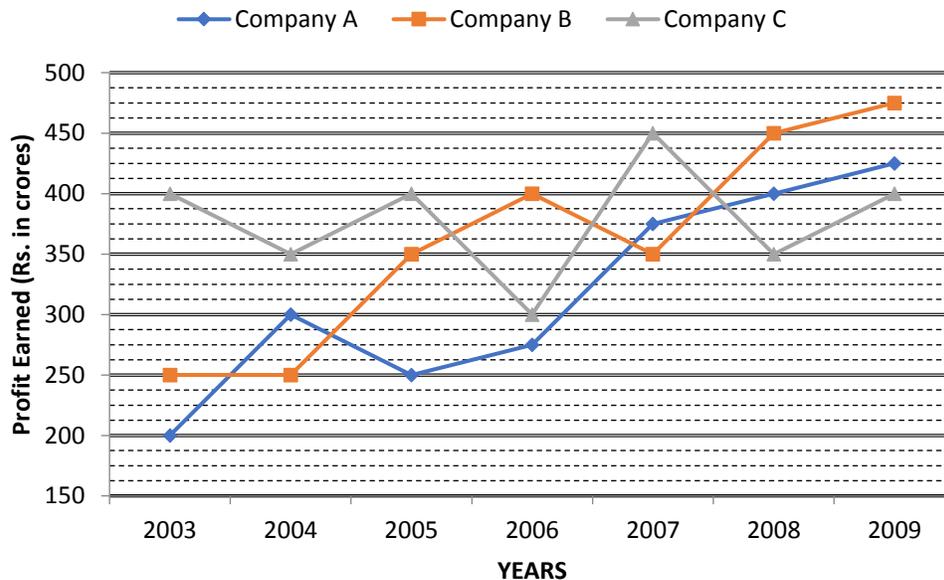


Quiz Date: 8th June 2020

Directions (1-5): Study the following graph carefully and answer the questions given below:

Profit earned by Three companies over the years (Rs. in crores)



Q1. What was the average profit earned by all the three companies in the year 2008?

- (a) Rs. 300 crore
- (b) Rs. 400 crore
- (c) Rs. 350 crore
- (d) Rs. 520 crore
- (e) None of these

Q2. In which of the following years was the difference between the profits earned by company B and company A the minimum?

- (a) 2003
- (b) 2004
- (c) 2005
- (d) 2008
- (e) 2007

Q3. In which of the following years was the total profit earned by all three companies together the highest?

- (a) 2004
- (b) 2007
- (c) 2008

- (d) 2009
(e) 2005

Q4. What was the percentage increase in the profit earned by Company A from 2006 to 2007?

- (a) $36\frac{4}{11}\%$
(b) $24\frac{4}{11}\%$
(c) $40\frac{4}{11}\%$
(d) $20\frac{7}{11}\%$
(e) $54\frac{6}{11}\%$

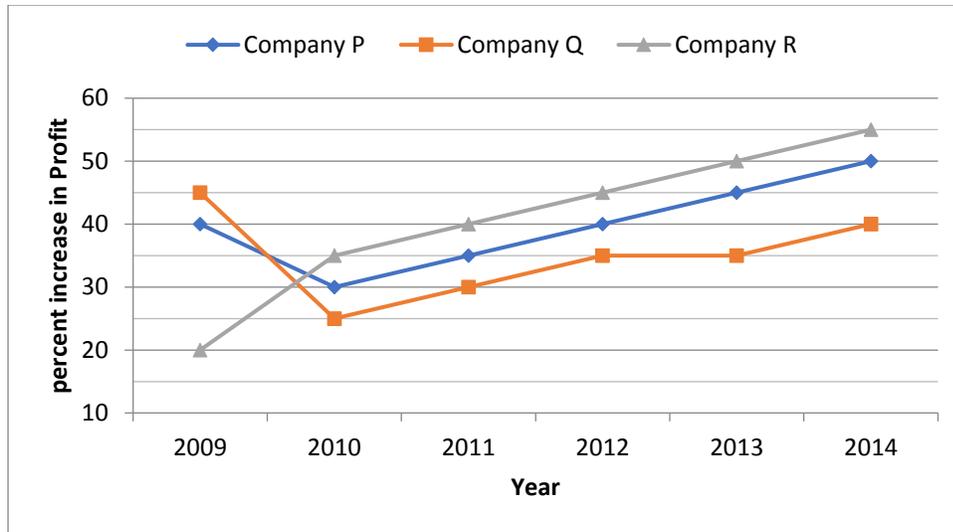


Q5. What was the difference between the profit earned by company A in 2004 and the profit earned by company C in 2009?

- (a) Rs. 50 crores
(b) Rs. 1 crore
(c) Rs. 100 crores
(d) Rs. 200 crores
(e) None of these

Directions (6-10): **Study the graph carefully to answer the questions that follow:**

PERCENT INCREASE IN PROFIT OF THREE COMPANIES OVER THE YEARS



Q6. What was the approximate percent increase in the value of profit percent of company Q in the year 2014 from the previous year?

- (a) 2 %
- (b) 10%
- (c) 20%
- (d) 14%
- (e) 16%

Q7. What was the approximate percent increase in the value of profit percent of company R in the year 2011 from the previous year?

- (a) 14 %
- (b) 21%
- (c) 8%
- (d) 26%
- (e) 19%

Q8. If income of company P in 2010 was Rs. 2,65,000 which was invested in 2011 and so on, then find income of company P in 2012.

- (a) Rs. 6,21,560
- (b) Rs 4,68,290
- (c) Rs 7,05,211
- (d) Rs 5,00,850
- (e) Rs 5,21,660

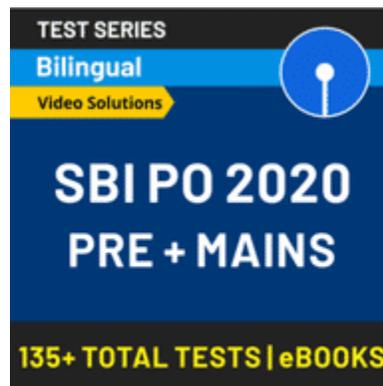
Q9. What is the average per cent increase in profit of company R over the years?

- (a) $40\frac{5}{6}\%$
- (b) $41\frac{2}{3}\%$
- (c) $28\frac{1}{6}\%$

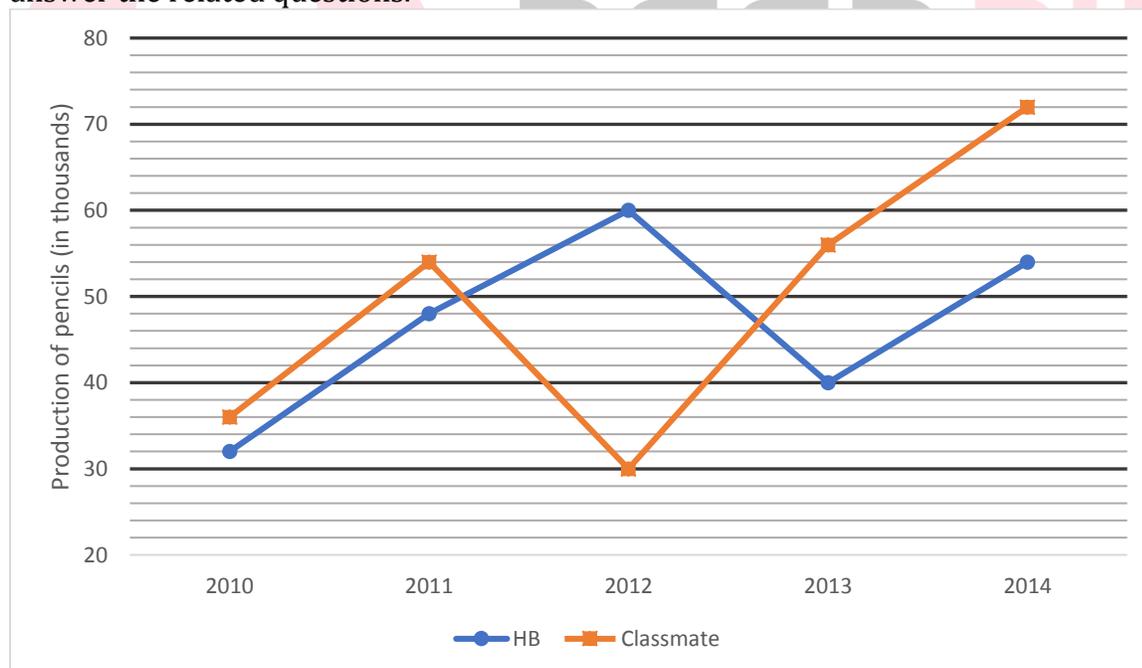
- (d) $23\frac{1}{3}\%$
(e) 36%

Q10. Which of the following statements is TRUE with respect to the graph?

- (a) Company P incurred a loss in the year 2010
(b) The amount of profit earned by company Q in the years 2012 and 2013 is the same
(c) Company R earned the highest profit in the year 2014 as compared to the other years when expenditure is same all over the year.
(d) Profit earned by company P in the year 2010 is lesser than the profit earned by company R in that year
(e) None of these



Directions (11-15): The following line graph shows the production of pencils of two companies HB and Classmate during five different years. Study the graph carefully and answer the related questions.



Q11. What is the average no. of HB pencils produced throughout all the years?

- (a) 48,900
- (b) 44,800
- (c) 46,800
- (d) 46,200
- (e) 44,650

Q12. If cost price of one classmate pencil in 2011 is Rs. 8 and classmate company made 75% profit as a whole in the same year then find the selling price of one classmate pencil.

- (a) Rs. 16
- (b) Rs. 14
- (c) Rs. 12
- (d) Rs. 10
- (e) Rs. 18

Q13. The production of HB pencils in the years 2010, 2012 and 2014 together is approximately what percent of total classmate pencils produced in the years 2011, 2013 and 2014 together?

- (a) 92%
- (b) 72%
- (c) 86%
- (d) 80%
- (e) Can't be determined

Q14. If 10% class mate pencils out of total class mate pencils produced during all the years together found to be defective and company made a net profit of 20% on each pencil of the remaining non-defective pencils by selling at the rate of Rs.12 per piece then find overall profit/loss to the classmate company. (Production cost of pencil in every year is same)

- (a) Rs. 1,98,400
- (b) Rs. 1,94,400
- (c) Rs. 1,89,400
- (d) Rs. 1,96,400
- (e) Rs. 1,94,800

Q15. What is the difference between total pencils produced by the two companies throughout all the years together?

- (a) 16,000
- (b) 14,000
- (c) 12,500
- (d) 14,400
- (e) 16,600

Solutions

S1. Ans.(b)

Average profit earned by three companies in the year 2008

$$= \frac{1}{3} \times (350 + 400 + 450)$$

$$= \frac{1}{3} \times 1200$$

$$= 400$$

Sol.

S2. Ans.(e)

Sol.

From line graph, it is clear that in the year 2007, the difference is minimum.

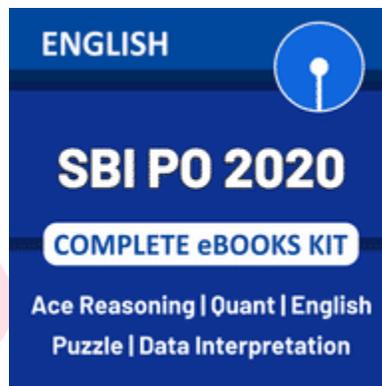
S3. Ans.(d)

From graph, the highest total profit is earned in 2009 and it is

$$= 400 + 425 + 475$$

$$= 1300$$

Sol.



S4. Ans.(a)

% increase in profit earned by

A from 2006 to 2007

$$= \frac{375 - 275}{275} \times 100$$

$$= \frac{100}{275} \times 100$$

$$= \frac{400}{11}$$

$$= 36\frac{4}{11}\%$$

Sol.

S5. Ans.(c)

Sol.

Required difference = (Profit earned by A in 2004) ~ (Profit earned by C in 2009)

$$= 400 - 300$$

= 100 crores

S6. Ans.(d)

% increase in profit of company Q in 2014

$$= \frac{40 - 35}{35} \times 100$$

$$= \frac{5}{35} \times 100$$

Sol. $\approx 14\%$

S7. Ans.(a)

% increase in profit of company R in 2011

$$= \frac{40 - 35}{35} \times 100$$

$$= 14.14$$

Sol. $\approx 14\%$

S8. Ans.(d)

Required profit

$$= \text{Rs.} \left(2,65,000 \times \frac{135}{100} \times \frac{140}{100} \right) = \text{Rs.} 500,850$$

Sol.

S9. Ans.(a)

Average % increase in profit of R over the years

$$= \frac{1}{6} \times (20 + 35 + 40 + 45 + 50 + 55)$$

$$= \frac{1}{6} \times 245$$

$$= \frac{245}{6} \%$$

$$= 40 \frac{5}{6} \%$$

Sol.

S10. Ans.(c)

Sol.

Company R earned the highest profit in 2014 as compared to other years when expenditure is same all over the year.

S11. Ans.(c)

Required average

$$= \frac{1}{5} \times (32 + 48 + 60 + 40 + 54) \times 1000$$

Sol. = 46,800

S12. Ans.(b)

S.P. of one class mate pencil

$$\text{S.P.} = \frac{54000 \times 8 \times 175}{54000 \times 100}$$

$$= \text{Rs. } 14$$

Sol.

S13. Ans.(d)

The production of HB pencils in the years 2010, 2012 and 2014 together

$$= (32 + 60 + 54) \text{ thousand}$$

$$= 146 \text{ thousand}$$

Production of class mate pencils in the years 2011, 2013 and 2014 together

$$= (54 + 56 + 72) \text{ thousand}$$

$$= 182 \text{ thousand}$$

$$\therefore \text{Required percentage} = \frac{146}{182} \times 100$$

$$\text{Sol.} = 80.21\%$$

S14. Ans.(a)

$$\text{Total non-defective pencils} = \frac{90}{100} \times 248000$$

$$= 2,23,200$$

$$\therefore \text{Production Cost of one pencil} = 12 \times \frac{100}{120} = \text{Rs. } 10$$

$$\therefore \text{Total selling price} = 2,23,200 \times 12$$

$$= 26,78,400$$

$$\text{Total production cost price} = 2,48,000 \times 10$$

$$= 24,80,000$$

$$\therefore \text{Overall profit/loss} = 26,78,400 - 24,80,000$$

$$\text{Sol.} = \text{Rs. } 1,98,400$$

S15. Ans.(b)

Sol. Required difference

$$= (36+54+30+56+72) - (32+48+60+40+54)$$

$$= (248-234) \text{ thousand}$$

$$= 14,000$$

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