Radar Graph

Data Interpretation

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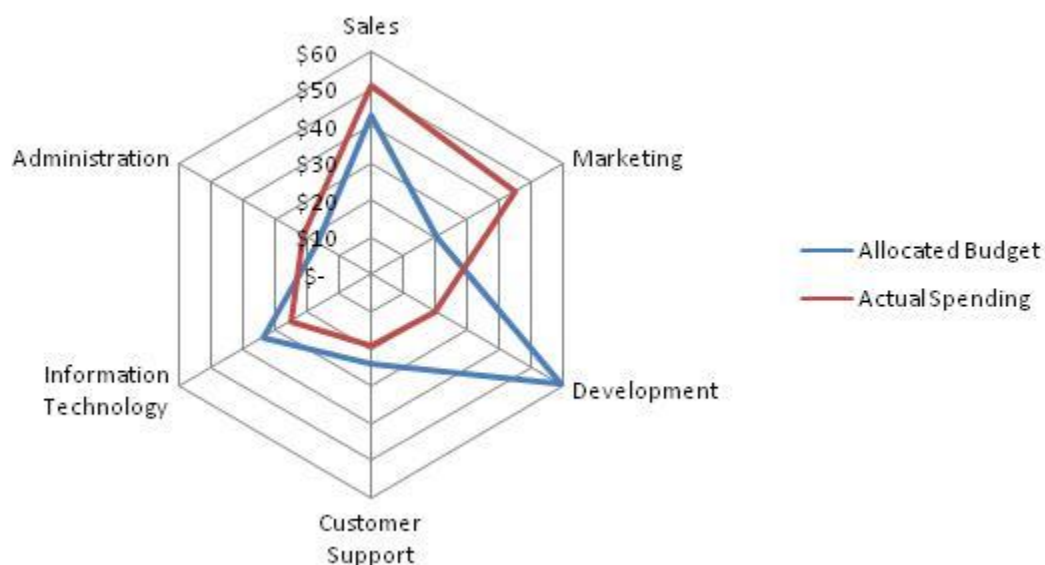
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Radar DI Tricks & Tips

Introduction to Radar Chart

Radar chart is a graphical way to compare data by displaying data in a "web-like" form looking like spider web. So it is also known as spider chart/graph. Usually, it is applied to evaluate multiple alternatives based on multiple criteria.

INTRODUCTION

Radar charts, sometimes known as spider, start or web charts, are a two-dimensional chart type designed to plot one or more series of values over multiple common quantitative variables by providing an axis for each variable, arranged radially as equi-angular spokes around a central point. The values for adjacent variables in a single series are connected by lines, and, frequently, the polygonal shape created by these lines in filled with a colour. Beyond this there are many subtle variations that have different consequences with respect to the efficacy of the chart. These variations will be covered at appropriate points in the following critique.

Benefits of Using Radar Charts

Benefit 1: *They provide a very easy way to see if someone is competent or not.*

By overlaying multiple "webs" on a radar chart, you can do visual comparisons against reference data sets very easily. For example, you could compare a student to his classmates by overlaying the average radar chart from the entire class on top of his personal radar chart.

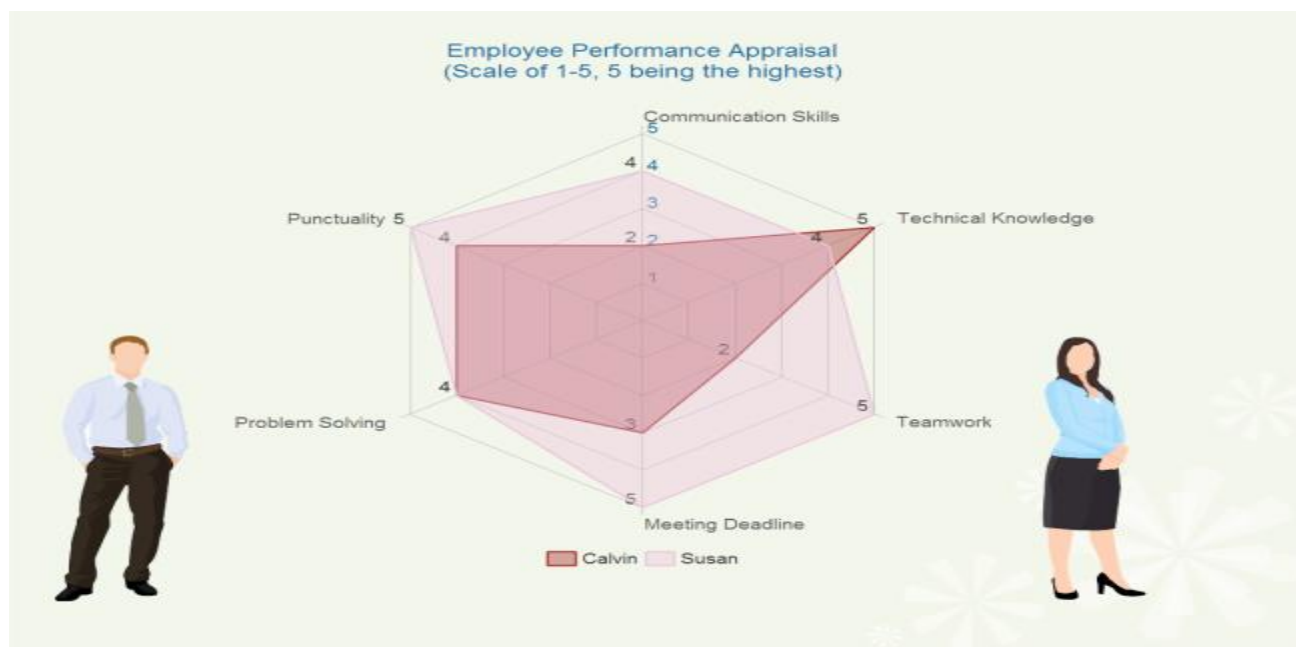**Benefit 2**: *They are great input in the development of learning plans*

Weaknesses or strengths in performance are easy to see on radar charts. When someone is far above or below a standard, you will be able to observe a clear "balloon out" or "cave in" pattern.

This makes it easier for time-crunched advisors to find and address issues when they're working with students. It also makes it easy to identify performers who stand out from the crowd. Those top performers may be able to help others in areas they are particularly good at. What is more, it may highlight trainees who should spend more time in training to catch up with other.

Radar Charts for Problem Solving

Radar charts are widely used in many fields, including education, business or other presentation. Here you can learn how to use a Radar Chart as a problem-solving technique, being especially useful in performance measurement. To solve a problem, sometimes you need to learn or analyze the problem comprehensively, through facts or figures. How can you dig out more useful information from the dry number? Radar chart is a great helper for you to make static data more meaningful and useful. It helps you compare and clarify so that you can see the differences and deficiencies. See how you can solve problems by radar chart through one real case.

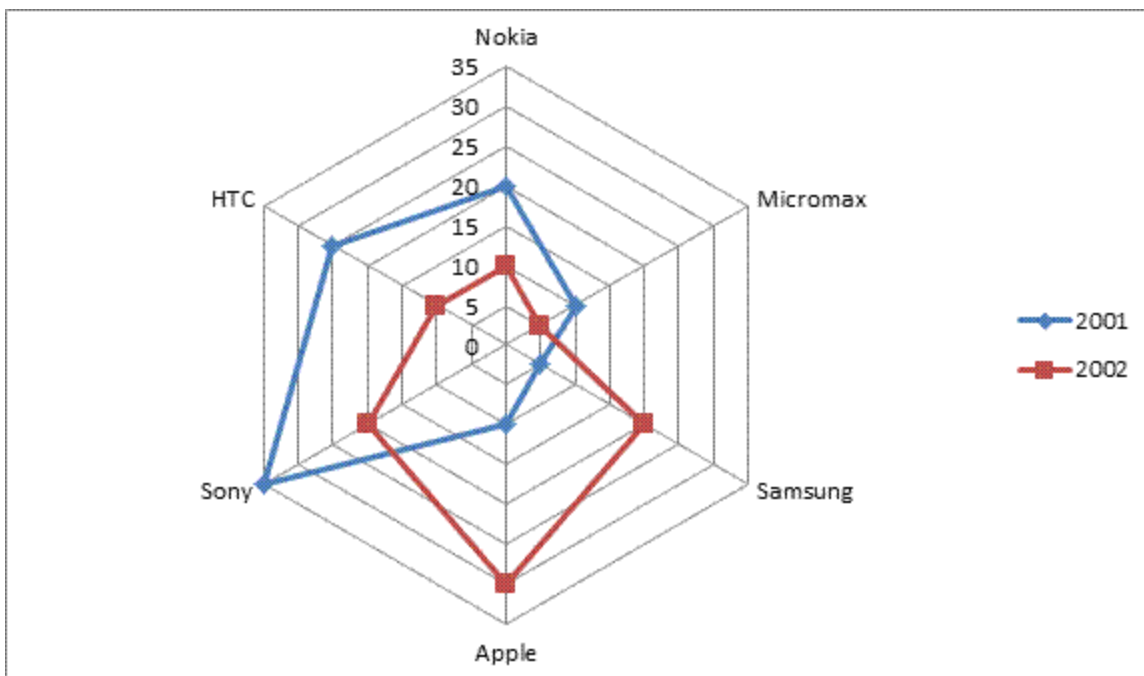**Problem Solving Example: Performance Evaluation Radar Chart**

For this example, possible analyses might include:

1. *Susan is better in punctuality, communication skills teamwork and meeting deadline.*
2. *Calvin's technical knowledge is better than Susan.*
3. *The largest difference is found in teamwork.*
4. *Susan's performance is better as a whole.*
5. *Calvin ought to improve his soft skills to be more competent.*

We have seen the data through Table and Bar chart. Now we calculate this data through Radar chart.

Number of mobile phones manufactured(in thousand) by 6 different companies in the years 2001 and 2002

As you can see Blue lines indicate year 2001 and Red line indicates year 2002.

Let's Solve the problems.

1. In 2002,Which company manufactured the maximum number of Mobile Phones?

(a) Nokia

(b) Sony

(c) Apple

(d) Samsung

Solution:

From the Chart you can clearly see the maximum number of Mobile Phones manufactured by Apple in 2002= 30,000 , Answer C

2. What is the average number of Mobile phones (in thousand) manufactured by all companies taken together in 2001?

(a) 17.5

(b) 18.5

(c) 20

(d) 22

Solution:

In 2001 Mobile manufactured,

Nokia= 20000, Micromax=10000, Samsung=5000, Apple= 10000, Sony=35000,HTC=25000

Total=20+10+5+10+35+25/6=105/6=17.5 Thousand,

Answer A

3. The respective ratio between the number of Mobile Phones manufactured by Micromax in 2001 and that by Samsung in 2002 is ?

(a) 3 : 4

(b) 4 : 5

(c) 1 : 2

(d) 7 : 8

Solution:

The number of Mobile Phones manufactured by Micromax in 2001= 10000

The number of Mobile Phones manufactured by Samsung in 2002= 20000

Required Ratio= 10000 : 20000= 1 : 2,

Answer C

4. The difference between the number of Mobile Phones manufactured by Nokia, Micromax and Samsung in 2001 and that by Apple , Sony and HTC in 2002 is ?

(a) 20000

(b) 30000

(c) 22000

(d) 25000

Solution:

The number of Mobile Phones manufactured by Nokia, Micromax and Samsung in 2001, = 20 +10 +5=35000

The number of Mobile Phones manufactured by Apple , Sony and HTC in 2002, =30 +20 +10=60000

Required difference= 60000-35000= 25000,

Answer D

5. What is the percentage increase in production of Mobile Phones by Apple in 2001 in comparison to that in 2002?

(a) 200%

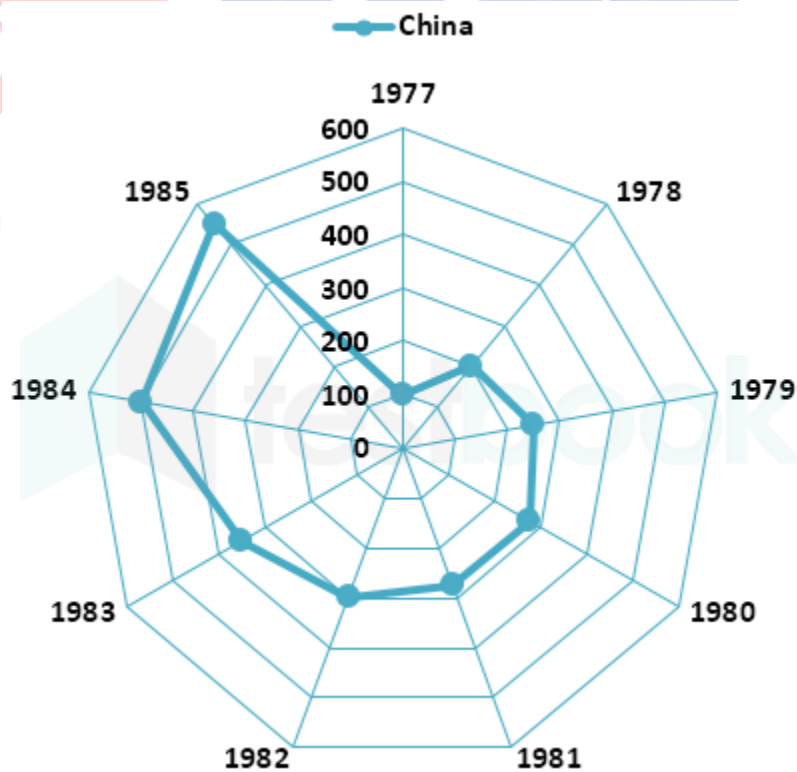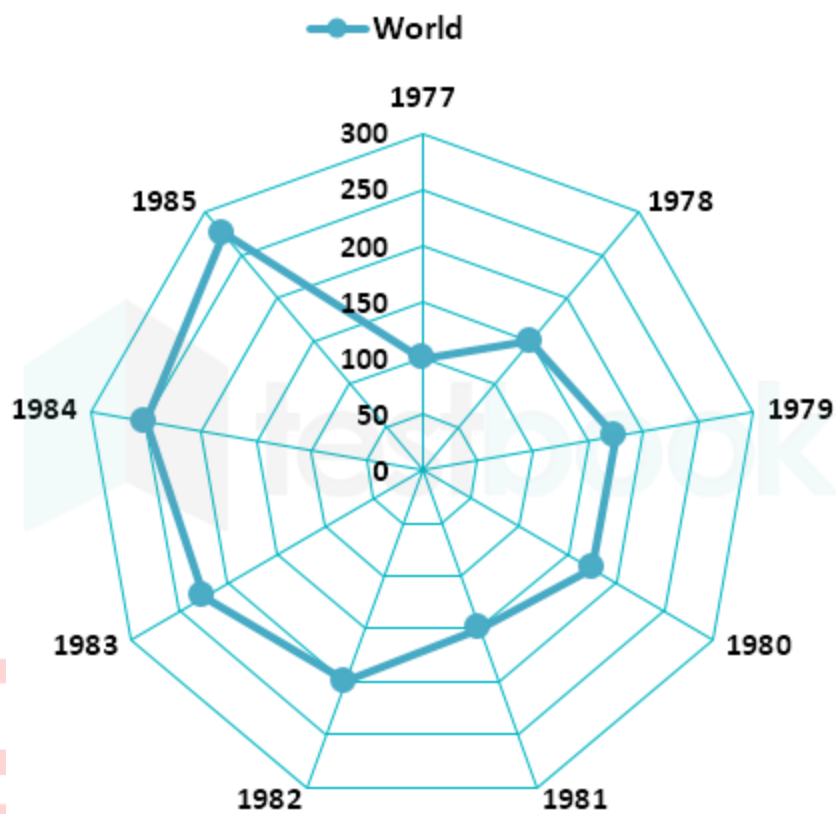*(b) 100%*

(c) 300%

(d) 250%

Solution:

Production of Mobile Phones by Apple in 2001= 10

Production of Mobile Phones by Apple in 2002= 30

Percentage increase= 30-10/10 X 100% = 200%,

Answer A

Directions: The following radar graphs show the Trade Growth (in $ billion) of world and China from the previous year for the year 1977 to 1985. Refer to the graphs to answer the questions that below:

Que. 6 What is the per cent increase in trade growth of China in the year 1980 over that of the same in 1979?

1.70%

2.10%

3.17%

4.35%

5.None of these

Solution

Answer:2Growth in China in 1979 = 250 $billion

Growth in China in 1980 = 275 $billion

We have, % change = (Change/Initial value) × 100

So, % Increase = [(275 − 250)/250] × 100 = (25/250) × 100

= 10%

Que. 7 Average world trade growth is how much per cent more or less than the average trade growth of china during the entire shown period?

1.More, 25%

2.Less, 30%

3.Less, 39%

4.More, 80%

5.Less, 25%

Solution

Answer:3We have, Average growth = Total growth/no. of years

Average World trade growth = (100 + 150 +175 + 175 + 150 + 200 + 225 + 250 + 275)/9

= 1700/9 =188.89 $billion

Average China trade growth = (100 + 200 + 250 + 275 + 275 +300 + 350 + 500 + 550)/9

= 2800/9 = 311.11 $billion

Thus, average world trade growth is less than that of China by (311.11 – 188.89) = 122.22 $billion

Required % = (122.22/311.11) × 100 = 39.28 ≈ 39% less

Que. 8 What is the ratio of the total World trade to total trade of China in the year 1985, if the total trade of world in 1976 is $ 5267 billion and total trade of China in 1979 is $ 1200 billion?

1.2 : 1

2.3 : 1

3.2 : 3

4.3 : 2

5.8 : 3

Solution

Answer:1Considering the growth from 1979 to 1985,

Trade in China 1985 = 1200 + 275 + 275 + 300 + 350 + 500 + 550

= 3450 $billion

Considering the growth from 1976 to 1985,

World trade in 1985 = 5267 + 100 + 150 + 175 + 175 + 150 + 200 + 225 + 250 + 275

= 6967 $billion

Ratio required = 6967/3450 ≈ 2/1

Que. 9 If the total trade of China in the year 1979 is $ 1200 billion, what it will be in the year 1985?

1.$ 3456 billion

2.$ 3786 billion

3.$ 3954 billion

4.$ 3450 billion

5.None of these

Solution

Answer:4Total trade of China in the year 1979 is $ 1200 billion.

Considering the growth from 1979 to 1985,

Trade in 1985 = 1200 + 275 + 275 +300 + 350 + 500 + 550

= 3450 $billion

Que. 10 If the total trade of world in the year 1976 is $ 5267 billion, what it will be in the year 1985?

1.$ 6176 billion

2.$ 6967 billion

3.$ 6965 billion

4.$ 6987 billion

5.None of these

Solution

Answer: 2Total trade of world in the year 1976 is $ 5267 billion.
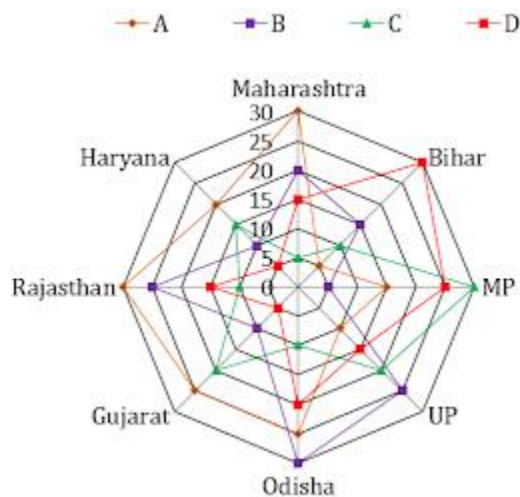
Considering the growth from 1976 to 1985,

Trade in 1985 = 5267 + 100 + 150 +175 + 175 + 150 + 200 + 225 + 250 + 275

= 6967 $billion

Directions (Q.1-5): Study the following radar graph carefully to answer the questions that follow :

Number of seats won by various political parties in the legislative assemblies of different states

1. The total number of seats won by the C is what per cent more or less than that by the D in all states together?
(a) 8.21% more
(b) 7.69% less
(c) 6.56% more
(d) 9.71% less
(e) 10% less

1. (b)   Total number of seats won by C in all states
= 5 + 10 + 30 + 20 + 10 + 20 + 10 + 15 = 120
Total number of seats won by D in all states
= 15 + 30 + 25 + 15 + 20 + 5 + 15 + 5 = 130
∴ Required % = $\frac{130 - 120}{130} \times 100$
= $\frac{10}{130} \times 100 \approx 7.69\%$ less

2. What is the ratio of the total number of seats won by the A to the total number of seats won by the B in all states together?
(a) 3 : 2
(b) 4 : 5
(c) 5 : 6
(d) 6 : 7
(e) 8 : 7

2. (b) Total number of seats won by A in all states
= 30 + 5 + 15 + 10 + 25 + 25 + 30 + 20 = 160
Total number of seats won by B in all states
= 20 + 15 + 5 + 25 + 30 + 10 + 25 + 10 = 140
∴ Required ratio = 160 : 140 = 8 : 7

3. If 30% seats of the Maharashtra legislative assembly are won the females and 40% seats of the Gujarat legislative assembly are won by the females, then the male members of the Maharashtra legislative assembly are what per cent more or less than the male members of the Gujarat legislative assembly?
(a) 36.11% more
(b) 33.18% less
(c) 43.28% more
(d) 54.38% more
(e) 62.48% less

3. (a) Total seats in Maharashtra assembly
= 30 + 20 + 15 + 5 = 70
Total male members of Maharashtra assembly
$$= 70 \times \frac{70}{100} = 49$$
Total seats in Gujarat assembly
= 25 + 20 + 10 + 5 = 60
Total male members of Gujarat assembly
$$= 60 \times \frac{60}{100} = 36$$
∴ Required % $= \frac{49 - 36}{36} \times 100$
= 36.11% more

4. 40% members of the Haryana legislative assembly and 50% members of the UP legislative assembly are chargesheeted for involvement in crimes. Among these, 50% and 20% are females in the Haryana and UP legislative assembly respectively. Then the number of male members of the Haryana legislative assembly who are chargesheeted is what percentage more or less than the number of female members of the UP legislative assembly who are chargesheeted?
(a) 250% more
(b) 30% more
(c) 53.85% more
(d) 23% less
(e) 50.45% less

4. (c)　The number of members in Haryana assembly chargesheeted for involvement in crimes

$$= 50 \times \frac{40}{100} = 20$$

∴ Number of male members in Haryana assembly chargesheeted for involvement in crimes

$$= 20 \times \frac{50}{100} = 10$$

Number of female members in UP assembly chargesheeted for involvement in crimes

$$= 65 \times \frac{50}{100} \times \frac{20}{100} = 6.5$$

∴ Required percentage

$$= \left(\frac{10 - 6.5}{6.5} \times 100 \right) \approx 53.85\% \text{ more}$$

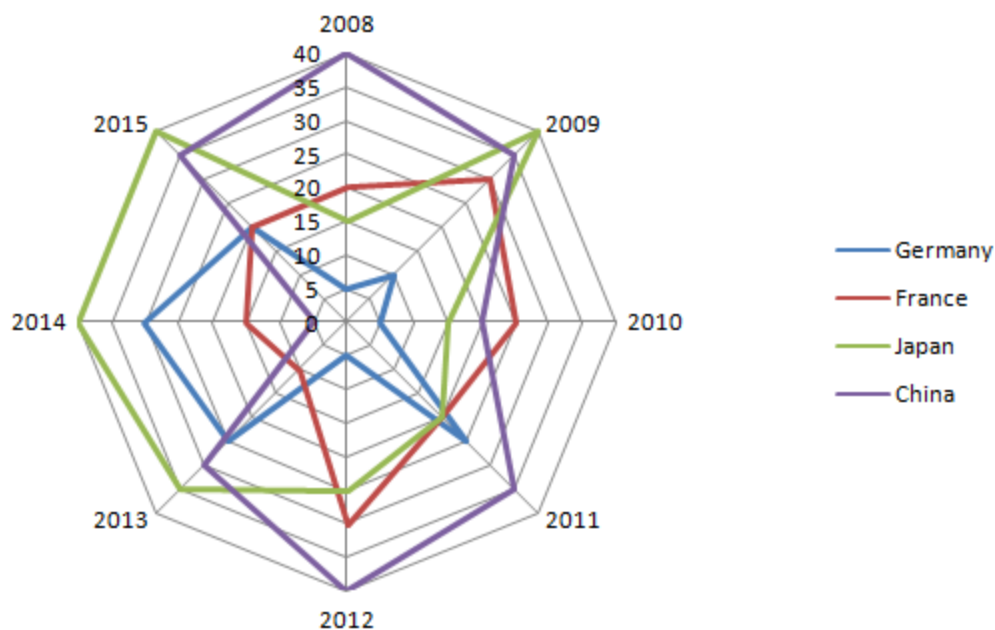**5. Which political party won the highest number of seats in the given eight states?**
(a) C
(b) D
(c) B
(d) A
(e) Either A or C

5. (d)　Total number of seats won by A in all states = 160
Total number of seats won by B in all states = 140
Total number of seats won by C in all states = 120
Total number of seats won by D in all states = 130
Hence, A won the highest number of seats.

I. Study the following Radar Graph and answer the given questions

Number of new countries registered (in thousand) in four countries in various years.

1. *In which year is the average of the number of companies registered the maximum?*
    A. 2008
    B. 2010
    C. 2009
    D. 2011

    Answer & Explanation

    *Answer – **C. 2009***
    Explanation :
    *Average of the number of companies registered in 2008 = [5 + 20 + 15 + 40]*1000/4 = 20000*
    *Average of the number of companies registered in 2009 = [10 + 30 + 40 + 35]*1000/4 = 28750*
    *Average of the number of companies registered in 2010 = [5 + 25 + 15 + 20]*1000/4 = 16250*
    *Average of the number of companies registered in 2011 = [25 + 20 + 20 + 35]*1000/4 = 25000*

2. *The number of companies registered in 2015 is what percentage more or less than the number of companies registered in the year 2008?*
    A. 44.44%
    B. 43.75%

C. 22.22%
D. 11.11%

Answer & Explanation

*Answer – **B. 43.75%***

Explanation :

*Number of companies registered in 2015 = [20 + 20 + 40 + 35]*1000 = 115000*

*Number of companies registered in 2008 = [5 + 20 + 15 + 40]*1000 = 80000*

*% = [(115000 – 80000)/ 80000]*100 = 43.75% more*

3. **What is the ratio of the number of companies registered in Japan to that in China during 2008 to 2015?**
   A. 39:40
   B. 23:24
   C. 40:41
   D. 24:23

   Answer & Explanation

   *Answer – **B. 23:24***

   Explanation :

   *Number of companies registered in Japan during 2008 to 2015 = 230*1000 = 230000*

   *Number of companies registered in China during 2008 to 2015 = 240*1000 = 240000*

   Ratio = 23:24

4. **The total number of companies registered in France is how much more or less than the total number of companies registered in China?**
   A. 34.14%
   B. 33.13%
   C. 29.16%
   D. 11.11%

   Answer & Explanation

   *Answer – **C. 29.16%***

   Explanation :

   *Total number of companies registered in France = 170*1000 = 170000*

   *Total number of companies registered in china = 240*1000 = 240000*

   *% = [(240000 – 170000)/ 240000]*100 = 29.16% less*

5. ***In which country is the average number of companies registered the maximum?***
    A. Germany
    B. Japan
    C. China
    D. France

    Answer & Explanation

    *Answer – **C. China***
    Explanation :
    Average number of companies registered in France = 170000/4 = 42500
    Average number of companies registered in Germany = 125000/4 = 31250
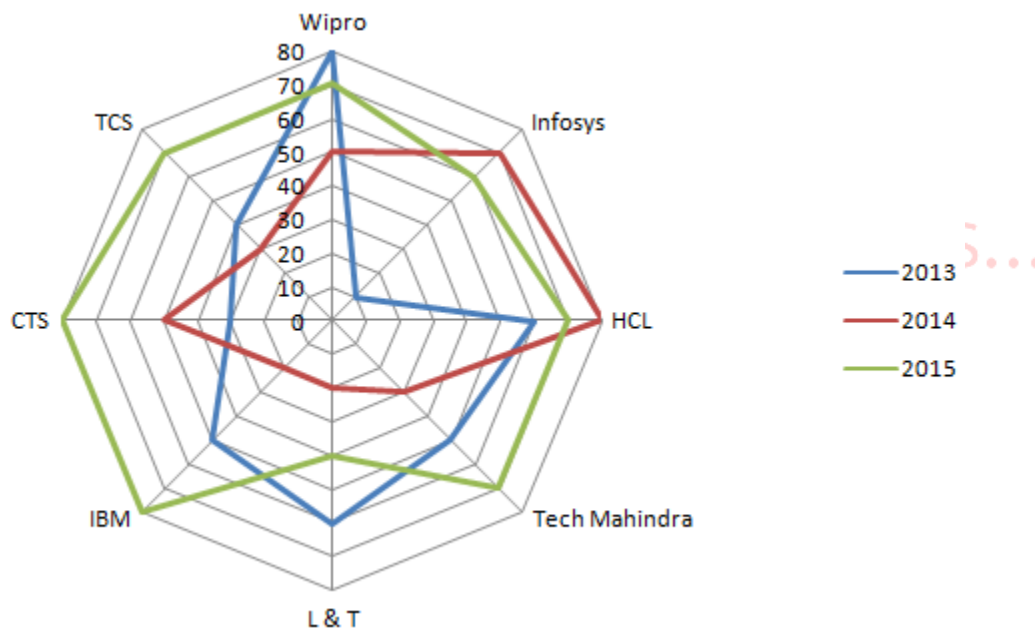   *Average number of companies registered in Japan = 230000/4 = 57500*
    Average number of companies registered in China = 240000/4 = 60000
    Average number of companies registered in China is the maximum

II. Study the Radar Graph carefully and answer the questions given below.
The graph shows annual income (in Crore) of eight companies (CTS, TCS, Wipro, Infosys, HCL, Tech Mahindra, IBM, L&T) in three years 2013, 2014, 2015.

6. ***Which of the following company earns the maximum income during three years?***
    A. TCS
    B. Infosys
    C. HCL
    D. Tech Mahindra

Answer & Explanation

*Answer – **C. HCL***
Explanation :
Total income of TCS during three years =[40 + 30 + 70] = 140 crore
Total income of Infosys during three years =[10 + 70 + 60] = 140 crore
Total income of HCL during three years =[60 + 80 + 70] = 210 crore
Total income of Tech Mahindra during three years =[50 + 30 + 70] = 150 crore

7. ***Income of CTS in 2014 is what percentage less than the income of Infosys in 2015?***
   A. 50/3%
   B. 55/3%
   C. 59/3%
   D. 61/3%

Answer & Explanation

*Answer – **A. 50/3%***
Explanation :
Income of CTS in 2014 = 50 Crore
Income of Infosys in 2015 = 60 Crore
*=[(60-50)/60]*100 = 50/3%*
Income of CTS in 2014 is 50/3% percentage less than the income of Infosys in 2015.

8. ***If the profit of IBM is 12% of its annual income in 2013 and the profit of Wipro is 14% of its annual income in 2015, then what is the difference between the expenditure of Wipro in 2015 and that of IBM in 2013?***
   A. 16.2 crore
   B. 17.2 crore
   C. 18.2 crore
   D. 19.2 crore

Answer & Explanation

*Answer – **A. 16.2 crore***
Explanation :
Income of IBM in 2013 = 50 crore
profit of IBM is 12% of its annual income = 12% of 50 crore = 6 crore
Expenditure of IBM in 2013 = 50 crore – 6 crore = 44 crore
Income of Wipro in 2015 = 70 crore
profit of Wipro is 14% of its annual income = 14% of 70 crore = 9.8 crore

Expenditure of Wipro in 2015 = 70 crore – 9.8 crore = 60.2 crore

Difference in Expenditure = 60.2 crore – 44 crore = 16.2 crore

9. **If the expenditure of Tech Mahindra is 82% of its income in 2014 and that of Wipro is 84% of its income in 2015. What is the ratio of their profits in 2014 to that in 2015.**
   A. 27:56
   B. 33:57
   C. 25:56
   D. 25:57

   Answer & Explanation

   *Answer – **A. 27:56***
   Explanation :
   Income of Tech Mahindra in 2013 = 30 crore
   Expenditure of Tech Mahindra in 2013 = 82% of 30 crore = 24.6 crore
   Profit of Tech Mahindra in 2013 = 30 crore – 24.6 crore = 5.4 crore
   Income of Wipro in 2015 = 70 crore
   Expenditure of Wipro in 2015 = 84% of 70 crore = 58.8 crore
   Profit of Wipro in 2015 = 70 crore – 58.8 crore = 11.2 crore
   Required Ratio = 5.4 : 11.2 = 54:112 = 27:56

10. **What is the ratio of the total income of HCL and Tech Mahindra over the given period?**
    A. 7:5
    B. 3:5
    C. 2:5
    D. 2:7

    Answer & Explanation

    *Answer – **A. 7:5***
    Explanation :
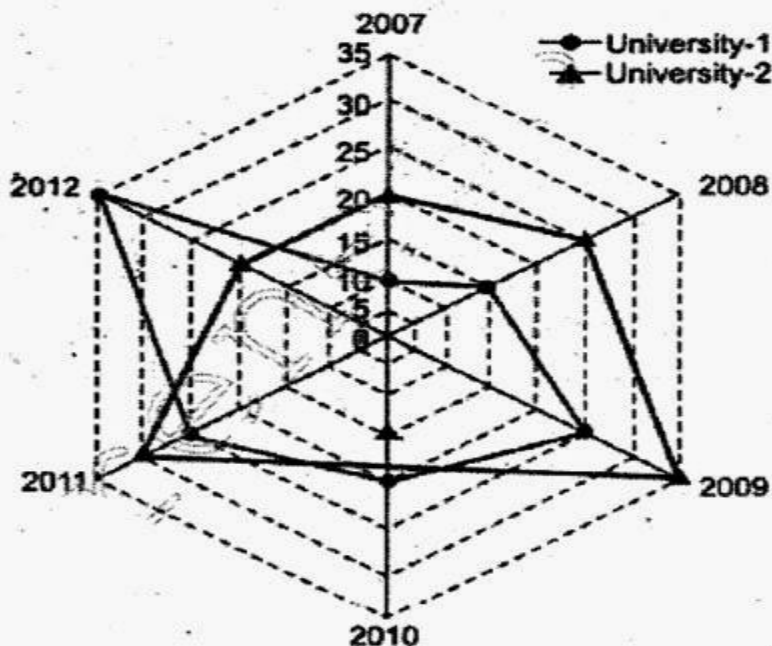   *Total income of HCL during three years =[60 + 80 + 70] = 210 crore*
    Total income of Tech Mahindra during three years =[50 + 30 + 70] = 150 crore
    Required Ratio = 210 :150 = 7:5

Directions: *Study the radar graph carefully and answer the questions that follow:*

Number of students (in thousands) in two different universities in six different years

Number of Students

6. What was the difference between the number of students in university-1 in the year 2010 and the number of students in university-2 in the year 2012?

(1) Zero (2) 5,000
(3) 15,000 (4) 1,0000
(5) 1,000

7. What is the sum of number of students in university-1 in the year 2007 and the number of students in university-2 in the year 2011 together?

(1) 50,000 (2) 55000
(3) 45000 (4) 57000
(5) 40000

8. If 25% of the students in university-2 in the year 2010 were females, what was the number of male students in the university-2 in the same year?

(1) 11250 (2) 12350
(3) 12500 (4) 11500
(5) 11750

9. What was the percent increase in the number of students in University-1 in the year 2011 as compared to the previous year?
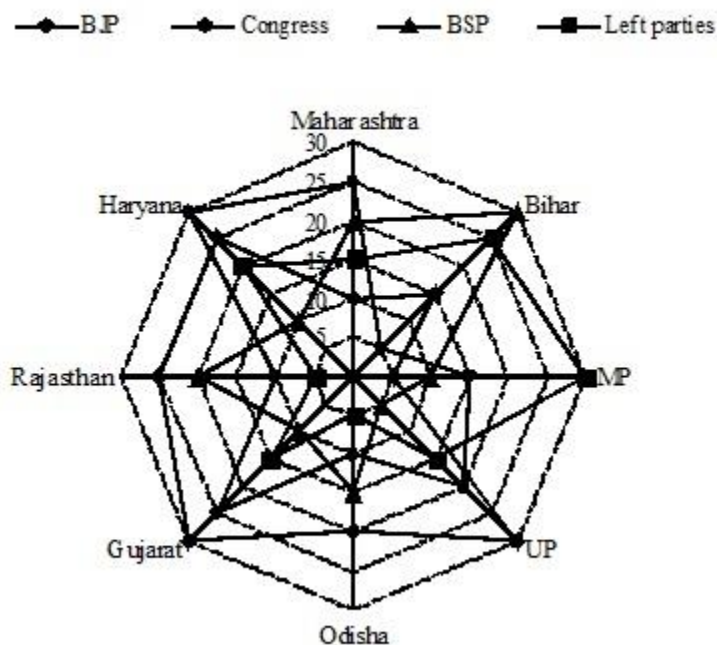
(1) 135 (2) 15
(3) 115 (4) 25
(5) 35

10. In which year was the difference between the number of students in university-1 and the number of students in univeisity-2 highest?

(1) 2008 (2) 2009
(3) 2010 (4) 2011
(5) 2012

Answers of Above Questions

6. (1) 7. (5) 8. (1) 9. (4) 10. (5)

Directions (Q. 1-5): Study the following radar graph carfully to answer the questions that follow: Number of seats won by various political parties in the legistative assemblies of different states

1. The total number of seats won by the BSP is what per cent more or less than that by the Left parties in all states together?

1) 8.21% more

2) 7.69% less

3) 6.56% more

4) 9.71% less

5) 10% less

2. What is the ratio of the total number of seats won by the BJP to the total number of seats won by the Congress in all states together?

1) 3 : 2

2) 4 : 5

3) 5 : 6

4) 6 : 7

5) 8 : 7

3. If 30% seats of the Maharashtra legislative assembly are won by the females and 40% seats of the Gujarat legislative assembly are won by the females, then the male members of the Maharashtra legislative assembly are what per cent more or less than the male members of the Gujarat legislative assembly?

1) 2.08% more

2) 3.18% less

3) 4.28% more

4) 5.38% more

5) 6.48% less

4. 40% members of the Haryana legislative assembly and 50% members of the UP legislative assembly are chargesheeted for involvement in crimes. Among these, 50% and 20% are females in the Haryana and UP legislative assembly respectively. Then the number of male members of the Haryana legislative assembly who are chargesheeted is what percentage more or less than the number of female members of the UP legislative assembly who are chargesheeted?

1) 250% more

2) 300% more

3) 142.85% more

4) 230% less

5) 220.45% less

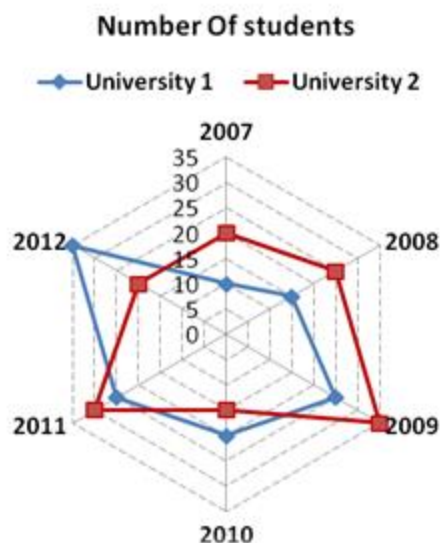5. *Which political party won the highest number of seats in the given eight states?*

1) BSP

2) Left parties

3) Congress

4) BJP

5) Either BJP or BSP

Answers:

1. 2
2. 5
3. 1
4. 3
5. 4

Directions (Q. nos. 1 to 5): Study the following radar graph carefully and answer the questions that follow.

Number of students (in thousands) in two different
universities in six different years

1. What was the difference between the number of students in university 1 in the year 2010 and the number of students in university 2 in the year 2012?

(1) 0　　　　(2) 5000　　　　(3) 15000　　　　(4) 10000　　　　(5) 1000

2. What is the sum of the number of students in university 1 in the year 2007 and the number of students in university 2 in the year 2011 together?

(1) 50000　　(2) 55000　　　(3) 45000　　　(4) 57000　　　(5) 40000

3. If 25% of the students in university 2 in the year 2010 were females, what was the number of male students in the university 2 in the same year?

(1) 11250　　(2) 12350　　(3) 12500　　(4) 11500　　(5) 11750

4. What was the per cent increase in the number of students in university 1 in the year 2011 as compared to the previous year?

(1) 135　　(2) 15　　(3) 115　　(4) 25　　(5) 35

5. In which year the difference between the number of students in university 1 and the number of students in university 2 highest?

(1) 2008　　(2) 2009　　(3) 2010　　(4) 2011　　(5) 2012
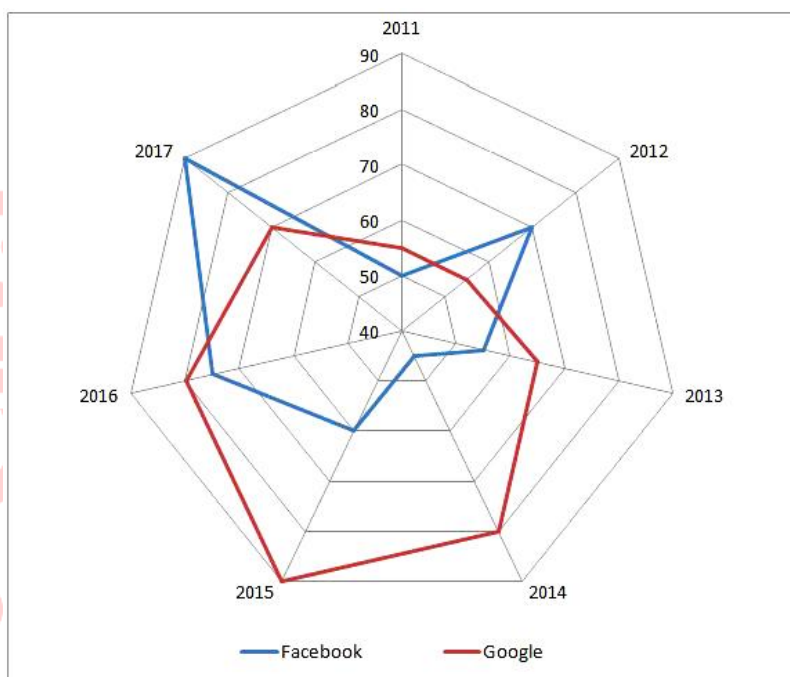
Correct answers are

1 (1)   2(5)   3(1)   4(4)   5(5)

Direction (Q. 1-5): Study the following radar graph carefully to answer these questions.

Per cent profit earned by two companies producing oil products over the years
% Profit = Profit Earned/ Total Investment × 100
Profit Earned = Total Income − Total Investment in the year

1). If the amount invested by Google in 2011 is 12 lakh and the income of 2011 is equal to the investment in 2012, what is the amount of profit earned in 2012 by Google?
a) 11.13 lakh
b) 12.60 lakh
c) 10.76 lakh
d) 10.23 lakh
e) 10.93 lakh

Solution
Income of Google in 2011
$= 1.55 \times 12 \times 10^5 = 18.6$ *lakh*
Investment in 2012 = 18.6 lakh
Profit earned in 2012 = $55/100 \times 18.6 \times 10^5$

= 10.23 lakh
Answer is: D

2). If the total amount invested by the two companies in 2016 was 27 lakh, while the amount invested by Google was 50% of the amount invested by Facebook, what was the total profit earned by the two companies together?
a) 21.70 lakh
b) 20.70 lakh
c) 19.80 lakh
d) 22.30 lakh
e) 18.20 lakh

Solution
Amount invested by Google in 2016
= 1/3 × 27 × 10^5
= 9 lakh
Amount invested by Facebook in 2016
= 2/3 × 27 × 10^5
= 18 lakh
Profit earned by Google
= 80/100 × 9 × 10^5
= 72 × 10^4
Profit earned by Facebook
= 75/100 × 18
= 13.5 lakh
Total profit = 13.5 + 7.2
= 20.7 lakh
Answer is: B

3). If the investments of Facebookin 2014 and 2015 were equal, what is the difference between the profits earned in the two years if the income in 2015 was 24 lakh?
a) 2.75 lakh
b) 1.65 lakh
c) 1.25 lakh
d) 2.50 lakh
e) 2.25 lakh

Solution
Investment of Facebookin 2015
= 24 × 10^5/1.60
= 15 lakh
Profit in 2015 = 24 − 15 = 9 lakh.
Profit in 2014 = 45/100 × 15 × 10^5
= 6.75 lakh

Required answer = 9 – 6.75
= 2.25 lakh
Answer is: E

4). If the amount invested by the two companies in 2012 was equal, what was the ratio of the total income of the Facebookto that of Google in 2012?
a) 31 : 34
b) 35 : 33
c) 34 : 31
d) 30 : 17
e) 34 : 21

Solution
Let the amount invested by Facebookand Google in the year 2012 be x each.
Income of Facebookin 2012 = 1.70x
Income of Google in 2012 = 1.55 x
Ratio = Facebook/Google = 1.70x/1.55x
= 34/31
= 34 : 31
Answer is: C

5). If the income of Facebookin 2014 and that in 2015 were equal and the amount invested in 2014 was 12 lakh, what was the amount invested in 2015?
a) 10, 87, 500
b) 10, 65, 700
c) 9, 55, 200
d) 11, 23, 800
e) 10, 57, 600

Solution
Income of Facebookin 2014
= 145/100 × 12 × 10^5
= 174 × 10^4
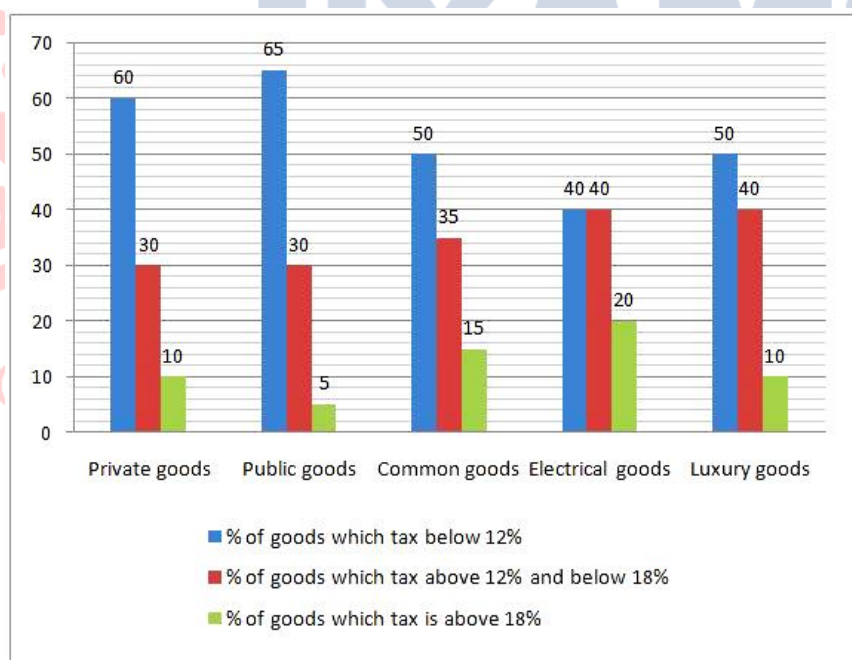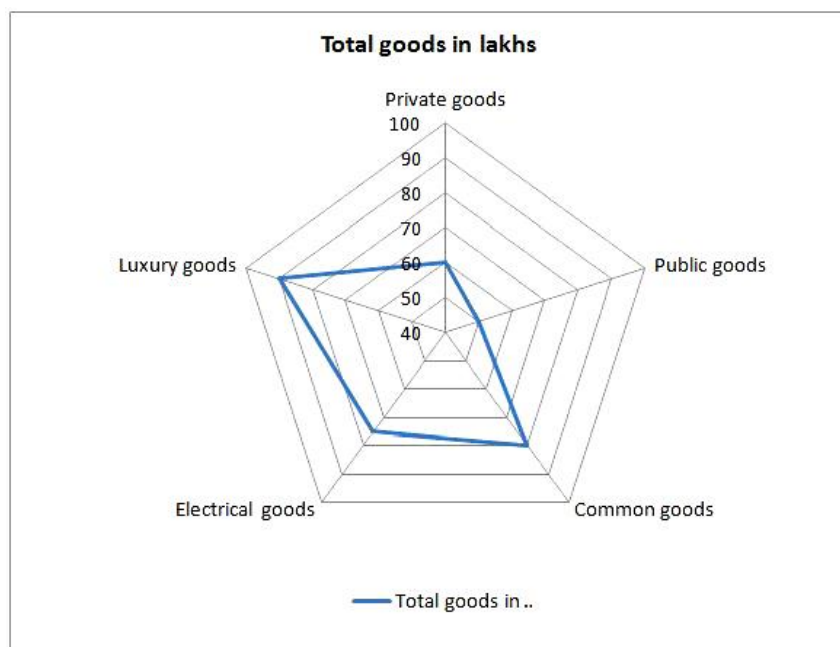*Amount invested in 2015*
= 174 × 10^4/160 × 100
= 10, 87, 500
Answer is: A

Directions (Q. 6-10):In the following radar graph and bar graph shows the information about total number of five different goods and their percentage distribution based on their tax percentage in given.

Total goods in lakhs

- % of goods which tax below 12%
- % of goods which tax above 12% and below 18%
- % of goods which tax is above 18%

6). The number of goods which tax is above 12% and below 18% per annum in Luxury goods is what percentage of the number of goods in Electrical goods which tax is above 18% p.a.?

a) 280%
b) 250%
c) 160%
d) 240%
e) 200%

Solution
Required % = [90 × 40/100] / [75 × 20/100] × 100
= 36/15 × 100
= 240%
Answer is: D

7). What is the ratio of the number of goods which tax is below 12%in Private goods and Public goods together to the number of goods of Electrical goods and Luxury goods together which tax is above 18% p.a.?
a) 137 : 48
b) 46 :119
c) 117 : 37
d) 12 :157
e) 15 :117

Solution
Ratio = [60 × 60/100 + 65 × 50/100] / (75 × 20/100 + 90 × 10)/100
= (36+32.5) / (15+9)
= 68.5/24
= 137/48
= 137:48
Answer is: A

8). What is the average number of goods which tax is below 12%per annum in all five goods together?
a) 35.9 lakh
b) 38.8 lakh
c) 33.2 lakh
d) 37.1 lakh
e) 36.7 lakh

Solution
Average = (36 + 32.5 + 40 + 30 + 45)/5
= 183.5/5
= 36.7
Answer is: E

9). What is the total number of goods which tax is below 12% andwhich tax is above 18% per annum in Public goods?
a) 25 lakh
b) 40 lakh
c) 35 lakh
d) 45 lakh
e) 30 lakh

Solution
(65 + 5) % of 50 lakh = 70% of 50 lakh
= 70/100 × 50
= 35 lakh
Answer is: C

10). What is the total number of goods in all five goods which tax is above 12% p.a. and below 18% p.a.?
a) 120 lakh
b) 127 lakh
c) 122 lakh
d) 130 lakh
e) 135 lakh

Solution
Total = 60 × 30/100 + 50 × 30/100 + 80 × 35/100 + 75 × 40/100 + 90 × 40/100
= 18 + 15 + 28 + 30 + 36
= 127 lakh
Answer is: B