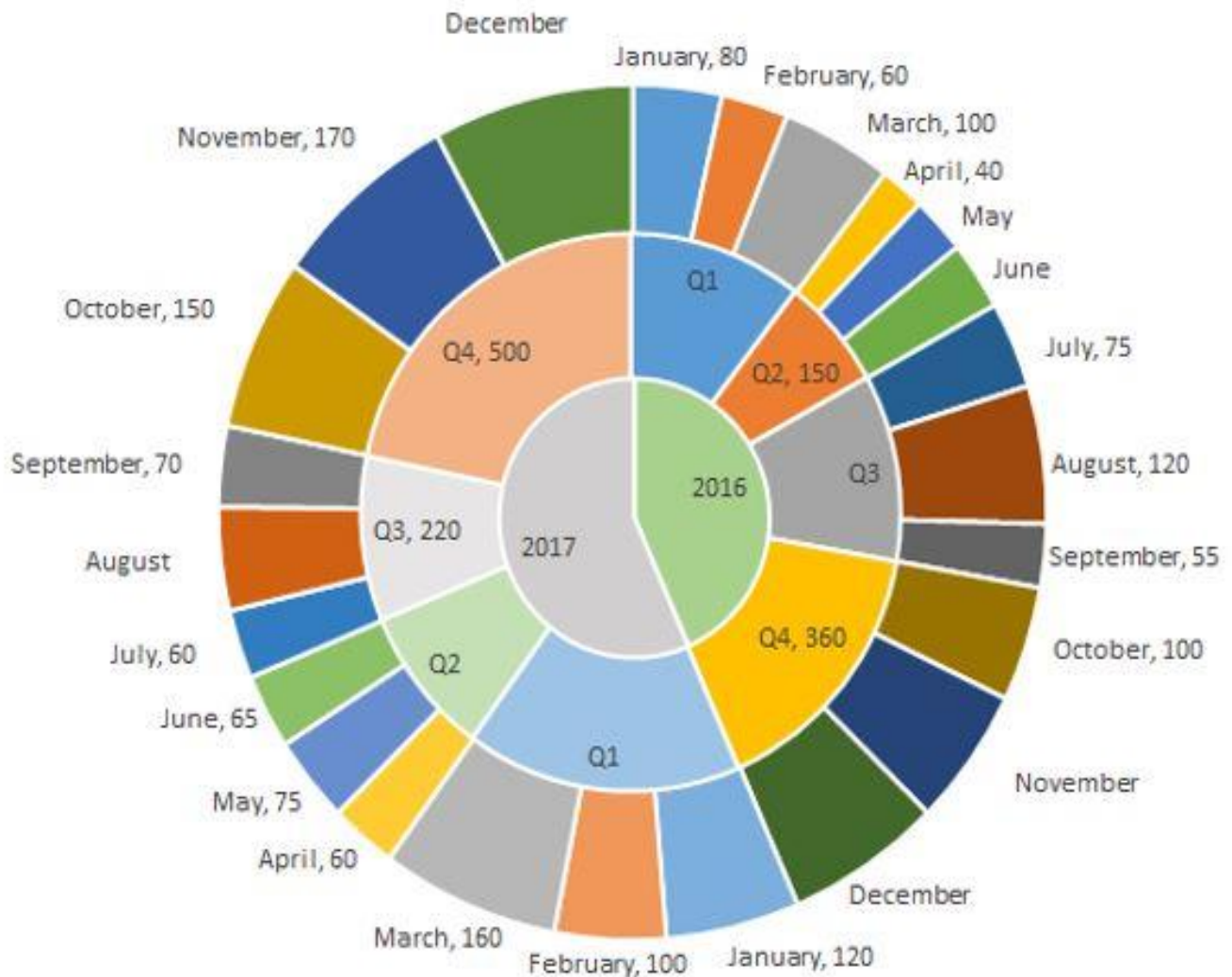


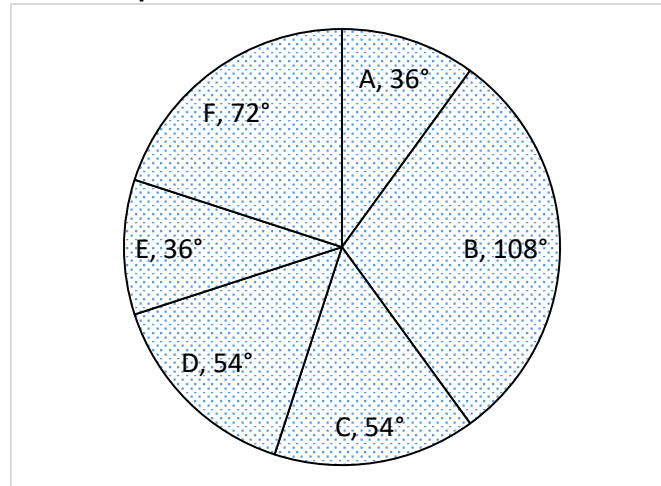
## PIE CHART - III

Direction: The multi-layered pie-chart below shows the sales of LED television sets for a big retail electronics outlet during 2016 and 2017. The outer layer shows the monthly sales during this period, with each label showing the month followed by sales figure of that month. For some months, the sales figures are not given in the chart. The middle-layer shows quarter-wise aggregate sales figures (in some cases, aggregate quarter-wise sales numbers are not given next to the quarter). The innermost layer shows annual sales. It is known that the sales figures during the three months of the second quarter (April, May, June) of 2016 form an arithmetic progression, as do the three monthly sales figures in the fourth quarter (October, November, December) of that year.



- What is the percentage increase in sales in December 2017 as compared to the sales in December 2016?  
a) 38.46    b) 22.22    c) 50.00    d) 28.57
- In which quarter of 2017 was the percentage increase in sales from the same quarter of 2016 the highest?  
a) Q4    b) Q1    c) Q2    d) Q3
- During which quarter was the percentage decrease in sales from the previous quarter's sales the highest?  
a) Q2 of 2016    b) Q2 of 2017  
c) Q4 of 2017    d) Q1 of 2017
- During which month was the percentage increase in sales from the previous month's sales the highest?  
a) October of 2017    b) October of 2016  
c) March of 2016    d) March of 2017

Direction: The pie chart given below shows the break-up of production cost of six products – A through F – of Zen Private Ltd. in year 2011. The total production cost was Rs. 250 Cr.



Each of the six products is produced in two varieties- Type P and Type Q. The ratio of the units produced for each product and the profit percentage on selling them is given in the table below

Product	Ratio of Production		Profit Percentage	
	Type P	Type Q	Type P	Type Q
A	3	2	15	30
B	4	3	25	20
C	5	6	15	20
D	1	1	15	10
E	5	3	25	20
F	5	4	20	15

Also for each product, the cost of production per item of Type P and Type Q varieties are in the ratio 4: 5.

- The nearest integer to the total cost (In Rs. Cr.) incurred in producing type P of products A, D & F is
- For how many products, overall profit percentage is more than 20%?
- For which product is the ratio of total profit to total production cost, the lowest?  
a) B      b) C      c) D      d) F
- For how many of the six products, is the profit made on items of type Q is not more than the profit made on items of type P?

Direction: The following table gives the sales turnover (in crore ₹) of the five major detergent brands A, B, C, D, E and others in the 4 regions East, West, North and South of India. The data is for the years 2008 and 2009. The pie chart gives the breakup of the sales of the same brands in terms of the number of units sold. The total number of units sold for 2008 and 2009 was the same.

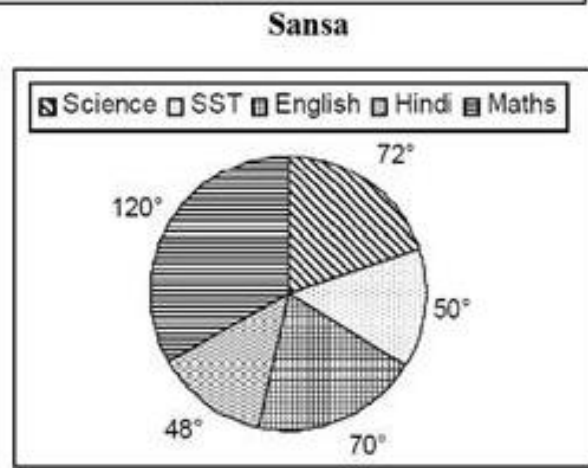
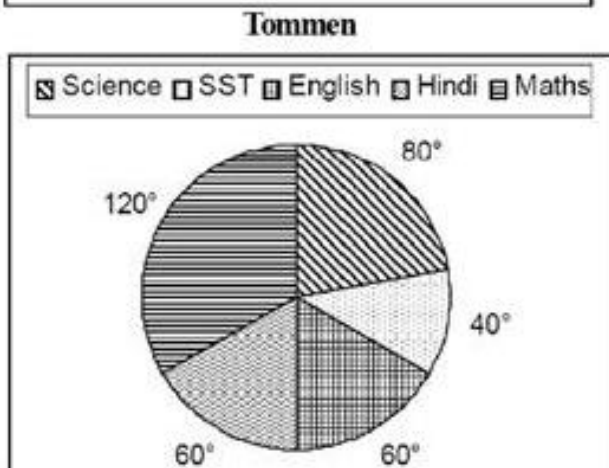
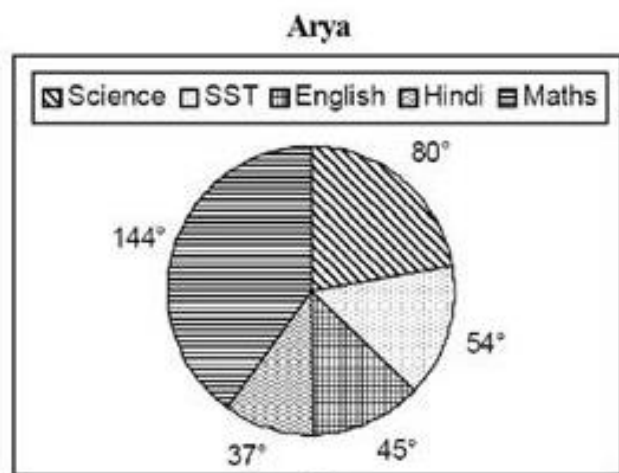
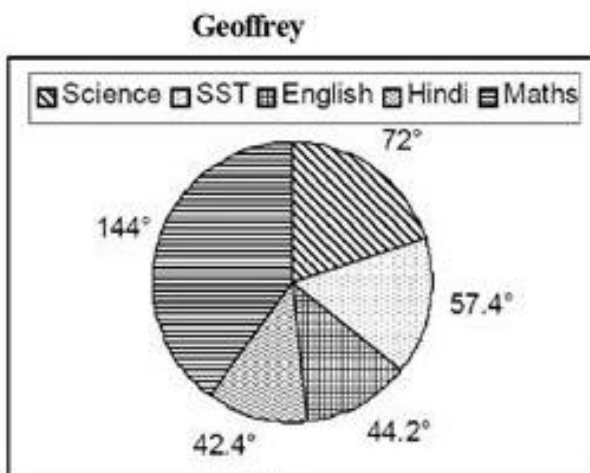
Region→ Brand↓	East		West		North		South		Total	
	2008	2009	2008	2009	2008	2009	2008	2009	2008	2009
A	165	172	180	192	167	190	213	180	725	734
B	75	90	62	75	53	72	17	77	207	314
C	212	182	207	222	153	162	137	120	709	686
D	101	115	121	134	113	121	178	190	513	560
E	90	105	87	95	73	92	67	92	317	384
Others	250	310	152	175	143	162	57	83	602	730
Total	893	974	809	893	702	799	669	742		

Volume-wise Breakup of Brands All India



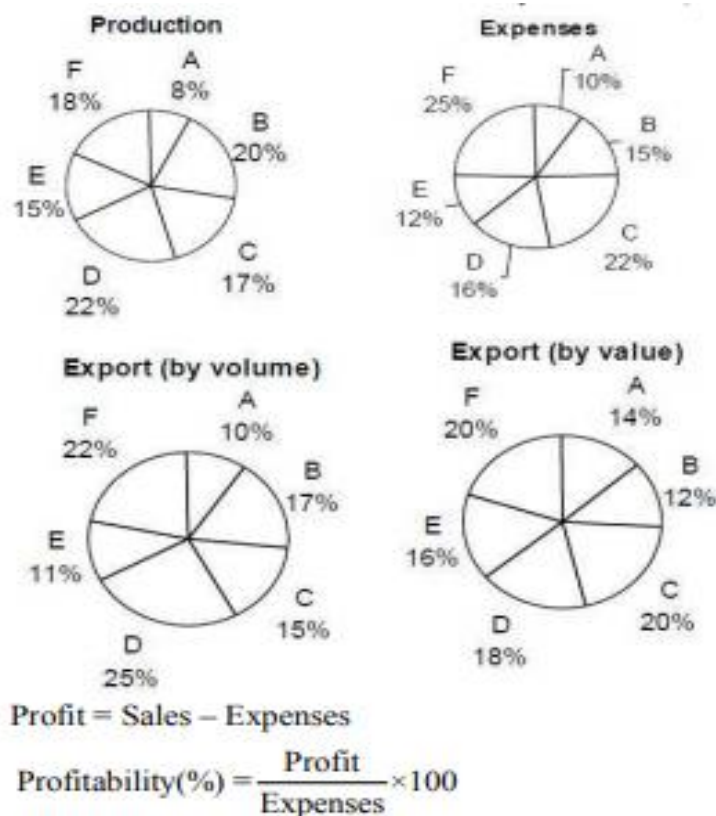
9. Which of the following statement(s) is/are true?
- Exactly two brands could not register a growth in all the regions in 2009.
  - The number of units sold by B in 2009 has shown an increase of above 350% in South.
  - The number of units sold by C in 2009 was less than that sold by C in 2008
- (a) Only 1      (b) 1 and 2      (c) 1 and 3      (d) 2 and 3
10. Which brand registered the maximum percentage increase in the price per unit in 2009?
- (a) A      (b) B      (c) D      (d) E
11. What is the total sales turnover (in crore Rs.) of the detergent market in India in the year 2009?
- (a) 3073      (b) 2842      (c) 2906      (d) 3408

**Direction:** The subject wise breakup of the marks obtained by 4 students in 5 subjects during their board examination is given below. Assume that all subjects carry equal maximum marks unless specified



12. If the pattern of the examination is changed in such a way that the maximum marks for Maths is double of the maximum marks for any other subject (the breakup of marks remaining unchanged), then what is the ratio of maximum marks, in all the subjects put together, which Arya can score after the change in pattern and before the change in pattern?  
 a) 35 : 54      b) 3 : 2      c) 2 : 3      d) 9 : 5
13. If the marks scored by Geoffrey in Maths is maximum possible then what is the average of percentage marks scored by him in all the subjects?  
 a) 50%      b) 25%      c) 10%      d) 12.50%
14. If the pattern of the examination is changed in such a way that the maximum marks for Maths is double of the maximum marks for any other subject (the breakup of marks remaining unchanged), then what is the ratio of maximum marks, in all the subjects put together, which Geoffrey can score to the maximum marks, in all the subjects put together, which Sansa can score?  
 a) 4 : 3      b) 1 : 1      c) 3 : 4      d) 1 : 2
15. If the minimum percentage required to pass in any subject is 33.33 and it is also known that Tommen passed in all the subjects, then what can be the minimum percentage that she can score in English?  
 a) 30%      b) 40%      c) 50%      d) 60%

**Direction:** The following pie chart gives details of the production, expenses and export of the six products manufactured by company KL Enterprises, which manufactures only the given six products, in the year 2014. In the given year, the company followed a very strict internal audit policy and any item that did not meet the specifications were rejected and disposed off. All the products exported were those manufactured in the same year itself



16. For which product the rejection rate was maximum?  
 (a) C      (b) F      (c) E      (d) B
17. The export price per unit of which product was the highest?  
 (a) A      (b) C      (c) D      (d) E
18. In 2014, if product D was a profit making product for the company, what was the maximum number of products that were loss making products for the company?  
 (a) 2      (b) 3      (c) 4      (d) 0

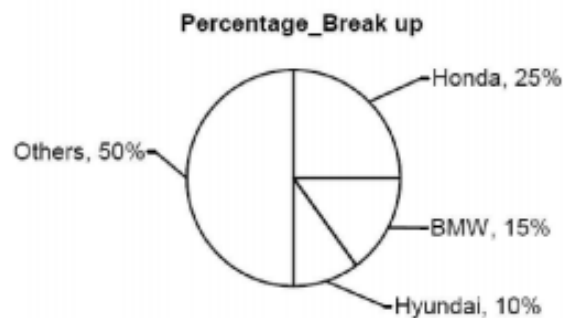
19. In 2014, the products exported as a percentage of the products manufactured by the company could not be more than  
 (a) 73.3% (b) 81.81% (c) 80% (d) 88%

**Direction:** Mr. Alfonso has six cars such that each car is of a different brand. The cars with Mr. Alfonso are of the six brands Chevrolet, Ferrari, Honda, Mercedes, BMW and Hyundai. In the months of January and February in the year 2008, Mr. Alfonso drove exactly one car each day. The following table gives details about the days in January and February 2008 on which he did not drive a car of each of the given six brands. Given that January 1, 2008 was a Tuesday.

Chevrolet	Sunday	Monday	Wednesday	Friday
Ferrari	Tuesday	Thursday	Saturday	Monday
Honda	Sunday	Wednesday	Thursday	Friday
Mercedes	Tuesday	Monday	Wednesday	Thursday
BMW	Friday	Monday	Saturday	Tuesday
Hyundai	Sunday	Tuesday	Wednesday	Saturday

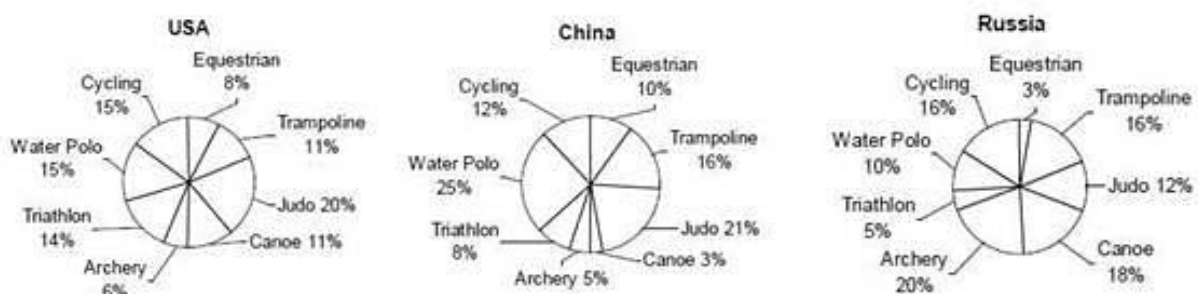
The number of days in January and February 2008 on which he drove a car of brand Chevrolet, Ferrari, Honda, Mercedes, BMW and Hyundai is denoted by CH, FE, HO, ME, BM and HY respectively.

It is also known that  $HO > ME > CH > BM > HY > FE$ . The following pie – chart gives details about the number of days in January and February 2008 on which he drove a car of brand Honda, BMW and Hyundai.



20. What is the difference between the maximum and minimum possible number of days on which Mr. Alfonso drove the car of brand Mercedes in the given two months?  
 (a) 4 (b) 3 (c) 2 (d) 1
21. If Mr. Alfonso drove the car of brand Chevrolet on all possible Saturdays in January 2008 and all possible Thursdays in January 2008 and February 2008, then what is the number of days on which he drove Ferrari in the given two months?  
 (a) 4 (b) 2 (c) 3 (d) 5
22. Given that the number of days in January 2008 on which Mr. Alfonso drove the car of brand Honda is the maximum. What is the number of days in February 2008 on which he drove the car of brand Honda?  
 (a) 0 (b) 1 (c) 3 (d) 2

**Direction:** The pie charts given below show the distribution of the number of athletes sent by three countries to take part in eight different games in the recently held Olympics. The numbers of athletes sent by USA, China and Russia were in the ratio 8 : 11 : 5. It is also known that the total number of athletes sent by the three countries put together was 2400.





23. The number of Water Polo athletes constituted what percent of the total number of athletes sent by the three countries put together?  
 (a) 20.00 (b) 18.90 (c) 22.30 (d) 18.54
24. What was the absolute difference between the maximum number of athletes sent by China for a game and the minimum number of athletes sent by Russia for a game?  
 (a) 260 (b) 160 (c) 242 (d) 145
25. The female to male ratio for Cycling athletes from Russia and USA was 1 : 19 and 4 : 1 respectively. If the number of female Cycling athletes was equal to the number of male Cycling athletes for the three countries put together, then what was the number of female Cycling athletes from China?  
 (a) 4 (b) 96 (c) 66 (d) None of these

#### Answer Key

1. D	2. B	3. B	4. A	5. 55	6. 3	7. C	8. 4
9. D	10. B	11. D	12. D	13. A	14. B	15. C	16. C
17. D	18. B	19. C	20. D	21. C	22. D	23. D	24. A
25. C							