APPENDICES
APPENDIX – IA

DEPARTMENT OF EDUCATION
CALICUT UNIVERSITY

LESSON PLAN BASED ON DIRECT INSTRUCTION MODEL –II

PLANNING PHASE.

CONTENT TO BE TAUGHT: Concept of the fractions 1/4 and 3/4.

OBJECTIVES

A. Content Objectives

1. Given, a rectangular shaped paper cutting, student will be able to recognise that the four divided parts are equal and the four equal parts make a whole.

2. Given, two set of situations such as objects, paper cuttings and the like students will be able to distinguish the fraction one by four and three by four.

3. Given, different paper cuttings, students will be able to recognise that for getting a quarter the whole is divided into four equal parts.

4. Given, an object divided into four equal parts and out of this, one part is taken into account, student will be able to generalise that the considered part is one-fourth of the whole.

5. Given, any situation student will be able to translate the verbal statement one-fourth symbolically as 1/4.

6. Given, any situation student will be able to explain the concept of 1/4 of an object.

7. Given, an object divided into four equal parts and out of this three of them are taken into consideration student will be able to generalise that the considered parts are three-fourth of the whole.

8. Given, verbally the idea of three-fourth, student will be able to symbolise three-fourth as 3/4.

9. Given, any situation, student will be able to explain the concept of 3/4 of an object.

10. Given, a whole is divided into four equal parts and consider 1/4 and 3/4 student will be able to discriminate them.
11. Given, a random collection of objects, student will be able to select appropriate method for dividing the collection into four equal parts.

12. Given, a random collection of objects, student will be able to identify the number of objects in ¼ of the collection and 3/4 of the collection.

13. Given, any situation, student will be able to picturise 1/4 and 3/4 of an object.

14. Given, any situation, student will be able to graphically represent 1/4 and 3/4 of a collection of objects.

B. Process Objectives

1. Student will observe, notice and answer to questions.
2. Student will give examples, practice the concept/rule.
3. Student will actively participate in the group activities.
4. Student will ensure the mastery over the learned concept/rule.
5. Student himself/herself will assume more responsibility as the lessons progress.

PREREQUISITE KNOWLEDGE

1. Concept of equal parts of a whole
2. Concept of numerator and denominator.
3. Concept of 1/2.

CONDUCTING THE LESSON

Phase-1. Attention and Focus.

Tr: "Good morning every one".

"How are you today? Are you ready for the new lesson"?

St: "Yes madam".

Tr: "Excellent! So to day we can study about the fractions three by four and one by four of an object and a collection".

"Raju, did you heard about it?"

St: "Yes, in my house, usually I heard about these terms".

Tr: "Tomy, did you know the concept of 1/4 and 3/4".
"No miss".

"So today we are going to learn about the fractions \( \frac{1}{4} \) and \( \frac{3}{4} \). Then you can use these concepts whenever it is necessary. You can identify the these concept among many, graphically represent it".

"Will you give work sheet at the end of the class"?

"Surely. So that I can ensure whether you are masters over the concepts \( \frac{1}{4} \) and \( \frac{3}{4} \). Are you ready?"

"Yes miss!" said the students all together.

**Phase – 2. Orientations**

"Meena, can you remember what we learn yesterday"?

"Yes, about the fraction \( \frac{1}{2} \)."

"Renjith, can you explain the concept \( \frac{1}{2} \)."

Student explaining it.

"Which is the numerator of this fraction? Can anybody explain what do you mean by the numerator of a fraction"?

"Which is the denominator of the fraction \( \frac{1}{2} \)? Rema, could you please explain the denominator of a fraction"?

"Ramu, what do you mean by \( \frac{1}{2} \) of a collection? What is the peculiarity of each part, when a collection is divided into two equal parts?"

"Salim, how will you find out the number of objects in \( \frac{1}{2} \) of a collection?"

"There is a cake on the table. You can see it. I am going to cut it into a number of equal portions. Meera, now I am going to give you one piece. Do you want to know what fraction of the cake is given to you and what fraction remains with me?"

"Can anyone answer my questions?" "How will you find this"?

**Phase – 3. Model**

Teacher placed a flannel board on the table.

"Observe the two sets of figures placed on the flannel board".
Students observe the figures.

Tr: "What is the main difference between the pairs of figures in the two sets? Can you identify it, Maya?"

(A clue is given by the teacher, if necessary – shape/number of divisions)

St: "In Set II, all figures are divided into four equal parts. But in Set I even though there are four parts; they are not equal".

Cut-outs of these figures with equal shape and size are given to each group.

Tr: "Shade one part of the divisions out of four equal parts".

Tr: "Can you express this shaded portion as a fraction"?

St: "Yes, the object is divided into four equal parts. So the shaded portion can be expressed as a fraction".

Tr: "Then, what will be its denominator? Why?"

St: "Since there are four equal parts, the denominator of the fraction will be 4".

Tr: "How many of the portions are shaded"?

St: "Only one portion is shaded".

Tr: "What does this number indicates for the fractions"?

St: "This number will be indicated as the numerator of the fraction".

Tr: "Can you say what is the fraction of the shaded portion?"

St: "There are four equal parts and only one part is shaded. Therefore the fraction of the shaded portion is \(\frac{1}{4}\)."
"Then what will be the fraction of the unshaded portion?"

"3/4".

"How does the numerator become 3?"

"Out of 4 equal parts, 3 of them are not shaded".

"How does the denominator become 4?"

"The object is divided into four equal parts. Hence the denominator becomes 4".

Teacher gives paper cuttings with different regular shapes to each group.

"Cut the paper cutting and give me 1/4 of it".

Students doing it correctly.

"I have eight apples with me. I gave 1/4 of the apples to Rema. Can anybody could find out the number of apples that had given to Rema?"

"How many apples remain with me?"

"Can you indicate the fraction of the apples that remains with me"?

"How can you find out this?"

On the flannel board teacher fixes the picture of 8 balls.

```
O O O O
O O O O
```

"This is a collection of 8 balls. Can you divide this collection into 4 equal parts". Try it by drawing the figure in you notebook. Using trail and error method, students divide the collection into 4 equal parts in different ways.

```
O O | O O
O O | O O
```

"What is the number of balls in each collection"?

"There are two balls in each collection"
"Consider two balls among the eight balls, how can you indicate balls fractionally?"

"Out of the 8 balls, two were considered. 8 balls are divided into 4 equal parts and in each part there are two balls. So these two balls can represent a fraction".

"What is that fraction"?

"1/4"

Then, what will be ¼ of 8 balls"?

"2".

"What will be 3/4 of 8 balls"?

"6".

"Can you answer how many apples I had given to Rema?"

"Two".

"How many apples remain with me?"

"Six".

"Now can you answer how many apples are given to Rema? and how many apples remains with me?"

"Rema got two apples and six apples remain with you.

Phase – 4 Lead

"Let us practice whatever we have learned".

Paper cuttings of different shape and size and crayons are distributed among the learners.

Fold the given paper cuttings in to 4 equal parts. shade \( \frac{1}{4} \) of the paper cuttings using pencil.

Draw 12 objects in your note book and divide it in to 4 equal parts.
Tr: Draw 16 diamonds in your notebook. Divide it into 4 equal parts.

\[ \diamond \diamond \diamond \diamond \diamond \diamond \Diamond \Diamond \diamond \diamond \diamond \diamond \diamond \diamond \diamond \Diamond \Diamond \]

St: Do when the collection is divided in to 4 equal parts, each part constitute 4 diamonds.

Tr: Count the number of objects in \( \frac{1}{4} \) of the collection?

St: \( \frac{1}{4} \) of the collection have 4 diamonds.

Tr: Count the number objects in \( \frac{3}{4} \) of the collection.

St: \( \frac{3}{4} \) of the collection have 12 diamonds.

Phase – 5 Test

Tr: "Now I am going to give you work sheets. You have to answer all the questions. Do not discuss each other.

WORKSHEET NO: 2

Answer all the questions

I. Write down the fraction for the shaded part.

\[ \ldots \ldots \ldots \ldots \ldots \ldots \ldots \]

II. Shade the object to indicate the fraction given below for each question

\[ \frac{1}{4} \quad \frac{3}{4} \quad \frac{1}{4} \]

III. Write down the fraction of the shaded objects in the given collection
IV. Shade the objects of the given collection to indicate the fraction given below in each case.

\[
\begin{array}{c}
\begin{array}{cc}
\square & \square \\
\square & \square \\
\end{array} & \begin{array}{cc}
\square & \square \\
\square & \square & \square & \square \\
\end{array}
\end{array}
\]

\[
\begin{array}{c}
\frac{1}{4} & \frac{3}{4} & \frac{1}{4}
\end{array}
\]

V. Count the number of objects in \( \frac{1}{4} \) and \( \frac{3}{4} \) of the given collections.

1. 0 0 0 0
   0 0 0 0 Number of Objects in \( \frac{1}{4} \) of the collection =.............
   0 0 0 0 No. of Objects in \( \frac{3}{4} \) of the collection = .................

2. a a a a a Number of Objects in \( \frac{1}{4} \) of the collection = .............
   a a a a a Number of objects in \( \frac{3}{4} \) of the collection = .............
   a a a a a

3. o o o o o Number of objects in \( \frac{1}{4} \) of the collection = .............
   o o o o o Number of objects in \( \frac{3}{4} \) of the collection = .............
   o o o o o

4. 0 0 0 0 0 Number of objects in \( \frac{1}{4} \) of the collection = ..........
   0 0 0 0 0 Number of the objects in \( \frac{3}{4} \) of the collection = ............
   0 0 0 0 0
   0 0 0 0 0

Phase 5 Feed back.

Feed back will be given according to results of the evaluation of the work sheets of each individual.
APPENDIX I B
DEPARTMENT OF EDUCATION
UNIVERSITY OF CALICUT

LESSON PLAN BASED ON DIRECT INSTRUCTION MODEL – XVII

PLANNING PHASE

CONTENT TO BE TAUGHT →
Types of Decimals – Like decimals and unlike decimals.
How to convert unlike decimals into like decimals.

OBJECTIVES

A. Content Objectives
1. Given any decimal, student will be able to identify the number of decimal places in each decimal number.
2. Given any situation, student will be able to define like decimals and unlike decimals.
3. Given any situation, student will be able to give examples for like and unlike decimals.
4. Given any decimal, student will discriminate like decimals and unlike decimals.
5. Given any situation, student will generalise a rule for converting like decimals into unlike decimals.
6. Given any unlike decimal, student will convert it into like decimal.

B. Process Objectives
1. Student will observe, notice, discriminate and answer to questions.
2. Student will give examples and practice the rule learned.
3. Student will actively participate in the group activity.
4. Student will ensure the mastery over the learned concept and rule.
5. Student himself/herself will assume more responsibility as the lesson progress.
Phase-3 Model

Teacher writes three groups of decimals on the Black Board.

I 0.3, 1.7, 2.9, 25.8, 100.4
II 0.05, 6.28, 17.11, 211.43
III 0.312, 2.201, 14.006, 370.064

Teacher: "Consider group I. In each case how many decimal places are there"?

Student: "Only one decimal place".

Teacher: "Take the decimals in group II. How many decimal places are there?"

Student: "In group II each decimal have two decimal places".

Teacher: "What is the peculiarity of group III"?

Student: "Group III consists of decimals with three decimal places".

Teacher: "Decimals having same number of decimal places are called like decimals".

Teacher: Can you give examples for like decimals".

Students are giving examples correctly.

Teacher: "What will be unlike decimals?"

Student: "Decimals having different number of decimal places are called unlike decimals".

Teacher: "Can you give examples for unlike decimals".

Students are giving the examples correctly.

Teacher: "Consider the decimal 0.5 and 0.63 which type of decimals are they?"

Student: "Unlike decimals".

Teacher: "Can you suggest any method to convert these unlike decimals into like decimals?"

Student: "If both of them have two decimal places they will become like decimals".
Tr: "How can you make 0.5 to a decimal having two decimal places?"

St: "If we take an equivalent decimal of 0.5 with two decimal places we can solve it".

Tr: "Which is the equivalent decimal of 0.5 having two decimal places?"

St: "0.50".

Tr: "Now, 0.50 and 0.63 are like decimals".

Tr: "Can you make a rule for converting unlike decimals into like decimals?"

St: "Notice the number of decimal places in the given decimals. Identify the decimal number having largest number of decimal places. Then convert the other decimals into equivalent decimals with the same number of decimal places as the decimal with the largest number of decimal places have".

Tr: "OK, Now every body knows how to convert unlike decimals in to like decimals".

Phase – 4 Lead

Tr: "Are you ready to practice in the group what we have just learned".

St: "We are ready".

Teacher gives some unlike decimals to each group.

Tr: "Explain in each problem how will you convert each unlike decimal to like decimal?"

Students explain the rule and giving correct answer. If anybody is wrong feedback will be given.

Phase – 5 Test

Tr: "I think it is the time to do some problems individually. So I am going to give you worksheets."
I. Which of the following pairs of decimals consists of like decimals. Put a ‘tickmark’ /) against like decimals.

(i) 79.9, 7.99 = .......... 
(ii) 1.52, 0.152 = .......... 
(iii) 9.13, 6.27 = .......... 
(iv) 3.9, 13.7 = .......... 
(v) 3.003, 3.030 = .......... 

II. Convert each of the following groups of unlike decimals into groups of like decimals.

(i) 7.8, 8.71 = .......... 
(ii) 17.1, 27.6, 3.28 = .......... 
(iii) 24.93, 2.493, 249.3 = .......... 
(iv) 2.718, 13.29, 650.014 = .......... 
(v) 200.01, 13.4, 9.00 = .......... 

III. Write two equivalent decimals for each of the given decimal.

(i) 8.03 = .......... 
(ii) 2.1 = .......... 
(iii) 27.4 = .......... 
(iv) 309.16 = .......... 
(v) 57.24 = ..........
## APPENDIX - I C
### DEPARTMENT OF EDUCATION
### UNIVERSITY OF CALICUT

### OBSERVATION PROFORMA

<table>
<thead>
<tr>
<th>Name of the Teacher</th>
<th>:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Designation</td>
<td>:</td>
</tr>
<tr>
<td>Name of the Institution</td>
<td>:</td>
</tr>
<tr>
<td>Experience in Teaching</td>
<td>:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Skills/Competency</th>
<th>Level of Effectiveness</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>High</td>
</tr>
<tr>
<td>1</td>
<td>Planning of Lesson</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Clarity of Structuring</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Establishment of the rapport with pupils</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Introduction of topic</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Establishment of set</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Demonstration by teacher</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Activities selected</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Selection and use of instructional materials</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Students activity</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Sequence of activities</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Accountability of teacher</td>
<td></td>
</tr>
</tbody>
</table>
19. Overall - Explain your overall judgement of the teacher's effectiveness

__________________________________________

__________________________________________

__________________________________________

20. Suggestion for Improvement

__________________________________________

__________________________________________

__________________________________________
CONTENT ANALYSIS

Terms : On eby fourth, three by fourth.
Fact : In the case \( \frac{1}{4} \), only one part is considered out of four equal parts.

In \( \frac{1}{4} \), 1 is the numerator and 4 is denominator.
In \( \frac{3}{4} \), only 3 parts are taken from 4 equal parts.
In \( \frac{3}{4} \), 3 is the numerator and 4 is the denominator.

Concept : \( \frac{1}{4} \) indicates that a whole is divided into four equal parts and out of these four parts only one is taken.

\( \frac{3}{4} \) indicates that a whole is divided into four equal parts and out of these four parts 3 of them are taken.

Symbols : one by four \( \rightarrow \frac{1}{4} \) there by four \( \rightarrow \frac{3}{4} \).

INSTRUCTIONAL OBJECTIVES.

The pupil
(i)   acquires knowledge about the above terms, facts etc.
(ii)  develops proper understanding of the concepts.
(iii) develops the ability to apply the above concepts in relevant situations.
(iv)  develops skill in using the concepts \( \frac{1}{4} \) and \( \frac{3}{4} \).
**PREVIOUS KNOWLEDGE.**

The concepts of $\frac{1}{2}$ of an object.

The concept of $\frac{1}{2}$ of a collection.

**LEARNING AIDS**

Paper cuttings, Collection of objects

<table>
<thead>
<tr>
<th>Content</th>
<th>Specification</th>
<th>Learning Experiences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preparation</td>
<td></td>
<td>How will you represent one-half fractionally?</td>
</tr>
<tr>
<td>The concept of $\frac{1}{2}$</td>
<td>recalls</td>
<td>What do you mean by $\frac{1}{2}$? What does I indicates?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>What does 2 indicates? Shade $\frac{1}{2}$ of the gives figures.</td>
</tr>
<tr>
<td>$\frac{1}{2}$ of an object</td>
<td>recognises</td>
<td>Using dotted lines divide the collections in to $\frac{1}{2}$ and findout.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>the number of objects in $\frac{1}{2}$ of the collection</td>
</tr>
<tr>
<td>$\frac{1}{2}$ of a collection</td>
<td>recognises</td>
<td>0 0 0 0 0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0 0 0 0 0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0 0 0 0 0</td>
</tr>
<tr>
<td>Number of objects in $\frac{1}{2}$ of a collection</td>
<td>recalls.</td>
<td>How will you identify the number of objects in $\frac{1}{2}$ of a given collection?</td>
</tr>
<tr>
<td>Content</td>
<td>Specification</td>
<td>Learning Experiences</td>
</tr>
<tr>
<td>-------------------------</td>
<td>---------------</td>
<td>-------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Presentations:</strong></td>
<td></td>
<td>What is the main difference between the two sets given below.</td>
</tr>
<tr>
<td>compares</td>
<td></td>
<td>Set-I  [Diagram]</td>
</tr>
<tr>
<td>discrimiates</td>
<td></td>
<td>In Set-II all the figures are divided into 4 equal parts and in Set-I these are not equally divided even though there are divided four parts.</td>
</tr>
<tr>
<td>seen relation</td>
<td></td>
<td>Also in Set-II these four equal parts together make a whole.</td>
</tr>
<tr>
<td>ship among data</td>
<td></td>
<td>Consider one part among these. Shade it. How can we express this part as a fraction?</td>
</tr>
<tr>
<td>analyses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>recalls</td>
<td></td>
<td>The whole thing is divided into How many parts?</td>
</tr>
<tr>
<td>recognises</td>
<td></td>
<td>Are all these equal parts?</td>
</tr>
<tr>
<td>recognises</td>
<td></td>
<td>How many parts are taken for consideration?</td>
</tr>
<tr>
<td>recognises</td>
<td></td>
<td>What does this member indicate for the fraction?</td>
</tr>
<tr>
<td>recalls</td>
<td></td>
<td>How many equal parts are these?</td>
</tr>
<tr>
<td>recognises</td>
<td></td>
<td>What does this member indicate for the fraction?</td>
</tr>
<tr>
<td>recalls</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Content</td>
<td>Specification</td>
<td>Learning Experiences</td>
</tr>
<tr>
<td>---------</td>
<td>--------------</td>
<td>----------------------</td>
</tr>
<tr>
<td>$\frac{1}{4}$ means out of 4 equal parts one is taken.</td>
<td>seen relationship among data</td>
<td>Now what is the fraction indicating the shaded portions?</td>
</tr>
<tr>
<td></td>
<td>generalises establishes the result</td>
<td>$\frac{1}{4}$ which reads as one-by-four.</td>
</tr>
<tr>
<td>$\frac{1}{4}$ of a collection</td>
<td></td>
<td>$\frac{1}{4}$ of an object means out of four equal parts only one is considered.</td>
</tr>
<tr>
<td></td>
<td>notices</td>
<td>When a whole is divided into 4 equal parts, then each part is called $\frac{1}{4}$ of the object.</td>
</tr>
<tr>
<td></td>
<td>identifies</td>
<td>Consider the given collection of balls. Divide the collection into 4 equal parts and find the number of objects in each collection.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Consider one ball. How can you indicate this ball? $\frac{1}{4}$ of 4 balls, one ball is considered</td>
</tr>
<tr>
<td>Content</td>
<td>Specification</td>
<td>Learning Experiences</td>
</tr>
<tr>
<td>---------</td>
<td>-----------------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>$\frac{1}{4}$ of 4 is 1</td>
<td>concludes</td>
<td>$\frac{1}{4}$ of a collection of 4 balls is 1</td>
</tr>
<tr>
<td></td>
<td>identifies</td>
<td>Consider 8 balls</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$\text{O}_1 \text{O}_1 \text{O}_1 \text{O}$</td>
</tr>
<tr>
<td></td>
<td></td>
<td>8 balls are divided into 4 equal parts using 3 dotted lines. $\frac{1}{4}$ of the collection consist 2 balls</td>
</tr>
<tr>
<td></td>
<td>generalises</td>
<td>That is $\frac{1}{4}$ of a collection of 8 balls is 2</td>
</tr>
<tr>
<td></td>
<td>establishes</td>
<td>How will you find out $\frac{1}{4}$ of a collection? The collection will be divided into 4 equal parts using dotted lines. Counting the number of objects in a particular subcollection we can find $\frac{1}{4}$ of that collection</td>
</tr>
<tr>
<td></td>
<td>a general rule</td>
<td>Divide the given 12 diamonds into 4 equal parts and findout how many diamonds make one fourth of the collection.</td>
</tr>
<tr>
<td>$\frac{1}{4}$ of 8 is 2</td>
<td>selects</td>
<td>$\frac{1}{4}$ of a collection of 8 balls is 2</td>
</tr>
<tr>
<td></td>
<td>appropriate</td>
<td></td>
</tr>
<tr>
<td></td>
<td>method</td>
<td></td>
</tr>
<tr>
<td>Content</td>
<td>Specification</td>
<td>Learning Experiences</td>
</tr>
<tr>
<td>---------</td>
<td>---------------</td>
<td>----------------------</td>
</tr>
<tr>
<td>When an object is divided into 4 equal parts and 3 of them were considered the for will be ( \frac{3}{4} )</td>
<td>identifies selects appropriate method</td>
<td>Using 3 dotted lines the collection is divided into 4 equal parts. Each part consists of 3 diamonds. [ \therefore \frac{3}{4} \text{ of a collection of 12 diamonds consists 3 diamonds} ] Find out the number of leaves in ( \frac{3}{4} ) of the collection of 12 leaves.</td>
</tr>
</tbody>
</table>
| | |用三画线把叶子分成四等份。每一份有3片。
<p>| Presentation | analysis identifies illustrates | Using three dotted lines the collection of leaves are divided into 4 equal parts. Each ( \frac{3}{4} ) of the collection has 3 leaves. |
| concentrate ( \frac{3}{4} ) | | Take the first paper folding again in which ( \frac{3}{4} ) is shaded. In each case ( \frac{3}{4} ) of the shape is shaded consider the unshaded portions. What fraction will it represent? Why? The unshaded portions will represent ( \frac{3}{4} ) of the whole. |
| | | The whole is divided into 4 equal parts. So the denominator will be 4. Out of this 4 parts 3 of them are unshaded. So 3 indicates the numerator. |
| | | In the case of 4 equal squares ( \square \square ) one square is haded. ie. ( \frac{3}{4} ) of the collection is shaded. What fraction will be unshaded squares represent? |</p>
<table>
<thead>
<tr>
<th><strong>Content</strong></th>
<th><strong>Specification</strong></th>
<th><strong>Learning Experiences</strong></th>
<th><strong>Evaluation.</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Application</td>
<td>explains</td>
<td>Out of 4 equal squares 3 of them were unshaded so the fraction will be $\frac{3}{4}$</td>
<td>What do you mean by $\frac{3}{4}$ of a collection?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Shade $\frac{3}{4}$ of the figures</td>
<td>How will you count the the number of objects in $\frac{3}{4}$ of a collection.</td>
</tr>
<tr>
<td></td>
<td>identifies</td>
<td>Divide the given collection into 4 equal parts and indicate the number of objects in each $\frac{3}{4}$ part</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Each collection has 4 objects</td>
<td>$\therefore \frac{3}{4}$ of the collection is 12</td>
</tr>
</tbody>
</table>

**Review**

1. Explain the concept of $\frac{1}{4}$
2. Explain the concept of $\frac{3}{4}$
3. Distinguish $\frac{1}{4}$ and $\frac{3}{4}$
4. How will you find out the number of objects in $\frac{1}{4}$ of a collection of objects?
5. How will you find out the number of objects in $\frac{3}{4}$ of a collection of objects?
Assignments

Draw the given figures in your note book

1. \[ \text{Given figures} \]

Shade \( \frac{3}{4} \) of the figures

2. Count the number of objects in \( \frac{1}{4} \) of the given collections

(a) \[ \begin{array}{cccc}
0 & 0 & 0 & 0 \\
0 & 0 & 0 & 0 \\
0 & 0 & 0 & 0 \\
0 & 0 & 0 & 0 \\
\end{array} \]  
(b) \[ \begin{array}{cccc}
\triangle & \triangle & \triangle & \triangle \\
\triangle & \triangle & \triangle & \triangle \\
\triangle & \triangle & \triangle & \triangle \\
\triangle & \triangle & \triangle & \triangle \\
\end{array} \]

3. Count the number of objects in \( \frac{3}{4} \) of the given collection

(a) \[ \begin{array}{cccc}
0 & 0 & 0 & 0 \\
0 & 0 & 0 & 0 \\
0 & 0 & 0 & 0 \\
0 & 0 & 0 & 0 \\
\end{array} \]  
(b) \[ \begin{array}{cc}
0 & 0 \\
0 & 0 \\
0 & 0 \\
0 & 0 \\
\end{array} \]
APPENDIX – II B

DEPARTMENT OF EDUCATION
UNIVERSITY OF CALICUT

LESSON PLAN BASED ON OBJECTIVE BASED INSTRUCTION

Name of the teacher:
Name of the school:
Subject:
Unit:
Lesson Unit:

Standard:
Division:
Date:
Duration:
Strength:

CONTENT ANALYSIS

Terms – Decimal places, like decimals, unlike decimals.

Definition

Decimal places – The places of the digits in the decimal part of the decimal number are called decimal places.

Like decimals – Decimals having the same number of decimal places are called like decimals.

Unlike decimals – Decimals having different decimal places are called unlike decimals.

Fact – All equivalent decimals are unlike but unlike decimals may or may not be equivalent.

Principle → Conversion of unlike decimals into like decimals.

⇒ First identify the number of decimal places in the decimal number with the largest number of decimal places. Change the other decimals into their equivalent decimals having the largest number of decimal places.
INSTRUCTIONAL OBJECTIVES

The pupil

(i) acquires knowledge of the above facts.

(ii) develops proper understanding of the principle.

(iii) develops ability in converting unlike decimals into like decimals.

PREVIOUS KNOWLEDGE

(I) concept of place values of digits.

(ii) concept of equivalent fractions.

<table>
<thead>
<tr>
<th>CONTENT</th>
<th>Specification</th>
<th>Learning Experiences</th>
<th>Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>recalls</td>
<td>Write the decimal of the fraction 3/100</td>
<td></td>
</tr>
<tr>
<td></td>
<td>recalls</td>
<td>Give the number name of the decimal 4.02</td>
<td></td>
</tr>
<tr>
<td></td>
<td>simplifies</td>
<td>Convert the decimal 0.9 into a fraction of the lowest form.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>simplifies</td>
<td>Convert the decimal 210.5 into a fraction and write it as a mixed numeral.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>recalls</td>
<td>Define like fractions and unlike fractions. Give examples</td>
<td></td>
</tr>
</tbody>
</table>
One day Raman called his children and told them he decided to divide his property among them. He decided to divide his property in three portions as follows 33.888 percent, 33.09 percent and 33.022 percent. First he called his eldest son and asked him which of the share did he prefer. The elder son wanted the biggest share. But he was very poor in understanding decimal numbers. He was confused of the numbers that was told by his father.

How can we help the elder son

As we have like fractions and unlike fractions, we have like decimals and unlike decimals.

Consider the following groups of decimals.

I → 0.3, 1.7, 2.9, 21.6, 37.6
II → 0.05, 6.08, 7.13, 211.13
III → 0.123, 1.012, 4.111, 41.003, 119.064

In group I how many digits are there in the decimal places?

Here each decimal has only one decimal place.

In group I how many digits are there in the decimal places?
#### Dec. having same number of decimal places are like decimals

- **Recognises**: In group II each decimal has two decimal places.
- **Recognises**: In group III how many digits are there in the decimal places?
- **Generalises**: In group III each decimal has three decimal places.
- **Suggests**: Decimals having same number of decimal places are called like decimals.
- **Identifies**: What will be unlike decimals?
- **Analyses**: Decimals having different number of decimal places are called unlike decimals.

#### Dec. having different number of decimals places are called unlike decimals

- **Recognises**: Consider the decimals 0.5 and 0.61 which type of decimals are these.
- **Suggests**: They are unlike decimals, 0.5 has only one decimal place and 0.61 has two decimal places.
- **Identifies**: Can you convert these unlike decimals into like decimals?
- **Analyses**: For this 0.5 has to converted into a decimal having two decimal places and its value should not be changed.
- **Recalls**: Say a decimal equivalent to 0.5 and has two decimal places.
- **Recalls**: 0.5 and 0.50 are equivalent decimals.

---

**Presentation**

- What are like decimals
  - Give eg.
- What are unlike decimals
  - Give eg.
In the pair of decimals 0.5, 0.61, we change 0.5 into 0.50. Now what is the number of decimal places in the decimal 0.50? There are two decimal places.

For converting unlike decimals to like decimal first recognise the decimal having largest decimal places and change others decimals having the same decimal places.

There are two decimal places.

Hence 0.50 and 0.61 are like decimals.

How will you convert unlike decimals into like decimals?

(i) Identify the number of decimal places in the decimal with the largest number of decimal places.
(ii) Change other decimals into their equivalent decimals which have the same number of decimal places as the decimal with the largest number of decimal places.

How will you convert two unlike decimals into like decimals?

(a) 3.9, 13.7
(b) 9.13, 6.72
(c) 3.003, 3.03
(d) 100.71, 97.283

Put a tick mark (✓) against the like decimals.

What are like decimals and unlike decimals?

Now what is the number of decimal places in the decimal 0.50? There are two decimal places.

How will you convert 0.50 into 0.5?
Consider 3.9, 13.7. What is the number of decimals places in each case.

- Only one place.
- So what type of decimals are there?

Since the decimal part has only one decimal place. Hence they are the decimals.

Are 6.91 and 9.13 like decimals?

Since there are two decimal places, they are like decimals.

3.003 and 3.30 ⇒ In the first there are 3 decimal places and in the second there are only two. Hence they are not like decimals. They are unlike decimals.

Similarly 100.71 has 2 decimal place and 97.283 has 3 decimal place. So they are unlike decimals.
Assignments

I. Which of the following pairs of decimals consists of like decimals. Put a ‘tickmark’ (/) against like decimals.
   (i) \(79.9, 7.99\)
   (ii) \(1.52, 0.152\)
   (iii) \(9.13, 6.27\)
   (iv) \(3.9, 13.7\)
   (v) \(3.003, 3.030\)

II. Convert each of the following groups of unlike decimals into groups of like decimals.
   (i) \(7.8, 8.71\)
   (ii) \(17.1, 27.6, 3.28\)
   (iii) \(24.93, 2.493, 249.3\)
   (iv) \(2.718, 13.29, 650.014\)
   (v) \(200.01, 13.4, 9.00\)

III. Write two equivalent decimals for each of the given decimal
   (i) \(8.03\)
   (ii) \(2.1\)
   (iii) \(27.4\)
   (iv) \(309.16\)
   (v) \(57.24\)
## APPENDIX - III

### STANDARD PROGRESSIVE MATRICES

**SETS A, B, C, D, & E**

<table>
<thead>
<tr>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Place</td>
<td>Date</td>
</tr>
<tr>
<td>Age</td>
<td>Birthday</td>
</tr>
<tr>
<td>Test begun</td>
<td>Test ended</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>7</td>
<td>7</td>
<td>7</td>
<td>7</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>9</td>
<td>9</td>
<td>9</td>
<td>9</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>10</td>
<td>0</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>11</td>
<td>11</td>
<td>11</td>
<td>11</td>
<td>11</td>
<td>11</td>
</tr>
<tr>
<td>12</td>
<td>12</td>
<td>12</td>
<td>12</td>
<td>12</td>
<td>12</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Time</th>
<th>Total</th>
<th>Grade</th>
</tr>
</thead>
</table>

Tested by

2
This is a test intended to know your ability in the fundamental operations with numbers and your understanding of number concepts and relationships. For each question, 4 choices are given, indicated by A, B, C and D only one answer will be correct. Find out the answer for each question and put the mark 'X' on the appropriate letter against each question in the answer sheet. Separate answer sheet will be provided for answering. Do not make any mark on the question paper. If you want to change your answer put a \( \Box \) (a small square) on 'X' and then put another 'X' against the correct answer.

**Model**

Simplify \( 2 + 4 + 3 \)

\[
\begin{array}{cccc}
A & 6 & B & 7 \\
C & \times & D & 5
\end{array}
\]

The correct answer is '9' indicated by the letter C. Hence put the mark 'X' on C.

In this test there are 10 sections. In each section the operations with numbers are different. Carefully read the questions and answer all the given questions in each section.
SECTION A

(In this section ten questions are given. In each case find out the place value of the underlined digit of the numeral).

1. 7623
   [A. ones  B. tens  C. hundreds  D. thousands ]
2. 8409
   [A. ones  B. tens  C. hundreds  D. thousands ]
3. 4003
   [A. ones  B. tens  C. hundreds  D. thousands ]
4. 76120
   [A. ones  B. tens  C. hundreds  D. thousands ]
5. 2769
   [A. tens  B. hundreds  C. thousands  D. ten thousands ]
6. 87961
   [A. tens  B. hundreds  C. thousands  D. ten thousands ]
7. 123640
   [A. hundreds  B. thousands  C. ten thousands  D. lakhs ]
8. 356721
   [A. hundreds  B. thousands  C. ten thousands  D. lakhs ]
9. 165802793
   [A. lakhs  B. ten lakhs  C. crores  D. ten crores]  
10. 24018697
    [A. lakhs  B. ten lakhs  C. crores  D. ten crores]
SECTION B

(10 questions are given in this section. For each question find out the correct numerical from the bracket.)

1. Four hundred fifty two
   [A. 4052    B. 452    C. 42    D. 425 ]

2. Three thousand seventy four
   [A. 3074    B. 374    C. 30074   D. 30704 ]

3. Nine thousand nine hundred
   [A. 0990    B. 9090   C. 990    D. 9900 ]

4. Three thousand one hundred seven
   [A. 300107  B. 30107  C. 3107   D. 31007 ]

5. Ten thousand one
   [A 10100    B 10010   C 1001    D 10001 ]

6. Eleven thousand nine hundred ninety nine
   [A. 11999   B. 1199   C. 11099   D. 110099 ]

7. One lakh
   [A. 1000    B. 10000  C. 100000  D. 1000000 ]

8. Forty thousand two hundred five
   [A. 400205  B. 40205  C. 402005  D. 4025 ]

9. Nine hundred thousand
   [A. 9000000  B. 900000   C. 90000   D. 90000 ]

10. One lakh ten thousand one
    [A. 101001  B. 100101  C. 110001   D. 11001 ]
SECTION C

(Simplify the 10 questions given in this section using the fundamental operation addition, choose the correct answer from the bracket).

1. $6 + 3 + 5$
   
   [A. 12  B. 13  C. 14  D. 15]

2. $24 + 13$
   
   [A. 47  B. 37  C. 57  D. 36]

3. $86 + 48$
   
   [A. 124  B. 135  C. 144  D. 134]

4. $368 + 243$
   
   [A. 511  B. 611  C. 621  D. 612]

5. $3552 + 4037$
   
   [A. 6589  B. 7689  C. 7589  D. 7579]

6. $12531 + 3407$
   
   [A. 15938  B. 16938  C. 15838  D. 15948]

7. $1432 + 809 + 189$
   
   [A. 2330  B. 2428  C. 1430  D. 2430]

8. $10001 + 9999$
   
   [A. 19991  B. 199991  C. 2000  D. 20000]

9. $243563 + 124138$
   
   [A. 266701  B. 367701  C. 267601  D. 267791]

10. $731034 + 10991 + 327897$
    
    [A. 969922  B. 1069922  C. 1068922  D. 1069822]
SECTION D

(Simplify the given ten questions and pick out the correct answer from the bracket).

1. $11 - 6$
   [A. 6  B. 4  C. 7  D. 5 ]

2. $84 - 12$
   [A. 62  B. 72  C. 82  D. 71 ]

3. $91 - 36$
   [A. 55  B. 65  C. 45  D. 56 ]

4. $247 - 52$
   [A. 195  B. 196  C. 194  D. 186 ]

5. $9367 - 7347$
   [A. 1020  B. 2010  C. 2020  D. 2030 ]

6. $76532 - 20496$
   [A. 56035  B. 56036  C. 56046  D. 55036 ]

7. $3000 - 40$
   [A. 2960  B. 2860  C. 2950  D. 2940 ]

8. $37100 - 765$
   [A. 3635  B. 35335  C. 36345  D. 36335 ]

9. $10001 - 99$
   [A. 9802  B. 9901  C. 9902  D. 8902 ]

10. $287321 - 163804$
    [A. 123507  B. 123517  C. 123417  D. 123527 ]
SECTION E

(10 questions are given in this section. Choose the correct answer from the four given choices by finding the product of the given numbers).

1. \(287 \times 1 = \)
   [A. 287   B. 286   C. 288   D. 0 ]

2. \(3493 \times 0 = \)
   [A. 3493   B. 3494   C. 3492   D. 0 ]

3. \(47 \times 10 = \)
   [A. 47   B. 57   C. 470   D. 0 ]

4. \(173 \times 100 = \)
   [A. 273   B. 17300   C. 1730   D. 173 ]

5. \(12 \times 4 = \)
   [A. 24   B. 16   C. 58   D. 48 ]

6. \(15 \times 40 = \)
   [A. 600   B. 60   C. 6000   D. 55 ]

7. \(234 \times 3 = \)
   [A. 468   B. 234   C. 702   D. 237 ]

8. \(325 \times 15 = \)
   [A. 4550   B. 4875   C. 5200   D. 340 ]

9. \(74 \times 42 = \)
   [A. 2108   B. 3108   C. 3008   D. 3118 ]

10. \(437 \times 111 = \)
    [A. 49507   B. 48407   C. 48507   D. 48307 ]
SECTION F

(Divided the following numbers and find out the quotient in each case from the four given choices)

1. \(0 \div 87 = \) 
   [A. 1  B. 0  C. 87  D. 78 ]

2. \(27 \div 1 = \) 
   [A. 27  B. 28  C. 26  D. 1 ]

3. \(382 \div 382 = \) 
   [A. 0  B. 1  C. 382  D. 381 ]

4. \(373 \div 10 = \) 
   [A. 3730  B. 373  C. 37  D. 3 ]

5. \(4175 \div 100 = \) 
   [A. 4175  B. 417  C. 41  D. 4 ]

6. \(56 \div 7 = \) 
   [A. 49  B. 63  C. 7  D. 8 ]

7. \(72 \div 12 = \) 
   [A. 84  B. 4  C. 5  D. 6 ]

8. \(1650 \div 50 = \) 
   [A. 33  B. 30  C. 40  D. 32 ]

9. \(1989 \div 9 = \) 
   [A. 219  B. 221  C. 231  D. 211 ]

10. \(5157 \div 27 = \) 
    [A. 291  B. 192  C. 191  D. 181 ]
SECTION G

(Identify the correct symbol from the bracket to fill the blank in each case. 10 questions are given)

1. 9 ..... 4
   [A. <   B. >   C. =   D. ≤ ]

2. 46 ..... 64
   [A. <   B. >   C. =   D. ≥ ]

3. 76 ..... 67
   [A. =   B. <   C. >   D. ≤ ]

4. 106 ..... 160
   [A. >   B. ≥   C. =   D. < ]

5. 286 ..... 268
   [A. >   B. =   C. <   D. ≤ ]

6. 1090 ..... 1009
   [A. =   B. >   C. <   D. ≤ ]

7. 7654 ..... 7560
   [A. =   B. >   C. <   D. ≥ ]

8. 78031 ..... 30470
   [A. >   B. <   C. =   D. ≤ ]

9. 23179 ..... 23179
   [A. >   B. <   C. ≠   D. = ]

10. 583456 ..... 583564
    [A. ≤   B. <   C. >   D. = ]
SECTION H

(For questions 1 to 5 choose the correct successor of each number from the given options).

1. 36
   [A. 0  B. 1  C. 36  D. 37 ]

2. 100
   [A. 101  B. 100  C. 1  D. 99 ]

3. 2174
   [A. 2274  B. 2184  C. 2176  D. 2175 ]

4. 7089
   [A. 7088  B. 7090  C. 7091  D. 7089 ]

5. 9999
   [A. 1000  B. 10000  C. 99999  D. 9998 ]

(For questions 6 to 10 choose the correct predecessor of each from the bracket)

6. 2
   [A. 0  B. 1  C. 2  D. 3 ]

7. 10
   [A. 9  B. 10  C. 11  D. 0 ]

8. 481
   [A. 491  B. 482  C. 480  D. 479 ]

9. 2670
   [A. 2671  B. 2670  C. 2669  D. 2660 ]

10. 10000
    [A. 10001  B. 99999  C. 999  D. 9999 ]
(10 number series are given in this section. Carefully study each series and find out the missing number).

1. 78 76 74  
   [A. 70  B. 72  C. 73  D. 75 ]

2. 25 50 75  
   [A. 0  B. 1  C. 100  D. 90 ]

3. 25 50 75  
   [A. 0  B. 1  C. 100  D. 80 ]

4. 12 24 36  
   [A. 46  B. 42  C. 38  D. 48 ]

5. 64 16 4  
   [A. 0  B. 1  C. 2  D. 8 ]

6. 3727 3728 3729  
   [A. 3730  B. 3739  C. 3829  D. 3720 ]

7. 3156 3166 3176  
   [A. 3276  B. 3286  C. 3186  D. 3177 ]

8. 3712 3812 3912  
   [A. 3922  B. 3913  C. 4912  D. 4012 ]

9. 2007 3007 4007  
   [A. 4006  B. 4008  C. 4017  D. 5007 ]

10. 48156 58156 68156  
    [A. 78156  B. 69156  C. 68256  D. 68166 ]
SECTION J

(In this section there are ten questions. For each question pick out the correct measure for the given unit)

1. 1 metre = ........ centimeters
   [A. 1   B. 10   C. 100   D. 1000]
2. 1 kilogram = ........ grams
   [A. 1   B. 10   C. 100   D. 1000]
3. ........ litres = 1 kilo litre
   [A. 1000   B. 100   C. 10   D. 1]
4. 1 kilogram = ........ hectogram
   [A. 1000   B. 100   C. 10   D. 1]
5. 1 kilometre = ........ decagram
   [A. 1000   B. 100   C. 10   D. 1]
6. 1 hectometre = 10 ........
   [A. kilometre   B. decametre   C. metre   D. decimetre]
7. 1 litre = 10 ........
   [A. millilitre   B. centilitre   C. decilitre   D. dekalitre]
8. 1 dekagram = ........ centigram
   [A. 1   B. 10   C. 100   D. 1000]
9. 1000 litres = 1 ........
   [A. kilolitre   B. hectolitre   C. dekalitre   D. litre]
10. ........ hectometre = 1 kilometre
    [A. 10   B. 100   C. 1000   D. 10000]
APPENDIX - IV B

RESULTS OF ITEM ANALYSIS OF TEST OF NUMERICAL ABILITY

SECTION - A

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>U</th>
<th>L</th>
<th>$D_I = \frac{U + L}{2N}$</th>
<th>$D_p = \frac{U - L}{N}$</th>
<th>Item omitted/selected</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>25</td>
<td>21</td>
<td>.92</td>
<td>.16</td>
<td>O</td>
</tr>
<tr>
<td>2</td>
<td>24</td>
<td>20</td>
<td>.88</td>
<td>.16</td>
<td>O</td>
</tr>
<tr>
<td>3</td>
<td>23</td>
<td>15</td>
<td>.76</td>
<td>.32</td>
<td>S</td>
</tr>
<tr>
<td>4</td>
<td>24</td>
<td>18</td>
<td>.84</td>
<td>.24</td>
<td>O</td>
</tr>
<tr>
<td>5</td>
<td>24</td>
<td>15</td>
<td>.78</td>
<td>.36</td>
<td>S</td>
</tr>
<tr>
<td>6</td>
<td>25</td>
<td>20</td>
<td>.90</td>
<td>.20</td>
<td>O</td>
</tr>
<tr>
<td>7</td>
<td>23</td>
<td>15</td>
<td>.76</td>
<td>.32</td>
<td>S</td>
</tr>
<tr>
<td>8</td>
<td>24</td>
<td>14</td>
<td>.76</td>
<td>.40</td>
<td>S</td>
</tr>
<tr>
<td>9</td>
<td>22</td>
<td>12</td>
<td>.68</td>
<td>.40</td>
<td>S</td>
</tr>
<tr>
<td>10</td>
<td>21</td>
<td>15</td>
<td>.72</td>
<td>.24</td>
<td>O</td>
</tr>
</tbody>
</table>

SECTION-B

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>U</th>
<th>L</th>
<th>$D_I = \frac{U + L}{2N}$</th>
<th>$D_p = \frac{U - L}{N}$</th>
<th>Item omitted/selected</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>25</td>
<td>20</td>
<td>.90</td>
<td>.20</td>
<td>O</td>
</tr>
<tr>
<td>2</td>
<td>25</td>
<td>21</td>
<td>.92</td>
<td>.16</td>
<td>O</td>
</tr>
<tr>
<td>3</td>
<td>25</td>
<td>22</td>
<td>.94</td>
<td>.12</td>
<td>O</td>
</tr>
<tr>
<td>4</td>
<td>24</td>
<td>21</td>
<td>.90</td>
<td>.12</td>
<td>O</td>
</tr>
<tr>
<td>5</td>
<td>24</td>
<td>19</td>
<td>.86</td>
<td>.20</td>
<td>O</td>
</tr>
<tr>
<td>6</td>
<td>23</td>
<td>15</td>
<td>.76</td>
<td>.32</td>
<td>S</td>
</tr>
<tr>
<td>7</td>
<td>24</td>
<td>16</td>
<td>.80</td>
<td>.32</td>
<td>S</td>
</tr>
<tr>
<td>8</td>
<td>25</td>
<td>15</td>
<td>.80</td>
<td>.40</td>
<td>S</td>
</tr>
<tr>
<td>9</td>
<td>23</td>
<td>15</td>
<td>.76</td>
<td>.32</td>
<td>S</td>
</tr>
<tr>
<td>10</td>
<td>22</td>
<td>4</td>
<td>.52</td>
<td>.72</td>
<td>S</td>
</tr>
</tbody>
</table>
### SECTION – C

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>U</th>
<th>L</th>
<th>( D_1 = \frac{U+L}{2N} )</th>
<th>( D_p = \frac{U-L}{N} )</th>
<th>Item Omitted/selected</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>25</td>
<td>20</td>
<td>.90</td>
<td>.20</td>
<td>O</td>
</tr>
<tr>
<td>2</td>
<td>25</td>
<td>22</td>
<td>.94</td>
<td>.12</td>
<td>O</td>
</tr>
<tr>
<td>3</td>
<td>24</td>
<td>17</td>
<td>.82</td>
<td>.28</td>
<td>O</td>
</tr>
<tr>
<td>4</td>
<td>25</td>
<td>19</td>
<td>.88</td>
<td>.24</td>
<td>O</td>
</tr>
<tr>
<td>5</td>
<td>23</td>
<td>15</td>
<td>.76</td>
<td>.32</td>
<td>O</td>
</tr>
<tr>
<td>6</td>
<td>25</td>
<td>15</td>
<td>.80</td>
<td>.40</td>
<td>O</td>
</tr>
<tr>
<td>7</td>
<td>24</td>
<td>16</td>
<td>.80</td>
<td>.32</td>
<td>O</td>
</tr>
<tr>
<td>8</td>
<td>22</td>
<td>14</td>
<td>.72</td>
<td>.32</td>
<td>S</td>
</tr>
<tr>
<td>9</td>
<td>23</td>
<td>10</td>
<td>.66</td>
<td>.52</td>
<td>S</td>
</tr>
<tr>
<td>10</td>
<td>21</td>
<td>8</td>
<td>.58</td>
<td>.52</td>
<td>S</td>
</tr>
</tbody>
</table>

### SECTION – D

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>U</th>
<th>L</th>
<th>( D_1 = \frac{U+L}{2N} )</th>
<th>( D_p = \frac{U-L}{N} )</th>
<th>Item omitted/selected</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>25</td>
<td>20</td>
<td>.90</td>
<td>.20</td>
<td>O</td>
</tr>
<tr>
<td>2</td>
<td>25</td>
<td>22</td>
<td>.94</td>
<td>.12</td>
<td>O</td>
</tr>
<tr>
<td>3</td>
<td>24</td>
<td>17</td>
<td>.82</td>
<td>.28</td>
<td>O</td>
</tr>
<tr>
<td>4</td>
<td>25</td>
<td>19</td>
<td>.88</td>
<td>.24</td>
<td>O</td>
</tr>
<tr>
<td>5</td>
<td>23</td>
<td>15</td>
<td>.76</td>
<td>.32</td>
<td>S</td>
</tr>
<tr>
<td>6</td>
<td>25</td>
<td>22</td>
<td>.94</td>
<td>.12</td>
<td>O</td>
</tr>
<tr>
<td>7</td>
<td>24</td>
<td>16</td>
<td>.80</td>
<td>.32</td>
<td>S</td>
</tr>
<tr>
<td>8</td>
<td>22</td>
<td>14</td>
<td>.72</td>
<td>.32</td>
<td>S</td>
</tr>
<tr>
<td>9</td>
<td>23</td>
<td>10</td>
<td>.66</td>
<td>.52</td>
<td>S</td>
</tr>
<tr>
<td>10</td>
<td>21</td>
<td>8</td>
<td>.58</td>
<td>.52</td>
<td>S</td>
</tr>
</tbody>
</table>
### SECTION - E

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>U</th>
<th>L</th>
<th>(D_1 = \frac{U + L}{2N})</th>
<th>(D_p = \frac{U - L}{N})</th>
<th>Item omitted/selected</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>25</td>
<td>23</td>
<td>.96</td>
<td>.08</td>
<td>O</td>
</tr>
<tr>
<td>2</td>
<td>25</td>
<td>15</td>
<td>.80</td>
<td>.40</td>
<td>S</td>
</tr>
<tr>
<td>3</td>
<td>24</td>
<td>20</td>
<td>.88</td>
<td>.16</td>
<td>O</td>
</tr>
<tr>
<td>4</td>
<td>24</td>
<td>19</td>
<td>.86</td>
<td>.20</td>
<td>O</td>
</tr>
<tr>
<td>5</td>
<td>25</td>
<td>19</td>
<td>.88</td>
<td>.24</td>
<td>O</td>
</tr>
<tr>
<td>6</td>
<td>23</td>
<td>15</td>
<td>.76</td>
<td>.32</td>
<td>S</td>
</tr>
<tr>
<td>7</td>
<td>25</td>
<td>12</td>
<td>.74</td>
<td>.52</td>
<td>S</td>
</tr>
<tr>
<td>8</td>
<td>24</td>
<td>7</td>
<td>.62</td>
<td>.68</td>
<td>S</td>
</tr>
<tr>
<td>9</td>
<td>22</td>
<td>11</td>
<td>.66</td>
<td>.44</td>
<td>S</td>
</tr>
<tr>
<td>10</td>
<td>22</td>
<td>5</td>
<td>.54</td>
<td>.68</td>
<td>S</td>
</tr>
</tbody>
</table>

### SECTION - F

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>U</th>
<th>L</th>
<th>(D_1 = \frac{U + L}{2N})</th>
<th>(D_p = \frac{U - L}{N})</th>
<th>Item omitted/selected</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>23</td>
<td>11</td>
<td>.68</td>
<td>.48</td>
<td>S</td>
</tr>
<tr>
<td>2</td>
<td>24</td>
<td>22</td>
<td>.92</td>
<td>.08</td>
<td>O</td>
</tr>
<tr>
<td>3</td>
<td>25</td>
<td>19</td>
<td>.88</td>
<td>.24</td>
<td>O</td>
</tr>
<tr>
<td>4</td>
<td>22</td>
<td>14</td>
<td>.72</td>
<td>.32</td>
<td>S</td>
</tr>
<tr>
<td>5</td>
<td>20</td>
<td>13</td>
<td>.66</td>
<td>.28</td>
<td>O</td>
</tr>
<tr>
<td>6</td>
<td>21</td>
<td>14</td>
<td>.70</td>
<td>.28</td>
<td>O</td>
</tr>
<tr>
<td>7</td>
<td>25</td>
<td>9</td>
<td>.68</td>
<td>.64</td>
<td>S</td>
</tr>
<tr>
<td>8</td>
<td>22</td>
<td>9</td>
<td>.62</td>
<td>.52</td>
<td>S</td>
</tr>
<tr>
<td>9</td>
<td>24</td>
<td>5</td>
<td>.58</td>
<td>.76</td>
<td>S</td>
</tr>
<tr>
<td>10</td>
<td>17</td>
<td>10</td>
<td>.54</td>
<td>.28</td>
<td>O</td>
</tr>
</tbody>
</table>
### SECTION – G

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>U</th>
<th>L</th>
<th>(D_1 = \frac{U + L}{2N})</th>
<th>(D_p = \frac{U - L}{N})</th>
<th>Item omitted/ selected</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>25</td>
<td>23</td>
<td>.96</td>
<td>.08</td>
<td>O</td>
</tr>
<tr>
<td>2</td>
<td>25</td>
<td>21</td>
<td>.92</td>
<td>.16</td>
<td>O</td>
</tr>
<tr>
<td>3</td>
<td>25</td>
<td>15</td>
<td>.80</td>
<td>.40</td>
<td>S</td>
</tr>
<tr>
<td>4</td>
<td>25</td>
<td>14</td>
<td>.78</td>
<td>.44</td>
<td>S</td>
</tr>
<tr>
<td>5</td>
<td>24</td>
<td>18</td>
<td>.84</td>
<td>.24</td>
<td>O</td>
</tr>
<tr>
<td>6</td>
<td>23</td>
<td>20</td>
<td>.86</td>
<td>.12</td>
<td>O</td>
</tr>
<tr>
<td>7</td>
<td>23</td>
<td>15</td>
<td>.76</td>
<td>.32</td>
<td>S</td>
</tr>
<tr>
<td>8</td>
<td>22</td>
<td>14</td>
<td>.72</td>
<td>.32</td>
<td>S</td>
</tr>
<tr>
<td>9</td>
<td>25</td>
<td>20</td>
<td>.90</td>
<td>.20</td>
<td>O</td>
</tr>
<tr>
<td>10</td>
<td>20</td>
<td>12</td>
<td>.64</td>
<td>.32</td>
<td>S</td>
</tr>
</tbody>
</table>

### SECTION – H

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>U</th>
<th>L</th>
<th>(D_1 = \frac{U + L}{2N})</th>
<th>(D_p = \frac{U - L}{N})</th>
<th>Item omitted/ selected</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>25</td>
<td>20</td>
<td>.90</td>
<td>.20</td>
<td>O</td>
</tr>
<tr>
<td>2</td>
<td>25</td>
<td>21</td>
<td>.92</td>
<td>.16</td>
<td>O</td>
</tr>
<tr>
<td>3</td>
<td>25</td>
<td>18</td>
<td>.86</td>
<td>.28</td>
<td>O</td>
</tr>
<tr>
<td>4</td>
<td>25</td>
<td>16</td>
<td>.82</td>
<td>.36</td>
<td>O</td>
</tr>
<tr>
<td>5</td>
<td>23</td>
<td>15</td>
<td>.76</td>
<td>.32</td>
<td>O</td>
</tr>
<tr>
<td>6</td>
<td>25</td>
<td>17</td>
<td>.84</td>
<td>.32</td>
<td>S</td>
</tr>
<tr>
<td>7</td>
<td>25</td>
<td>16</td>
<td>.82</td>
<td>.36</td>
<td>S</td>
</tr>
<tr>
<td>8</td>
<td>23</td>
<td>9</td>
<td>.64</td>
<td>.56</td>
<td>S</td>
</tr>
<tr>
<td>9</td>
<td>24</td>
<td>10</td>
<td>.68</td>
<td>.56</td>
<td>S</td>
</tr>
<tr>
<td>10</td>
<td>22</td>
<td>7</td>
<td>.58</td>
<td>.60</td>
<td>S</td>
</tr>
</tbody>
</table>
### SECTION – I

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>U</th>
<th>L</th>
<th>$D_1 = \frac{U+L}{2N}$</th>
<th>$D_p = \frac{U-L}{N}$</th>
<th>Item omitted/ selected</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>24</td>
<td>8</td>
<td>.64</td>
<td>.64</td>
<td>S</td>
</tr>
<tr>
<td>2</td>
<td>23</td>
<td>15</td>
<td>.76</td>
<td>.32</td>
<td>S</td>
</tr>
<tr>
<td>3</td>
<td>18</td>
<td>11</td>
<td>.58</td>
<td>.28</td>
<td>O</td>
</tr>
<tr>
<td>4</td>
<td>20</td>
<td>17</td>
<td>.74</td>
<td>.12</td>
<td>O</td>
</tr>
<tr>
<td>5</td>
<td>17</td>
<td>10</td>
<td>.54</td>
<td>.28</td>
<td>O</td>
</tr>
<tr>
<td>6</td>
<td>23</td>
<td>11</td>
<td>.68</td>
<td>.48</td>
<td>S</td>
</tr>
<tr>
<td>7</td>
<td>22</td>
<td>16</td>
<td>.76</td>
<td>.24</td>
<td>O</td>
</tr>
<tr>
<td>8</td>
<td>22</td>
<td>14</td>
<td>.72</td>
<td>.32</td>
<td>O</td>
</tr>
<tr>
<td>9</td>
<td>24</td>
<td>10</td>
<td>.68</td>
<td>.56</td>
<td>S</td>
</tr>
<tr>
<td>10</td>
<td>23</td>
<td>8</td>
<td>.62</td>
<td>.60</td>
<td>S</td>
</tr>
</tbody>
</table>

### SECTION – J

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>U</th>
<th>L</th>
<th>$D_1 = \frac{U+L}{2N}$</th>
<th>$D_p = \frac{U-L}{N}$</th>
<th>Item omitted/ selected</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>23</td>
<td>9</td>
<td>.64</td>
<td>.56</td>
<td>S</td>
</tr>
<tr>
<td>2</td>
<td>25</td>
<td>10</td>
<td>.70</td>
<td>.60</td>
<td>S</td>
</tr>
<tr>
<td>3</td>
<td>20</td>
<td>4</td>
<td>.48</td>
<td>.64</td>
<td>S</td>
</tr>
<tr>
<td>4</td>
<td>10</td>
<td>5</td>
<td>.30</td>
<td>.20</td>
<td>O</td>
</tr>
<tr>
<td>5</td>
<td>12</td>
<td>5</td>
<td>.34</td>
<td>.28</td>
<td>O</td>
</tr>
<tr>
<td>6</td>
<td>13</td>
<td>4</td>
<td>.34</td>
<td>.36</td>
<td>S</td>
</tr>
<tr>
<td>7</td>
<td>12</td>
<td>8</td>
<td>.40</td>
<td>.16</td>
<td>O</td>
</tr>
<tr>
<td>8</td>
<td>9</td>
<td>6</td>
<td>.30</td>
<td>.12</td>
<td>O</td>
</tr>
<tr>
<td>9</td>
<td>16</td>
<td>3</td>
<td>.38</td>
<td>.52</td>
<td>S</td>
</tr>
<tr>
<td>10</td>
<td>11</td>
<td>4</td>
<td>.30</td>
<td>.28</td>
<td>O</td>
</tr>
</tbody>
</table>
This is a test intended to know your ability in the fundamental operations with numbers and your understanding of number concepts and relationships. For each question, 4 choices are given, indicated by A, B, C and D only one answer will be correct. Find out the answer for each question and put the mark 'X' on the appropriate letter against each question in the answer sheet. Separate answer sheet will be provided for answering. Do not make any mark on the question paper. If you want to change your answer put a \( \square \) (a small square) on 'X' and then put another 'X' against the correct answer.

**Model**

Simplify \( 2 + 4 + 3 \)

A 6  B 7  C 9  D 5

The correct answer is '9' indicated by the letter C. Hence put the mark 'X' on C.

In this test there are 10 sections. In each section the operations with numbers are different. Carefully read the questions and answer all the given questions in each section.
SECTION - A

(In this section five questions are given. In each case find out the place value of the underlined digit)

1. 87961
   
   [ A tens B hundreds C thousands D ten thousands]

2. 123640
   
   [ A hundreds B thousands C ten thousands D lakhs ]

3. 356721
   
   [ A hundreds B thousands C ten thousands D lakhs ]

4. 165802793
   
   [ A lakhs B ten lakhs C crores D ten crores ]

5. 24018697
   
   [ A lakhs B ten lakhs C crores D ten crores ]

SECTION B.

(Find out the correct numerical form from the bracket)

1. Nine thousand nine hundred
   
   [ A 0990 B 10010 C 9009 D 9900]

2. Ten thousand one
   
   [ A 10100 B 10010 C 1001 D 10001]

3. one lakh
   
   [ A 1000 B 10000 C 100000 D 1000000 ]

4. Forty thousand two hundred and five.
   
   [ A 400205 B 40205 C 40205 D 4025 ]

5. Nine hundred thousand
   
   [ A 9000000 B 900000 C 90000 D 9000 ]
SECTION C

(Simplify the given questions using the fundamental operation addition, and choose the correct answer from the bracket)

1. 12531 + 3407
   [A 15938  B 16938  C 15838  D 15948 ]

2. 1432 + 809 + 189
   [A. 2330  B 2428  C 1430  D 2430 ]

3. 10001 + 9999
   [A 19991  B 199991  C 2000  D 20000 ]

4. 243563 + 124138
   [A 266701  B 367701  C 267601  D 267791 ]

5. 731034 + 10991 + 327897
   [ A 969922  B 1069922  C 1068922  D 1069822 ]

SECTION D

(Simplify the given five questions and pick out the correct answer from bracket)

1. 9367 - 7347
   [ A 1020  B 2010  C 2020  D 2030 ]

2. 3000 - 40
   [A 2960  B 2860  C 2950  D 2940 ]

3. 37100 - 765
   [ A 3635  B 35335  C 36345  D 36335 ]

4. 10001 - 99
   [ A 9802  B 9901  C 9902  D 8902 ]

5. 287321 - 163804
   [ A 123507  B 123517  C 123417  D 123527 ]
SECTION E
(Choose the correct answer from the four given choices by finding the product of the given numbers)

1. 3493 x 0
   [A 3493  B 3494  C 3495  D 0 ]
2. 234 x 3
   [A 468  B 234  C 702  D 237 ]
3. 825 x 15
   [A 4550  B 4875  C 5200  D 340 ]
4. 74 x 42
   [A 2108  B 3108  C 3008  D 3118 ]
5. 437 x 111
   [A 49507  B 48407  C 48507  D 48307 ]

SECTION F
(Divide the following numbers and find out the quotient in each case)

1. 0 ÷ 87
   [A 1  B 0  C 8  D 7 ]
2. 373 ÷ 10
   [A 3730  B 373  C 37  D 3 ]
3. 72 ÷ 12
   [A 84  B 4  C 5  D 6 ]
4. 1650 ÷ 50
   [A 33  B 30  C 40  D 32 ]
5. 1989 ÷ 9
   [A 219  B 221  C 231  D 211 ]
SECTION G

(Identify the correct symbol from the bracket to fill the blank in each case)

1. $76 \ldots \ldots \ldots \ldots \ldots \ldots 67$
   
   \[ A = \quad B < \quad C > \quad D \leq \] 

2. $106 \ldots \ldots \ldots 160$
   
   \[ A > \quad B \geq \quad C = \quad D \leq \] 

3. $7654 \ldots \ldots \ldots 7560$
   
   \[ A = \quad B > \quad C < \quad D \geq \] 

4. $78031\ldots\ldots30470$
   
   \[ A > \quad B < \quad C = \quad D \leq \] 

5. $583456\ldots\ldots583564$
   
   \[ A \leq \quad B < \quad C > \quad D = \] 

SECTION H

(For each five question choose the correct predecessor from the bracket)

1. $2$
   
   \[ A \ 0 \quad B \ 1 \quad C \ 2 \quad D \ 3 \] 

2. $10$
   
   \[ A \ 9 \quad B \ 10 \quad C \ 11 \quad D \ 0 \] 

3. $481$
   
   \[ A \ 491 \quad B \ 482 \quad C \ 480 \quad D \ 479 \] 

4. $2670$
   
   \[ A \ 2671 \quad B \ 2670 \quad C \ 2669 \quad D \ 2660 \] 

5. $10000$
   
   \[ A \ 10001 \quad B \ 99999 \quad C \ 999 \quad D \ 9999 \]
SECTION I
(Carefully study each series and find out the missing number)

1. 78 76 74 ....
   [ A 70 B 72 C 73 D 75 ]
2. 25 50 75 ....
   [ A 0 B 1 C 100 D 90 ]
3. 3727 3728 3729 .......
   [ A 3730 B 3739 C 3829 D 3720 ]
4. 2007 3007 4007 .......
   [ A 4006 B 4008 C 4017 D 5007 ]
5. 48156 58156 68156 .......
   [ A 78156 B 69156 C 68256 D 68166 ]

SECTION J
(Five questions are given, pick out the correct answer to fill the blanks)

1. 1 metre = ........ centimeters
   [ A 1 B 10 C 100 D 1000 ]
2. 1 Kilogram = ........ grams
   [ A 1 B 10 C 100 D 1000 ]
3. ........ liter = 1 kilolitre.
   [ A 1000 B 100 C 10 D 1 ]
4. 1 hectometre = 10 ........
   [ A kilolitre B decametre C metre D decimetre ]
5. 1000 litre = 1 ........
   [ A kilolitre B hectoliter C decalitre D litre ]
APPENDIX - V A

DEPARTMENT OF EDUCATION
UNIVERSITY OF CALICUT

TEST OF ACHIEVEMENT IN MATHEMATICS FOR UPPER PRIMARY PUPILS.

INSTRUCTIONS

Time: 2 hour

This is a test in fractions and decimals. Answer all the questions. Do not write anything in the question paper. Write your answers in the answer sheet provided. The serial number of the questions are given in the answer sheet. For each question it is written A,B,C and D in the answer sheet. Find out the correct answer for each questions and put a mark 'X' against the correct letter A, B, C or D in the response sheet. If you want to change your answers, put a (a small square) on your 'X' and then put another 'X' against the correct answer.

Model.

Four fractions are given below. Find out the highest fraction among them.

\[
\frac{4}{7} \quad \frac{4}{10} \quad \frac{4}{8} \quad \frac{4}{9}
\]

\[
\{ A \frac{4}{7} \quad B \frac{4}{8} \quad C \frac{4}{9} \quad D \frac{4}{10} \}\]

Mark your answer like this

Q. No: \ A \quad B \quad C \quad D

The correct answer is \(\frac{4}{7}\) indicated by the letter A. Put the mark 'X' on A. Similarly answer all the questions.
For figures are given under each question in 1 to 3. In each which one among the given figures is equally divided.

1. A □ □ □ □ B □ □ □ □ C □ □ □ □ D □ □ □ □

2. A □ □ □ □ B □ □ □ □ C □ □ □ □ D □ □ □ □

3. A □ □ □ □ B □ □ □ □ C □ □ □ □ D □ □ □ □

Write the fraction of the shaded portions or object in the given figures in questions 4, 5 and 6. In each question 4 fractions are given, only one is correct.

4. \[
\{ A \frac{3}{4} \quad B \frac{1}{4} \quad C \frac{1}{3} \quad D \frac{4}{1} \}\]

5. \[
\{ A \frac{4}{6} \quad B \frac{6}{2} \quad C \frac{2}{6} \quad D \frac{6}{4} \}\]

6. □ □ □ □ □ □ □ □

\[
\{ A \frac{3}{6} \quad B \frac{2}{6} \quad C \frac{4}{6} \quad D \frac{1}{6} \}\]

Four fractions are given in questions 7 and 8 find out the correct fraction.

7. Numerator is 3 and denominator is 7

\[
\{ A \frac{7}{3} \quad B \frac{3}{7} \quad C 3.7 \quad D 7.3 \}\]

8. Two -fifth, the correct fraction is

\[
\{ A 2.5 \quad B \frac{5}{2} \quad C 5.2 \quad D \frac{2}{5} \}\]

In questions 9, 10, 11 and 12 find out the correct figure indicating the given fraction

9. \[
\frac{1}{2} \quad \{ A \heartsuit \quad B \heartsuit \quad C \heartsuit \quad D \heartsuit \}\]
Choose the correct example from the bracket for the questions 13 to 18.

13. Like fractions
   \[ \left\{ \begin{array}{c}
   A \frac{2}{7} \frac{1}{7} \\
   B \frac{2}{7} \frac{7}{4} \\
   C \frac{7}{2} \frac{4}{7} \\
   D \frac{7}{2} \frac{7}{4} 
   \end{array} \right. \]

14. Unlike fractions
   \[ \left\{ \begin{array}{c}
   A \frac{2}{7} \frac{4}{7} \\
   B \frac{2}{7} \frac{4}{7} \\
   C \frac{2}{2} \frac{4}{2} \\
   D \frac{7}{2} \frac{7}{4} 
   \end{array} \right. \]

15. Proper fraction
   \[ \left\{ \begin{array}{c}
   A \frac{4}{5} \\
   B \frac{5}{4} \\
   C \frac{4}{4} \\
   D \frac{5}{5} 
   \end{array} \right. \]

16. Improper fraction
   \[ \left\{ \begin{array}{c}
   A \frac{4}{5} \\
   B \frac{5}{4} \\
   C \frac{4}{4} \\
   D \frac{5}{5} 
   \end{array} \right. \]

17. Mixed fraction
   \[ \left\{ \begin{array}{c}
   A \frac{6}{6} \\
   B \frac{6}{7} \\
   C \frac{7}{6} \\
   D \frac{1}{6} 
   \end{array} \right. \]

18. Unit fraction
   \[ \left\{ \begin{array}{c}
   A \frac{6}{6} \\
   B \frac{6}{7} \\
   C \frac{7}{6} \\
   D \frac{1}{6} 
   \end{array} \right. \]

19. Which is the correct fraction of \( \frac{20}{3} \) is converted to a mixed fraction.
   \[ \left\{ \begin{array}{c}
   A 2 \frac{3}{6} \\
   B 3 \frac{2}{6} \\
   C 6 \frac{2}{3} \\
   D \frac{3}{2} 
   \end{array} \right. \]
20. Which is the correct fraction among the given fractions if \(7 \frac{1}{3}\) is converted in to improper fraction

\[
\begin{align*}
& \text{A} \quad \frac{3}{22} \\
& \text{B} \quad \frac{11}{3} \\
& \text{C} \quad \frac{21}{3} \\
& \text{D} \quad \frac{22}{3}
\end{align*}
\]

Four fractions are given in questions 21 and 22. Find out the smallest fractions among the given.

21. \(\frac{3}{5} \quad \frac{1}{5} \quad \frac{4}{5} \quad \frac{2}{5}\)

\[
\begin{align*}
& \text{A} \quad \frac{1}{5} \\
& \text{B} \quad \frac{2}{5} \\
& \text{C} \quad \frac{3}{5} \\
& \text{D} \quad \frac{4}{5}
\end{align*}
\]

22. \(\frac{6}{4} \quad \frac{6}{3} \quad \frac{6}{5} \quad \frac{6}{2}\)

\[
\begin{align*}
& \text{A} \quad \frac{6}{2} \\
& \text{B} \quad \frac{6}{3} \\
& \text{C} \quad \frac{6}{4} \\
& \text{D} \quad \frac{6}{5}
\end{align*}
\]

For the questions 23 and 24 find out the highest fraction from the given four fractions.

23. \(\frac{2}{4} \quad \frac{1}{4} \quad \frac{3}{4} \quad \frac{4}{4}\)

\[
\begin{align*}
& \text{A} \quad \frac{1}{4} \\
& \text{B} \quad \frac{2}{4} \\
& \text{C} \quad \frac{3}{4} \\
& \text{D} \quad \frac{4}{4}
\end{align*}
\]

24. \(\frac{7}{4} \quad \frac{7}{3} \quad \frac{7}{1} \quad \frac{7}{2}\)

\[
\begin{align*}
& \text{A} \quad \frac{7}{1} \\
& \text{B} \quad \frac{7}{2} \\
& \text{C} \quad \frac{7}{3} \\
& \text{D} \quad \frac{7}{4}
\end{align*}
\]

For questions 25 to 27, indentify the correct fraction.

25. If \(\frac{2}{1}\) = 1, then what is \(\frac{1}{2}\)?

\[
\begin{align*}
& \text{A} \quad \frac{2}{1} \\
& \text{B} \quad \frac{1}{2} \\
& \text{C} \quad 2 \\
& \text{D} \quad 1
\end{align*}
\]

26. If \(\frac{3}{1}\) = 1, then what is \(\frac{4}{3}\)

\[
\begin{align*}
& \text{A} \quad 3 \\
& \text{B} \quad \frac{4}{3} \\
& \text{C} \quad \frac{3}{4} \\
& \text{D} \quad \frac{1}{3}
\end{align*}
\]

27. If \(\frac{3}{3}\) = 1, then what is \(\frac{9}{3}\)?

\[
\begin{align*}
& \text{A} \quad 3 \\
& \text{B} \quad \frac{9}{3} \\
& \text{C} \quad \frac{3}{9} \\
& \text{D} \quad \frac{1}{3}
\end{align*}
\]
28. Choose the correct symbol to match the blank

\[ \frac{6}{9} \text{ ...... } \frac{4}{9} \]

\{ A > B < C = D \text{ none of these} \}

29. Find the number of objects in \( \frac{1}{4} \) part of the given collection

\[ \triangle \triangle \triangle \triangle \triangle \triangle \triangle \triangle \triangle \]

\{ A 12 \quad B 6 \quad C 4 \quad D 3 \}

30. Which of the given fraction is equal to 2 \( \frac{1}{3} \)

\{ A \frac{5}{3} \quad B \frac{7}{3} \quad C \frac{2}{3} \quad D \frac{6}{3} \}

From questions 31 to 34 choose the correct fraction from the bracket to fill the blank.

31. \( \frac{3}{7} = \frac{9}{\text{[ ]}} \)

\{ A 7 \quad B 14 \quad C 21 \quad D 3 \}

32. \( 2 \frac{1}{4} = \frac{18}{\text{[ ]}} \)

\{ A 7 \quad B 8 \quad C 9 \quad D 10 \}

33. \( \frac{4}{3} = \frac{15}{\text{[ ]}} \)

\{ A 5 \quad B 15 \quad C 10 \quad D 20 \}

34. \( \frac{9}{2} = \frac{1}{\text{[ ]}} \)

\{ A 4 \quad B 3 \quad C 2 \quad D 5 \}

35. Which of the given fraction is equal to \( -\frac{2}{3} \)

\{ A \frac{2}{3} \quad B \frac{4}{9} \quad C \frac{20}{30} \quad D \frac{6}{6} \}

36. Which is the equivalent fraction of \( \frac{1}{2} \) from the given number line.

\[ \frac{0}{4} \quad \frac{1}{4} \quad \frac{2}{4} \quad \frac{3}{4} \quad \frac{4}{4} \]

\{ A \frac{1}{4} \quad B \frac{2}{4} \quad C \frac{3}{4} \quad D \frac{4}{4} \}
37. If the fractions $\frac{2}{7}$, $\frac{2}{5}$, $\frac{2}{4}$, $\frac{2}{6}$ are arranged in the ascending order.

\[
\{ \begin{align*}
A & \quad \frac{2}{7} \quad \frac{2}{6} \quad \frac{2}{5} \quad \frac{2}{4} \\
B & \quad \frac{2}{7} \quad \frac{2}{5} \quad \frac{2}{6} \quad \frac{2}{4} \\
C & \quad \frac{2}{4} \quad \frac{2}{7} \quad \frac{2}{5} \quad \frac{2}{6} \\
D & \quad \frac{2}{4} \quad \frac{2}{5} \quad \frac{2}{6} \quad \frac{2}{7}
\end{align*} \}
\]

38. If the fractions $\frac{7}{10}$, $\frac{9}{10}$, $\frac{6}{10}$, $\frac{8}{10}$ are arranged in the descending order.

\[
\{ \begin{align*}
A & \quad \frac{7}{10} \quad \frac{9}{10} \quad \frac{8}{10} \quad \frac{6}{10} \\
B & \quad \frac{6}{10} \quad \frac{7}{10} \quad \frac{8}{10} \quad \frac{9}{10} \\
C & \quad \frac{9}{10} \quad \frac{8}{10} \quad \frac{7}{10} \quad \frac{6}{10} \\
D & \quad \frac{8}{10} \quad \frac{6}{10} \quad \frac{7}{10} \quad \frac{9}{10}
\end{align*} \}
\]

39. Questions 39 to 41 choose the correct number from the bracket to make the fractions equal.

\[6 \quad \square \quad 5 = 7\]

\{A 4 \quad B 5 \quad C 6 \quad D 7\}

40. \(11 = 10 \quad \square \quad 6\)

\{A 3 \quad B 4 \quad C 5 \quad D 6\}

41. \(15 \quad \frac{5}{10} = 14 \quad \square \quad \frac{10}{10}\)

\{A 5 \quad B 1 \quad C 10 \quad D 15\}
42. Find the fraction in between $\frac{5}{8}$ and $\frac{3}{4}$ having 32 as denominator.

\[ \begin{array}{cccc}
A & 18 & B & 22 \\
32 & 32 & C & 20 \\
& 32 & D & 26 \\
\end{array} \]

Which whole number for make the statement true for questions 43 and 44.

43. \[ \frac{4}{9} = \ \Box \]

\[ \begin{array}{cccc}
A & 36 & B & 16 \\
& 81 & C & 6 \\
\end{array} \]

44. \[ \frac{2}{\Box} = \ \frac{8}{8} \]

\[ \begin{array}{cccc}
A & 4 & B & 10 \\
& 16 & C & 64 \end{array} \]

From questions 44 to 48 fill in the blanks by choosing the correct number from the bracket.

45. \[ \frac{5}{9} + \Box = \frac{8}{9} \]

\[ \begin{array}{cccc}
A & 9 & B & 8 \\
& 5 & C & 3 \\
\end{array} \]

46. \[ \frac{11}{15} - \frac{7}{5} = \Box \]

\[ \begin{array}{cccc}
A & 3 & B & 4 \\
& 7 & C & 11 \\
\end{array} \]

47. \[ \frac{1}{7} + \frac{2}{7} + \Box = \frac{6}{7} \]

\[ \begin{array}{cccc}
A & 1 & B & 2 \\
& 3 & C & 6 \\
\end{array} \]

48. \[ \Box - \frac{1}{4} = \frac{2}{4} \]

\[ \begin{array}{cccc}
A & 3 & B & 2 \\
& 1 & C & 4 \\
\end{array} \]

49. Is the value of $\frac{2}{5} + \frac{2}{5} + \frac{2}{3}$ equal to $3 \times \frac{2}{5}$

\[ \begin{array}{cccc}
A & \text{true} & B & \text{false} \\
& \text{none of these} & C & \text{all the above} \\
\end{array} \]

50. Which is the lowest form of the fraction $\frac{4}{16}$

\[ \begin{array}{cccc}
A & \frac{4}{8} & B & \frac{2}{4} \\
& \frac{2}{8} & C & \frac{1}{4} \\
\end{array} \]

Simplify the questions 51 to 62

51. \[ 5 \frac{1}{4} + 4 \frac{1}{5} \]

\[ \begin{array}{cccc}
A & \frac{9}{9} & B & \frac{189}{20} \\
& \frac{1}{4} & C & \frac{9}{4} \\
& \frac{1}{5} & D & \frac{9}{5} \end{array} \]
52. \( \frac{2}{3} + 3 \frac{1}{2} \)
\{ A \frac{37}{6} \quad B \frac{3}{5} \quad C \frac{37}{6} \quad D 5 \frac{3}{3} \ \}

53. \( \frac{5}{8} - \frac{1}{4} \)
\{ A \frac{3}{4} \quad B \frac{4}{4} \quad C \frac{8}{3} \quad D \frac{3}{8} \ \}

54. \( 3 \frac{1}{2} - 2 \frac{1}{3} \)
\{ A \frac{1}{2} \quad B \frac{7}{6} \quad C \frac{1}{3} \quad D \frac{7}{3} \ \}

55. \( 4 \frac{1}{5} - 3 \frac{1}{3} \)
\{ A \frac{13}{15} \quad B \frac{7}{6} \quad C \frac{1}{3} \quad D \frac{7}{3} \ \}

56. \( 4 \frac{1}{2} \times 5 \)
\{ A 20 \frac{1}{2} \quad B 4 \frac{5}{2} \quad C 4 \frac{1}{10} \quad D 22 \frac{1}{2} \ \}

57. \( \frac{2}{5} \div \frac{4}{15} \)
\{ A \frac{8}{5} \quad B \frac{2}{3} \quad C \frac{3}{2} \quad D \frac{8}{15} \ \}

58. \( 4 \frac{1}{2} \times 2 \frac{2}{9} \)
\{ A \frac{8}{18} \quad B \frac{10}{1} \quad C 4 \frac{1}{18} \quad D 8 \frac{1}{18} \ \}

59. \( \frac{1}{7} \times \frac{28}{3} \)
\{ A \frac{28}{7} \quad B \frac{28}{3} \quad C \frac{28}{10} \quad D \frac{4}{3} \ \}

60. \( \frac{3}{5} \div 3 \)
\{ A \frac{1}{5} \quad B \frac{9}{5} \quad C \frac{3}{15} \quad D \frac{5}{3} \ \}

61. \( 10 \frac{1}{2} \div 3 \frac{1}{2} \)
\{ A 3 \quad B 30 \frac{1}{2} \quad C 30 \frac{1}{4} \quad D \frac{10}{3} \ \}
62. \( \frac{5 \frac{1}{3}}{3} \div \frac{1}{3} \)

\[ \{ A \quad \frac{16}{9} \quad B \quad \frac{1}{5} \quad C \quad 5 \quad D \quad 16 \} \]

_In questions 63 to 68 some statements are given choose the correct answer from the bracket._

63. When are multiply the numerator and denominator with same number are will get an equivalent fraction

\[ \begin{align*}
A & \quad \text{always false} \\
B & \quad \text{always true} \\
C & \quad \text{sometimes false} \\
D & \quad \text{sometimes true}
\end{align*} \]

64. The product of the fractional number and the multiplicative inverse of the fractional number will be one

\[ \begin{align*}
A & \quad \text{always true} \\
B & \quad \text{sometimes true} \\
C & \quad \text{may be true} \\
D & \quad \text{none of these}
\end{align*} \]

65. A number has only one multiplicative inverse.

\[ \begin{align*}
A & \quad \text{false} \\
B & \quad \text{true} \\
C & \quad \text{sometimes false} \\
D & \quad \text{sometimes true}
\end{align*} \]

66. If the cross product of two fractional number are equal then the fractions are equivalent fractions.

\[ \begin{align*}
A & \quad \text{always true} \\
B & \quad \text{sometimes true} \\
C & \quad \text{always false} \\
D & \quad \text{sometimes false}
\end{align*} \]

67. Fractions with different denominators are called like fractions

\[ \begin{align*}
A & \quad \text{sometimes true} \\
B & \quad \text{sometimes false} \\
C & \quad \text{always true} \\
D & \quad \text{always false}
\end{align*} \]

68. One is the only number whose multiplicative inverse is not a fractional number

\[ \begin{align*}
A & \quad \text{Both true and false} \\
B & \quad \text{false} \\
C & \quad \text{true} \\
D & \quad \text{none of these}
\end{align*} \]

69. Paul had a rope of 3 1/2 m length and Rahim 3 1/4 m length, whose rope is longer.

\[ \begin{align*}
A & \quad \text{Rahim} \\
B & \quad \text{Paul} \\
C & \quad \text{Equal} \\
D & \quad \text{none of these}
\end{align*} \]

70. Which are the fractions whose sum is 1 and difference is ——

\[ \{ A \quad 1, \frac{1}{2} \quad B \quad \frac{1}{4} \quad \frac{3}{4} \quad C \quad \frac{2}{3} \quad \frac{1}{2} \quad D \quad \frac{1}{2} \quad \frac{1}{4} \} \]

71. Which mixed numeral with only odd digits, so that the mixed numeral represents an even whole number.

\[ \{ A \quad 1 \frac{9}{3} \quad B \quad 1 \frac{3}{9} \quad C \quad 3 \frac{1}{9} \quad D \quad 9 \frac{1}{3} \} \]

_In questions 72 to 74, number series are given. Find out the correct number to fill the blank._
75. Study the pattern of the fractions given below:

\[
\frac{1}{2} = \frac{1}{2} \\
\frac{1}{2} + \frac{1}{4} = \frac{3}{4} \\
\frac{1}{2} + \frac{1}{4} + \frac{1}{8} = \frac{7}{8} \\
\frac{1}{2} + \frac{1}{4} + \frac{1}{8} + \frac{1}{16} = \frac{15}{16}
\]

Applying the pattern, find out the answer for the given question.

\[
\frac{1}{2} + \frac{1}{4} + \frac{1}{8} + \frac{1}{16} + \frac{1}{32} = \text{.................}
\]

\[
\{ A \frac{31}{32} \quad B \frac{31}{24} \quad C \frac{22}{24} \quad D \frac{22}{32} \}
\]

Find out the decimal for the given in questions 76 to 80

76. \( \frac{7}{100} \)

\{ A .07 \quad B .007 \quad C .7 \quad D 7.0 \}

77. \( \frac{9}{10} \)

\{ A 91.0 \quad B 9.01 \quad C 9.1 \quad D .91 \}

78. 8 tens + 4 ones + 6 tenths

\{ A 84.06 \quad B .846 \quad C 8.46 \quad D 84.6 \}
79. 6 tens + 9 thousandths
   \{A 60.09 \hspace{0.5cm} B 60.009 \hspace{0.5cm} C 60.9 \hspace{0.5cm} D 60.090\}

80. If \( \frac{1}{100} \) = 1 then what is \( \frac{1}{10} \) ?
   \{A 0.002 \hspace{0.5cm} B 2.0 \hspace{0.5cm} C 0.2 \hspace{0.5cm} D 0.02\}

81. \( \frac{1}{10} \) = 1, what is \( \frac{1}{100} \) ?
   \{A 0.6 \hspace{0.5cm} B 0.3 \hspace{0.5cm} C 3.5 \hspace{0.5cm} D 5.3\}

For questions 82 and 83 find the correct fraction.

82. 0.50
   \(\left\{\begin{array}{lll} A \frac{50}{10} & B \frac{5}{10} & C \frac{5}{100} & D \frac{50}{1000}\end{array}\right\}\)

83. 7.04
   \(\left\{\begin{array}{lll} A \frac{704}{1000} & B \frac{74}{1000} & C \frac{4}{10} & D \frac{7}{100}\end{array}\right\}\)

Find out place value of the digit underlined in the given decimals for questions 84 and 85.

84. 28.64
   \{A thousandth \hspace{0.5cm} B hundredth \hspace{0.5cm} C ones \hspace{0.5cm} D tenth\}

85. 8.009
   \{A tenth \hspace{0.5cm} B hundredth \hspace{0.5cm} C thousandth \hspace{0.5cm} D hundred\}

Find an equivalent decimal for the given decimal.

86. 0.6
   \{A 0.06 \hspace{0.5cm} B 0.60 \hspace{0.5cm} C 6.06 \hspace{0.5cm} D 6.60\}

Find out the decimal for the given decimal.

87. 1.72
   \{A 17.2 \hspace{0.5cm} B .172 \hspace{0.5cm} C 3.45 \hspace{0.5cm} D 8.9\}

Questions 88 to 94 fill in the blanks

88. 0.13 = 0.013, It is ............
   \{A always false \hspace{0.5cm} B always true \hspace{0.5cm} C sometimes true \hspace{0.5cm} D may be true\}

89. 0.9 = 0.900 It is ............
   \{A always false \hspace{0.5cm} B sometimes false \hspace{0.5cm} C sometimes true \hspace{0.5cm} D always true\}

90. 3.620 kg = ........
    \{A 3620 gm \hspace{0.5cm} B 3 gm 620 kg \hspace{0.5cm} C 3kg 620kg \hspace{0.5cm} D 3gm 620gm\}

91. 21.03 = ........
    \{A 21 m 3 cm \hspace{0.5cm} B 2103 mm \hspace{0.5cm} C 21mm 3cm \hspace{0.5cm} D 21.03 mm\}
92. Rs 10.75 = .......... 
   A 10.75 paisee  B 1075 rupees  C 107500 paisee  D 1075 paisee 

93. 23.50 lt. = ...... 
   A 2350 ml.  B 2350 lt  C .2350 lt  D 235000 lt 

94. 7.705 km 
   A 7705 km  B 7.705 m  C 7705 m  D 77.05 m 

Questions 95 to 99, write the given in appropriate units 

95. 50.400 km 
   A 50400 km  B 50.4 km  C 50km 4m  D 50km 400m 

96. 7.3 cm 
   A 73cm  B 7.3cm  C 73mm  D 7cm 3mm 

97. 74.050 kg 
   A 74kg 05 gm  B 74kg 50 gm  C 74kg 5 gm  D 74kg 500 gm 

98. 8.360 lt 
   A 81 36 ml  B 8360 l  C 81036 ml  D 81360 ml 

99. 3.47 m 
   A 3m 47 cm  B 347 m  C 3 cm 47 m  D 3 m 047 cm 

Questions 100 to 102, fill in the blanks. 

100. 10 thousandth = 1 ............ 
   A tenth  B hundredth  C thousandth  D one 

101. 10 hundredth = 1............ 
   A ten  B one  C tenth  D hundredth 

102. .......... tenth = 1 one 
   A 0  B 1  C 10  D 100 

In questions 103 to 110 fill the blanks using appropriate symbol. 

103. 0.875........0.857 
   A >  B =  C <  D none of these 

104. 65.087........65.0870 
   A >  B <  C #  D = 

105. 12.125 ............ 12.215 
   A >  B <  C =  D none of these 

106. 18.7 ............ 18.699 
   A =  B <  C >  D none of these 

107. 14.7.......... 14.81 
   A >  B <  C =  D none of these
Choose the correct answer from the bracket for questions 111 to 115

111. The place value of a digit becomes one-tenth as the digit moves from left to right by one place.
   \{ A always false \quad B always true \quad C sometimes false \quad D sometimes true \}

112. A decimal number has two parts- a whole number part and a decimal part.
   \{ A always true \quad B always false \quad C sometimes true \quad D sometimes false \}

113. Decimals having same number of decimal place are called like decimals
   \{ A Sometimes true \quad B sometimes false \quad C always true \quad D always false \}

114. Unlike decimals may or may not be equivalent decimals.
   \{ A false \quad B true \quad C sometimes false \quad D none of these \}

115. Adding zeros after the extreme right digit of a decimal number part changes its value.
   \{ A true \quad B sometimes true \quad C may be true \quad D false \}

116. Which is an unlike decimal for the given decimal 15.01
   \{ A 15.001 \quad B 1.501 \quad C 15.10 \quad D 10.15 \}

For questions 117 and 118 arrange the decimal in the ascending order

117. \( 98.11, \ 65.45, \ 101.61, \ 6.05 \)
   \{ A \ 101.61, \ 98.11, \ 65.45, \ 6.05 \}
   \{ B \ 6.05, \ 65.45, \ 98.11, \ 101.61 \}
   \{ C \ 101.61, \ 65.45, \ 98.11, \ 6.05 \}
   \{ D \ 6.05, \ 98.11, \ 65.45, \ 101.61 \}

118. \( 2.8, \ 2.47, \ 2.01, \ 2 \)
   \{ A \ 2, \ 2.01, \ 2.47, \ 2.8 \}
   \{ B \ 2.01, \ 2, \ 2.47, \ 2.8 \}
   \{ C \ 2.8, \ 2.47, \ 2, \ 2.01 \}
   \{ D \ 2.8, \ 2.47, \ 2.01, \ 2 \}
119. Arrange the decimals in the descending order
25.251, 25.521, 25.125, 25.215

\{ A \ 25.125, 25.215, 25.521, 25.521
B \ 25.125, 25.521, 25.215, 25.521
C \ 25.521, 25.251, 25.215, 25.125
D \ 25.521, 25.215, 25.251, 25.125 \}

Simplify questions 120 to 137

120. 0.1 + 0.9
\{ A 0.10 B 1.1 C 10 D 1 \}

121. 0.4 + 0.73
\{ A 2.113 B 3.13 C 2.77 D 2.33 \}

122. 17.13 + 13.07
\{ A 30.137 B 20.20 C 30.20 D 30.110 \}

123. 10.23 + 3.01 + 2.1
\{ A 15.34 B 15.1124 C 15.43 D 16 \}

124. 8.6 - 4.3
\{ A 4.3 B 3.4 C 4.2 D 3.2 \}

125. 7.87 - 5.09
\{ A 1.87 B 1.88 C 1.78 D 2.78 \}

126. 5.07 - 4.2
\{ A 0.78 B 0.87 C 1.87 D 1.05 \}

127. 24.59 \times 10
\{ A 2.459 B 24.59 C 245.9 D 2459 \}

128. 8.30 \times 2
\{ A 1.660 B 16.06 C 1.66 D 16.6 \}

129. 6.03 \times 100
\{ A 6030 B 603 C 60.3 D 6.03 \}

130. 0.2 \times 0.3
\{ A 0.06 B 0.6 C 0.006 D 6 \}

131. 0.07 \times 0.8
\{ A 0.56 B 0.0056 C 5.6 D 0.056 \}

132. 2.4 \div 6
\{ A 40 B 4 C 0.4 D 0.04 \}

133. 8.64 \div .02
\{ A 4320 B 432 C 43.2 D 4.32 \}
134. 0.5 ÷ 0.25
{ A 20  B 0.2  C 0.02  D 2 }  
135. 0.8 ÷ 4
{ A 0.2  B 0.02  C 2  D 20 }  
136. 36 ÷ 0.6
{ A 60  B 6  C 600  D 0.6 }  
137. 0.12 ÷ 3
{ A 40  B 4  C 0.4  D 0.04 }  
138. 25 ÷ 0.05
{ A 5000  B 500  C 50  D 5 }  
139. Which of the following gives 36 as the quotient
{ A 0.216 ÷ 0.006  
    B 0.216 ÷ 0.06  
    C 0.216 ÷ 0.6  
    D 0.216 ÷ 6 }  
140. Which of the following gives 15 as the quotient
{ A 13.5 ÷ 9  
    B 13.5 ÷ 0.9  
    C 13.5 ÷ 0.09  
    D 13.5 ÷ 0.009 }  
Given 286 × 11 = 3146 and 286 ÷ 11 = 26

*Find the value of each for questions 141 to 146*

141. 2.86 × 0.11
{ A 0.3146  B 3.146  C 31.46  D 0.03146 }  
142. 286 × 0.11
{ A 3146  B 314.6  C 3.146  D 31.46 }  
143. 28.6 × 1.1
{ A 3.146  B 314.6  C 31.46  D 0.3146 }  
144. 28.6 ÷ 0.11
{ A 0.26  B 260  C 26  D 2.6 }  
145. 2.86 ÷ 1.1
{ A 0.26  B 2.6  C 26  D 260 }  
146. 2.86 ÷ 11
{ 0.26  B 2.6  C 26  D 260 }
Questions 147 to 150, simplify.

147. \(12 - 8 \div 4 \times 2\)
   \[
   \{ \text{A} \ 2 \quad \text{B} \ 11 \quad \text{C} \ 4 \quad \text{D} \ 8 \}\n   
   148. \ 12 - 9 \div 3 + 4 \times 2\)
   \[
   \{ \text{A} \ \frac{3}{11} \quad \text{B} \ 7 \quad \text{C} \ 1 \quad \text{D} \ 10 \}\n   
   149. \ \frac{1}{2} + \frac{3}{10} \div \frac{3}{5} - \frac{1}{3} \times \frac{5}{2}\)
   \[
   \{ \text{A} \ \frac{5}{2} \quad \text{B} \ \frac{1}{6} \quad \text{C} \ \frac{5}{3} \quad \text{D} \ \frac{1}{2} \}\n   
   150. \ 2.2 \div 0.2 \times 2.0 + 2\)
   \[
   \{ \text{A} \ 24 \quad \text{B} \ 1.05 \quad \text{C} \ 26 \quad \text{D} \ 2.75 \}\n   

NUMERICAL ABILITY TEST
SCORE SHEET

Name...........................................School..............................................

Std: & Division................................Boy/Girl..............................................

<table>
<thead>
<tr>
<th>SECTION A</th>
<th>SECTION B</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 A B C D</td>
<td>1 A B C D</td>
</tr>
<tr>
<td>2 A B C D</td>
<td>2 A B C D</td>
</tr>
<tr>
<td>3 A B C D</td>
<td>3 A B C D</td>
</tr>
<tr>
<td>4 A B C D</td>
<td>4 A B C D</td>
</tr>
<tr>
<td>5 A B C D</td>
<td>5 A B C D</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SECTION C</th>
<th>SECTION D</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 A B C D</td>
<td>1 A B C D</td>
</tr>
<tr>
<td>2 A B C D</td>
<td>2 A B C D</td>
</tr>
<tr>
<td>3 A B C D</td>
<td>3 A B C D</td>
</tr>
<tr>
<td>4 A B C D</td>
<td>4 A B C D</td>
</tr>
<tr>
<td>5 A B C D</td>
<td>5 A B C D</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SECTION E</th>
<th>SECTION F</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 A B C D</td>
<td>1 A B C D</td>
</tr>
<tr>
<td>2 A B C D</td>
<td>2 A B C D</td>
</tr>
<tr>
<td>3 A B C D</td>
<td>3 A B C D</td>
</tr>
<tr>
<td>4 A B C D</td>
<td>4 A B C D</td>
</tr>
<tr>
<td>5 A B C D</td>
<td>5 A B C D</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SECTION G</th>
<th>SECTION H</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 A B C D</td>
<td>1 A B C D</td>
</tr>
<tr>
<td>2 A B C D</td>
<td>2 A B C D</td>
</tr>
<tr>
<td>3 A B C D</td>
<td>3 A B C D</td>
</tr>
<tr>
<td>4 A B C D</td>
<td>4 A B C D</td>
</tr>
<tr>
<td>5 A B C D</td>
<td>5 A B C D</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SECTION I</th>
<th>SECTION J</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 A B C D</td>
<td>1 A B C D</td>
</tr>
<tr>
<td>2 A B C D</td>
<td>2 A B C D</td>
</tr>
<tr>
<td>3 A B C D</td>
<td>3 A B C D</td>
</tr>
<tr>
<td>4 A B C D</td>
<td>4 A B C D</td>
</tr>
<tr>
<td>5 A B C D</td>
<td>5 A B C D</td>
</tr>
</tbody>
</table>
## APPENDIX – V B

**DEPARTMENT OF EDUCATION**

**CALICUT UNIVERSITY**

RESULT OF ITEM ANALYSIS OF ACHIEVEMENT IN
MATHEMATICAL SKILLS

<table>
<thead>
<tr>
<th>Sl.No.</th>
<th>U</th>
<th>L</th>
<th>( U+L ) ( \frac{D_t}{2N} )</th>
<th>( U-L ) ( \frac{D_p}{N} )</th>
<th>Item Omitted/Selected</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>21</td>
<td>16</td>
<td>.74</td>
<td>.20</td>
<td>O</td>
</tr>
<tr>
<td>2</td>
<td>23</td>
<td>19</td>
<td>.84</td>
<td>.16</td>
<td>O</td>
</tr>
<tr>
<td>3</td>
<td>23</td>
<td>17</td>
<td>.80</td>
<td>.24</td>
<td>O</td>
</tr>
<tr>
<td>4</td>
<td>22</td>
<td>12</td>
<td>.68</td>
<td>.40</td>
<td>S</td>
</tr>
<tr>
<td>5</td>
<td>21</td>
<td>12</td>
<td>.66</td>
<td>.36</td>
<td>S</td>
</tr>
<tr>
<td>6</td>
<td>25</td>
<td>14</td>
<td>.78</td>
<td>.44</td>
<td>S</td>
</tr>
<tr>
<td>7</td>
<td>25</td>
<td>15</td>
<td>.80</td>
<td>.40</td>
<td>S</td>
</tr>
<tr>
<td>8</td>
<td>24</td>
<td>12</td>
<td>.72</td>
<td>.48</td>
<td>S</td>
</tr>
<tr>
<td>9</td>
<td>20</td>
<td>8</td>
<td>.56</td>
<td>.48</td>
<td>S</td>
</tr>
<tr>
<td>10</td>
<td>24</td>
<td>15</td>
<td>.78</td>
<td>.36</td>
<td>S</td>
</tr>
<tr>
<td>11</td>
<td>25</td>
<td>14</td>
<td>.78</td>
<td>.44</td>
<td>S</td>
</tr>
<tr>
<td>12</td>
<td>25</td>
<td>15</td>
<td>.80</td>
<td>.40</td>
<td>S</td>
</tr>
<tr>
<td>13</td>
<td>23</td>
<td>8</td>
<td>.62</td>
<td>.60</td>
<td>S</td>
</tr>
<tr>
<td>14</td>
<td>24</td>
<td>9</td>
<td>.66</td>
<td>.60</td>
<td>S</td>
</tr>
<tr>
<td>15</td>
<td>19</td>
<td>9</td>
<td>.56</td>
<td>.40</td>
<td>S</td>
</tr>
<tr>
<td>16</td>
<td>22</td>
<td>10</td>
<td>.64</td>
<td>.48</td>
<td>S</td>
</tr>
<tr>
<td>17</td>
<td>25</td>
<td>11</td>
<td>.72</td>
<td>.56</td>
<td>S</td>
</tr>
<tr>
<td>18</td>
<td>22</td>
<td>20</td>
<td>.84</td>
<td>.56</td>
<td>S</td>
</tr>
<tr>
<td>19</td>
<td>21</td>
<td>6</td>
<td>.54</td>
<td>.60</td>
<td>S</td>
</tr>
<tr>
<td>20</td>
<td>24</td>
<td>10</td>
<td>.68</td>
<td>.56</td>
<td>S</td>
</tr>
<tr>
<td>21</td>
<td>15</td>
<td>7</td>
<td>.44</td>
<td>.32</td>
<td>S</td>
</tr>
<tr>
<td>22</td>
<td>10</td>
<td>8</td>
<td>.36</td>
<td>.08</td>
<td>S</td>
</tr>
<tr>
<td>23</td>
<td>18</td>
<td>11</td>
<td>.58</td>
<td>.28</td>
<td>S</td>
</tr>
<tr>
<td>24</td>
<td>16</td>
<td>5</td>
<td>.42</td>
<td>.44</td>
<td>S</td>
</tr>
<tr>
<td></td>
<td>19</td>
<td>12</td>
<td>.62</td>
<td>.28</td>
<td>S</td>
</tr>
<tr>
<td>----</td>
<td>----</td>
<td>----</td>
<td>-----</td>
<td>-----</td>
<td>---</td>
</tr>
<tr>
<td>25</td>
<td>17</td>
<td>2</td>
<td>.38</td>
<td>.60</td>
<td>S</td>
</tr>
<tr>
<td>26</td>
<td>12</td>
<td>3</td>
<td>.30</td>
<td>.36</td>
<td>S</td>
</tr>
<tr>
<td>27</td>
<td>21</td>
<td>13</td>
<td>.68</td>
<td>.32</td>
<td>S</td>
</tr>
<tr>
<td>28</td>
<td>17</td>
<td>4</td>
<td>.42</td>
<td>.52</td>
<td>S</td>
</tr>
<tr>
<td>29</td>
<td>23</td>
<td>14</td>
<td>.74</td>
<td>.36</td>
<td>S</td>
</tr>
<tr>
<td>30</td>
<td>22</td>
<td>13</td>
<td>.70</td>
<td>.36</td>
<td>S</td>
</tr>
<tr>
<td>31</td>
<td>21</td>
<td>9</td>
<td>.60</td>
<td>.48</td>
<td>S</td>
</tr>
<tr>
<td>32</td>
<td>24</td>
<td>14</td>
<td>.76</td>
<td>.40</td>
<td>S</td>
</tr>
<tr>
<td>33</td>
<td>22</td>
<td>8</td>
<td>.60</td>
<td>.56</td>
<td>S</td>
</tr>
<tr>
<td>34</td>
<td>22</td>
<td>14</td>
<td>.72</td>
<td>.32</td>
<td>S</td>
</tr>
<tr>
<td>35</td>
<td>22</td>
<td>18</td>
<td>.80</td>
<td>.16</td>
<td>O</td>
</tr>
<tr>
<td>36</td>
<td>15</td>
<td>6</td>
<td>.42</td>
<td>.36</td>
<td>S</td>
</tr>
<tr>
<td>37</td>
<td>15</td>
<td>7</td>
<td>.44</td>
<td>.32</td>
<td>S</td>
</tr>
<tr>
<td>38</td>
<td>17</td>
<td>5</td>
<td>.54</td>
<td>.48</td>
<td>O</td>
</tr>
<tr>
<td>39</td>
<td>19</td>
<td>12</td>
<td>.62</td>
<td>.28</td>
<td>O</td>
</tr>
<tr>
<td>40</td>
<td>7</td>
<td>4</td>
<td>.22</td>
<td>.12</td>
<td>O</td>
</tr>
<tr>
<td>41</td>
<td>15</td>
<td>5</td>
<td>.40</td>
<td>.40</td>
<td>S</td>
</tr>
<tr>
<td>42</td>
<td>20</td>
<td>13</td>
<td>.66</td>
<td>.28</td>
<td>O</td>
</tr>
<tr>
<td>43</td>
<td>16</td>
<td>10</td>
<td>.52</td>
<td>.24</td>
<td>O</td>
</tr>
<tr>
<td>44</td>
<td>25</td>
<td>15</td>
<td>.80</td>
<td>.40</td>
<td>S</td>
</tr>
<tr>
<td>45</td>
<td>25</td>
<td>13</td>
<td>.76</td>
<td>.48</td>
<td>S</td>
</tr>
<tr>
<td>46</td>
<td>23</td>
<td>12</td>
<td>.70</td>
<td>.44</td>
<td>O</td>
</tr>
<tr>
<td>47</td>
<td>20</td>
<td>12</td>
<td>.64</td>
<td>.32</td>
<td>S</td>
</tr>
<tr>
<td>48</td>
<td>14</td>
<td>6</td>
<td>.40</td>
<td>.32</td>
<td>S</td>
</tr>
<tr>
<td>49</td>
<td>23</td>
<td>10</td>
<td>.66</td>
<td>.72</td>
<td>S</td>
</tr>
<tr>
<td>50</td>
<td>15</td>
<td>6</td>
<td>.42</td>
<td>.36</td>
<td>S</td>
</tr>
<tr>
<td>51</td>
<td>18</td>
<td>4</td>
<td>.44</td>
<td>.56</td>
<td>S</td>
</tr>
<tr>
<td>52</td>
<td>14</td>
<td>6</td>
<td>.40</td>
<td>.32</td>
<td>S</td>
</tr>
<tr>
<td>53</td>
<td>21</td>
<td>9</td>
<td>.60</td>
<td>.48</td>
<td>S</td>
</tr>
<tr>
<td>54</td>
<td>22</td>
<td>8</td>
<td>.60</td>
<td>.56</td>
<td>S</td>
</tr>
<tr>
<td>55</td>
<td>16</td>
<td>8</td>
<td>.48</td>
<td>.32</td>
<td>S</td>
</tr>
<tr>
<td>56</td>
<td>18</td>
<td>6</td>
<td>.48</td>
<td>.48</td>
<td>S</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>----</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
</tr>
<tr>
<td>58</td>
<td>15</td>
<td>5</td>
<td>.40</td>
<td>.40</td>
<td>.40</td>
</tr>
<tr>
<td>59</td>
<td>20</td>
<td>12</td>
<td>.64</td>
<td>.32</td>
<td>.32</td>
</tr>
<tr>
<td>60</td>
<td>20</td>
<td>7</td>
<td>.54</td>
<td>.52</td>
<td>.52</td>
</tr>
<tr>
<td>61</td>
<td>21</td>
<td>9</td>
<td>.60</td>
<td>.48</td>
<td>.48</td>
</tr>
<tr>
<td>62</td>
<td>18</td>
<td>7</td>
<td>.50</td>
<td>.44</td>
<td>.44</td>
</tr>
<tr>
<td>63</td>
<td>15</td>
<td>6</td>
<td>.42</td>
<td>.36</td>
<td>.36</td>
</tr>
<tr>
<td>64</td>
<td>14</td>
<td>6</td>
<td>.40</td>
<td>.32</td>
<td>.32</td>
</tr>
<tr>
<td>65</td>
<td>19</td>
<td>11</td>
<td>.60</td>
<td>.32</td>
<td>.32</td>
</tr>
<tr>
<td>66</td>
<td>11</td>
<td>3</td>
<td>.28</td>
<td>.28</td>
<td>.28</td>
</tr>
<tr>
<td>67</td>
<td>22</td>
<td>14</td>
<td>.72</td>
<td>.32</td>
<td>.32</td>
</tr>
<tr>
<td>68</td>
<td>19</td>
<td>4</td>
<td>.46</td>
<td>.60</td>
<td>.60</td>
</tr>
<tr>
<td>69</td>
<td>25</td>
<td>14</td>
<td>.78</td>
<td>.44</td>
<td>.44</td>
</tr>
<tr>
<td>70</td>
<td>14</td>
<td>7</td>
<td>.42</td>
<td>.20</td>
<td>.20</td>
</tr>
<tr>
<td>71</td>
<td>15</td>
<td>8</td>
<td>.46</td>
<td>.28</td>
<td>.28</td>
</tr>
<tr>
<td>72</td>
<td>16</td>
<td>10</td>
<td>.52</td>
<td>.24</td>
<td>.24</td>
</tr>
<tr>
<td>73</td>
<td>14</td>
<td>7</td>
<td>.42</td>
<td>.28</td>
<td>.28</td>
</tr>
<tr>
<td>74</td>
<td>18</td>
<td>12</td>
<td>.60</td>
<td>.24</td>
<td>.24</td>
</tr>
<tr>
<td>75</td>
<td>2</td>
<td>3</td>
<td>.10</td>
<td>-.02</td>
<td>-.02</td>
</tr>
<tr>
<td>76</td>
<td>19</td>
<td>9</td>
<td>.56</td>
<td>.40</td>
<td>.40</td>
</tr>
<tr>
<td>77</td>
<td>17</td>
<td>6</td>
<td>.46</td>
<td>.44</td>
<td>.44</td>
</tr>
<tr>
<td>78</td>
<td>15</td>
<td>5</td>
<td>.40</td>
<td>.40</td>
<td>.40</td>
</tr>
<tr>
<td>79</td>
<td>20</td>
<td>4</td>
<td>.48</td>
<td>.64</td>
<td>.64</td>
</tr>
<tr>
<td>80</td>
<td>15</td>
<td>8</td>
<td>.46</td>
<td>.28</td>
<td>.28</td>
</tr>
<tr>
<td>81</td>
<td>4</td>
<td>3</td>
<td>.14</td>
<td>.04</td>
<td>.04</td>
</tr>
<tr>
<td>82</td>
<td>14</td>
<td>6</td>
<td>.40</td>
<td>.32</td>
<td>.32</td>
</tr>
<tr>
<td>83</td>
<td>12</td>
<td>4</td>
<td>.32</td>
<td>.32</td>
<td>.32</td>
</tr>
<tr>
<td>84</td>
<td>22</td>
<td>10</td>
<td>.64</td>
<td>.48</td>
<td>.48</td>
</tr>
<tr>
<td>85</td>
<td>11</td>
<td>3</td>
<td>.28</td>
<td>.32</td>
<td>.32</td>
</tr>
<tr>
<td>86</td>
<td>14</td>
<td>6</td>
<td>.40</td>
<td>.32</td>
<td>.32</td>
</tr>
<tr>
<td>87</td>
<td>14</td>
<td>5</td>
<td>.38</td>
<td>.36</td>
<td>.36</td>
</tr>
<tr>
<td>88</td>
<td>13</td>
<td>10</td>
<td>.46</td>
<td>.12</td>
<td>.12</td>
</tr>
<tr>
<td>89</td>
<td>2</td>
<td>8</td>
<td>.20</td>
<td>-.24</td>
<td>-.24</td>
</tr>
<tr>
<td>90</td>
<td>15</td>
<td>6</td>
<td>.42</td>
<td>.36</td>
<td>.36</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>----</td>
<td>----</td>
<td>----</td>
<td>----</td>
<td>----</td>
<td>----</td>
</tr>
<tr>
<td>91</td>
<td>13</td>
<td>5</td>
<td>.36</td>
<td>.32</td>
<td>S</td>
</tr>
<tr>
<td>92</td>
<td>18</td>
<td>10</td>
<td>.56</td>
<td>.32</td>
<td>S</td>
</tr>
<tr>
<td>93</td>
<td>19</td>
<td>9</td>
<td>.58</td>
<td>.40</td>
<td>S</td>
</tr>
<tr>
<td>94</td>
<td>17</td>
<td>9</td>
<td>.52</td>
<td>.32</td>
<td>S</td>
</tr>
<tr>
<td>95</td>
<td>16</td>
<td>7</td>
<td>.46</td>
<td>.36</td>
<td>S</td>
</tr>
<tr>
<td>96</td>
<td>13</td>
<td>5</td>
<td>.36</td>
<td>.32</td>
<td>S</td>
</tr>
<tr>
<td>97</td>
<td>14</td>
<td>6</td>
<td>.40</td>
<td>.32</td>
<td>S</td>
</tr>
<tr>
<td>98</td>
<td>13</td>
<td>5</td>
<td>.56</td>
<td>.32</td>
<td>S</td>
</tr>
<tr>
<td>99</td>
<td>19</td>
<td>7</td>
<td>.52</td>
<td>.48</td>
<td>S</td>
</tr>
<tr>
<td>100</td>
<td>10</td>
<td>6</td>
<td>.32</td>
<td>.16</td>
<td>O</td>
</tr>
<tr>
<td>101</td>
<td>11</td>
<td>5</td>
<td>.32</td>
<td>.24</td>
<td>O</td>
</tr>
<tr>
<td>102</td>
<td>11</td>
<td>3</td>
<td>.28</td>
<td>.32</td>
<td>O</td>
</tr>
<tr>
<td>103</td>
<td>15</td>
<td>6</td>
<td>.42</td>
<td>.36</td>
<td>S</td>
</tr>
<tr>
<td>104</td>
<td>17</td>
<td>8</td>
<td>.50</td>
<td>.36</td>
<td>S</td>
</tr>
<tr>
<td>105</td>
<td>19</td>
<td>8</td>
<td>.54</td>
<td>.44</td>
<td>S</td>
</tr>
<tr>
<td>106</td>
<td>15</td>
<td>6</td>
<td>.42</td>
<td>.36</td>
<td>S</td>
</tr>
<tr>
<td>107</td>
<td>17</td>
<td>9</td>
<td>.52</td>
<td>.32</td>
<td>S</td>
</tr>
<tr>
<td>108</td>
<td>22</td>
<td>8</td>
<td>.60</td>
<td>.56</td>
<td>S</td>
</tr>
<tr>
<td>109</td>
<td>13</td>
<td>5</td>
<td>.36</td>
<td>.32</td>
<td>S</td>
</tr>
<tr>
<td>110</td>
<td>15</td>
<td>6</td>
<td>.42</td>
<td>.36</td>
<td>S</td>
</tr>
<tr>
<td>111</td>
<td>11</td>
<td>3</td>
<td>.28</td>
<td>.32</td>
<td>O</td>
</tr>
<tr>
<td>112</td>
<td>13</td>
<td>6</td>
<td>.38</td>
<td>.28</td>
<td>O</td>
</tr>
<tr>
<td>113</td>
<td>17</td>
<td>13</td>
<td>.60</td>
<td>.20</td>
<td>O</td>
</tr>
<tr>
<td>114</td>
<td>12</td>
<td>9</td>
<td>.42</td>
<td>.12</td>
<td>O</td>
</tr>
<tr>
<td>115</td>
<td>15</td>
<td>8</td>
<td>.46</td>
<td>.28</td>
<td>O</td>
</tr>
<tr>
<td>116</td>
<td>16</td>
<td>9</td>
<td>.50</td>
<td>.28</td>
<td>O</td>
</tr>
<tr>
<td>117</td>
<td>19</td>
<td>10</td>
<td>.58</td>
<td>.36</td>
<td>S</td>
</tr>
<tr>
<td>118</td>
<td>13</td>
<td>6</td>
<td>.38</td>
<td>.28</td>
<td>O</td>
</tr>
<tr>
<td>119</td>
<td>16</td>
<td>6</td>
<td>.44</td>
<td>.40</td>
<td>S</td>
</tr>
<tr>
<td>120</td>
<td>14</td>
<td>6</td>
<td>.40</td>
<td>.32</td>
<td>S</td>
</tr>
<tr>
<td>121</td>
<td>12</td>
<td>4</td>
<td>.32</td>
<td>.32</td>
<td>S</td>
</tr>
<tr>
<td>122</td>
<td>18</td>
<td>7</td>
<td>.50</td>
<td>.44</td>
<td>S</td>
</tr>
<tr>
<td>123</td>
<td>20</td>
<td>11</td>
<td>.62</td>
<td>.36</td>
<td>S</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>124</td>
<td>20</td>
<td>11</td>
<td>.62</td>
<td>.36</td>
<td>S</td>
</tr>
<tr>
<td>125</td>
<td>18</td>
<td>10</td>
<td>.56</td>
<td>.32</td>
<td>S</td>
</tr>
<tr>
<td>126</td>
<td>14</td>
<td>6</td>
<td>.40</td>
<td>.32</td>
<td>S</td>
</tr>
<tr>
<td>127</td>
<td>13</td>
<td>5</td>
<td>.36</td>
<td>.32</td>
<td>S</td>
</tr>
<tr>
<td>128</td>
<td>11</td>
<td>3</td>
<td>.28</td>
<td>.32</td>
<td>S</td>
</tr>
<tr>
<td>129</td>
<td>14</td>
<td>8</td>
<td>.44</td>
<td>.32</td>
<td>S</td>
</tr>
<tr>
<td>130</td>
<td>16</td>
<td>8</td>
<td>.48</td>
<td>.32</td>
<td>S</td>
</tr>
<tr>
<td>131</td>
<td>16</td>
<td>8</td>
<td>.48</td>
<td>.44</td>
<td>S</td>
</tr>
<tr>
<td>132</td>
<td>17</td>
<td>7</td>
<td>.48</td>
<td>.32</td>
<td>S</td>
</tr>
<tr>
<td>133</td>
<td>13</td>
<td>5</td>
<td>.36</td>
<td>.32</td>
<td>S</td>
</tr>
<tr>
<td>134</td>
<td>13</td>
<td>5</td>
<td>.56</td>
<td>.32</td>
<td>S</td>
</tr>
<tr>
<td>135</td>
<td>5</td>
<td>4</td>
<td>.36</td>
<td>.04</td>
<td>S</td>
</tr>
<tr>
<td>136</td>
<td>5</td>
<td>6</td>
<td>.22</td>
<td>-.04</td>
<td>O</td>
</tr>
<tr>
<td>137</td>
<td>12</td>
<td>6</td>
<td>.36</td>
<td>.24</td>
<td>O</td>
</tr>
<tr>
<td>138</td>
<td>7</td>
<td>5</td>
<td>.24</td>
<td>.08</td>
<td>O</td>
</tr>
<tr>
<td>139</td>
<td>9</td>
<td>2</td>
<td>.22</td>
<td>.28</td>
<td>O</td>
</tr>
<tr>
<td>140</td>
<td>7</td>
<td>5</td>
<td>.24</td>
<td>.08</td>
<td>O</td>
</tr>
<tr>
<td>141</td>
<td>10</td>
<td>4</td>
<td>.28</td>
<td>.24</td>
<td>O</td>
</tr>
<tr>
<td>142</td>
<td>11</td>
<td>5</td>
<td>.32</td>
<td>.24</td>
<td>O</td>
</tr>
<tr>
<td>143</td>
<td>12</td>
<td>6</td>
<td>.36</td>
<td>.24</td>
<td>O</td>
</tr>
<tr>
<td>144</td>
<td>10</td>
<td>6</td>
<td>.32</td>
<td>.20</td>
<td>O</td>
</tr>
<tr>
<td>145</td>
<td>6</td>
<td>4</td>
<td>.20</td>
<td>.08</td>
<td>O</td>
</tr>
<tr>
<td>146</td>
<td>11</td>
<td>4</td>
<td>.30</td>
<td>.28</td>
<td>O</td>
</tr>
<tr>
<td>147</td>
<td>14</td>
<td>4</td>
<td>.36</td>
<td>.40</td>
<td>S</td>
</tr>
<tr>
<td>148</td>
<td>17</td>
<td>6</td>
<td>.46</td>
<td>.44</td>
<td>S</td>
</tr>
<tr>
<td>149</td>
<td>13</td>
<td>5</td>
<td>.36</td>
<td>.32</td>
<td>S</td>
</tr>
<tr>
<td>150</td>
<td>12</td>
<td>2</td>
<td>.28</td>
<td>.40</td>
<td>S</td>
</tr>
</tbody>
</table>
INSTRUCTIONS

Time: 2 hour

This is a test in fractions and decimals. Answer all the questions. Do not write anything in the question paper. Write your answers in the answer sheet provided. The serial number of the questions are given in the answer sheet. For each question it is written A, B, C and D in the answer sheet. Find out the correct answer for each questions and put a mark 'X' against the correct letter A, B, C or D in the response sheet. If you want to change your answers, put a (a small square) on your 'X' and then put another 'X' against the correct answer.

Model.

Four fractions are given below. Find out the highest fraction among them.

\[ \frac{4}{7}, \frac{4}{10}, \frac{4}{8}, \frac{4}{9} \]

\[ \{ A \frac{4}{7}, B \frac{4}{8}, C \frac{4}{9}, D \frac{4}{10} \} \]

Mark your answer like this

Q. No: \[ \_X \_A \_B \_C \_D \]

The correct answer is \( \frac{4}{7} \) indicated by the letter A. Put the mark 'X' on A. Similarly answer all the questions.
Write the fraction of the shaded portions or objects in the given figures in questions 1, 2 & 3. In each question 4 fractions are given, only one is correct.

1. \[
\{A \frac{3}{4}, \quad B \frac{1}{4}, \quad C \frac{1}{3}, \quad D \frac{4}{1}\}
\]

2. \[
\{A \frac{4}{6}, \quad B \frac{6}{2}, \quad C \frac{2}{6}, \quad D \frac{6}{4}\}
\]

3. \[
\{A \frac{3}{6}, \quad B \frac{2}{6}, \quad C \frac{4}{6}, \quad D \frac{1}{6}\}
\]

Four fractions are given in questions 4 and 5 find out the correct fraction.

4. Numerator is 3 and denominator is 7

\[
\{A \frac{7}{3}, \quad B \frac{3}{7}, \quad C 3.7, \quad D 7.3\}
\]

5. Two-fifth, the correct fraction is

\[
\{A 2.5, \quad B \frac{5}{2}, \quad C 5.2, \quad D \frac{2}{5}\}
\]

In questions 6, 7, 8 and 9 find out the correct figure indicating the given fraction

6. \[
\{A \heartsuit, \quad B \heartsuit, \quad C \heartsuit, \quad D \heartsuit\}
\]

7. \[
\{A \frac{3}{4}, \quad B \frac{3}{4}, \quad C \frac{3}{4}, \quad D \frac{3}{4}\}
\]
10. Find the number of objects in \( \frac{1}{4} \) part of the given collection

\( \triangle \triangle \triangle \triangle \)
\( \triangle \triangle \triangle \triangle \)
\( \triangle \triangle \triangle \triangle \)

\{A 12 B 6 C 4 D 3\}

Choose the correct example from the bracket for the questions 11 to 15.

11. Like fractions

\[ \{A \frac{2}{7} \frac{4}{7} B \frac{2}{7} \frac{7}{4} C \frac{7}{2} \frac{4}{7} D \frac{7}{2} \frac{7}{4}\} \]

12. Unlike fractions

\[ \{A \frac{2}{7} \frac{4}{7} B \frac{2}{4} \frac{4}{4} C \frac{2}{2} \frac{4}{2} D \frac{7}{2} \frac{7}{4}\} \]

13. Proper fraction

\[ \{A \frac{4}{5} B \frac{5}{4} C \frac{4}{4} D \frac{5}{5}\} \]

14. Improper fraction

\[ \{A \frac{4}{5} B \frac{5}{4} C \frac{4}{4} D \frac{5}{5}\} \]

15. Mixed fraction

\[ \{A \frac{6}{6} B \frac{6}{7} C \frac{7}{6} D 1 \frac{1}{6}\} \]

16. Which is the correct fraction of \( \frac{20}{3} \) if it is converted into a mixed fraction.

\[ \{A 2 \frac{3}{6} B 3 \frac{2}{6} C 6 \frac{2}{3} D 6 \frac{3}{2}\} \]
17. Which is the correct fraction if $\frac{7}{3}$ is converted into an improper fraction

\[
\left\{ \begin{array}{cccc}
A & \frac{3}{2} & B & \frac{11}{3} \\
C & \frac{21}{3} & D & \frac{22}{3}
\end{array} \right. \}
\]

Four fractions are given find out the smallest fractions among the them.

18. $\frac{3}{5}$  $\frac{1}{5}$  $\frac{4}{5}$  $\frac{2}{5}$

\[
\left\{ \begin{array}{cccc}
A & \frac{1}{5} & B & \frac{2}{5} \\
C & \frac{3}{5} & D & \frac{4}{5}
\end{array} \right. \}
\]

19. $\frac{7}{4}$  $\frac{7}{3}$  $\frac{7}{1}$  $\frac{7}{2}$

\[
\left\{ \begin{array}{cccc}
A & \frac{7}{1} & B & \frac{7}{2} \\
C & \frac{7}{3} & D & \frac{7}{4}
\end{array} \right. \}
\]

20. Find the fraction in between $\frac{5}{8}$ and $\frac{3}{4}$ having 32 as denominator.

\[
\left\{ \begin{array}{cccc}
A & \frac{18}{32} & B & \frac{22}{32} \\
C & \frac{20}{32} & D & \frac{22}{32}
\end{array} \right. \}
\]

21. Choose the correct symbol to match the blank

\[
\frac{6}{9} \ldots \ldots \frac{4}{9}
\]

\{A > B < C = D none of these\}

Questions 22 to 25 choose the correct number from the bracket to fill the blank

22. $\frac{3}{7} = \frac{9}{\Box}$

\{A 7  B 14  C 21  D 3\}

23. $2\frac{1}{4} = \frac{18}{\Box}$

\{A 7  B 8  C 9  D 10\}

24. $\frac{4}{3} = \frac{\Box}{15}$

\{A = 5  B 15  C 10  D 20\}

25. $\frac{9}{2} = \Box \frac{1}{2}$

\{A 4  B 3  C 2  D 5\}
26. Which of the given fraction is equal to \( \frac{2}{3} \)

\[ \{ A \frac{3}{2}, \quad B \frac{4}{9}, \quad C \frac{20}{30}, \quad D \frac{6}{6} \} \]

27. If the fractions \( \frac{2}{7}, \frac{2}{5}, \frac{2}{4}, \frac{2}{6} \) are arranged in the ascending order.

\[ \{ A \frac{2}{7}, \frac{2}{6}, \frac{2}{5}, \frac{2}{4} \} \]

28. If the fractions \( \frac{7}{10}, \frac{9}{10}, \frac{6}{10}, \frac{8}{10} \) are arranged in the descending order.

\[ \{ A \frac{7}{10}, \frac{9}{10}, \frac{8}{10}, \frac{6}{10} \} \]

29. Which is the lowest form of the fraction \( \frac{4}{16} \)

\[ \{ A \frac{4}{8}, \quad B \frac{2}{4}, \quad C \frac{2}{8}, \quad D \frac{1}{4} \} \]

Which whole number for make the statement true for questions 30 and 33.

30. \( \frac{5}{9} + \square = \frac{8}{9} \)

\[ \{ A 9, \quad B 8, \quad C 5, \quad D 3 \} \]
31. \( \frac{11}{15} - \frac{7}{15} = \ \square \ \frac{4}{15} \)
   \( \{ A \ 3 \ \ \ \ \ \ \ B \ 4 \ \ \ \ \ \ C \ 7 \ \ \ \ \ \ D \ 11 \} \)

32. \( \frac{5}{10} + \frac{3}{10} + \frac{2}{10} = \ \square \)
   \( \{ A \ 1 \ \ \ \ \ \ \ B \ 2 \ \ \ \ \ \ C \ 3 \ \ \ \ \ \ D \ 6 \} \)

33. \( \frac{3}{4} - \frac{1}{4} = \ \square \ \frac{2}{4} \)
   \( \{ A \ 3 \ \ \ \ \ \ \ B \ 2 \ \ \ \ \ \ C \ 1 \ \ \ \ \ \ D \ 4 \} \)

34. Is the value of \( \frac{2}{5} + \frac{2}{5} + \frac{2}{5} \) equal to \( 3 \times \ \frac{2}{5} \)?
   \( \{ A \ true \ \ \ \ \ \ B \ false \ \ \ \ \ \ C \ none \ of \ these \ \ \ \ \ \ D \ all \ the \ above \} \)

Simplify the questions 35 to 46.

35. \( 5 \ \frac{1}{4} + 4 \ \frac{1}{5} \)
   \( \{ A \ \frac{189}{20} \ \ \ \ \ \ B \ \frac{9}{4} \ \ \ \ \ \ C \ \frac{189}{20} \ \ \ \ \ \ D \ \frac{9}{4} \ \ \ \ \ \ \} \)

36. \( 2 \ \frac{2}{3} + 3 \ \frac{1}{2} \)
   \( \{ A \ \frac{37}{2} \ \ \ \ \ \ B \ \frac{3}{5} \ \ \ \ \ \ C \ \frac{37}{6} \ \ \ \ \ \ D \ \frac{3}{3} \ \ \ \ \ \ \} \)

37. \( \frac{5}{8} - \frac{1}{4} \)
   \( \{ A \ \frac{3}{4} \ \ \ \ \ \ B \ \frac{4}{4} \ \ \ \ \ \ C \ \frac{8}{3} \ \ \ \ \ \ D \ \frac{3}{8} \ \ \ \ \ \ \} \)

38. \( 3 \ \frac{1}{2} - 2 \ \frac{1}{3} \)
   \( \{ A \ \frac{1}{2} \ \ \ \ \ \ B \ \frac{7}{6} \ \ \ \ \ \ C \ \frac{1}{3} \ \ \ \ \ \ D \ \frac{7}{3} \ \ \ \ \ \ \} \)

39. \( 4 \ \frac{1}{5} - 3 \ \frac{1}{3} \)
   \( \{ A \ \frac{13}{15} \ \ \ \ \ \ B \ \frac{7}{6} \ \ \ \ \ \ C \ \frac{1}{3} \ \ \ \ \ \ D \ \frac{7}{3} \ \ \ \ \ \ \} \)
40. \(4 \frac{1}{2} \times 5\)
   - A 20 \(\frac{1}{2}\)
   - B 4 \(\frac{5}{2}\)
   - C 4 \(\frac{1}{10}\)
   - D 22 \(\frac{1}{2}\)

41. \(\frac{2}{5} \div \frac{4}{15}\)
   - A \(\frac{8}{5}\)
   - B \(\frac{2}{3}\)
   - C \(\frac{3}{2}\)
   - D \(\frac{8}{15}\)

42. \(4 \frac{1}{2} \times 2 \frac{2}{9}\)
   - A \(\frac{8}{18}\)
   - B 10
   - C 4 \(\frac{1}{18}\)
   - D \(\frac{8}{18}\)

43. \(\frac{1}{7} \times \frac{28}{3}\)
   - A \(\frac{28}{7}\)
   - B \(\frac{28}{3}\)
   - C \(\frac{28}{10}\)
   - D \(\frac{4}{3}\)

44. \(\frac{3}{5} \div 3\)
   - A \(\frac{1}{5}\)
   - B \(\frac{9}{5}\)
   - C \(\frac{3}{15}\)
   - D \(\frac{5}{3}\)

45. \(10 \frac{1}{2} \div 3 \frac{1}{5}\)
   - A 3
   - B 30 \(\frac{1}{2}\)
   - C 30 \(\frac{1}{4}\)
   - D \(\frac{10}{3}\)

46. \(5 \frac{1}{3} \div \frac{1}{3}\)
   - A \(\frac{16}{9}\)
   - B \(\frac{1}{5}\)
   - C 5
   - D 16

In questions 47 to 50 some statements are given Choose the correct answer from the bracket.

47. When we multiply the numerator and denominator with same number we will get an equivalent fraction
   - A always false
   - B always true
   - C sometimes false
   - D sometimes true

48. The product of the fractional number and the multiplicative inverse of the fractional number will be one
   - A always true
   - B sometimes true
   - C may be true
   - D none of these
49. A number has only one multiplicative inverse.
   A false         B true         C sometimes false    D sometimes true

50. One is the only number whose multiplicative inverse is not a fractional number
   A Both true and false   B false   C true   D none of these

Find out the decimal for the given in questions 51 to 54

51. \( \frac{7}{100} \)
   A .07   B .007   C .7   D 7.0

52. \( \frac{9}{10} \)
   A 91.0   B 9.01   C 9.1   D .91

53. 8 tens + 4 ones + 6 tenths
   A 84.06   B .846   C 8.46   D 84.6

54. 6 tens + 9 thousandths
   A 60.09   B 60.009   C 60.9   D 60.090

For questions 55 and 56 find the correct fraction.

55. 0.50
   A \( \frac{50}{10} \)   B \( \frac{5}{10} \)   C \( \frac{5}{100} \)   D \( \frac{50}{1000} \)

56. 7.04
   A \( \frac{704}{1000} \)   B \( \frac{74}{1000} \)   C \( \frac{4}{10} \)   D \( \frac{4}{100} \)

Find out place value of the digit underlined in the given decimals for questions 57 and 58.

57. 28.64
   A thousandth   B hundredth   C ones   D tenth

58. 8.009
   A tenth   B hundredth   C thousandth   D hundred

Find an equivalent decimal for the given decimal

59. 0.6
   A 0.06   B 0.60   C 6.06   D 6.60

Find out the like decimal for the given decimal

60. 1.72
   A 17.2   B .172   C 3.45   D 8.9
Questions 61 to 65 fill in the blanks

61. 3.620 kg = ..........  
   {A 3620 gm  B 3 gm 620 kg  C 3kg 620kg  D 3gm 620gm}

62. 21.03 = ..........  
   {A 21 m 3 cm  B 2103 mm  C 21mm 3cm  D 21.03 mm}

63. Rs 10.75 = ..........  
   {A 10.75 paisa  B 1075 rupees  C 107500 paisa  D 1075 paisa}

64. 23.50 lt. = ..........  
   {A 2350 ml.  B 2350 lt  C 2350 lt  D 235000 lt}

65. 7.705 km  
   {A 7705 km  B 7.705 m  C 7705 m  D 77.05 m}

Questions 66 to 70, find the given in appropriate units

66. 50.400 km  
   {A 50400 km  B 50.4 km  C 50km 4m  D 50km 400m}

67. 7.3 cm  
   {A 73cm  B .73cm  C 73mm  D 7cm 3mm}

68. 74.050kg  
   {A 74kg 05gm  B 74kg 50gm  C 74kg 5gm  D 74kg 500 gm}

69. 8.360 lt  
   {A 8lt 36 ml  B 8360 l  C 81036 ml  D 81360 ml}

70. 3.47 m  
   {A 3m 47cm  B 347 m  C 3cm 47m  D 3m 047 cm}

In questions 71 to 78 fill the blanks using appropriate symbol.

71. 0.875......0.857  
   { A >  B =  C <  D none of these}

72. 65.087........65.0870  
   {A >  B <  C #  D =}

73. 12.125 .............. 12.215  
   {A >  B <  C =  D none of these}

74. 18.7 ............ 18.699  
   {A =  B <  C >  D none of these}

75. 14.7........... 14.81  
   { A >  B <  C =  D none of these}
76. \( \frac{3}{10} \) .............. 0.3

\{ A > B < C # D = \}

77. \( \frac{1}{10} \) ........ 0.3

78. 0.6 ........ \( \frac{4}{100} \)

\{ A = B < C > D none of these \}

Arrange the decimals in the ascending order

79. 98.11, 65.45, 101.61, 6.05

\{ A 101.61, 98.11, 65.45, 6.05

B 6.05, 65.45, 98.11, 101.61

C 101.61, 65.45, 98.11, 6.05

D 6.05, 98.11, 65.45, 101.61, \}

80. Arrange the decimals in the descending order

25.251, 25.521, 25.125, 25.215

\{ A 25.125, 25.215, 25.521, 25.521


D 25.521, 25.215, 25.251, 25.125 \}

Simplify questions 81 to 95

81. 0.1 + 0.9

\{ A 0.10 B 1.1 C 10 D 1 \}

82. 0.4 + 0.73

\{ A 2.113 B 3.13 C 2.77 D 2.33 \}

83. 17.13 + 13.07

\{ A 30.137 B 20.20 C 30.20 D 30.110 \}

84. 10.23 + 3.01 + 2.1

\{ A 15.34 B 15.1124 C 15.43 D 16 \}

85. 8.6 - 4.3

\{ A 4.3 B 3.4 C 4.2 D 3.2 \}

86. 7.87 - 5.09

\{ A 1.87 B 1.88 C 1.78 D 2.78 \}

87. 5.07 - 4.2

\{ A 0.78 B 0.87 C 1.87 D 1.05 \}
88. \(24.59 \times 10\)
   { A 2.459 \hspace{1cm} B 24.59 \hspace{1cm} C 245.9 \hspace{1cm} D 2459}

89. \(8.30 \times 2\)
   { A 1.660 \hspace{1cm} B 16.06 \hspace{1cm} C 1.66 \hspace{1cm} D 16.6}

90. \(0.2 \times 0.3\)
   { A 0.06 \hspace{1cm} B 0.6 \hspace{1cm} C 0.006 \hspace{1cm} D 6}

91. \(0.07 \times 0.8\)
   { A 0.56 \hspace{1cm} B 0.0056 \hspace{1cm} C 5.6 \hspace{1cm} D 0.056}

92. \(2.4 \div 6\)
   { A 40 \hspace{1cm} B 4 \hspace{1cm} C 0.4 \hspace{1cm} D 0.04}

93. \(8.64 \div 0.02\)
   { A 4320 \hspace{1cm} B 432 \hspace{1cm} C 43.2 \hspace{1cm} D 4.32}

94. \(0.5 \div 0.25\)
   { A 20 \hspace{1cm} B 0.2 \hspace{1cm} C 0.02 \hspace{1cm} D 2}

95. \(0.8 \div 4\)
   { A 0.2 \hspace{1cm} B 0.02 \hspace{1cm} C 2 \hspace{1cm} D 0.02}

Questions 96 to 100, simplify.

96. \(12 - 8 \div 4 \times 2\)
   { A 2 \hspace{1cm} B 11 \hspace{1cm} C 4 \hspace{1cm} D 8}

97. \(12 - 9 \div 3 + 4 \times 2\)
   { A \(\frac{3}{11}\) \hspace{1cm} B 7 \hspace{1cm} C 1 \hspace{1cm} D 10}

98. \(2 \times 15 + 3 + 4\)
   { A 14 \hspace{1cm} B 10 \hspace{1cm} C \(\frac{30}{7}\) \hspace{1cm} D \(\frac{15}{28}\)}

99. \(\frac{1}{2} + \frac{3}{10} + \frac{3}{5} - \frac{1}{3} \times \frac{5}{2}\)
   { A \(\frac{5}{2}\) \hspace{1cm} B \(\frac{1}{6}\) \hspace{1cm} C \(\frac{5}{3}\) \hspace{1cm} D \(\frac{1}{2}\)}

100. \(2.2 \div 0.2 \times 2.0 + 2\)
    { A 24 \hspace{1cm} B 1.05 \hspace{1cm} C 26 \hspace{1cm} D 2.75}
# APPENDIX V - D

## ACHIEVEMENT TEST IN MATHEMATICS

### SCORE SHEET

<table>
<thead>
<tr>
<th>Name</th>
<th>Boy/Girl</th>
<th>Std &amp; Division</th>
<th>School</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>2</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>3</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>5</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>6</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>7</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>8</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>9</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>10</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>11</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>12</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>13</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>14</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>15</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>16</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>17</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>18</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>19</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>20</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>21</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>22</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>23</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>24</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>25</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>26</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>27</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>28</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>29</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>30</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>31</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>32</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>33</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>34</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>35</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>36</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>37</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>38</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>39</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>40</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>41</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>42</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>43</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>44</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>45</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>46</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>47</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>48</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>49</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>50</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>51</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>52</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>53</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>54</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>55</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>56</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>57</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>58</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>59</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>60</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>61</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>62</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>63</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>64</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>65</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>66</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>67</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>68</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>69</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>70</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>71</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>72</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>73</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>74</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>75</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>76</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>77</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>78</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>79</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>80</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>81</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>82</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>83</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>84</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>85</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>86</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>87</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>88</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>89</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>90</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>91</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>92</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>93</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>94</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>95</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>96</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>97</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>98</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>99</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>100</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
</tbody>
</table>
INSTRUCTIONS

This is a test in fractions and decimals. Answer all the questions. Do not write anything in the question paper. Write your answers in the answer sheet provided. The serial number of the questions are given in the answer sheet. For each question it is written A, B, C and D in the answer sheet. Find out the correct answer for each questions and put a mark 'X' against the correct letter A, B, C or D in the response sheet. If you want to change your answers, put a (a small square) on your 'X' and then put another 'X' against the correct answer.

Model.

Four fractions are given below. Find out the highest fraction among them.

\[
\begin{align*}
\frac{4}{7} & \quad \frac{4}{10} & \quad \frac{4}{8} & \quad \frac{4}{9} \\
A \quad & B \quad & C \quad & D
\end{align*}
\]

Mark your answer like this

Q. No:  \(\times\)  B  C  D

The correct answer is \(\frac{4}{7}\) indicated by the letter A. Put the mark 'X' on A. Similarly answer all the questions.
Write the fraction of the shaded portions or objects in the given figures in questions 1, 2 & 3. In each question 4 fractions are given, only one is correct.

1. \[ \{ \text{A } \frac{3}{4}, \text{ B } \frac{1}{4}, \text{ C } \frac{1}{3}, \text{ D } \frac{4}{1} \} \]

2. \[ \{ \text{A } \frac{1}{6}, \text{ B } \frac{6}{1}, \text{ C } \frac{5}{6}, \text{ D } \frac{6}{5} \} \]

3. \[ \{ \text{A } \frac{3}{6}, \text{ B } \frac{2}{6}, \text{ C } \frac{4}{6}, \text{ D } \frac{1}{6} \} \]

Four fractions are given in questions 4 and 5 find out the correct fraction.

4. Numerator is 4 and denominator is 7

\[ \{ \text{A } \frac{7}{4}, \text{ B } \frac{4}{7}, \text{ C } 4.7, \text{ D } 7.4 \} \]

5. Three-fifth, the correct fraction is

\[ \{ \text{A } 3.5, \text{ B } \frac{5}{3}, \text{ C } 5.3, \text{ D } \frac{3}{5} \} \]

In questions 6, 7, 8 and 9 find out the correct figure indicating the given fraction

6. \[ \frac{1}{2} \]

\[ \{ \text{A } \heartsuit, \text{ B } \heartsuit, \text{ C } \heartsuit, \text{ D } \heartsuit \} \]

7. \[ \frac{4}{4} \]

\[ \{ \text{A } \heartsuit, \text{ B } \heartsuit, \text{ C } \heartsuit, \text{ D } \heartsuit \} \]
10. Find the number of objects in $\frac{1}{3}$ part of the given collection

\[ \triangle \triangle \triangle \triangle \]
\[ \triangle \triangle \triangle \triangle \]
\[ \triangle \triangle \triangle \triangle \]
\{A 12, B 6, C 4, D 3\}

Choose the correct example from the bracket for the questions 11 to 15.

11. Like fractions

\[ \left\{ \begin{array}{ll}
A & \frac{3}{4} \quad \frac{1}{4} \\
B & \frac{3}{4} \quad \frac{4}{1} \\
C & \frac{4}{3} \quad \frac{1}{4} \\
D & \frac{3}{1} \quad \frac{4}{1} \\
\end{array} \right. \]

12. Unlike fractions

\[ \left\{ \begin{array}{ll}
A & \frac{3}{4} \quad \frac{1}{4} \\
B & \frac{1}{3} \quad \frac{4}{3} \\
C & \frac{1}{3} \quad \frac{3}{3} \\
D & \frac{1}{3} \quad \frac{1}{4} \\
\end{array} \right. \]

13. Proper fraction

\[ \left\{ \begin{array}{ll}
A & \frac{3}{4} \\
B & \frac{4}{3} \\
C & \frac{3}{3} \\
D & \frac{4}{4} \\
\end{array} \right. \]

14. Improper fraction

\[ \left\{ \begin{array}{ll}
A & \frac{3}{4} \\
B & \frac{4}{3} \\
C & \frac{3}{3} \\
D & \frac{4}{4} \\
\end{array} \right. \]

15. Mixed fraction

\[ \left\{ \begin{array}{ll}
A & \frac{3}{4} \\
B & \frac{4}{3} \\
C & \frac{3}{3} \\
D & 1 \frac{3}{4} \\
\end{array} \right. \]

16. Which is the correct fraction of $\frac{15}{3}$ if it is converted into a mixed fraction.

\[ \left\{ \begin{array}{ll}
A & 2 \frac{3}{6} \\
B & 3 \frac{2}{6} \\
C & 6 \frac{2}{3} \\
D & 6 \frac{3}{2} \\
\end{array} \right. \]
17. Which is the correct fraction if \(3\frac{2}{3}\) is converted into an improper fraction

\[
\begin{align*}
\{ & A \frac{3}{22}, \quad B \frac{11}{3}, \quad C \frac{21}{3}, \quad D \frac{22}{3} \}
\end{align*}
\]

Four fractions are given find out the smallest fractions among them.

18. \(\frac{3}{7}, \quad \frac{1}{7}, \quad \frac{4}{7}, \quad \frac{2}{7}\)

\[
\begin{align*}
\{ & A \frac{1}{7}, \quad B \frac{2}{7}, \quad C \frac{3}{7}, \quad D \frac{4}{7} \}
\end{align*}
\]

19. \(\frac{5}{4}, \quad \frac{5}{3}, \quad \frac{5}{1}, \quad \frac{5}{2}\)

\[
\begin{align*}
\{ & A \frac{5}{1}, \quad B \frac{5}{2}, \quad C \frac{5}{3}, \quad D \frac{5}{4} \}
\end{align*}
\]

20. Find the fraction in between \(\frac{7}{8}\) and \(\frac{3}{4}\) having 32 as denominator.

\[
\begin{align*}
\{ & A \frac{18}{32}, \quad B \frac{26}{32}, \quad C \frac{20}{32}, \quad D \frac{22}{32} \}
\end{align*}
\]

21. Choose the correct symbol to match the blank

\(\frac{5}{9}\) ....... \(\frac{4}{9}\)

\{ A > \quad B < \quad C = \quad D \ none \ of \ these \}

Questions 22 to 25 choose the correct number from the bracket to fill the blank

22. \(\frac{3}{7} = \frac{6}{\square}\)

\{ A 7 \quad B 14 \quad C 21 \quad D 3 \}

23. \(2 \frac{1}{4} = \frac{27}{\square}\)

\{ A 7 \quad B 8 \quad C 9 \quad D 12 \}

24. \(\frac{4}{3} = \frac{\square}{12}\)

\{ A = 5 \quad B 15 \quad C 16 \quad D 20 \}

25. \(\frac{7}{2} = \frac{1}{\square}\)

\{ A 4 \quad B 3 \quad C \frac{4}{6} \quad D 5 \}
26. Which of the given fraction is equal to $\frac{2}{3}$

\[
\{ \text{A} \frac{2}{3}, \text{B} \frac{4}{9}, \text{C} \frac{4}{6}, \text{D} \frac{6}{6} \}\n\]

27. If the fractions $\frac{3}{7}$, $\frac{3}{5}$, $\frac{3}{4}$, $\frac{3}{6}$ are arranged in the ascending order,

\[
\{ \text{A} \frac{3}{7}, \frac{3}{5}, \frac{3}{4}, \frac{3}{6} \}\n\]

28. If the fractions $\frac{7}{11}$, $\frac{9}{11}$, $\frac{6}{11}$, $\frac{8}{11}$ are arranged in the descending order

\[
\{ \text{A} \frac{7}{11}, \frac{9}{11}, \frac{8}{11}, \frac{6}{11} \}\n\]

29. Which is the lowest form of the fraction $\frac{3}{12}$

\[
\{ \text{A} \frac{4}{8}, \text{B} \frac{2}{4}, \text{C} \frac{2}{8}, \text{D} \frac{1}{4} \}\n\]

Which whole number for make the statement true for questions 30 and 33.

30. $\frac{5}{9} + \boxed{ } = \frac{13}{9}$

\[
\{ \text{A} 9, \text{B} 8, \text{C} 5, \text{D} 3 \}\n\]
31. $\frac{11}{15} - \frac{4}{15} = \frac{\Box}{15}$

\{A 3, B 4, C 7, D 11\}

32. $\frac{1}{6} + \frac{2}{6} + \frac{3}{6} = \frac{\Box}{6}$

\{A 1, B 2, C 3, D 6\}

33. $\frac{\Box}{4} - \frac{1}{4} = \frac{1}{4}$

\{A 3, B 2, C 1, D 4\}

34. Is the value of $\frac{1}{5} + \frac{1}{5} + \frac{1}{5}$ equal to $3 \times \frac{1}{5}$

\{A true, B false, C none of these, D all the above\}

Simplify the questions 35 to 46.

35. $5 \frac{1}{4} + 4 \frac{2}{5}$

\{A $\frac{19}{9}$, B $\frac{193}{20}$, C $\frac{9}{4}$, D $\frac{9}{5}$\}

36. $2 \frac{2}{3} + 1 \frac{1}{2}$

\{A $\frac{37}{2}$, B $\frac{3}{5}$, C $\frac{25}{6}$, D $\frac{3}{3}$\}

37. $\frac{3}{8} - \frac{1}{4}$

\{A $\frac{3}{4}$, B $\frac{4}{4}$, C $\frac{8}{3}$, D $\frac{1}{8}$\}

38. $3 \frac{1}{2} - 1 \frac{1}{3}$

\{A $\frac{1}{2}$, B $\frac{13}{6}$, C $\frac{1}{3}$, D $\frac{7}{3}$\}

39. $4 \frac{1}{5} - 1 \frac{1}{3}$

\{A $\frac{28}{15}$, B $\frac{7}{6}$, C $\frac{1}{3}$, D $\frac{7}{3}$\}
40. \( \frac{4}{2} \times 4 \) 
\( \{ \) A 16 \( \frac{1}{2} \) B 4 \( \frac{5}{2} \) C 4 \( \frac{1}{10} \) D 22 \( \frac{1}{2} \) \( \} \)

41. \( \frac{2}{5} \div \frac{6}{15} \) 
\( \{ \) A \( \frac{8}{5} \) B \( \frac{2}{3} \) C \( \frac{3}{2} \) D 1 \( \} \)

42. \( 4 \frac{1}{2} \times 2 \frac{2}{3} \) 
\( \{ \) A 8 \( \frac{2}{18} \) B 10 C 4 D 8 \( \frac{1}{18} \) \( \} \)

43. \( \frac{1}{7} \times \frac{35}{3} \) 
\( \{ \) A \( \frac{28}{7} \) B \( \frac{5}{3} \) C \( \frac{28}{10} \) D \( \frac{4}{3} \) \( \} \)

44. \( \frac{3}{5} \div \frac{3}{2} \) 
\( \{ \) A \( \frac{2}{5} \) B \( \frac{9}{5} \) C \( \frac{3}{15} \) D \( \frac{5}{3} \) \( \} \)

45. \( 10 \frac{1}{2} \div 1 \frac{3}{4} \) 
\( \{ \) A 3 B 30 \( \frac{1}{2} \) C 30 \( \frac{1}{4} \) D 6 \( \} \)

46. \( 5 \frac{1}{3} \div 1 \frac{1}{3} \) 
\( \{ \) A \( \frac{16}{9} \) B \( \frac{1}{5} \) C 4 D 16 \( \} \)

In questions 47 to 50 some statements are given Choose the correct answer from the bracket.

47. When we multiply the denominator and numerator with same number we will get an equivalent fraction
   A always false B always true
   C sometimes false D sometimes true

48. The product of the fractional number and the multiplicative inverse of the fractional number will be Zero
   A always true B sometimes true
   C may be true D none of these
49. A number has more than one multiplicative inverse.
   A false  B true  C sometimes false  D sometimes true

50. One is the only number whose multiplicative inverse is the number itself.
   A Both true and false  B false  C true  D none of these

Find out the decimal for the given in questions 51 to 54

51. \( \frac{7}{10} \)
   { A .07  B .007  C .7  D 7.0 }

52. \( \frac{9}{100} \)
   { A 91.0  B 9.01  C 9.1  D .91 }

53. 8 tens + 4 oneth + 6 tenths
   { A 84.06  B .846  C 8.46  D 84.6 }

54. 6 tens + 9 hundredths
   { A 60.09  B 60.009  C 60.9  D 60.090 }

For questions 55 and 56 find the correct fraction.

55. 0.50
   \( \left\{ \begin{array}{l} A \frac{50}{10} \\ B \frac{5}{10} \\ C \frac{5}{100} \\ D \frac{50}{1000} \end{array} \right. \)

56. 7.04
   \( \left\{ \begin{array}{l} A \frac{704}{1000} \\ B \frac{74}{1000} \\ C \frac{4}{10} \\ D \frac{74}{100} \end{array} \right. \)

Find out place value of the digit underlined in the given decimals for questions 57 and 58.

57. 28.64
   { A thousandth  B hundredth  C ones  D tenth }

58. 8.009
   { A tenth  B hundredth  C thousandth  D hundred }

Find an equivalent decimal for the given decimal.

59. 0.6
   { A 0.06  B 0.60  C 6.06  D 6.60 }

Find out the like decimal for the given decimal.

60. 1.72
   { A 17.2  B .172  C 3.45  D 8.9 }
Questions 61 to 65 fill in the blanks

61. 4.620 kg = ..........  
   { A 4620 gm  B 4 gm 620 kg  C 4 kg 620 kg  D 4 gm 620 gm }  

62. 51.03 = ..........  
   { A 51 m 3 cm  B 5103 mm  C 51 mm 3 cm  D 51.03 mm }  

63. Rs 30.75 = ..........  
   { A 30.75 paisa  B 3075 rupees  C 307500 paisa  D 3075 paisa }  

64. 83.50 lt = ..........  
   { A 8350 ml  B 8350 lt  C 8350 lt  D 835000 lt }  

65. 1.705 km  
   { A 1705 km  B 1.705 m  C 1705 m  D 17.05 m }  

Questions 66 to 70, find the given in appropriate units

66. 20.400 km  
   { A 20400 km  B 20.4 km  C 20 km 4 m  D 20 km 400 m }  

67. 3.3 cm  
   { A 33 cm  B .33 cm  C 33 mm  D 3 cm 3 mm }  

68. 64.050 kg  
   { A 64 kg 05 gm  B 64 kg 50 gm  C 64 kg 5 gm  D 64 kg 500 gm }  

69. 18.360 lt  
   { A 18 1 36 ml  B 18360 l  C 181036 ml  D 18 1360 ml }  

70. 9.47 m  
   { A 9 m 47 cm  B 947 m  C 9 cm 47 m  D 9 m 047 cm }  

In questions 71 to 78 fill the blanks using appropriate symbol.

71. 0.275 ......0.257  
   { A >  B =  C <  D none of these }  

72. 73.087 ........ 73.0870  
   { A >  B =  C #  D = }  

73. 32.125 ........ 32.215  
   { A >  B =  C =  D none of these }  

74. 48.7 .......... 48.699  
   { A =  B <  C >  D none of these }  

75. 44.7 .......... 44.81  
   { A >  B <  C =  D none of these }
Questions 61 to 65 fill in the blanks

61. 4.620 kg = ..........
   {A 4620 gm  B 4 gm 620 kg  C 4kg 620kg  D 4gm 620gm}

62. 51.03 = ..........
   {A 51 m 3 cm  B 5103 mm  C 51mm 3cm  D 51.03 mm}

63. Rs 30.75 = ..........
   {A 30.75 paissee  B 3075 rupees  C 307500 paissee  D 3075 paissee}

64. 83.50 lt. = ..........
   {A 8350 ml.  B 8350 lt  C 8350 lt  D 835000 lt}

65. 1.705 km
   {A 1705 km  B 1.705 m  C 1705 m  D 17.05 m}

Questions 66 to 70, find the given in appropriate units

66. 20.400 km
   {A 20400 km  B 20.4 km  C 20km 4m  D 20km 400m}

67. 3.3 cm
   {A 33cm  B .33cm  C 33mm  D 3cm 3mm}

68. 64.050 kg
   {A 64kg 05gm  B 64kg 50gm  C 64kg 5gm  D 64kg 500 gm}

69. 18.360 lt
   {A 18 l 36 ml  B 18360 l  C 18 1036 ml  D 181360 ml}

70. 9.47 m
   {A 9m 47cm  B 947 m  C 9cm 47m  D 9m 047 cm}

In questions 71 to 78 fill the blanks using appropriate symbol.

71. 0.275........0.257
   { A >  B =  C <  D none of these}

72. 73.087.........73.0870
   {A >  B <  C #  D =}

73. 32.125 ............. 32.215
   {A >  B <  C =  D none of these}

74. 48.7 .......... 48.699
   {A =  B <  C >  D none of these}

75. 44.7 .......... 44.81
   { A >  B <  C =  D none of these}
76. \[ \frac{7}{10} \] .......... 0.3

{A > B < C # D =}

77. \[ \frac{1}{100} \] ...... 0.3

78. 0.7 .......... \[ \frac{4}{100} \]

{A = B < C > D none of these

Arrange the decimal in the ascending order

79. 68.11, 65.45, 101.61, 26.05

{ A 101.61, 68.11, 65.45, 26.05
   B 26.05, 65.45, 68.11, 101.61
   C 101.61, 65.45, 68.11, 26.05
   D 26.05, 68.11, 65.45, 101.61, }

80. Arrange the decimals in the descending order

55.251, 55.521, 55.125, 55.215

{ A 55.125, 55.215, 55.521, 55.521
   B 55.125, 55.521, 55.215, 55.521
   C 55.521, 55.251, 55.215, 55.125
   D 55.521, 55.215, 55.251, 55.125 }

Simplify questions 81 to 95

81. 0.3 + 0.7

{ A 0.10 B 1.1 C 10 D 1} 

82. 1.4 + 0.73

{ A 2.113 B 2.13 C 2.77 D 2.33} 

83. 22.13 + 13.07

{ A 30.137 B 20.20 C 35.20 D 30.110} 

84. 10.23 + 13.01 + 2.1

{ A 25.34 B 15.1124 C 15.43 D 16} 

85. 7.6 - 4.3

{ A 4.3 B 3.3 C 4.2 D 3.2} 

86. 7.87 - 4.09

{ A 1.87 B 1.88 C 3.78 D 2.78} 

87. 5.07 - 4.2

{ A 0.78 B 6.7 C 1.87 D 1.05}
88. \(24.59 \times 100\)
   \(\{ A 2.459 \quad B 24.59 \quad C 245.9 \quad D 2459\}\)

89. \(8.30 \times .2\)
   \(\{ A 1.660 \quad B 16.06 \quad C 1.66 \quad D 16.6\}\)

90. \(0.2 \times 0.3\)
   \(\{ A 0.06 \quad B 0.6 \quad C 0.006 \quad D 6\}\)

91. \(0.7 \times 0.8\)
   \(\{ A 0.56 \quad B 0.0056 \quad C 5.6 \quad D 0.056\}\)

92. \(2.4 \div 0.6\)
   \(\{ A 40 \quad B 4 \quad C 0.4 \quad D 0.04\}\)

93. \(86.4 \div 0.02\)
   \(\{ A 4320 \quad B 432 \quad C 43.2 \quad D 4.32\}\)

94. \(0.05 \div 0.25\)
   \(\{ A 20 \quad B 0.2 \quad C 0.02 \quad D 2\}\)

95. \(0.08 \div 4\)
   \(\{ A 0.2 \quad B 0.02 \quad C 2 \quad D 20\}\)

Questions 96 to 100, simplify.

96. \(10 - 16 \div 8 \times 2\)
   \(\begin{array}{l}
   (A. 1 \\
   B. 3 \\
   C. 4 \\
   D. 19)
   \end{array}\)

97. \(4 + 2 \times 15 \div 3 - 10\)
   \(\{ A 3 \\
   B 4 \\
   C 10 \\
   D 20\}\)

98. \(1 + 27 \div 9 \times 2 - 4\)
   \(\{ A -5 \\
   B -3 \\
   C 3 \\
   D 4\}\)

99. \(\frac{3}{4} + \frac{5}{8} + \frac{2}{15} - \frac{1}{3}\)
   \(\{ A 1 \\
   B 3 \\
   C \frac{13}{15} \\
   D \frac{26}{3}\}\)

100. \(2.2 \div 0.2 - 2.02 \times 2.0 + 2\)
   \(\{ A 19.96 \\
   B 41.98 \\
   C 31.98 \\
   D 21.98\}\)
APPENDIX

UNIT TEST 1

(Answer all questions.)

1) Five questions are given below. In each question four figures are given. Put a tick mark ( ) against the figure which is equally divided in each question.

i) 

( )

( )

( )

( )

ii) 

( )

( )

( )

( )

iii) 

( )

( )

( )

( )

iv) 

( )

( )

( )

( )

v) 

( )

( )

( )

( )
II. Five questions are given in this section. Write the fractional number which represents the shaded position in each of the following figures.

\begin{enumerate}
  \item[i)] \begin{tikzpicture}
    \draw (0,0) -- (2,0) -- (1,1.732) -- cycle;
    \fill [yellow] (0,0) -- (2,0) -- (1,1.732) -- cycle;
  \end{tikzpicture} \quad \frac{1}{3}

  \item[ ii)] \begin{tikzpicture}
    \draw (0,0) circle (1);
    \fill [red] (0,0) circle (1);
  \end{tikzpicture} \quad \frac{1}{2}

  \item[ iii)] \begin{tikzpicture}
    \draw (0,0) -- (1,0) -- (1,2) -- (0,0);
    \fill [blue] (0,0) -- (1,0) -- (1,2) -- (0,0);
  \end{tikzpicture} \quad \frac{2}{3}

  \item[ iv)] \begin{tikzpicture}
    \draw (0,0) -- (2,0) -- (2,2) -- (0,0) -- cycle;
    \fill [green] (0,0) -- (2,0) -- (2,2) -- (0,0) -- cycle;
  \end{tikzpicture} \quad \frac{3}{5}

  \item[ v)] \begin{tikzpicture}
    \draw (0,0) -- (3,0) -- (3,3) -- (0,0) -- cycle;
    \fill [purple] (0,0) -- (3,0) -- (3,3) -- (0,0) -- cycle;
  \end{tikzpicture} \quad \frac{3}{5}
\end{enumerate}

III) Shade the given figures to represent the fraction given in bracket. Answer five questions.

\begin{enumerate}
  \item[i)] \begin{tikzpicture}
    \draw (0,0) -- (2,0) -- (2,2) -- (0,0) -- cycle;
    \fill [orange] (0,0) -- (2,0) -- (2,2) -- (0,0) -- cycle;
  \end{tikzpicture} \quad \frac{4}{7}

  \item[ ii)] \begin{tikzpicture}
    \draw (0,0) circle (1);
    \fill [brown] (0,0) circle (1);
  \end{tikzpicture} \quad \frac{2}{4}

  \item[ iii)] \begin{tikzpicture}
    \draw (0,0) -- (2,0) -- (2,2) -- (0,0) -- cycle;
    \fill [cyan] (0,0) -- (2,0) -- (2,2) -- (0,0) -- cycle;
  \end{tikzpicture} \quad \frac{3}{4}

  \item[ iv)] \begin{tikzpicture}
    \draw (0,0) -- (2,0) -- (2,2) -- (0,0) -- cycle;
    \fill [pink] (0,0) -- (2,0) -- (2,2) -- (0,0) -- cycle;
  \end{tikzpicture} \quad \frac{3}{8}

  \item[ v)] \begin{tikzpicture}
    \draw (0,0) -- (3,0) -- (3,3) -- (0,0) -- cycle;
    \fill [green] (0,0) -- (3,0) -- (3,3) -- (0,0) -- cycle;
  \end{tikzpicture} \quad \frac{5}{6}
\end{enumerate}
4 Write the fractional number which represents the shaded objects in the following collections. Five questions are given below.

i) [Diagram of shaded objects]

\[ \frac{2}{6} \]

ii) [Diagram of shaded objects]

\[ \frac{1}{4} \]

iii) [Diagram of shaded objects]

\[ \frac{3}{9} \]

iv) [Diagram of shaded objects]

\[ \frac{3}{7} \]

v) [Diagram of shaded objects]

\[ \frac{3}{8} \]

5 Five questions are given in this category. Shade the objects to represent the given fractions for each collection.

i) [Diagram of shaded objects]

\[ \frac{2}{6} \]

ii) [Diagram of shaded objects]

\[ \frac{1}{4} \]

iii) [Diagram of shaded objects]

\[ \frac{3}{9} \]

iv) [Diagram of shaded objects]

\[ \frac{3}{7} \]

v) [Diagram of shaded objects]

\[ \frac{3}{8} \]

6 Write the fraction for each questions given below.

i) If the numerator is 3 and denominator is 7

\[ \frac{3}{7} \]

ii) If the numerator is 5 and denominator 6

\[ \frac{5}{6} \]

iii) If the denominator is 10 and numerator is 8

\[ \frac{8}{10} \] or \[ \frac{4}{5} \]

iv) two-fifth

\[ \frac{2}{5} \]

v) four-tenth

\[ \frac{4}{10} \] or \[ \frac{2}{5} \]
7) Fill in the blanks:-

i) In the fraction, \( \frac{3}{7} \), the numerator is \( \ldots \ldots \ldots \ldots \).

ii) In the fraction \( \frac{12}{17} \), the numerator is \( \ldots \ldots \ldots \ldots \).

iii) In the fraction \( \frac{20}{20} \), the numerator is \( \ldots \ldots \ldots \ldots \).

iv) In the fraction \( \frac{13}{27} \), the denominator is \( \ldots \ldots \ldots \ldots \).

v) In the fraction \( \frac{83}{94} \), the denominator is \( \ldots \ldots \ldots \ldots \).

8) Say ‘true’ or ‘false’, for each statement.

i) If an object is divided into five equal parts, then the denominator will be 5 ( )

ii) In a collection of 9 objects, 4 of them were selected, then the numerator of the fraction will be 9 ( )

iii) In a fraction, the numerator represents the number of equal parts into which it is divided. ( )

iv) For every fraction there will be a numerator and denominator ( )

v) When an object is divided into two equal parts, then two halves makes the whole ( )

vi) If the object is not divided into equal parts then it cannot be represented in a fraction. ( )

vii) The number which is written below the fractional line is called numerator ( )

viii) An object is divided into 4 equal parts, 3 of them were not shaded, the fraction representing the shaded portion will be \( \frac{3}{4} \) ( )

ix) \( \frac{2}{5} \) means out of 5 equal parts 2 of them were selected. ( )

x) Out of 3 equal parts, only one is taken then the fraction is \( \frac{1}{3} \) ( )

NR H5 74