

## **Quantitative Techniques**

Two renowned international Software companies, namely Pollaris and Contigent, started their business in the year 2007 and both the companies were in competition with each other in profit making. Pollaris earned 30 per cent profit in the year 2007 and 2008, and further increased it to 40 per cent in 2009. However, its profit percentage decreased to 20 per cent in the year 2010. On the other hand, Contigent opened with 40 per cent profit in 2007, but slowly decreased to 35 per cent in 2008 and 30 per cent in 2009. Interestingly, both the companies increased their

profit percentage in the later year considerably. Pollaris increased its profit percentage to 35 per cent in 2011 and 50 per cent in 2012; simultaneously, Contigent increased its profit percentage to 45 per cent in 2010, 50 per cent in 2011 and reached 60 per cent in the year 2012. As there is a need to understand the income and expenditure for the better performance of both companies in the future, answer the following questions.

132. What is the increase in profit of Contigent Company in percentage from year 2011 to 2012?

- (A) 10%
- (B) 20%
- (C) 15%
- (D) Cannot be determined.

**CORRECT OPTION: B**

133. What percentage of the total profit making of Pollaris Company in 2011 and 2012 is the total profit making of Contigent Company in 2007 and 2008?

- (A) 113.3%
- (B) 95.3%
- (C) 90.3%
- (D) 133.3%

**CORRECT OPTION: A**

134. If the income of Contigent Company in 2008 was ₹ 200 crores, what was its profit in 2009?

- (A) ₹ 21.5 Crore
- (B) ₹ 46.15 Crore
- (C) ₹ 153 Crore
- (D) Cannot be determined.

**CORRECT OPTION: D**

135. What is the difference between the company with highest annual average profit percentage and that of the company with lowest annual average profit percentage?

- (A) 5.17
- (B) 8.33
- (C) 9.17
- (D) 4.33

**CORRECT OPTION: C**

136. What is the percentage increase in profit of Pollaris Company from year 2010 to 2011?

- (A) 42.86
- (B) 75
- (C) 175
- (D) Cannot be determined.

**CORRECT OPTION: B**

A newly formed state government wants to bring more development in the state. Therefore, the government proposed to launch various welfare programmes. Before bringing up any welfare programme, the state government intended to understand the population percentage of the state by age groups, so that the government could plan the welfare programmes accordingly. The state government found that the state's 30 per cent of the population were children between the age group of 0-15. Next to child population, 17.75 per cent of the population were adolescents

between the age group of 16 and 25. The early adult population, i.e., the age groups 26 to 35 were 17.25 per cent, 36 to 45 were 14.50 per cent, respectively. The population who are between the age group of 46 to 55 constitute 14.25 per cent and the elderly population of the state, i.e., 56 to 65 (5.12%) and 66 above (1.13%) was comparatively less than the other age groups. To get a better clarity, the state government concerned is seeking the answers to following questions:

137. Out of every 5,600 persons, what is the number of persons below the age of 26 years?

- (A) 2515
- (B) 1746
- (C) 1660
- (D) 2674

**CORRECT OPTION: D**

138. There are 400 million people below 36 years. How many million (approx.) people are in the age group 56-65?

- (A) 32.72 million
- (B) 25.75 million
- (C) 31.50 million
- (D) 59.30 million

**CORRECT OPTION: C**

139. If there are 20 million people in the age group 56 to 65, what is the difference between the number of people in the age groups 16-25 and 46-55?

- (A) 15.6 million
- (B) 12.18 million
- (C) 28.4 million
- (D) 34.7 million

**CORRECT OPTION: B**

140. If the difference between the number of people in the age groups 46-55 and 26-35 is 15.75 million, then total population of the state is approximately?

- (A) 360.23 million
- (B) 390 million
- (C) 400 million
- (D) 525 million

**CORRECT OPTION: D**

141. Which age group accounts for the maximum population in the state?

- (A) 16 to 25
- (B) 26 to 35
- (C) 36 to 45
- (D) None of the above.

**CORRECT OPTION: A**

COVID-19 pandemic turned life upside-down for many families across the world. Mr. Abhishek was working as a sale executive in a famous Marketing Company. Due to COVID-19 pandemic lockdown and restrictions, Mr. Abhishek was not able to achieve his monthly targets which resulted in the reduction of his salary. So far, he spent his income lavishly without any planning and prior calculations. However, the prevailing situation compelled him to plan his expenditure to adjust his life to the present income. Therefore, he analysed his spendings

of last year i.e., 2019, so that he can plan his present year 2020 spendings. Through his brief analysis, he found that in the year 2019, he spent 23 per cent of his income on food, 15 per cent on Housing, and 12 per cent on his child's education. For his transport, he spent 10 per cent, and for clothing of his family he spent 10 per cent. In the meanwhile, Mr. Abhishek also saved 15 per cent of his income in the year 2019, and the remaining 20 per cent of expenditure he kept as other spendings. Answer the following questions to provide deeper insight to Mr. Abhishek.

142.If the total amount spent during the year 2019 was ₹ 56,000, what was the amount spent on food?

- (A) ₹ 12,000
- (B) ₹ 12,880
- (C) ₹ 23,880
- (D) ₹ 23,000

**CORRECT OPTION: B**

143.If the total amount spent was ₹ 56,000, how much money was spent on clothing and housing together?

- (A) ₹ 11,500
- (B) ₹12,500
- (C) ₹14,000
- (D) ₹ 15,000

**CORRECT OPTION: C**

144.What was the ratio of the total amount of money spent on housing to that spent on education?

- (A) 5:2
- (B) 2:5
- (C) 4:5
- (D) 5:4

**CORRECT OPTION: D**

145.If the total expenditure of the family for the year 2019 was ₹ 56,000, what was the amount saved by the family during the year?

- (A) ₹ 8,400
- (B) ₹ 5,600
- (C) ₹ 6,900
- (D) ₹ 3,067

**CORRECT OPTION: A**

146.If the total amount spent during the year 2019 was ₹ 56,000, the amount spent on other spendings and clothing together was higher than

- (A) Housing and Child Education
- (B) Food and Transport
- (C) Food and Housing
- (D) Housing and Saving

**CORRECT OPTION: A**

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