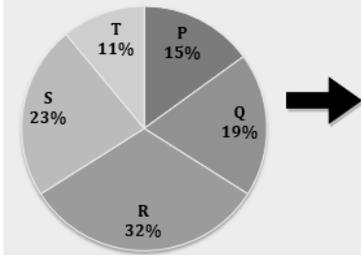


# DI workshop handout

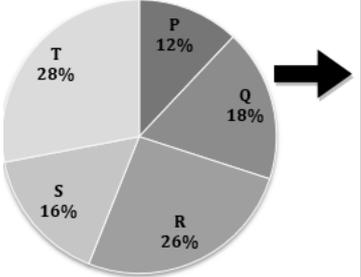
Given below is the data related to students enrolled in "Mega Talent Hunt" Science Olympiad from 6 different colleges.

Total students qualified = 5700



Colleges	Male : Female
P	2 : 3
Q	13 : 6
R	21 : 11
S	9 : 14
T	3 : 8

Total students enrolled = 8550



Colleges	Male : Female
P	4 : 5
Q	7 : 2
R	9 : 4
S	3 : 5
T	19 : 23

- Boys enrolled from college S are what percent of boys qualified from college Q? (Round off to 2 decimal places)  
(a) 69.23% (b) 52.56% (c) 61.58% (d) 56.58% (e) None of these
- Find the ratio of boys enrolled from college Q and college S together to the girls qualified from the same.  
(a) 5 : 4 (b) 4 : 3 (c) 3 : 2 (d) 2 : 1 (e) None of these
- Boys enrolled from college T are what percent of average no. of boys enrolled from all colleges together?  
(a) 150% (b) 124% (c) 138% (d) 113% (e) 105%
- If 22 (2/9)% of girls qualified from college P were found not eligible to play further in the olympiad due to several reasons, then find the ratio between girls promoted to next part of olympiad from college P to the total number of students qualified from college P.  
(a) 8 : 23 (b) 7 : 23 (c) 15 : 8 (d) 7 : 15 (e) 23 : 8
- Find the total number of boys qualified from all colleges together.  
(a) 2652 (b) 2742 (c) 2826 (d) 2761 (e) None of these

Data related to the number of employees in five different companies in December 2012

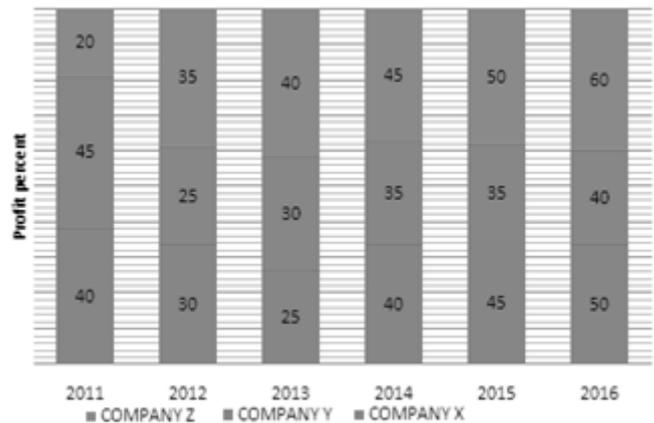
Company	Total number of Employees	Out of total number of employees		
		Percentage Of Science graduates	Percentage of Commerce graduates	Percentage of Arts graduates
M	1050	32%	-	-
N	700	-	31%	40%
O	-	30%	30%	-
P	-	-	40%	20%
Q	-	35%	50%	-

Note: (I) Employees of the given companies can be categorised only in three types: Science graduates, Commerce graduates and Arts graduates

(II) A few values are missing in the table (indicated -). A candidate is expected to calculate the missing value, if it is required to answer the given question, on the basis of the given data and information.

- What is the difference between the number of Arts graduate employees and Science graduate employees in Company N?  
(a) 87 (b) 89 (c) 77 (d) 81 (e) 73
- The average number of Arts graduate employees and commerce graduate employees in Company Q was 312. What was the total number of employees in Company Q?  
(a) 920 (b) 960 (c) 1120 (d) 1040 (e) 1080
- If the ratio of the number of Commerce graduate employees to that of Arts graduate employees in Company M was 10 : 7, what was the number of Arts graduate employees in M?  
(a) 294 (b) 266 (c) 280 (d) 308 (e) 322
- The total number of employees in Company N increased by 20% from December 2012 to December 2013. If 20% of the total number of employees in Company N in December 2013 were Science graduates, what was the number of Science graduate employees in company N in December 2013?  
(a) 224 (b) 266 (c) 294 (d) 252 (e) 168
- The total number of employees in Company P was 3 times the total number of employees in Company O. If the difference between the number of Arts graduate employees in Company P and that in Company O was 180, what was the total number of employees in Company O?  
(a) 1200 (b) 1440 (c) 720 (d) 900 (e) 1080

Study the graph carefully to answer the questions that follow.



Top company Z Middle company Y and bottom is X

- If profit for company Y in 2012 is 2000 and expenditure in 2013 for company Y is 50,000, then what is the total revenue in 2013 for Y? Give that total revenue = expenditure + profit.  
(a) 52600 (b) 54200 (c) 53280 (d) 55800 (e) None of these
- If profit in year 2015 for company Z is 3000 and profit of company X in 2013 is equal to profit of company Z in 2014 then what is the profit of company X in 2013  
(a) 1500 (b) 4000 (c) 3500 (d) 2000 (e) 2500
- What is the average percentage increase in profit for company Y over all the years.  
(a) 49% (b) 32% (c) 23% (d) 38% (e) 35%

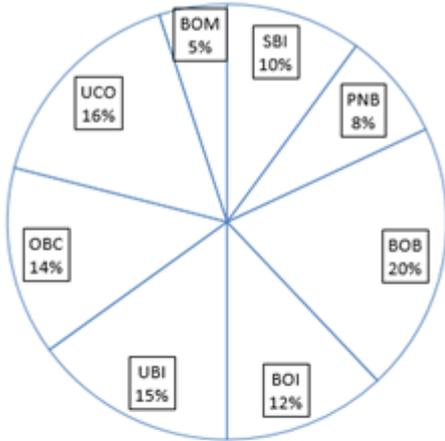
# DI workshop handout

14. What was the approximate percent increase in percent increase of profit of company X in the year 2014 from its previous year  
 (a) 60% (b) 65% (c) 55% (d) 50% (e) 70%

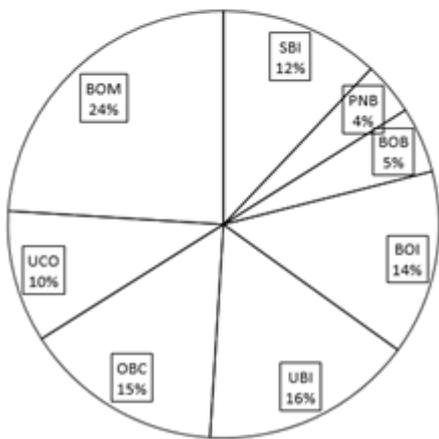
15. If profit earned by company Y in 2014 is 27,000 and by company Z in 2014 is 43500 then what is the total profit earned by them in year 2013?  
 (a) 25,000 (b) 35,000 (c) 40,000 (d) 50,000 (e) None of these

### Di Mix charts

The following pie-chart shows the distribution of the number of vacancies in different banks to be filled through IBPS PO recruitment exam in 2010 and 2015.



**Total vacancies in the year 2010 = 32000**



**Total vacancies in the year 2015 = 60000**

16. What is the difference between the central angle made by vacancies in banks SBI, UBI and UCO in the year 2010 and that of by vacancies in banks PNB, OBC and BOM in the year 2015?  
 (a)  $9.6^\circ$  (b)  $8.2^\circ$  (c)  $4.6^\circ$  (d)  $7.2^\circ$  (e)  $5.4^\circ$

17. What is the percentage increase in number of vacancies in SBI and PNB together from 2010 to year 2015?  
 (a) 65.67% (b) 60% (c) 62.5% (d) 66.67% (e) 71.35%

18. What is the ratio of the number of vacancies in UCO, UBI and BOB in the year 2015 to the number of vacancies in PNB, BOI and BOM in the year 2010?  
 (a) 93:40 (b) 51:40 (c) 93:81 (d) 63:59 (e) None of these

19. The number of vacancies in SBI, PNB and BOI in the year 2015 is approximately what percent of the number of vacancies in BOB, UCO and BOM in the year 2010?  
 (a) 122.5% (b) 131.25% (c) 137.2% (d) 150% (e) 152.25%

20. The number of vacancies in UCO and BOB together in the year 2010 is what percent more than the number of vacancies in same banks together in 2015?  
 (a) 12% (b) 17% (c) 24% (d) 28% (e) 35%

Given below is the information regarding to the result of 3 students Tanvir, Tanmay, Mrunal in internal exams of class 12th. Read it carefully and answer the following questions:-

There are total 5 subjects i.e. English, Hindi, Geography, History, and Economics each carrying different maximum marks. English and Hindi both carries equal maximum marks i.e. 35. Geography carries maximum marks 5 more than English and 10 more than History. Total of maximum marks of the 5 subjects is 160. Mrunal scored 60% in English, while Tanmay scored 48% in the same subject. Tanvir scored only 13.5 marks in English. Tanvir scored 24 marks in Hindi which is 60% more than the marks scored by Tanmay in the same subject. The total of the marks of 3 students in Hindi is 58, Mrunal scored 15.5 marks in Geography, while Tanmay scored 35% in the same subject and Tanvir scored highest in Geography with 29 marks. Tanvir scored 40% in History which is 33% less than the marks of Tanmay in the same subject. Score of Mrunal in History is 14 marks. The sum of marks of Tanvir and Tanmay in Economics is 32 while the ratio of the same is 9:7. Mrunal scored 77.5% marks in Economics.

21. Find the difference between total marks scored by Tanvir in all subjects and the total marks scored by Tanmay in all subjects together.  
 (a) 15.8 (b) 18.5 (c) 18 (d) 20 (e) None of these

22. What is the average mark scored by the 3 students in History?  
 (Round off to nearest integer)  
 (a) 13 (b) 17 (c) 14 (d) 15 (e) None of these

23. Calculate the percentage of marks obtained by Mrunal in all the given subjects.  
 (a) 50.125% (b) 52.125% (c) 53.125% (d) 53.75% (e) None of these

24. Marks of Tanmay in History and Geography together is what percent more or less than the marks of all the 3 students in Economics?  
 (round off to 2 decimal places).  
 (a) 32.63% (b) 32.33% (c) 33.63% (d) 35.53% (e) 39.63%

25. If the passing marks in each internal exam are 40%, then total number of compartment of all students together?  
 (a) 5 (b) 4 (c) 3 (d) 2 (e) 1