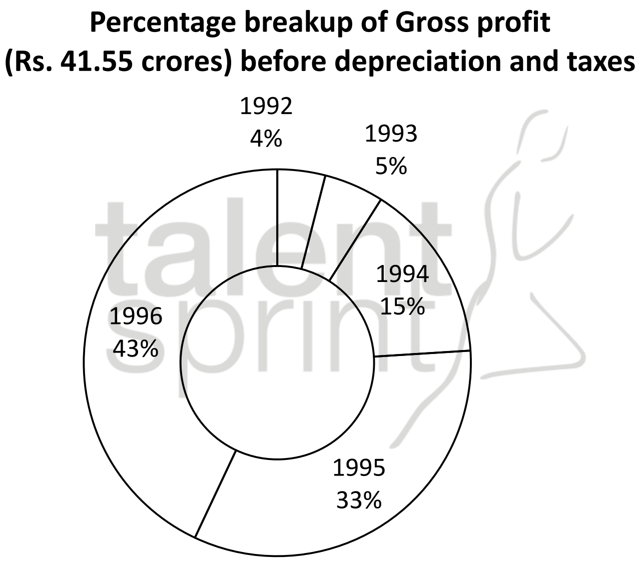
10. The percentage change in the export of garments from April to November is

1) 5.71% 2) 8.24% 3) 9.14% 4) 6.14% 5) None of these

Misco Computer Software company has the following economic indicators for the mentioned years.







Net profit= Gross Profit-Tax-Depreciation

11. Depreciation and tax are calculated on the gross profit. If the depreciation in 1994 is 12.5% and the tax is 6%; then what is the net profit (in ₹ crores) for that year?

1) 4.21 2) 5.40 3) 5.10 4) 6.09 5) None of these

12. In which of the following years, has the gross profit, expressed as a percentage of the turnover, been the highest?

1) 1996 2) 1995 3) 1994 4) 1993 (5 None of these

13. In which of the following years has the ratio of turnover to gross fixed assets been the highest?

1) 1996 2) 1993 3) 1994 4) 1995 5) None of these

14. Return on Sales is defined as Gross profit I Turnover. Over the years 1992-1996, what has been the approximate average return on sales (expressed as a percentage)?
   1) 12% 2) 10% 3) 11% 4) 8% 5) None of these

15. The lowest percentage increase over the previous year in the gross fixed assets of the company has been in the year
   1) 1996 2) 1995 3) 1994 4) 1993 5) None of these

Answers:

1.2 2.4 3.2 4.1 5.3 6.3 7.1 8.1 9.2 10.3 11.1 12.3 13.1 14.2 15.4