**Assignment – 14**

Assigned To = All 9 Class Students

**Chapter = Statistics**

**MM = 30**

Q1. **The final marks in mathematics of 30 students are as follows:**

**53, 61, 48, 60, 78, 68, 55, 100, 67, 90,**

**75, 88, 77, 37, 84, 58, 60, 48, 62, 56,**

**44, 58, 52, 64, 98, 59, 70, 39, 50, 60.**

**(i) Arrange these marks in ascending order, 30 to 39 one group,40 to 49 second group etc.**

**Now answer the following:**

**(ii) What is the highest score?**

**(iii) What is the lowest score?**

**(iv) What is the range?**

**(v) If 40 is the pass mark how many have failed?**

**(vi) How many have scored 75 or more?**

**(vii) Which observations between 50 and 60 have not actually appeared?**

**(viii) How many have scored less than 50?**

**Q2. The relative humidity (in %) of a certain city for a month of 30 days was as follows:  
98.1     98.6     99.2     90.3     86.5     95.3     92.9      96.3      94.2      95.1  
89.2     92.3     97.1     93.5     92.7     95.1     97.2      93.3      95.2      97.3  
96.2     92.1     84.9     90.2     95.7     98.3     97.3      96.1      92.1      89**

**(i) Construct a grouped frequency distribution table with classes 84 – 86, 86 – 88, etc.**

**(ii) Which month or season do you think this data is about?**

**(iii) What is the range of this data?**

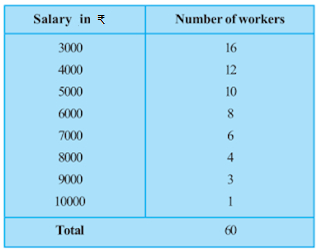
**Q3. In a mathematics test given to 15 students, the following marks (out of 100) are recorded.**

**41, 39, 48, 52, 46, 62, 54, 40, 96, 52, 98, 40, 42, 52, 60  
Find the mean, median and mode of this data.**

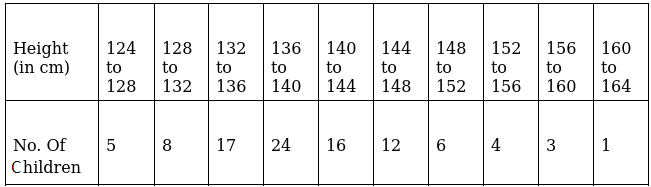
**Q4.  The following observations have been arranged in ascending order. If the median of the data is 63, find the value of x.**

**29, 32, 48, 50, x, x+2, 72, 78, 84, 95**

**Q5. Find the mean salary of 60 workers in a factory from the following table.**

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**Q6. The distribution of heights (in cm) of 96 children is given below. Construct a histogram and a frequency polygon on the same axes.**

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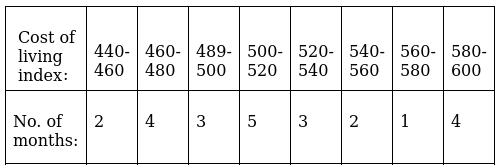
**Q7.  The time taken, in seconds, to solve a problem by each of 25 pupils is as follows:**

**16, 20, 26, 27, 28, 30, 33, 37, 38, 40, 42, 43, 46, 46, 46, 48, 49, 50, 53, 58, 59, 60, 64, 52, 20**

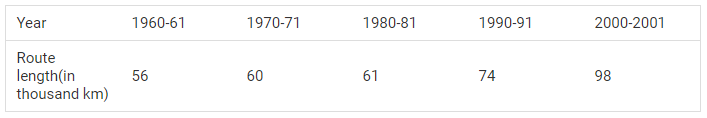
**(a) Construct a frequency distribution for these data, using a class interval of 10 seconds.**

**(b) Draw a histogram to represent the frequency distribution.**

Q8. ****Draw, in the same diagram, a histogram and a frequency polygon to represent the following data which shows the monthly cost of living index of a city in a period of 2 years:****

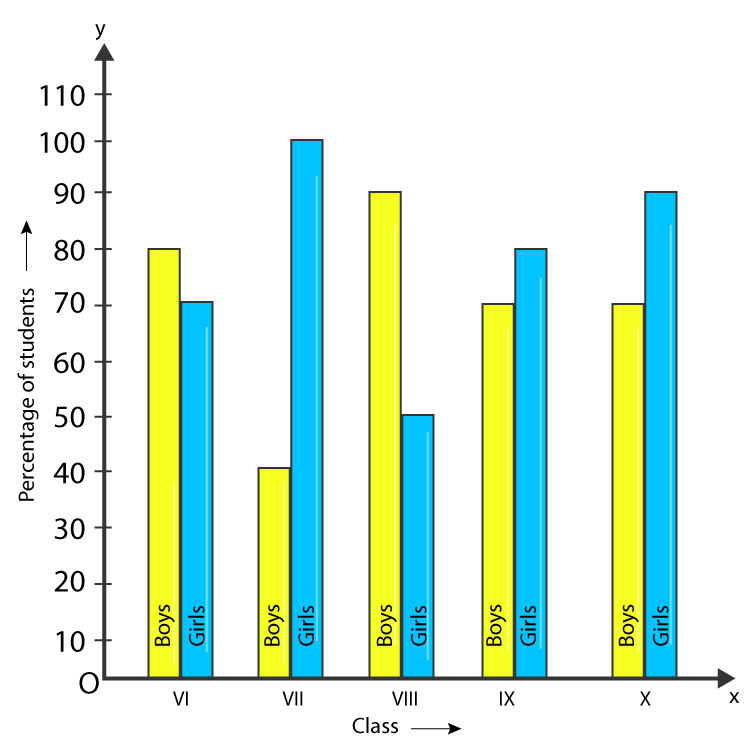


**Q9. The following table gives the route length (in thousand kilometres) of the Indian Railways in some of the years:**

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**Represent the above data with the help of a bar graph.**

**Q10. The following bar graph shows the results of an annual examination in a secondary school. Read the bar graph given below, and choose the correct alternative in each of the following:**

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**(i)The pair of classes in which the results of boys and girls are inversely proportional are:**

**(a) VI, VIII (b) VI, IX (c) VII, IX (d) VIII, X**

**(ii) The class having the lowest failure rate of girls is:**

**(a) VI (b) X (c) IX (d) VIII**

**(iii) The class having the lowest pass rate of students is:**

**(a) VI (b) VII (c) VIII (d) IX**