

SAINIK SCHOOL GOPALGAN
SUB – MATHEMATICS
CLASS - VII
ASSIGNMENT - 3

Q1) Define the following terms:

- (i) Observations
- (ii) Frequency of an observation
- (iii) Data
- (iv) Frequency distribution

Q2) The final marks in mathematics of 30 students are as follows:

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

75, 88, 77, 87, 84, 58, 60, 48, 62, 56

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

Arrange these marks in the ascending order 30 to 39 one group, 40 to 49 second group, etc.

- (i) What is the highest score?
- (ii) What is the lowest score?
- (iii) What is the range?
- (iv) If 40 is the pass mark how many have failed?
- (v) How many have scored 75 or more?
- (vi) Which observations between 50 and 60 have not actually appeared?
- (vii) How many have scored less than 50?

Q3) The weights of new born babies (in kg) in a hospital on a particular day are as follows: 2.3, 2.2, 2.1, 2.7, 2.6, 3.0, 2.5, 2.9, 2.8, 3.1, 2.5, 2.8, 2.7, 2.9, 2.4

- (i) Rearrange the weights in descending order
- (ii) Determine the highest weight.
- (iii) Determine the lowest weight.
- (iv) Determine the range
- (v) How many babies were born on that day?

(vi) How many babies weigh below 2.5 kg?

(vii) How many babies weigh more than 2.8?

(viii) How many babies weigh 2.8 kg?

Q4) Following data gives the number of

children in 40 families: 1, 2, 6, 5, 1, 5, 1,

3, 2, 6, 2, 3, 4, 2, 0, 0, 4, 4, 3, 2

2, 0, 0, 1, 2, 2, 4, 3, 2, 1, 0, 5, 1, 2, 4, 3, 4, 1, 6, 2

Represent it in the form in a frequency distribution.

Q5) Prepare a frequency table of the following scores obtained by 50 students in a test:

42 51 21 42 37 37 42 4 38
9 2 5
7 33 17 44 39 7 14 2 39 42
7
42 62 37 39 67 51 53 53 59 41
29 38 27 31 54 19 53 5 22 61
1
42 39 59 47 33 34 14 37 57 43

Q6) A die was thrown 25 times and following scores were obtained:

1 5 2 4 3
6 1 4 2 5
1 6 2 6 3
5 4 1 3 2
3 6 1 5 2

Prepare a frequency table of the scores.

Q7) In a study of number of accidents per day, the observations

for 30 days were obtained as follows: 6 3 5 6 4

3 2 5 4 2
4 2 1 2 2 0 5 4 6 1
6 0 5 3 6 1 5 5 2 6

Prepare a frequency distribution table

Q8) Prepare a frequency table of the following ages (in years) of 30 students of class VIII in your school:

13, 14, 13, 12, 14, 13, 14, 15, 13, 14, 13, 14, 16, 12, 14

13, 14, 15, 16, 13, 14, 13, 12, 17, 13, 12, 13, 13, 13, 14

Q9) Following figures relate the weekly wages (in Rs.) of 15 workers in a factory:

300, 250, 200, 250, 200, 150, 350, 200, 250, 200, 150, 300, 150, 200, 250

Prepare a frequency table.

- (i) What is the range in wages (in Rs.)?
- (ii) How many workers are getting Rs 350?
- (iii) How many workers are getting the minimum wages?

Q10) Construct a frequency distribution table for the following marks obtained by 25

students in a history test in class VI of a school: 9, 17, 12, 20, 9, 18, 25, 17, 19, 9, 12, 9, 12, 18, 17, 19, 20, 25, 9, 12, 17, 19, 19, 20, 9

- (i) What is the range of marks?
- (ii) What is the highest mark?
- (iii) Which mark is occurring more frequently?

Q11) In a mathematics test following marks were obtained by 40 students of class II. Arrange these marks in a table using tally marks.

8	1	3	7	6	5	5	4	4	2
4	9	5	3	7	1	6	5	2	7
7	3	8	4	2	6	9	5	8	6
7	4	5	6	9	6	4	4	6	6

- (i) Find how many students obtained marks equal to or more than 7?
- (ii) How many students obtained marks below 4?

Q11) Find the mode and median of the data: 13, 16,

12, 14, 19, 12, 14, 13, 14 By using the empirical relation also find the mean.

Q12) Find the median and mode of the data: 35, 32, 35, 42, 38, 32, 34

Q13) Find the mode of the dots: 2, 6, 5, 3, 0, 3, 4, 3, 2, 4, 5, 2, 4

Q14) The runs scored in a cricket match by 11 players are as follows: 6, 15, 120, 50, 100, 80, 10, 15, 8, 10, 10

Find the mean, mode and median of this data

Q15) Find the mode of the following data:

12, 14, 16, 12, 14, 14, 16, 14, 10, 14, 18, 14

Q16) Heights of 25 children (in cm) in a school are as given below:

168, 165, 163, 160, 163, 161, 162, 164, 163, 162, 164, 163, 160, 163, 163, 164, 163, 160, 165, 163, 162

What is the mode of heights? Also, find the mean and median.

Q17) The scores in mathematics test (out of 25) of 15 students are as follows:

19, 25, 23, 20, 9, 20, 15, 10, 5, 16, 25, 20, 24, 12, 20

Find the mode and median of this data. Are they same?

Q18. Two hundred students of class VI and VII were asked to name their favourite colours so as to decide upon what should be the colour of their school house. The results are shown in the

<i>Number of students:</i>	43	19	55	49	34
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following table.

Colour: Red Green Blue Yellow Orange

Represent the given data on a bar graph.

- (i) Which is the most preferred colour and which is the least?
- (ii) How many colours are there in all?

Q19. Following data gives total marks (out of 600) obtained by six children of a particular class.

Represent the data by a bar graph

<i>Students:</i>	<i>Ajay</i>	<i>Bali</i>	<i>Dipti</i>	<i>Faiyaz</i>	<i>Gotika</i>	<i>Hari</i>
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Q20. Following data gives total marks (out of 600) obtained by six children of a particular class.

<i>Marks</i>	450	500	300	360	400	540
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<i>Students:</i>	<i>Ajay</i>	<i>Bali</i>	<i>Dipti</i>	<i>Faiyaz</i>	<i>Gotika</i>	<i>Hari</i>
<i>Marks</i>	450	500	300	360	400	540

Represent the data by a bar graph

21. Tell whether the following is certain to happen, impossible, can happen but not certain.

- (i) You are older today than yesterday. (ii) A tossed coin will land heads up.
(iii) A die when tossed shall land up with 8 on top.
(iv) The next traffic light seen will be green. (v) Tomorrow will be a cloudy day.
22. There are 6 marbles in a box with numbers from 1 to 6 marked on each of them.
(i) What is the probability of drawing a marble with number 2?
(ii) What is the probability of drawing a marble with number 5?
23. A coin is flipped to decide which team starts the game. What is the probability that your team will start?