

ACHIEVEMENT

TEST

FILE



BY

RUPAK KUMAR

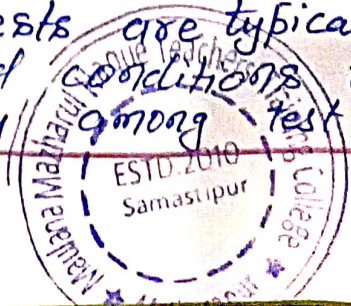
ACHIEVEMENT TEST

An achievement test is a standardized test that measures a person's knowledge, skills or abilities in a specific subject or area of study. It is designed to assess what a person has learned or achieved in that particular domain.

Achievement tests are commonly used in educational settings to evaluate students' academic progress and their understanding of the material taught in a given course or curriculum. These tests are also used in workplace and professional settings to assess an individual's proficiency or competence in a specific job-related skill.

The content of an achievement test is usually based on predetermined set of learning objectives or standards. It covers a wide range of topics or subtopics within the subject area being assessed. Eg. an achievement test in mathematical operations, while an achievement test in reading comprehension may focus on vocabulary comprehension skills and the ability to analyze and interpret written texts.

Achievement tests are typically administered under standardized conditions to ensure fairness and consistency.



takers. They are often timed and may be administered on paper or electronically. The test format can include multiple choice questions, short answers questions, essays or performance based tasks.

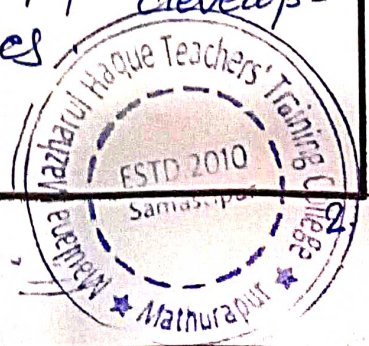
* SCORING :-

The scoring of achievement test is usually based on a pretermind scoring rubric or key. Each question or task is assigned a specific value or weight and test takers receive points or scores based on their correct answers or demonstrated abilities.

The overall test score is then compared to a normative reference group, which consists of individuals who have already taken the test and performed at various levels. This allows for comparison to see how well the test takers has performed relative to others.

* RESULT OF ACHIEVEMENT TEST:-

The result of an achievement test can provide valuable information about an individual's level of knowledge, skills or abilities in a specific subject. It can assist educators in identifying areas of strength or weakness in students learning and guide instructional planning. In a workplace setting, achievement tests can help employers assess job applicants qualification or determine the training needs and professional development opportunities for employees.



It is important to note that achievement tests are just one measure of a person's abilities or achievement in a specific domain. They may not capture other important dimension of intelligence creativity or character traits that are also critical for success in life.

Therefore it is recommended to consider multiple sources of information when evaluating an individual's overall capabilities.

USES OF A ACHIEVEMENT TEST

* Determine proficiency and mastery :-

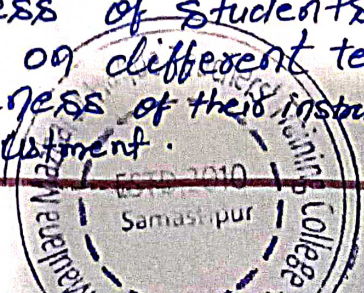
Achievement test are designed to assess an individual's knowledge and understanding of a particular subject or topic. They provide a measure of proficiency and mastery in that area.

* Measure educational outcomes :-

Achievement tests are used to measures the educational outcomes of students or groups of students. They provide a standardized and objective measures of what students have learned during a specific period of instruction.

* Assess learning progress :-

Achievement tests help educators assess the progress of students over time. By comparing scores on different tests, teachers can evaluates the effectiveness of their instructional methods and make necessary adjustment.



* Identify strengths and weakness :-

Achievement tests provide valuable information about a student's strengths and weaknesses in a particular subject. This enables educators to tailor instruction to individual needs and provide targeted support where necessary.

* Informed educational decisions :-

Achievement test results influence important educational decisions such as placement, promotion and graduation. They provide objective data that can be used to make informed decisions about a student's academic progress and future educational plans.

* Evaluate teachers and Schools :-

Achievement tests are often used to evaluate the effectiveness of teachers and schools. They provide a measure of student performance which can be used to identify areas of improvement and hold educators and institutions accountable.

* Compare student Performance :-

Achievement tests allow for comparison of student performance across different schools, districts and regions. This information can be used to identify achievement gaps and inform policy decisions aimed at improving educational outcomes.

* Guide Curriculum development :-

Achievement test results can guide the development and modification of curriculum by identifying areas where students are struggling or excelling. Educators can make informed decisions about what content and skills to provide in their institutions.

* Monitor educational Standards :-

Achievement tests play a crucial role in monitoring and maintaining educational standards. They help ensure that students are meeting predetermined benchmarks and objectives, providing a measure of accountability for both educators and students.

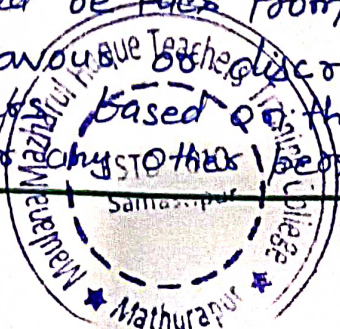
CRITERIA OF A GOOD ACHIEVEMENT TEST:-

CRITERIA FOR A GOOD ACHIEVEMENT TEST:-

* **Validity** :- The test should accurately measure what it intends to measure. This means that the test items should be aligned with the learning objectives or content areas being assessed eg if the test is designed to measure maths skill. It should include questions that specially address math concepts and skills.

* **Reliability** :- The test should yield consistent results overtime and across different test taken. This means that if the same test is administered to a group of students on different occasions, their score should be relatively stable and consistent. Reliable tests ensure that the scores are not influenced by factors like guessing, random errors or external factors.

* **Objectivity** :- The test should be free from bias, meaning that it should not favour or discriminate against any group of test takers based on their gender, ethnicity, socioeconomic status or any other personal factors.



Characteristics. It should be fair and impartial for all test takers.

* **Adequacy of content** :- The test should have sufficient range of questions or tasks that adequately covers the topic or learning areas being assessed. It should include a representative sample of important content and skills. e.g if the test is assessing reading comprehension. It should include questions that address different types of reading passages genres or text

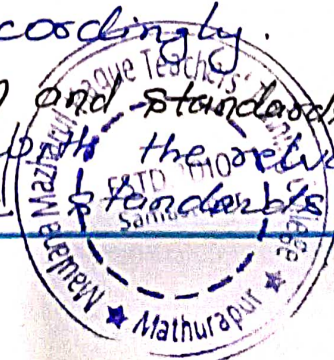
* **Clear Instructions and Format** :- The test should have clear and easy to understand instructions for test takers it should provide a clear format for recording answers and should be structured in a way that is easy to navigate.

* **Qualities a Good Achievement test should have** :-

* **Authenticity** :- The test should mirror real-life situations or tasks that the test takers may encounter outside. The testing context. Authentic tasks can increase the relevance and engagement of test takers and they can better their real world application of knowledge and skills.

* **Differentiation** :- The test should be able to differentiate between levels of achievement or mastery. It should have items or tasks that are appropriately challenging for both high-achieving and low achieving students this can help educators identify the strengths and weakness of individual students or groups and tailor instruction accordingly.

* **Alignment with curriculum and standards** :- The test should align with the relevant curriculum or academic standards.



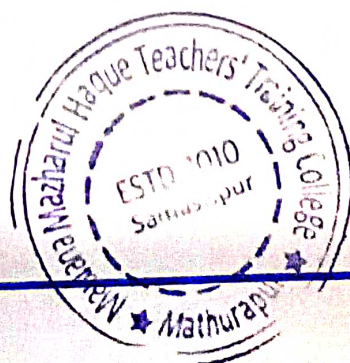
This ensures that the test assess what students are expected to learn in a particular grade or subject. Alignment with standards also provides a clear framework for evaluating student progress and informing instructional decisions.

* **Diagnostic information:**— A good achievement test should provide detailed and meaningful feedback to both test takers and educators.

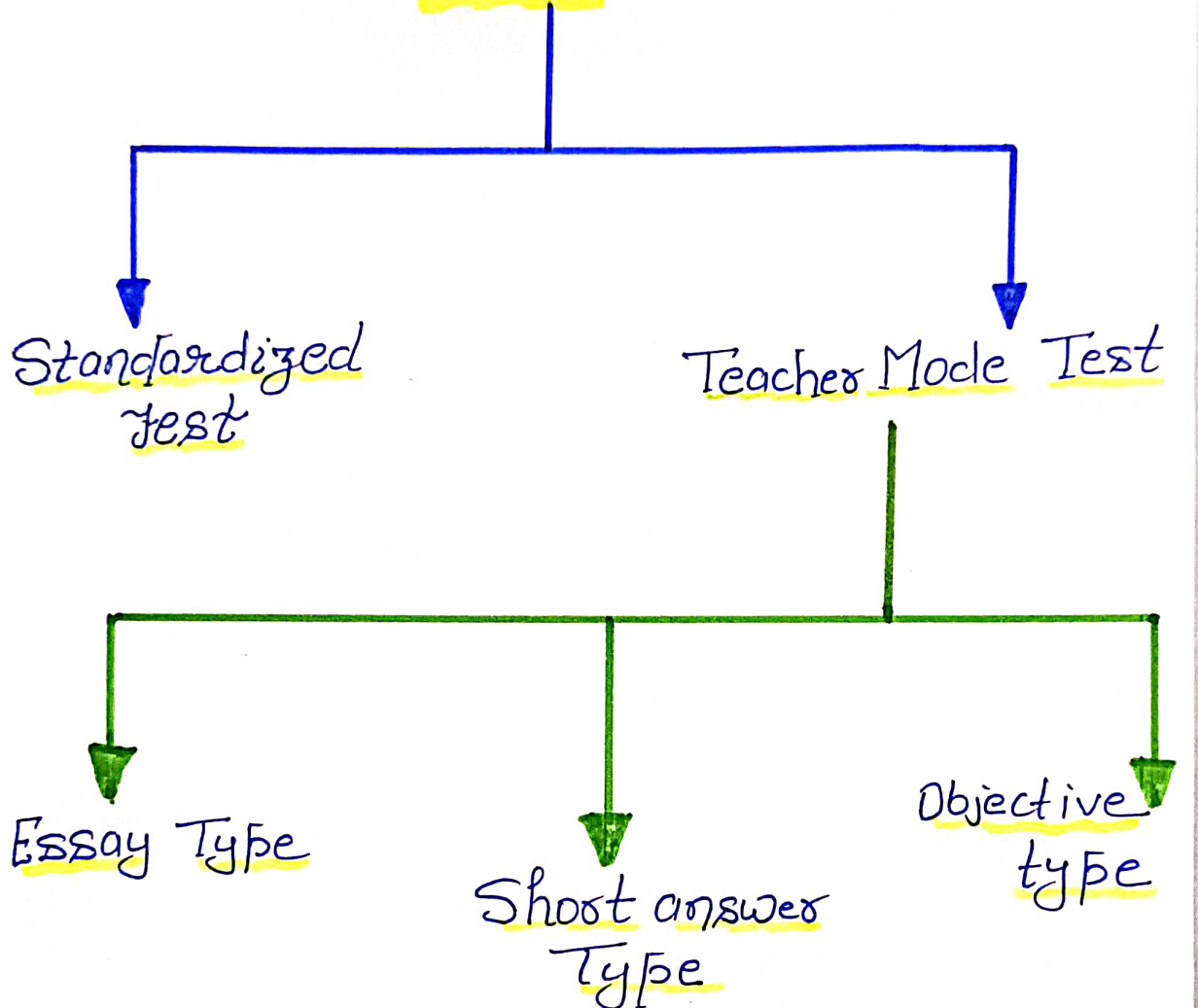
The test results should help identify specific areas of strengths and weakness, allowing for targeted remediation or enrichment. Diagnostic information can guide instructional planning and support individualized learning needs.

In summary, a good achievement test should possess qualities such as validity, reliability, objectivity, adequacy of content, clear instructions, authenticity, differentiation alignment with curriculum and standards and diagnostic information.

These criteria and qualitative considerations contribute to a fair, accurate and useful assessment tool for evaluating student achievement.



TYPES OF A ACHIEVEMENT TEST



⇒ Multiple choice

⇒ True / False

⇒ Match the following type

⇒ Fill in the blanks

⇒ One word answers etc

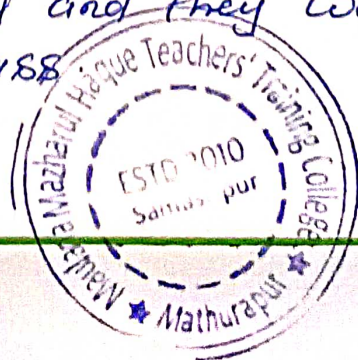


PLANNING OF ACHIEVEMENT TEST

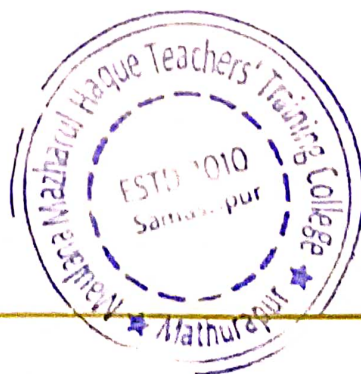
I was in IFB Model Inter School, Bahadurpur for my internship training program. I got opportunity to teach science to class IXth and English to class Xth to the students having 8 students in IXth and Xth 8 students were class Xth were given for teaching to interns from MMHTTC. All the students were very interactive and responsive, Different students had different needs.

During the session when I taught Science I realised students need brushing up of their basic concepts. They were comfortable with use of Hindi and English language in the class.

For English class I got 8 students of 10th class. They had difficulty in grammar related topics. I used various different teaching, learning materials in both science and English. Students responded very well to the TLM used and they were always excited for the class.



After Completion of syllabus of both the subjects. I conducted the achievement test to find out the progress of the students during the internship. So I prepared achievement test for both the subjects. Science and English. Science for class IXth and English for class Xth. This achievement test was objective type which contain - Fill up, Multiple choice questions, True - False and one word or one line answers and it was prepared according to the capabilities of the students after consulting their class teacher.



SCIENCE

SUBJECT

CLASS :- 9th



BLUE PRINT OF ACHIEVMENT 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 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 And False	5	5	25%
	Total	20		100%

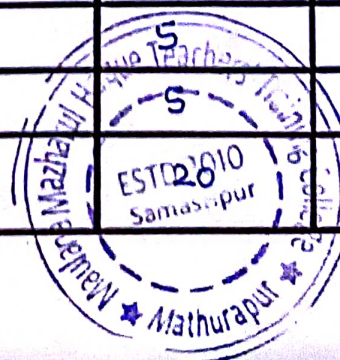


Table no. 4. WEIGHTAGE TO DIFFICULTY LEVEL.

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 (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

F/B - Fill in the blanks.

O/W - one word answers.

T/F - True and False.

MCQ - Multiple choice questions.



ACHIEVEMENT TEST PAPER

SUBJECT :- SCIENCE

CLASS :- 9th

TIME :- 30 min.

MAX. MARKS :- 20

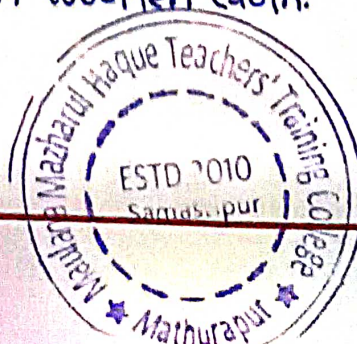
GENERAL INSTRUCTIONS :-

- The question paper comprises of 4 sections A, B, C, D.
- All questions are compulsory.
- In section A all questions are multiple choice questions, carry one mark each.
- In section B all questions are fill in the blanks, carry one mark each.
- In section C all questions are True and False, carry one mark each.
- In section D all questions are short answer questions of one mark each.

SECTION-A

MULTIPLE CHOICE QUESTIONS

1. Sound can travel through?
(i) Gases only
(ii) Liquids only
(iii) Solids only
(iv) Solid, liquid & gases.
2. Voice of which of the following is likely to have minimum frequency?
(i) Baby girl
(ii) Baby boy
(iii) A man
(iv) A women
3. Which of the following cannot be charged by friction?
(i) A Plastic scale
(ii) A Copper rod.
(iii) A inflated balloon
(iv) A woollen cloth.



4. what happens when glass rod is rubbed with a piece of silk cloth?

(i) Acquire positive charge. (ii) glass rod becomes positive & silk negative.

(iii) Both acquire negative charge. (iv) Rod becomes negative cloth becomes positive.

5. what is electroscope used for?

(i) Detect whether body is charged or not.

(ii) To watch stars.

(iii) To measure distance.

(iv) To measure friction.

SECTION-B

Fill in the blanks with suitable words.

6. Time taken by an object to complete one oscillation is called _____.

7. Soundness is determined by the _____ of vibration.

8. The unit of frequency is _____.

9. unwanted sound is called _____.

10. Sharpness of sound is determined by the _____ of vibration.

SECTION-C

Write T against True and F against False in the following.

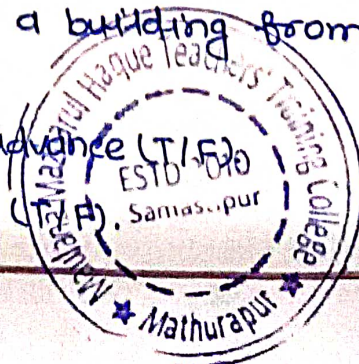
11. Like charge attract each other (T/F).

12. A charged glass rod attract a charged plastic straw (T/F).

13. Lightning conductor cannot protect a building from lightning (T/F).

14. Earthquake can be predicted in advance (T/F).

15. Earthquake is a natural calamity (T/F).



SECTION-D

Short Answer type Question (one word and short Answer)

16. Suggest one measure to protect yourself from lightning?
17. Suggest one thing not to do during an earthquake?
18. Identify the part which vibrates in dholak to produce sound?
19. Identify the part which vibrates in sitar to produce sound?
20. Name one source of noise pollution in your surroundings?



Q. No.	ANSWER KEY
1.	(iv) Solid, Liquid and gases.
2.	(i) Baby girl.
3.	(ii) A copper rod.
4.	(ii) glass rod becomes positive & silk cloth negative.
5.	(i) Detect whether body is charged or not.
6.	Time period.
7.	Amplitude
8.	Hertz
9.	Noise
10.	Pitch
11.	False
12.	True
13.	False
14.	False
15.	True
16.	Move away from elevated area.
17.	Hide under a table.
18.	Stretched membrane.
19.	Stretched strings.
20.	Cars in traffic.



ENGLISH

SUBJECT

CLASS :- 9th



BLUE PRINT OF ACHIEVEMENT TEST (ENGLISH)

TABLE NO. 1 - WEIGHTAGE TO 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	Forms 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 and False	5	5	25%
	TOTAL	20	20	100%

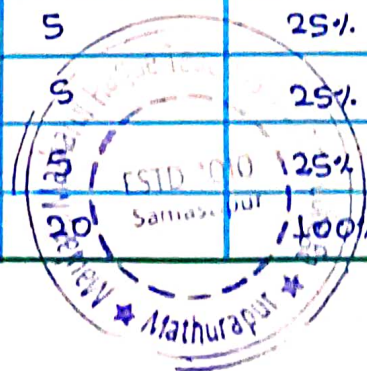


TABLE NO. 4. WEIGHTAGE TO DIFFICULTY LEVEL

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	UNDERSTANDING		APPLICATION	TOTAL
		F/B	O/w	T/F	MCQ	
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.



ACHIEVEMENT TEST PAPER

SUBJECT :- ENGLISH

CLASS :- 9th

TIME :- 30 min.

MAX. MARKS :- 20

GENERAL INSTRUCTIONS :-

- The question paper comprises of 4 sections A, B, C, D.
- All questions are compulsory.
- In section A all questions are multiple choice carry one mark each.
- In section B all questions are Fill in the blanks carry one mark each.
- In section C all questions are one word questions carry one mark each.
- In section D all questions are True and False carry one mark each.
- Do not write anything unnecessary in the question paper.
- Read the questions carefully before answering.

SECTION-A

MULTIPLE CHOICE QUESTION

1. Why do you think the writer visited Mrs. Beam's School?

(i) For Admission

(ii) For Visit.

(iii) For workshop

(iv) For work.

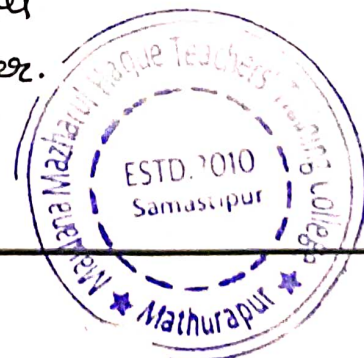
2. What were the 'game' that every child in the school had to play?

(i) Cricket

(ii) Football

(iii) disability day

(iv) Soccer.



3. why do you think Fact wants to find out what teachers do after school?

- (i) For a little child teacher is special and he is curious.
- (ii) Poet wants to take tuitions.
- (iii) Poet wants to take notes from teachers.
- (iv) Poet wants to play with the teachers.

4. which animal was not part of the story the Banyan Tree.

- (i) Mongoose. (ii) cobra.
- (iii) spectators. (iv) squirrel.

5. who won the battle between champions in the story The Banyan Tree.

- (i) Mongoose (ii) cobra.
- (iii) Squirrel (iv) Myna

SECTION-B

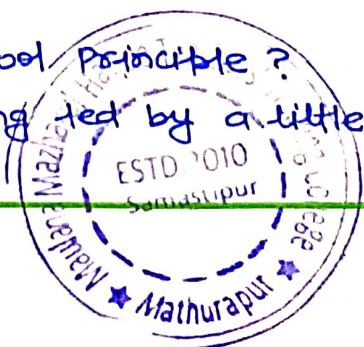
FILL IN THE BLANKS

- 6. This is a very important part of our school system to make our children understand_____.
- 7. The _____ day is of course the worst.
- 8. where do all the _____ go.
- 9. In the spring, the _____ tree was full of small red figs.
- 10. The _____ dropped cautiously to the ground.

SECTION-C

ONE WORD QUESTIONS.

- 11. what was the Name of the school Principle?
- 12. what was the age of girl being fed by a little boy?



13. At what time Teachers go from school?
14. What is the name of the poet of the poem "where do all the teachers go"?
15. Where was Author's grand Parents house located which had the banyan Tree?

SECTION-D

TRUE AND FALSE

16. Miss Beam was all the author expected (T/F)
17. Poet Plans on following the teacher after school (T/F)
18. Poet Plans on writing a letter to the teacher after they find out where do all teachers go (T/F)
19. Combatants were aware about the presence of Authouse on the tree (T/F)
20. There were three Rounds of battle between Cobra and Mongoose (T/F).



Q.No.	ANSWER KEY
1.	For visit
2.	Disability day
3.	For a little child teacher is special and he is curious
4.	Spectators
5.	Mongoose
6.	Misfortune
7.	Behind
8.	Teachers
9.	Banyan
10.	Myna
11.	Mrs. Beam
12.	12 years
13.	'4' o'clock
14.	Peter Dixon
15.	Behzer Dun
16.	True
17.	True
18.	False
19.	False
20.	True



☆ TEST ADMINISTRATION ☆

- Some factors are not under the control of administrator.
- How fatigued a test taker is
- Motivation level of test taker
- Physical Discomfort.
- Test Anxiety.

There are between subject variables which can affect test results.

Different aspects of standardized Administration.

☆ Controlling the physical Environment :-

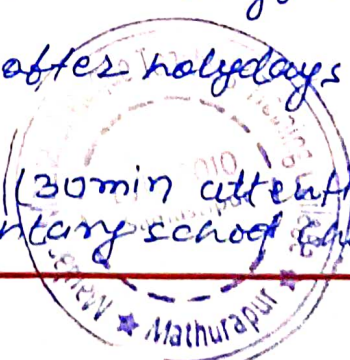
- Light Levels
- Temperature
- Ambient noise level
- Ventilation
- Minimal distraction.

Controlling these factors helps to ensure a more reliable testing device. All must be suitable for examination.

☆ Various Responsibilities of Administration:-

Scheduling the exam of particular concern when testing children:-

- Don't test during typical lunch or playground time.
- Don't schedule immediately after holidays or exciting event.
- Don't test longer than 1 hr. (30 min attention span for pre-school and elementary school children)



- Don't test longer than 10 min for secondary school children.

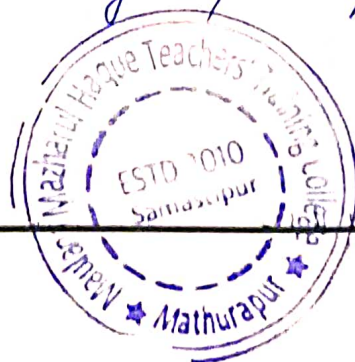
☆ OTHER GUIDELINES [inform student well before the test] :-

- when and where test is given.
- what subject material will be given.
- what type of test questions.
- How much time will be allowed.

This information allows the student to prepare and can reduce test taking anxiety.

☆ General Guidelines for Administration to follow.

- Provide Ample time for exam.
- Allow sufficient practice on sample items.
- Make arrangement for deficits in visual, auditory and other sensory-motor systems.
- Be aware of fatigue and test anxiety and take them account when interpreting focus.
- Use encouragement and positive reinforcement whenever possible.
- Don't force examinees to respond when they repeatedly decline to do so.
- cheating should always be prevented.
- The test-taking environment has to be protected against unwarranted intrusion or disturbance.
- Test takers must remain alert and flexible to deal with special circumstance that may crop up during testing.
- ensure all test takers are given the proper instructions.

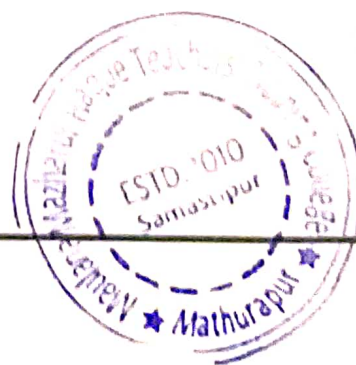


Scoring of Science test



MERIT LIST OF STUDENTS

SUBJECT & SCIENCE		CLASS & 9th	
S.NO.	STUDENT NAME	MARKS	PERCENTAGE
1.	RIYA GUPTA	18	90%
2.	JIYA GUPTA	19	95%
3.	SANVI PRIYA	15	75%
4.	NANDANI KUMARI	16	80%
5.	SNEHA KUMARI	11	55%
6.	FAZILAT	10	50%
7.	ANJALI KUMARI	11	55%
8.	PRIYANKA KUMARI	9	45%



ITEM ANALYSIS

DIFFICULTY VALUE OF THE ITEMS-

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

Accepted Range = 25% - 75%

H = Number of Response in the high Achievers

L = Number of Response in the low Achievers group who gave correct answers.

N = Number of student in each group.

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

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

DISCRIMINATION INDEX

$$D.I = \frac{H-L}{2N}$$

Accepted Range = (0.2 - 0.8)

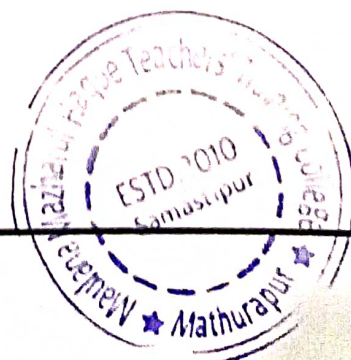


TABLE 2. SHEET WITH LOWER LIMIT (LOW ACHIEVERS)

S.NO.	NAME OF STUDENTS	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	Q17	Q18	Q19	Q20	TOTAL
1.	ANJALI KUMARI	✓	X	✓	X	✓	X	✓	✓	✓	X	✓	✓	✓	X	X	✓	✓	X	X	X	11
2.	SNEHA KUMARI	✓	X	✓	X	X	✓	✓	X	✓	X	✓	X	X	✓	✓	✓	✓	X	X	✓	11
3.	FAZILAT	X	X	✓	X	✓	X	X	✓	✓	X	✓	X	X	✓	✓	✓	X	✓	X	✓	10
4.	PRITYANKA KUMARI	X	✓	X	✓	X	X	✓	X	X	✓	X	✓	X	X	✓	X	✓	✓	✓	X	9
	TOTAL	2	1	3	1	2	1	3	2	3	1	3	2	1	3	3	3	3	2	1	2	41

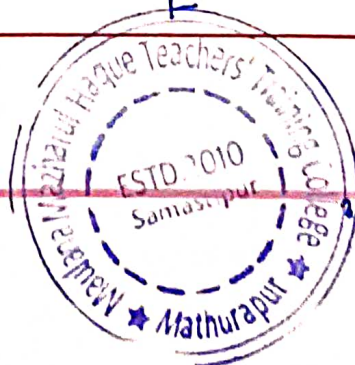


TABLE I. SHEET WITH UPPER LIMIT (HIGH ACHIEVERS)

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.	RIYA GUPTA	✓	X	✓	✓	✓	✓	✓	✓	✓	✓	✓	X	✓	✓	✓	✓	✓	✓	✓	✓	✓	18
2.	Jiya GUPTA	✓	✓	✓	✓	✓	X	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	19
3.	SANVI PRIYA	✓	X	✓	✓	✓	✓	✓	✓	✓	X	✓	✓	X	✓	✓	✓	X	✓	✓	✓	X	15
4.	NANDANI KUMARI	✓	✓	✓	✓	✓	X	✓	✓	✓	X	✓	✓	✓	✓	X	✓	✓	✓	X	✓	✓	16
	TOTAL	4	2	4	4	4	2	4	4	4	2	4	3	4	4	3	4	3	4	3	3	✓	68

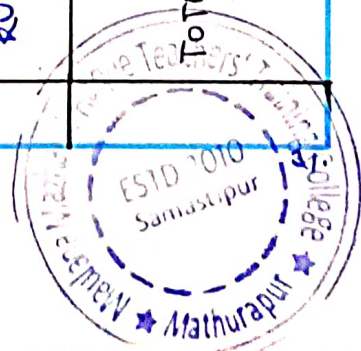
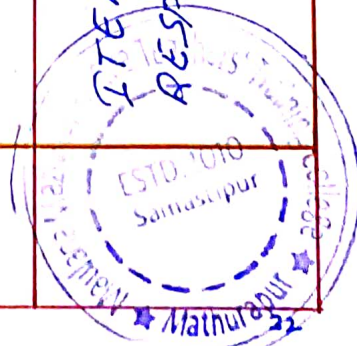
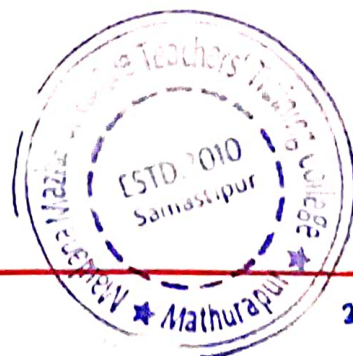


TABLE NO.3 MASTER SHEET (Total students)

SNO.	Name of students	QUESTION NUMBERS																				Total
		Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	Q17	Q18	Q19	Q20	
1.	RIYA GUPTA	✓	X	✓	✓	✓	✓	✓	✓	✓	✓	✓	X	✓	✓	✓	✓	✓	✓	✓	✓	
2.	JIYA GUPTA	✓	✓	✓	✓	X	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
3.	SANVI PRIYA	✓	X	✓	✓	✓	✓	✓	✓	✓	X	✓	✓	X	✓	✓	✓	X	✓	✓	X	
4.	NANDANI KUMARI	✓	✓	✓	✓	X	✓	✓	✓	✓	X	✓	✓	✓	✓	X	✓	✓	X	✓	✓	
5.	SNEHA KUMARI	✓	X	✓	✓	X	✓	✓	✓	✓	X	✓	✓	✓	X	X	✓	✓	X	X	X	
6.	FAZILAT	✓	X	✓	✓	✓	✓	✓	X	✓	X	✓	✓	X	X	✓	✓	✓	X	✓	✓	
7.	ANJALI KUMARI	X	X	✓	X	X	X	✓	✓	✓	X	✓	X	X	✓	✓	✓	X	X	✓	✓	
8.	PRIYANKA KUMARI	X	✓	X	✓	X	✓	✓	X	X	✓	✓	✓	X	X	✓	X	✓	✓	✓	X	
	CORRECT ITEMS	6	3	7	5	6	3	7	6	7	3	7	6	4	5	6	7	6	6	4	5	
	DIFFICULT VALUES	75%	37%	87%	62%	75%	75%	87%	75%	87%	37%	87%	75%	50%	62%	75%	87%	75%	75%	50%	62%	
	DISCRIMINATION POWER	0.25	0.12	0.12	0.3	0.2	0.2	0.12	0.25	0.12	0.12	0.12	0.25	0.25	0.12	0	0.12	0	0.25	0.25	0.25	
							</															



Scoring of English test



MERIT LIST OF STUDENTS

	SUBJECT :- ENGLISH		CLASS :- 9th
S. NO.	STUDENT NAME	MARKS	PERCENTAGE
1.	RIYA GUPTA	16	80%
2.	JIYA GUPTA	10	50%
3.	SANVI PRIYA	15	75%
4.	NANDANI KUMARI	9	45%
5.	SNEHA KUMARI	19	95%
6.	FAZILAT	9	45%
7.	ANJALI KUMARI	15	75%
8.	PRIYANKA KUMARI	12	60%

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

Discrimination Power = $\frac{H-L}{N}$



TABLE 1. SHEET WITH UPPER LIMIT (HIGH ACHIEVERS GROUP)

S.No.	NAME OF STUDENTS	9 1	9 2	9 3	9 4	9 5	9 6	9 7	9 8	9 9	9 10	9 11	9 12	9 13	9 14	9 15	9 16	9 17	9 18	9 19	9 20	TOTAL
1.	SNEHA KUMARI	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	×	✓	✓	✓	19
2.	RIYA GUPTA	✓	✓	✓	×	✓	✓	✓	✓	×	✓	✓	✓	✓	×	✓	✓	×	✓	✓	✓	16
3.	SANVI PRIYA	✓	✓	✓	×	✓	✓	✓	✓	✓	✓	✓	×	✓	✓	✓	✓	×	✓	✓	×	15
4.	ANJALI KUMARI	✓	×	✓	✓	✓	✓	✓	✓	×	✓	✓	✓	✓	✓	✓	×	×	✓	✓	✓	15
	TOTAL	4	3	4	2	4	4	3	4	2	3	4	3	4	3	3	4	0	4	4	3	65

4. ANJALI KUMARI

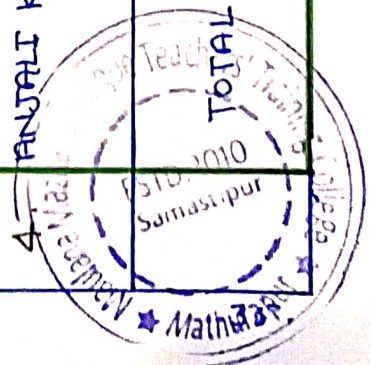
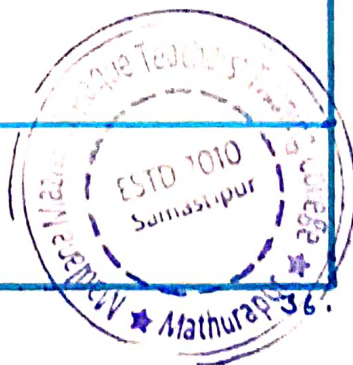


TABLE NO.2. SHEET WITH LOWER LIMIT (LOW ACHIEVERS GROUP)

S.No.	NAME OF STUDENTS	Q 1	Q 2	Q 3	Q 4	Q 5	Q 6	Q 7	Q 8	Q 9	Q 10	Q 11	Q 12	Q 13	Q 14	Q 15	Q 16	Q 17	Q 18	Q 19	Q 20	TOTAL
1.	PRIYANKA KUMARI	X	X	X	✓	X	✓	✓	✓	✓	X	✓	✓	✓	X	✓	✓	✓	✓	✓	X	12
2.	JIYA GUPTA	✓	X	X	✓	✓	✓	X	✓	X	X	X	✓	✓	X	✓	X	✓	✓	X	X	10
3.	FAZILAT	X	✓	✓	X	X	X	✓	X	✓	✓	✓	X	X	✓	X	✓	✓	X	✓	X	9
4.	NANDANI KUMARI	X	X	✓	✓	X	✓	✓	X	X	✓	X	✓	X	X	✓	✓	X	X	✓	✓	9
	TOTAL	1	1	2	3	1	3	3	2	1	2	2	3	2	1	3	3	1	2	2	1	40



ITEM ANALYSIS ENGLISH AND SCORING LEST

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
1.	RIYA GUPTA	✓	✓	✓	✗	✓	✓	✓	✓	✗	✓	✓	✓	✓	✗	✓	✓	✗	✓	✓	✓
2.	Jiya GUPTA	✓	✗	✗	✓	✓	✓	✓	✓	✗	✗	✓	✓	✓	✗	✓	✗	✓	✓	✗	✓
3.	SANVI PRIYA	✓	✗	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓	✓	✓	✗	✓	✗	✓	✓	✓
4.	NANDANI KUMARI	✗	✗	✓	✓	✓	✓	✓	✗	✗	✓	✓	✓	✗	✗	✓	✓	✗	✗	✓	✓
5.	SNEHA KUMARI	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
6.	PAZILAT	✗	✓	✓	✗	✓	✗	✓	✗	✗	✓	✓	✗	✗	✓	✗	✓	✗	✗	✓	✗
7.	ANJALI KUMARI	✓	✓	✓	✗	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓	✓	✓	✓	✓	✓
8.	PRIYANKA KUMARI	✗	✗	✗	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓	✗	✓	✓	✗	✓	✓	✗
	CORRECT ITEMS	5	4	6	5	5	7	6	3	5	5	6	6	6	4	6	7	1	6	6	5
	DIFFICULTY VALUE	62.5%	50%	75%	62.5	62.5	87.5	75%	37.5	62.5	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	0.25	0.12	0.12	0.12	0.25	0	0.12	0.25	0	0.12	0.12	0.25	0.25	0.25
	ITEM RESPONSE	ACCEPTED	ACCEPTED	ACCEPTED	REJECTED	ACCEPTED	REJECTED	ACCEPTED	REJECTED	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 number of student in the achievement test are as follows -

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

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

So, formula is,

$$\text{MEAN} = \frac{\text{Sum of Response}}{\text{Total no. of students}}$$

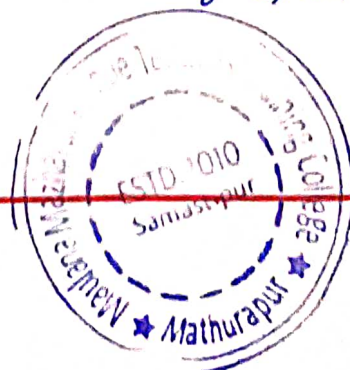
$$\bar{x} = \frac{\sum x}{N}$$

Here,

$$\bar{x} = \text{Mean}$$

$$\sum x = \text{Sum of Response}$$

$$N = \text{Total Number of students.}$$



it is centrally located value of a series that half of the items are before it and half are behind it.

Mid value of series is called median.

Number of Responses are even then median is —

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

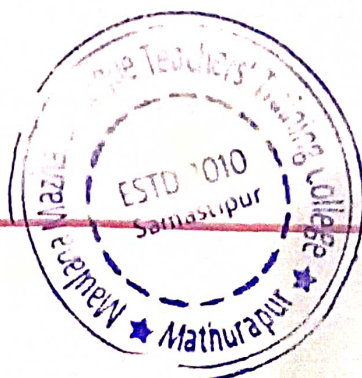
If the response are odd then median is—

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

MODE :-

It is the value that occurs most frequently in a data set or we can also find out by the help of mean and median using this formula.

$$\text{MODE} = 3 \text{ Median} - 2 \text{ mean}$$



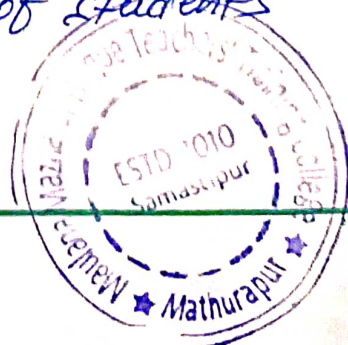
STATISTICAL ANALYSIS OF SCIENCE PAPER

IXth

MEAN :-

S. NO	NAME OF STUDENT	SCORES
1.	RİYA GUPTA	18
2.	JIYA GUPTA	19
3.	SANVI PRIYA	15
4.	NANDANI KUMARI	16
5.	SNEHA KUMARI	11
6.	FAZILAT	10
7.	ANJALI KUMARI	11
8.	PRIYANKA KUMARI	9

$$\text{Mean} = \frac{\text{Sum of all Response}}{\text{Total No. of students}}$$



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

$$\text{Mean} = \frac{18+19+15+16+11+10+9}{8}$$

$$\text{Mean} = 12.25$$

Median :-

Average the data in ascending order

9, 10, 11, 11, 15, 16, 18, 19

Here the no. of items are 8 which is an even no. so,

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

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

$$= \frac{11+15}{2} = \frac{26}{2}$$

$$\text{Median} = 13$$

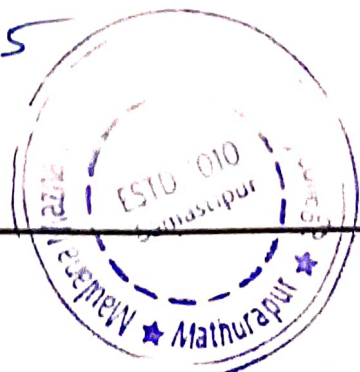
MODE :-

$$\text{Mode} = 3 \text{ median} - 2 \text{ mean}$$

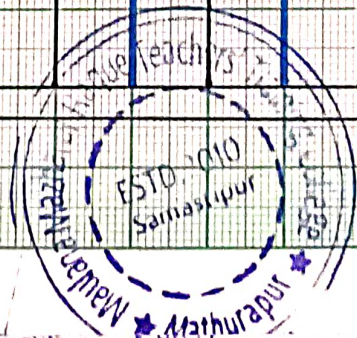
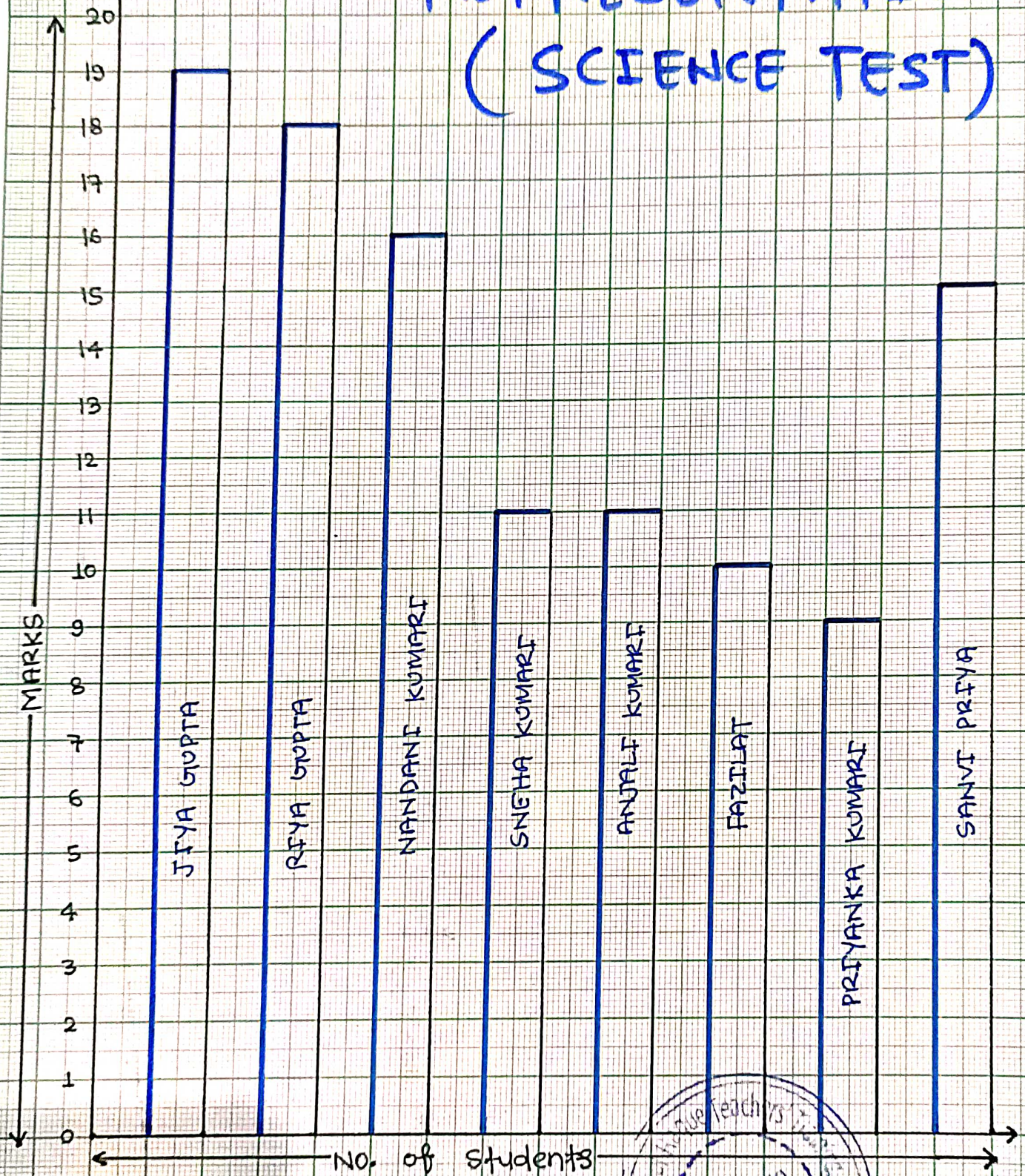
$$= 3 \times 13 - 2 \times 12.5$$

$$= 39 - 25$$

$$\text{Mode} = 14$$



GRAPHICAL REPRESENTATION (SCIENCE TEST)



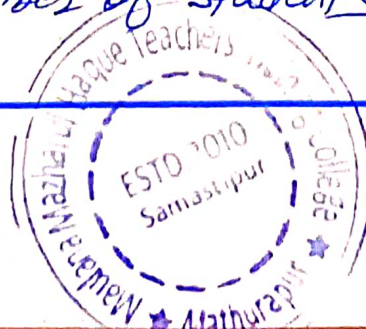
STATISTICAL ANALYSIS OF ENGLISH PAPER

IXth

MEAN :-

S.NO	NAME OF STUDENT	SCORE
1.	RIYA GUPTA	16
2.	JIYA GUPTA	10
3.	SANVI PRIYA	15
4.	NANDANI KUMARI	9
5.	SNEHA KUMARI	19
6.	FAZILAT	9
7.	ANJALI KUMARI	15
8.	PRIYANKA KUMARI	12

$$\text{Mean} = \frac{\text{Sum of all Responses}}{\text{Total Number of Students}}$$



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

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

$$\text{Mean} = 13.12$$

Median :-

Arrange 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.

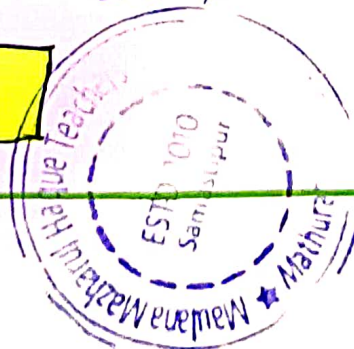
$$\begin{aligned} \text{Median} &= \frac{\frac{N}{2}^{\text{th}} + \left(\frac{N}{2} + 1\right)^{\text{th}}}{2} \\ &= \frac{4^{\text{th}} \text{ term} + 5^{\text{th}} \text{ term}}{2} \\ &= \frac{12 + 15}{2} \end{aligned}$$

$$\text{Median} = 13.5$$

Mode :-

$$\begin{aligned} \text{Mode} &= 3 \text{ median} - 2 \text{ mean} \\ &= 3 \times 13.5 - 2 \times 13.12 \\ &= 40.5 - 26.4 \\ &= 40.5 - 26.4 \end{aligned}$$

$$\text{Mode} = 14.1$$



GRAPHICAL REPRESENTATION OF

ENGLISH TEST

