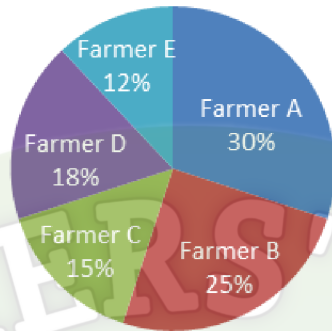


# RRB OFFICE ASST. MAINS SET – 4

Directions (1-5): Study the following pie and line chart carefully and answer the questions given beside.

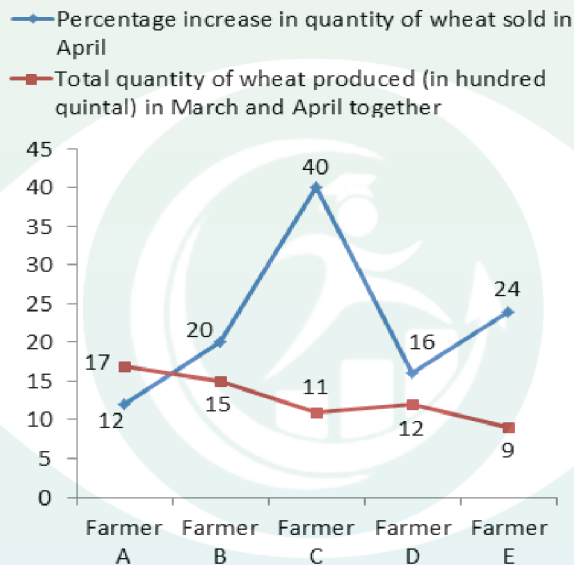
The pie chart below represents the percentage distribution of the quantity of wheat (in Quintals) sold by five different farmers in March out of the total quantity of wheat sold by all the five farmers together.

Percentage distribution of quantity of wheat sold (in quintal) in March



The line chart below represents the percentage increase in the quantity of wheat sold (in quintals) in April with respect to March, and total quantity of wheat produced (in hundred quintals) in March and April together.

Difference between quantity of wheat sold by farmer B in March and April is 125 quintals.



- Find the ratio of the quantity of wheat sold by farmer A in April to the quantity of wheat sold by farmer B in the same month.  
 A. 14 : 11      B. 28 : 25      C. 22 : 19      D. 26 : 21      E. 17 : 12
- Find the difference between unsold quantity of wheat of farmer D in March and April together, and the unsold quantity of farmer E in the same months together.  
 A. 24 quintals      B. 6 quintals      C. 18 quintals      D. 12 quintals      E. None of these
- Total quantity of wheat sold by farmer C in April is what percentage more than the total quantity of wheat sold by farmer E in March?  
 A. 75%      B. 80%      C. 50%      D. 60%      E. 65%
- Selling price of one quintal of wheat in March and in April is Rs. 120 and Rs. 160, respectively. Find the difference between the revenue generated by farmer A in March and that in April.  
 A. Rs. 40,200      B. Rs. 42,600      C. Rs. 46,800      D. Rs. 44,400      E. Rs. 32,800
- Find the unsold quantity of wheat in March and April together by all the farmers together.  
 A. 841 quintals      B. 872 quintals      C. 891 quintals      D. 826 quintals      E. 862 quintals

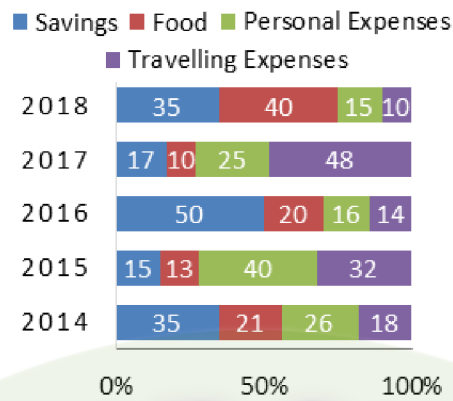
6. There are 4 friends. The average score in unit test of the first three is 15 and that of the last three is 16. If the score of the last friend is 19, then the first friend's score is what percent of the total score of last three friends?
- A.  $66\frac{2}{3}\%$       B. 300%      C.  $133\frac{2}{3}\%$       D.  $33\frac{1}{3}\%$       E. None of these
7. The ratio of time taken by two taps A & B to fill a tank is 2 : 3. When an outlet Tap C is also opened simultaneously with tap A and tap B, it takes 75% more time to fill the empty tank. If it takes to fill 30 hours when all the three taps are opened together, then in what time tap C can empty the full tank operating alone?
- A. 60 hours      B. 40 hours      C. 20 hours      D. 15 hours      E. 35 hours
8. Liou is going to PNBE from MFP by his car at the speed of 30 km per hour and return immediately at the speed of x km per hour. If the distance between PNBE and MFP is 270 km and he take total 15 hours for going and coming back then what is the value of X?
- A. 40 km per hour      B. 45 km per hour      C. 42 km per hour      D. 50 km per hour      E. None of these
9. A and B together take X days to complete a piece of work but B and C together takes  $\frac{40}{3}$  days to complete the same piece of work. If A takes half of the time taken by B to complete the same piece of work and C alone takes 15 days to complete half of the work then what is the value of x?
- A. 10      B. 12      C. 8      D. 9      E. None of these
10. In a solution of sulphuric acid and water, when 10 litres of water were added then the concentration of acid in the solution changes to 50% but when 5 litres of acid were added then the concentration of acid change to 80%. What will be the concentration of acid when 4 litres of solution were taken out and the same quantity of waters were added?
- A. 75%      B. 80%      C. 70%      D. 60%      E. None of these

Directions (11-15): In each of these questions, two equations (I) and (II) are given. You have to solve both the equations and give answer.

11. I.  $(x + 7)(y + 4) = 35$  II.  $3xy + 12x + 5y = 5$
- A. if  $x > y$       B. if  $x \geq y$       C. if  $x \leq y$       D. if  $x < y$   
E. if  $x = y$  or relationship between x and y can't be established
12. I.  $\frac{8}{\sqrt{x}} + \frac{9}{\sqrt{x}} = 68$       II.  $y \times 552 + \sqrt{25921} = \sqrt{529}$
- A. if  $x > y$       B. if  $x \geq y$       C. if  $x \leq y$       D. if  $x < y$   
E. if  $x = y$  or relationship between x and y can't be established
13. I.  $35x^2 + 33x - 54 = 0$  II.  $24y^2 - 73y - 55 = 0$
- A. if  $x > y$       B. if  $x \geq y$       C. if  $x \leq y$       D. if  $x < y$   
E. if  $x = y$  or relationship between x and y can't be established
14. I.  $8x^2 - 2x - 3 = 0$       II.  $57y^2 - 28\sqrt{13x} + 39 = 0$
- A. if  $x > y$       B. if  $x \geq y$       C. if  $x \leq y$       D. if  $x < y$   
E. if  $x = y$  or relationship between x and y can't be established
15. I.  $12x^2 - 29x + 15 = 0$  II.  $54y^2 - 20\sqrt{18}y + 33 = 0$
- A. if  $x > y$       B. if  $x \geq y$       C. if  $x \leq y$       D. if  $x < y$   
E. if  $x = y$  or relationship between x and y can't be established

Directions (16-20): Study the following bar chart carefully and answer the questions given beside.

The following bar graph shows the percentage break-up of Nitin's salary from year 2014 to 2018.



- 16.** If the ratio of savings in the year 2015 and 2018 are in the ratio of 3 : 5, then what is the ratio of personal expenses in the year 2015 and 2018.  
 A. 56 : 5      B. 8 : 15      C. 56 : 15      D. Can't be determined      E. None of these
- 17.** If the saving in 2014 is 80% of the saving in 2016, then what is the total expenditure on food in 2014. (Given that total expense in 2016 is INR 1,85,000)  
 A. INR 40, 400      B. INR 44, 400      C. INR 21, 100      D. INR 45, 100      E. None of these
- 18.** Every year if there is an increase of 100% in monthly salary as compared to previous year's monthly salary, then what is the ratio of monthly salary in 2018 to the expenses on travelling in 2015.  
 A. 8 : 1      B. 1 : 25      C. 80 : 3      D. 25 : 1      E. None of these
- 19.** If the total salary in the year 2013 is INR 3,00,000 and there is an increase of 18% in the year 2014, then find his travelling and personal expenses combined in the year 2014?  
 A. INR 1,53,740      B. INR 1,40,330      C. INR 1,50,740      D. INR 92,400      E. INR 1,55,760
- 20.** What is the percentage of average money spent by Nitin on food of average money saved by him during all these years, if his salary per annum for each year was INR 5,00,000?  
 A. 65.54%      B. 70.38%      C. 68.42%      D. 63.15%      E. 66.24%

Directions (21 to 25) : In each of the following questions, read the given statement and compare the Quantity I and Quantity II on its basis. (Only quantity is to be considered)

- 21.** Quantity I : A 250 meters long train cross a platform thrice of its length in 30 seconds.  
 What is the speed of the train?  
 Quantity II : 35 meters per second  
 A. Quantity : I > Quantity : II      B. Quantity : I ≥ Quantity : II      C. Quantity : I < Quantity : II  
 D. Quantity : II ≥ Quantity : I      E. Quantity I = Quantity II or relation can't be established
- 22.** To pass an examination, a student needs to score 33% of the total marks. Sanjay scored 29% of the total marks and was declared failed by 20 marks.  
 Quantity I : What was the maximum passing marks in the examination?  
 Quantity II : In the examination, if one more subject of 50 marks was included and the passing percentage was reduced to 30% then what is the passing marks?  
 A. Quantity : I > Quantity : II      B. Quantity : I ≥ Quantity : II      C. Quantity : I < Quantity : II  
 D. Quantity : II ≥ Quantity : I      E. Quantity I = Quantity II or relation can't be established
- 23.** Quantity I : When 1111 is divided into two parts in the ratio of 9 : 13, then what will be the value of largest part?  
 Quantity II : Ram spends 34% of his monthly income. If his monthly income is Rs. 1000, then how much does he save?

- A. Quantity : I > Quantity : II      B. Quantity : I  $\geq$  Quantity : II      C. Quantity : I < Quantity : II  
 D. Quantity : II  $\geq$  Quantity : I      E. Quantity I = Quantity II or relation can't be established

**24.** In a company, the salary of a manager is 40% more than that of executive but the salary of the director is 65% more than that of manager.

**Quantity I :** What is the salary of the manager if the salary of the director is Rs. 1,50,000 per month ?

**Quantity II :** If the salary of the executive is Rs. 40,000 per month then what is the salary of the manager?

- A. Quantity : I > Quantity : II      B. Quantity : I  $\geq$  Quantity : II      C. Quantity : I < Quantity : II  
 D. Quantity : II  $\geq$  Quantity : I      E. Quantity I = Quantity II or relation can't be established

**25.** In a company, the salary of a manager is 40% more than that of executive but the salary of the director is 65% more than that of manager.

**Quantity I :** What is the salary of the manager if the salary of the director is Rs. 1,50,000 per month ?

**Quantity II :** If the salary of the executive is Rs. 40,000 per month then what is the salary of the manager?

- A. Quantity : I > Quantity : II      B. Quantity : I  $\geq$  Quantity : II      C. Quantity : I < Quantity : II  
 D. Quantity : II  $\geq$  Quantity : I      E. Quantity I = Quantity II or relation can't be established

**26.** The speed of a motorboat in upstream is 12 km per hour while river is flowing with a speed of 2 km per hour. If the motorboat takes 3 hours more to travel x km in still water than to travel x – 24 km in downstream. Find the value of x?

- A. 154 km      B. 168 km      C. 175 km      D. 182 km      E. None of these

**27.** A man purchased some goods and marks the price 20% above the cost price. If he sells one third of the goods at the discount of 5% on the marked price then what percentage of discount should he offer on the marked price of remaining goods, if he desires to earn total 8% profit on the cost price?

- A. 12.5%      B. 12%      C. 7.5%      D. 15%      E. None of these

**28.** Mr. Bhatia married to Bhanu 10 years ago from now. At time of marriage, Bhanu was 23 years old. 8 years after their marriage, the average age of Bhatia, his wife, and their son Shantanu become 28 years. At present, what is the average of the age of Bhatia and his son Shantanu?

- A. 22.5 years      B. 28.5 years      C. 25 years      D. 24.5 years      E. None of these

**29.** A sum of money increases every year  $\frac{1}{8}$  times. At the end of 3 years, the sum of money become Rs. 4556.25 then what was the total increase in the first two years?

- A. Rs. 950      B. Rs. 800      C. Rs. 1025      D. Rs. 850      E. None of these

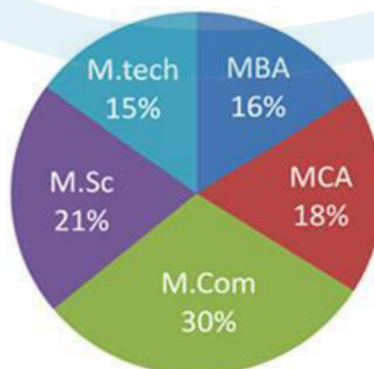
**30.** In a village there is a group of people comprising 55% men and 45% women. Among women 60% are graduate and among men 40% are graduate. Among graduate women 25% are housewife. The total number of women who are housewives is 99 if all the women who are not graduate are housewives, find the total number of men who are not graduate.

- A. 175      B. 112      C. 150      D. 132      E. None of these

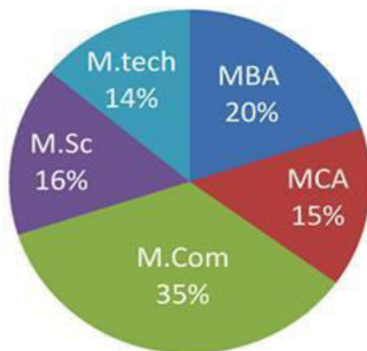
**Directions(31-35) :** Study the following pie charts carefully and answer the questions given beside.

The charts show the number of students who applied for different courses and qualified in that courses.

Total number of students who applied = 21000



Total number of students who qualified = 15,000



**31.** The number of students who qualified in M.Tech is approximately how much % of the number of students who applied for M.Tech?

- A. 33%      B. 67%      C. 50%      D. 75%      E. None of these

**32.** If the number of female students who applied for M.com is 50% more than the number of male students who applied for M.com, find the numbers of male students who applied for M.com.

- A. 2650      B. 2590      C. 2450      D. 2520      E. None of these

**33.** Find the difference between the number of students who applied for M.Sc and MBA and the number of students who qualified in the same course.

- A. 2520      B. 2460      C. 2390      D. 2100      E. None of these

**34.** What is the ratio between the number of students who applied for MCA and the number of students who qualified in the same course?

- A. 42 : 25      B. 25 : 49      C. 25 : 19      D. 21 : 25      E. 42 : 29

**35.** What is the average of the number of students who qualified in M.tech, M.Sc and MCA course?

- A. 2150      B. 2220      C. 2250      D. 2050      E. None of these

**Directions (36-40) :** Each of the questions below consists of a question and two statements numbered I and II given below it. You have to decide whether the data provided in the statements are sufficient to answer the question. Read both the statements and give answer:

**36.** What is the ratio of the total number of females to the total number of males in a Multi-National company?

**Statement I :** There are 45000 employees in the company out of which 45% are males.

**Statement II :** The ratio of the total number of females to the total number of males in the last year was 2 : 3.

- A. The data in statements I alone is sufficient to answer the question, while the data in statement II alone is not sufficient to answer the question.  
B. The data in statements II alone is sufficient to answer the question, while the data in statement I alone is not sufficient to answer the question.  
C. Either Statement I or Statement II alone is sufficient to answer the question.  
D. The data in both the statements I and II is not sufficient to answer the question.  
E. The data in both the statements I and II together is necessary to answer the question.

**37.** What is the speed of the Scooter?

**Statement I :** The Scooter covers a distance of 290 kms in 5 hours.

**Statement II :** The Scooter covers a distance of 580 kms in 10 hours.

- A. The data in statements I alone is sufficient to answer the question, while the data in statement II alone is not sufficient to answer the question.  
B. The data in statements II alone is sufficient to answer the question, while the data in statement I alone is not sufficient to answer the question.  
C. Either Statement I or Statement II alone is sufficient to answer the question.

- D. The data in both the statements I and II is not sufficient to answer the question.  
 E. The data in both the statements I and II together is necessary to answer the question.

**38. In a Right-angle triangle, the perimeter is 30 cm then find the area of this triangle?**

**Statement I : The area of the incircle is  $16\pi \text{ cm}^2$**

**Statement II : The circumradius of the triangle is 5.5 cm.**

- A. The data in statements I alone is sufficient to answer the question, while the data in statement II alone is not sufficient to answer the question.  
 B. The data in statements II alone is sufficient to answer the question, while the data in statement I alone is not sufficient to answer the question.  
 C. Either Statement I or Statement II alone is sufficient to answer the question.  
 D. The data in both the statements I and II is not sufficient to answer the question.  
 E. The data in both the statements I and II together is necessary to answer the question.

**39. In a 10 km race, Ram beats Shayam by one minute and Shayam beats Mohan by one minute 20 seconds.**

**By how much distance did Ram beat Mohan?**

**Statement I : The speed of Ram is 60 km/hr.**

**Statement II : Ram beats Mohan by two minutes 20 seconds.**

- A. The data in statements I alone is sufficient to answer the question, while the data in statement II alone is not sufficient to answer the question.  
 B. The data in statements II alone is sufficient to answer the question, while the data in statement I alone is not sufficient to answer the question.  
 C. Either Statement I or Statement II alone is sufficient to answer the question.  
 D. The data in both the statements I and II is not sufficient to answer the question.  
 E. The data in both the statements I and II together is necessary to answer the question.

**40. Find the distance travelled by Rajdhani express in two hours if it travels with its original speed?**

**Statement I : The train started from the origin station 20.25 hours later than the scheduled time towards its destination which is 750 km away from the origin.**

**Statement II : To reach the destination station in the scheduled time the loco – piolet of the train increases the speed of the train to 125% of the original speed.**

- A. The data in statements I alone is sufficient to answer the question, while the data in statement II alone is not sufficient to answer the question.  
 B. The data in statements II alone is sufficient to answer the question, while the data in statement I alone is not sufficient to answer the question.  
 C. Either Statement I or Statement II alone is sufficient to answer the question.  
 D. The data in both the statements I and II is not sufficient to answer the question.  
 E. The data in both the statements I and II together is necessary to answer the question.

### ANSWERS KEY

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>
B	E	A	D	C	D	B	B	C	D
<b>11</b>	<b>12</b>	<b>13</b>	<b>14</b>	<b>15</b>	<b>16</b>	<b>17</b>	<b>18</b>	<b>19</b>	<b>20</b>
D	A	E	E	E	C	B	D	E	C
<b>21</b>	<b>22</b>	<b>23</b>	<b>24</b>	<b>25</b>	<b>26</b>	<b>27</b>	<b>28</b>	<b>29</b>	<b>30</b>
C	E	C	A	A	B	A	B	D	D
<b>31</b>	<b>32</b>	<b>33</b>	<b>34</b>	<b>35</b>	<b>36</b>	<b>37</b>	<b>38</b>	<b>39</b>	<b>40</b>
B	D	E	A	C	A	C	C	A	E