BLUE PRINT OF ACHIEVEMENT TEST
(SCIENCE)

TABLE NO.1 WEIGHTAGE TO OBJECTIVES

S.NO	OBJECTIVES	MARKS	PERCENTAGE
1.	Knowledge	10	50%.
2.	Understanding	6	30%.
3.	Application	4	20%.
	TOTAL	20	100%.

TABLE NO 2   WEIGHTAGE TO CONTENT

S.NO	CONTENT	MARKS	PERCENTAGE
1	SOUND	10	50%.
2	SOME NATURAL PHENOMENA	10	50%.
	TOTAL	20	100

TABLE NO 3. WEIGHTAGE FORM OF QUESTIONS

S.NO.		No. of Questions	MARKS	PERCENTAGE
1	Fill in the blanks	5	5	25%.
2	MCQ's	5	5	25%.
3	One word Answers	5	5	25%.
4	True and False	5	5	25%.
	TOTAL	20	20	100%.

TABLE NO: 1 WEIGHTAGE OF DIFFICULTY LEVEL

S. NO		MARKS	PERCENTAGE
1	EASY	6	30%
2	AVERAGE	12	60%
3	DIFFICULT	2	10%
	TOTAL	20	100%

FINAL BLUE PRINT (SCIENCE)

S.NO	CONTENTS	KNOWLEDGE	UNDERSTANDING		APPLICATION	TOTAL
		F/B	O/W	T/F	MCQ	
1.	SOUND	3	3	2	2	10
2.	SOME NATURAL PHENOMENA	2	2	3	3	10
SUB TOTAL		5	5	5	5	20
TOTAL		5	5	5	5	20
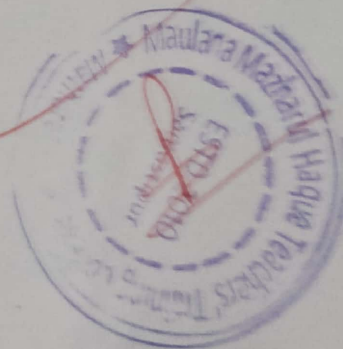
BLUE PRINT OF ACHIEVEMENT TEST

TABLE NO. 1 — WEIGHTAGE OF OBJECTIVES

S.NO.	OBJECTIVES	MARKS	PERCENTAGE
1.	Knowledge	8	40%
2.	Understanding	8	40%
3.	Application	4	20%
	TOTAL	20	100%

TABLE NO. 2 — WEIGHTAGE TO CONTENT

S. No.	CONTENT	MARKS	PERCENTAGE
1	A different kind of school, where do all teachers go	10	50%
2.	The Banyan Tree	10	50%
	TOTAL	20	100%

TABLE NO.3 — WEIGHTAGE TO FORM OF QUESTIONS

S.No	FORM OF QUESTIONS	No. OF QUESTIONS	MARKS	PERCENTAGE
1.	Fill in the blanks.	5	5	25%
2.	MCQ's	5	5	25%
3.	One word Answers	5	5	25%
4.	True & False	5	5	25%
	Total	20	20	100%

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TABLE NO 4: WEIGHTAGE OF DIFFICULTY LEVEL

S.NO	FORM OF QUESTIONS	MARKS	PERCENTAGE
1.	EASY	6	30%
2.	AVERAGE	12	60%
3.	DIFFICULT	2	10%
	TOTAL	20	100%

FINAL BLUE PRINT (ENGLISH)

| S.No	CONTENT	KNOWLEDGE F/B	UNDERSTANDING O/W	T/F	APPLICATION MCQ	Total
1.	A different kind of school where do all Teachers go	3	2	3	2	10
2.	The Banyan Tree	2	3	2	3	10
	SUB-TOTAL	5	5	5	5	20
	TOTAL	5	5	5	5	20

F/B - Fill in the blanks

O/W - One word answers

T/F - True and False

MCQ - Multiple choice Questions

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Scoring of Science Test

MERIT LIST OF STUDENTS

SUBJECT :- SCIENCE   **CLASS :- 9th**

S.No.	STUDENT NAME	MARKS	PERCENTAGE
1.	Roshni Gupta	18	90%
2.	Lakshmi Kumari	19	95%
3.	Nandani Kumari	15	75%
4.	Arti Priya	16	80%
5.	Sonal Suman	11	55%
6.	Aditi Raj	10	50%
7.	Bharti Kumari	11	55%
8.	Priya Sinha	9	45%
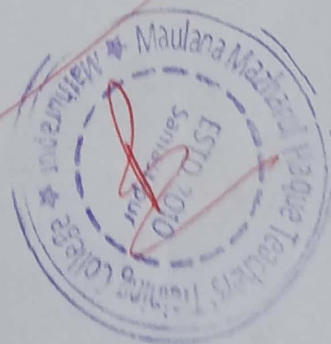
ITEM ANALYSIS

DIFFICULTY VALUE OF THE ITEM:-

$$\Delta V = \left(\frac{H+L}{2N}\right) \times 100$$

Accepted Range = 25% - 75%

H = Number of response in the height Achievers.

L = Number of response in the low achievers group who gave correct answers.

N = Number of student in each group.

* Less than 25% means the item is very difficult.

* More than 75% means the item is very easy.

DISCRIMINATION INDEX

$$D.I = \frac{H-L}{2N}$$
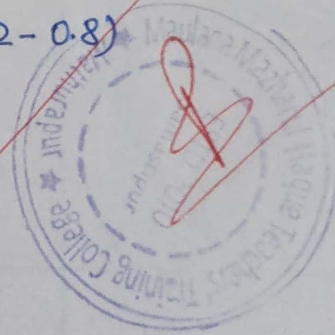
Accepted Range = (0.2 - 0.8)

TABLE 2. SHEET WITH LOWER LIMIT (Low Achievers)

S. NO.	NAME OF STUDENT	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	Q17	Q18	Q19	Q20	SCORE
1.	Bharti Kumari	✓	×	✓	×	✓	×	✓	✓	✓	×	✓	✓	✓	×	×	✓	✓	×	×	×	11
2.	Sonal Suman	✓	×	✓	×	×	✓	✓	×	✓	×	✓	×	×	✓	✓	✓	✓	×	×	✓	11
3.	Aditi Raj	×	×	✓	×	✓	×	×	✓	✓	×	✓	×	×	✓	✓	✓	×	✓	×	✓	10
4	Sinha	✓	×	×	✓	×	×	✓	×	×	✓	×	✓	×	×	✓	×	✓	✓	✓	×	9
	TOTAL	2	1	3	1	2	1	3	2	3	1	3	2	1	3	3	3	3	2	1	2	41

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TABLE 1- SHEET WITH UPPER LIMIT (Higher Achievers)

S.No:	Name of Students	Q1.	Q2. Q3 Q4 Q5 Q6 Q7 Q8 Q9 Q10 Q11 Q12 Q13 Q14 Q15	Total
1.	Roshni Gupta	✓	✗ ✓ ✓ ✓ ✓ ✗ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓	15
2.	Lakshmi Kumari	✓	✓ ✓ ✓ ✗ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓	19
3.	Nandani Kumari	✓	✗ ✓ ✓ ✓ ✓ ✗ ✗ ✓ ✓ ✓ ✗ ✓ ✓ ✓	15
4.	Arti Priya	✓	✓ ✓ ✓ ✗ ✓ ✓ ✓ ✗ ✓ ✓ ✓ ✓ ✓ ✓	18
	TOTAL	4	2 4 4 2 4 4 4 2 4 4 3 4 3 4	63

TABLE No 3   MASTER SHEET (Total Students)

SNo	NAME OF STUDENTS	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	Q17	Q18	Q19	Q20	Total
1		✓	✗	✓	✓	✓	✓	✓	✓	✓	✗	✓	✗	✓	✓	✓	✓	✓	✓	✓	✓	
2		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
3		✓	✗	✓	✓	✗	✓	✓	✓	✗	✗	✓	✗	✗	✓	✓	✗	✗	✓	✗	✗	
4		✓	✓	✓	✓	✓	✓	✓	✓	✗	✗	✓	✓	✓	✓	✗	✓	✓	✓	✗	✓	
5		✗	✓	✗	✓	✗	✗	✓	✓	✗	✗	✓	✗	✓	✗	✗	✓	✓	✗	✗	✓	
6		✗	✓	✗	✗	✗	✗	✗	✗	✗	✗	✓	✗	✓	✗	✗	✓	✓	✓	✗	✓	
7		✗	✓	✓	✓	✗	✓	✗	✓	✗	✓	✗	✓	✗	✓	✓	✗	✗	✓	✗	✗	
8		✗	✓	✗	✓	✗	✗	✓	✗	✗	✓	✗	✓	✗	✗	✗	✗	✓	✓	✓	✗	
	CORRECT ITEM	6	3	7	5	6	3	7	6	7	3	6	7	4	5	6	5	6	6	4	5	
	DIFFICULT VALUE	75%	37%	87.5%	62.5%	75%	37%	87.5%	75%	87.5%	39.5%	87.5%	75%	50%	62.5%	77.5%	75%	75%	75%	50%	62.5%	
	DISCRIMINATION VALUE	0.25	0.12	0.12	0.3	0.2	0.2	0.12	0.25	0.12	0.12	0.12	0.15	0.25	0.12	0.25	0	0.25	0.25	0.25	0.25	
	ITEM Response	Accepted	Rejected	Rejected	Accepted	Accepted	Accepted	Rejected	Accepted	Accepted	Rejected	Rejected	Accepted	Accepted	Rejected	Rejected	Rejected	Rejected	Accepted	Accepted	Accepted	

Scoring of of English S Test

	MERIT LIST OF STUDENTS		
	SUBJECT : ENGLISH		
S·NO	STUDENT NAME	MARKS	PERCENTAGE
1·	Roshni Gupta	16	80%
2·	Lakshmi Kumari	10	50%
3·	Nandani Kumari	15	75%
4·	Arti Priya	9	45%
5·	Sonal Suman	19	95%
6·	Aditi Raj	9	45%
7·	Bharti Kumari	15	75%
8·	Priya Sinha	12	60%

Difficulty value of Questions $\Delta v = \left(\dfrac{H+L}{2N}\right) \times 100$

Discrimination Power $= \dfrac{H-L}{N}$
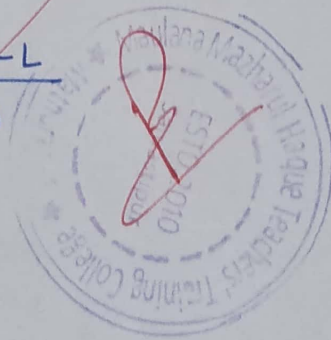
(35)

TABLE 1. sheet with upper limit (H.A.G)

S.No	NAME OF STUDENTS	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	Q17	Q18	Q19	Q20	TOTAL
1	SONAL SUMAN	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓	19
2	Roshni Gupta	✓	✓	✓	✗	✓	✓	✗	✓	✓	✓	✓	✓	✓	✗	✓	✓	✗	✓	✓	✓	16
3	Nandani kumari	✓	✓	✓	✗	✓	✓	✓	✓	✗	✓	✓	✗	✓	✓	✓	✓	✗	✓	✓	✗	15
4	Bharti kumari	✓	✗	✓	✓	✓	✓	✓	✓	✗	✗	✓	✓	✓	✓	✗	✓	✗	✓	✓	✓	15
	TOTAL	4	3	4	2	4	4	3	4	2	3	4	3	4	3	3	4	0	4	4	3	65

TABLE No2. SHEET WITH LOWER LIMIT (CONSISTENCY TEST)

S.No1	Name of Students	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	Q17	Q18	Q19	Q20	Total
1	Priya Sinha	✗	✗	✗	✓	✗	✓	✓	✓	✓	✗	✓	✓	✓	✓	✗	✓	✓	✗	✓	✗	12
2	Lakshmi Kumari	✓	✗	✗	✓	✓	✓	✓	✓	✗	✗	✗	✓	✓	✗	✓	✓	✓	✗	✗	✗	10
3	Aditi Raj	✗	✓	✓	✗	✗	✗	✗	✓	✗	✓	✓	✓	✗	✗	✓	✗	✗	✓	✗	✗	9
4	Arti Priya	✗	✗	✓	✓	✗	✓	✓	✗	✗	✗	✓	✓	✓	✗	✗	✓	✗	✗	✗	✓	9
	TOTAL	1	1	2	3	1	3	3	3	2	1	2	2	3	1	3	3	2	2	1	2	40

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TABLE No 3 – MASTER SHEET (TOTAL STUDENTS)

S.NO	NAME OF STUDENTS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
												QUESTION NUMBER									
1	Roshni Gupta	✓	✓	✓	✗	✓	✓	✓	✓	✗	✓	✓	✓	✓	✗	✗	✓	✗	✓	✓	✓
2	Lakshmi Kumari	✓	✗	✗	✓	✓	✓	✗	✓	✗	✗	✗	✓	✓	✗	✓	✗	✓	✓	✗	✗
3	Nandani Kumari	✓	✗	✓	✓	✓	✓	✓	✓	✗	✗	✓	✓	✓	✗	✗	✓	✗	✓	✓	✓
4	Arti Priya	✗	✗	✓	✓	✗	✓	✓	✗	✗	✓	✗	✗	✗	✗	✗	✓	✗	✗	✗	✓
5	Sonal Suman	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓
6	Aditi Raj	✗	✓	✓	✗	✗	✗	✓	✗	✗	✓	✗	✗	✗	✓	✗	✓	✗	✗	✓	✗
7	Bharti Kumari	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓
8	Priya Sinha	✗	✗	✗	✗	✗	✓	✓	✓	✓	✗	✓	✓	✗	✗	✓	✓	✗	✓	✓	✗
	Correct Item	5	4	6	5	5	7	7	6	3	5	6	6	6	4	6	7	1	6	6	5
	Difficulty value	62.5%	50%	75%	62.5%	62.5%	87.5%	87.5%	75%	37.5%	62.5%	75%	75%	75%	50%	75%	87.5%	12.5%	75%	75%	62.5%
	Discrimination Power	0.37%	0.25	0.25	0.12	0.37	0.12	0	0.25	0.12	0.25	0	0.25	0	0.12	0.25	0.25	0	0.12	0.25	0.25
	Item Response	Accepted	Accepted	Rejected	Accepted	Rejected	Rejected	Rejected	Accepted	Rejected	Rejected	Accepted	Rejected	Accepted	Accepted	Rejected	Rejected	Rejected	Accepted	Accepted	Accepted
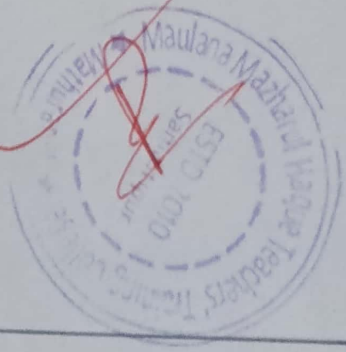
STATISTICAL ANALYSIS

Introduction : [MEAN, MEDIAN, MODE]

MEAN : It is the average of the data

The total no of students in the achievement test are as follows -

eg - $4 + 5 + 2 + 10 + 11 + 4$

$$\text{Mean} = \frac{\text{Sum of Responces}}{\text{Total no: of Response}} = \frac{36}{6} 6$$

So, formula is

$$\text{Mean} = \frac{\text{Sum of Response}}{\text{Total no: of Response}}$$

$$\bar{x} = \frac{\Sigma x}{N}$$

Here

$\bar{x}$ = Mean

Σx = Sum of Response

N = Total No: of students

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It is centrically located value of a series that half of the item are before it and half are behind it.

Mid value of series is called Median.

Number of Responses are even then Median is —

$$\text{Median} = \frac{\left(\frac{n}{2}\right)^{th}\text{term} + \left(\frac{n}{2}+1\right)^{th}\text{term}}{2}$$

If the response are odd then median is

$$\text{Median} = \left(\frac{n+1}{2}\right)^{th}\text{term}$$

MODE :-

It is the value that occures must frequently in a data set or we can also bind out by the help of mean median using this formula

$$\boxed{\text{MODE} = 3\,\text{Median} - 2\,\text{Mean}}$$

GRAPHICAL REPRESENTATION (English Test)

Marks (y-axis): 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20

No. of students (x-axis):
- ROSHNI GUPTA — 19
- LAKSHMI KUMARI — 16
- NANDANI KUMARI — 15
- ARTI PRIYA — 15
- SONAL SUMAN — 12
- ADITI RAJ — 10
- BHARTI KUMARI — 9
- PRIYA SINHA — 9

A2
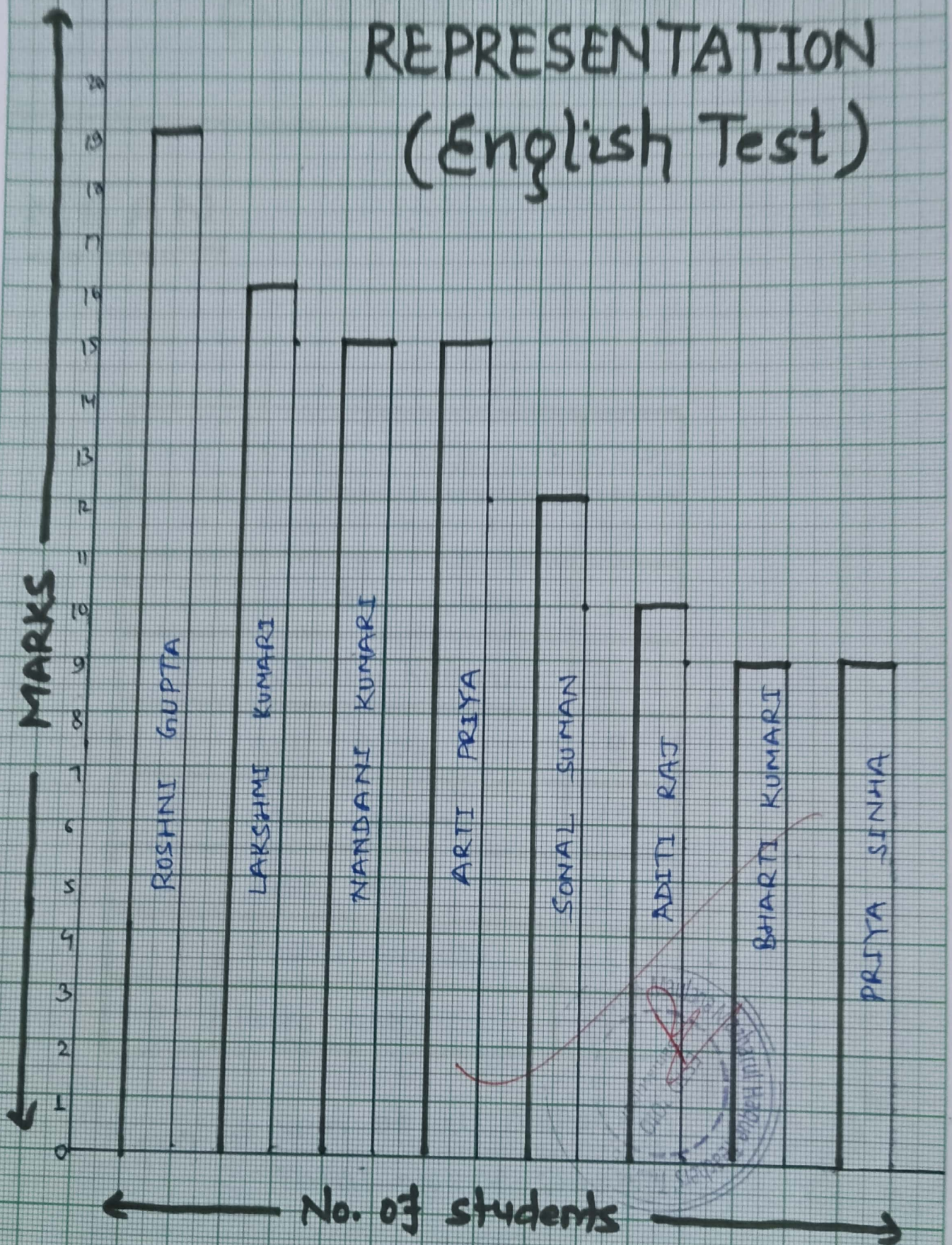
STATISTICAL ANALYSIS OF ENGLISH PAPER IX th

MEAN

S.NO	NAME OF STUDENTS	SCORE
1.	Roshni Gupta	16
2.	Lakshmi Kumari	10
3	Nandani Kumari	15
4	Arti Priya	9
5	Sonal Suman	19
6	Aditi Raj	9
7	Bharti Kumari	15
8	Priya Sinha	12

$$\text{Mean} = \frac{\text{Sum of all responces}}{\text{Total No: of students}}$$

$$\text{Mean} = \frac{\Sigma x}{N}$$

$$\text{Mean} = \frac{16 + 10 + 15 + 9 + 19 + 9 + 15 + 12}{8}$$

$$\boxed{\text{Mean} = 13 \cdot 12}$$

Median :-

Arrage the data in ascending order

$$9, 9, 10, 12, 15, 15, 16, 19$$

Here the no of items are 8 which is an even no

$$\text{Median} = \frac{\frac{N}{2}^{th} + \left(\frac{N}{2} + 1\right)^{th}}{2}$$

$$= \frac{4^{th}\,term + 5^{th}\,term}{2}$$

$$= \frac{12 + 15}{2} \qquad \boxed{\text{Meadian} = 13 \cdot 5}$$

MODE :

$$\text{MODE} = 3\,\text{median} - 2\,\text{mean}$$

$$= 3 \times 13 \cdot 5 - 2 \times 13 \cdot 12$$

$$= 40 \cdot 5 - 26 \cdot 4$$

$$= 40 \cdot 5 - 26 \cdot 4$$

$$\boxed{\text{MODE} = 14 \cdot 1}$$

GRAPHICAL REPRESENTATION (Science Test)

MARKS

No. of Students

ROSHNI GUPTA
LAKSHMI KUMARI
NANDINI KUMARI
ARTI PRIYA
SONAL ADNAN
ANITI RAJ
BHARTI KUMARI
PRIYA SINHA