<table>
<thead>
<tr>
<th>SECTION I - Correct Response 1 mark</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Objective: Represent any number up to one million using numerals or word names.</td>
</tr>
<tr>
<td>Correct Response 304807 in words - three hundred and four thousand eight hundred and seven.</td>
</tr>
<tr>
<td>2. Objective: Differentiate between factors and multiples and prime and composite numbers and identify square numbers</td>
</tr>
<tr>
<td>Correct Response 498</td>
</tr>
<tr>
<td>3. Objective: Compare and order decimals up to hundredths.</td>
</tr>
<tr>
<td>Correct Response 0.12 0.21 1.02 1.2</td>
</tr>
<tr>
<td>4. Objective: Calculate the whole given a part as a unit fraction</td>
</tr>
<tr>
<td>Correct Response 140</td>
</tr>
<tr>
<td>5. Objective: Express percentages (e.g. 50%, 25%, 20% and 10%) as decimals (e.g. 0.5, 0.25, 0.2 and 0.1).</td>
</tr>
<tr>
<td>Correct Response 9% = 0.09</td>
</tr>
<tr>
<td>6. Objective: Calculate the square of a number.</td>
</tr>
<tr>
<td>Correct Response 32 \times 4 = 128</td>
</tr>
<tr>
<td>7. Objective: Solve problems in addition (sum less than 10 000) and subtraction (minuend less than 10 000)</td>
</tr>
<tr>
<td>Correct Response 2463 + 1029 = 3492</td>
</tr>
</tbody>
</table>
8. Objective: Divide two, three and four digit numbers by one or two digit divisors with and without remainder.

Correct Response
123

9. Objective: Record money values using decimals.

Correct Response
$75.08

10. Objective: Express improper fractions as mixed numbers.

Correct Response
2 1/4, 2.25

11. Objective: Select and use the most appropriate standard unit for measuring various lengths/distances.

Correct Response

![Measurement Diagram]

12. Objective: Measure and compare the masses/weights of objects in kilograms and grams using a set of scales.

Correct Response
1000 kg – 300 kg – 700 g

13. Objective: Interpret simple time schedules (e.g. the calendar).

Correct Response
8:00 – 6:15 = 1 hr 45 mins
Or 1:45,
Or 1 3/4 hours
14. **Objective:** State the relationship between the litre and millilitre and convert from one to the other.
   
   **Correct Response**
   
   \[ 2500 \div 200 = 12.5 \]
   
   Or \[ 12 \frac{1}{2} \]
   
   Therefore 12 cups completely filled.

15. **Objective:** Name the solids with uniform cross-sections.
   
   **Correct Response**
   
   Cylinder has a uniform cross section.

16. **Objective:** Describe the properties of solids in relation to number and types of faces, edges and vertices.
   
   **Correct Response**
   
   Triangular based prism

17. **Objective:** Identify angles on faces of solids or plane shapes that are right angles, greater than right angles or smaller than right angles.
   
   **Correct Response**
   
   3 quarter turns, 3

18. **Objective:** Calculate the mean of a given set of data.
   
   **Correct Response**
   
   \[ 42 + 76 + 87 + 53 + 64 + 92 = 69 \]
   
   \[ \text{mean} = \frac{69}{6} \]

19. **Objective:** Determine the mode of a given set of data.
   
   **Correct Response**
   
   Banana

20. **Objective:** Apply findings from analysis of data to solve problems.
   
   **Correct Response**
   
   \[ 17 - 7 = 10 \]
SECTION 2

   - Alternative Solutions Indicated
   Correct Response: 3 marks
   - Using equivalent fractions
     \[ \frac{1}{4} = \frac{2}{8} \quad \text{and} \quad \frac{1}{2} = \frac{4}{8} \]
     \[ B \text{ is midway } \frac{2}{8} \text{ and } \frac{4}{8} = \frac{3}{8} \]
   - \[ \frac{2}{8} + \frac{4}{8} = \frac{6}{8} \]
     \[ \frac{6}{8} + 2 = \frac{6}{8} \times \frac{1}{2} = \frac{3}{8} \]
   - \[ \frac{1}{4} + \frac{1}{2} = \]
     \[ \frac{2 + 4}{8} = \frac{6}{8} \]
     \[ \frac{6}{8} + 2 = \frac{6}{8} \times \frac{1}{2} = \frac{3}{8} \]
   - \[ B = (C - A) + 2 \]
     \[ = (\frac{1}{2} - 1) + 2 \]
     \[ = \frac{1}{2} + \frac{1}{2} \]
     \[ = \frac{1}{8} + \frac{3}{8} \]
   - Partially Correct Response: 2 marks
     - \[ \frac{2 + 4}{8} = \frac{6}{8} \]
     - \[ \frac{1}{4} + \frac{1}{2} = \]
     Dividing by 2 incorrectly
     - \[ C - A \text{ incorrectly} + \frac{1}{4} \]
     - Converting 1 fraction to an equivalent form and dividing by 2.

   Partially Correct Response: 1 mark
   - \[ \frac{1}{4} + \frac{1}{2} = \text{inaccurate calculation} \]

   Incorrect addition
   \[ \frac{2}{2} \]
   - C – A correctly
   - Changing any 1 fraction to the correct equivalent form.
   - Showing an attempt to find the midpoint.

   Incorrect Response: 0 mark
   - \[ \frac{1}{3} \]

22. Objective: Solve one-step word problems involving any one of the four basic operations on whole numbers.
   - Alternative Solutions Indicated
   Correct Response: 2 mark
   - Mike: 149 - 45 = 104
     Altogether = 149 + 104 = 253
   - 104 + 104 + 45 = 253
   - 149 + 149 = 298
     298 - 45 = 253

   Partially Correct Response: 1 mark
   - 149 - 45 = 104
   - 104 + 104
   - Correct choice of operations but errors in calculation

   Incorrect Response:
   - 149 + 45 = 194
23. Objective: Solve one-step word problems involving any one of the four basic operations on whole numbers.

- Alternative Solutions Indicated

Correct Response: 3 marks
- No. of chairs = 22 x 18 = 396 chairs
  Extra chairs = 468 – 396 = 72
  No. of rows = \( \frac{72}{28} = 4 \)
- 468 + 18 = 26
  26 – 22 = 4

Partially Correct Response: 2 marks
- No. of chairs = 22 x 18 = 396 chairs
  Extra chairs = 468 – 396 = 72
- 468 + 18 = 26

Correct choice of operations but errors in calculation

Incorrect Responses:
- 468 + 22
- 468 + 22 + 18

24. Objective: Calculate total cost and the change in money transactions.

- Alternative Solutions Indicated

Correct Response: 2 marks
- 1 copy book = \( \frac{7.20}{9} = 0.80 \)
  24 copybooks = 24 \times 0.80 = $19.20
- 7.20 + 3 = $2.40
  2.40 \times 8 = $19.20
- \( \frac{7.20}{9} \times 24 = $19.20 \)

Partially Correct Response: 1 mark
- 1 copy book = \( \frac{7.20}{9} = 0.80 \)
- 7.20 + 3 = $2.40

Incorrect Responses:
- 7.20 x 24
- 7.20 x 9
- \( \frac{7.20}{9} \) with wrong answer

25. Objective: Solve multi-step word problems involving any combination of the four basic operations on whole numbers.

- Alternative Solutions Indicated

Correct Response: 3 marks
- No. of children remaining after girls left = 399 – 39 = 360
  No. of girls remaining = 360 + 3 = 120
  No. of girls at first = 120 + 39 = 159

Partially Correct Response: 2 marks
- No. of children remaining after girls left = 399 – 39 = 360
  No. of girls remaining = 360 + 3 = 120
  Correct choice of operations with inaccurate answer

Correct choice of operations but errors in calculation

Incorrect Responses:
- 399 + 39
- 399 x 2
- 399 + 2
- 399 – (39 x 2)
* Alternative Solutions Indicated
Correct Response: 2 marks
- 15 and 16, 14 and 17, 13 and 18

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<td>Both quantities at least 13, adding up to 31.</td>
</tr>
<tr>
<td>45 - 14 = 31</td>
</tr>
<tr>
<td>Knowing that quantities must add up to 31 / understanding 'at least 13' but incorrect calculations.</td>
</tr>
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Incorrect Responses:
- 45 ÷ 3
- 45 x 3

27. Objective: Solve real-life, one-step problems involving whole numbers, (including profit and loss, best buy, discount, savings, salaries, wages, loans; simple interest, VAT).
* Alternative Solutions Indicated
Correct Response: 2 marks
- \( \frac{20}{100} \times \frac{140}{1} = 28 \) or \( \frac{1}{5} \times \frac{140}{1} = 28 \)
  Discount price = 140 - 28 = $112.00
- \( \frac{88}{100} \times \frac{140}{1} = $112.00 \)

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<td>( \frac{20}{100} \times \frac{140}{1} = 28 ) or ( \frac{1}{5} \times \frac{140}{1} = 28 )</td>
</tr>
<tr>
<td>( \frac{20}{100} \times \frac{140}{2} = ) wrong answer and then subtract from 140</td>
</tr>
<tr>
<td>Correct choice of operations but calculations inaccurate.</td>
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* Alternative Solutions Indicated
Correct Response: 3 marks
- \( 240 ÷ 20 = 12 \)
  12 - 3 = 9
- \( 20 \times 3 = 60 \)
  240 - 60 = 180
  180 ÷ 20 = 9
- \( 240 ÷ 60 = 4 \)
  4 x 3 = 12
  12 - 3 = 9

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<td>( 20 \times 3 = 60 )</td>
</tr>
<tr>
<td>( 240 - 60 = 180 )</td>
</tr>
<tr>
<td>( 240 ÷ 20 = 12 )</td>
</tr>
<tr>
<td>( 240 ÷ 20 = ) inaccurate answer but subtract correctly</td>
</tr>
<tr>
<td>Subtract 60 incorrectly and then divide by 20</td>
</tr>
<tr>
<td>( 60 \rightarrow 3 )</td>
</tr>
<tr>
<td>( 240 \rightarrow 12 )</td>
</tr>
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</table>
29. Objective: Explain or demonstrate how an answer was obtained when solving problems.
   • Alternative Solutions Indicated
     Correct Response: 3 marks
     • Edward. Dividing by 15 will give more groups than dividing by 18.
     • Edward. Dividing by 15 will give a larger answer than dividing by 18.
     • Edward. The bigger the number you divide by, the smaller is the answer.
     • Edward: Dividing by a smaller number gives a greater answer.
     • Edward: A smaller number goes into another number more times.

     Partially Correct Response: 2 marks
     • Edward and partially correct reasoning.
     • No name but correct reasoning

     Incorrect Response:
     • Gabriel

30. Objective: Solve real-life, one-step problems involving whole numbers, (including profit and loss, best buy, discount, savings, salaries, wages, loans, simple interest, VAT).
   • Alternative Solutions Indicated
     Correct Response: 3 marks
     • S.I. = \frac{3000 \times 12 \times 2}{100} = $720
     Total = $3000 + $720 = $3720
     Monthly = \frac{3720}{24} = $155

     Partially Correct Response: 1 mark
     • S.I. = \frac{3000 \times 12 \times 2}{100} = $720

     Incorrect Responses:
     • $3000 \times 12 \times 2$
     • \frac{3000}{24}
31. Objective: Calculate area of shapes drawn on a grid with unit squares.
   - Alternative Solutions Indicated
   Correct Response: 2 marks
   - 11 x 4 = 44 cm²
   Partially Correct Response: 1 mark
   - 11
   - 11 x 2 = 22 cm²
   - 22 only
   - Either 10 or 13 multiplied by 4
   - 13 x 2
   - $\frac{11}{20}$
   Incorrect Responses:
   - 28 cm²
   - 56 cm²

32. Objective: Solve computational and real-life problems involving hours and minutes.
   - Alternative Solutions Indicated
   Correct Response: 2 marks
   - 12:45 − 9:00 = 3:45
   - 3:45 rounded to 4
   - 4 x 5 = $20.00
   Partially Correct Response: 1 mark
   - 12:45 − 9:00 = 3:45
   - 4 hours
   - 3 x 5 = $15.00
   - 3:45 x 5

33. Objective: Find the perimeters of simple composite figures that may be dissected into rectangles and squares.
   - Alternative Solutions Indicated
   Correct Response: 3 marks
   - Calculating unknowns: 4 cm and 7 cm
   - Addition of sides: 4 cm + 7 cm + 6 cm + 2 cm + 10 cm + 9 cm = 38 cm
   Partially Correct Response: 2 marks
   - Calculating the 2 unknowns correctly and adding incorrectly
   - Calculating 1 unknown correctly and adding all the sides correctly
   - 42 but forgot to subtract 4
   Partially Correct Response: 1 mark
   - Calculating 1 unknown
   Incorrect Response:
   - 27 cm
34. Objective: Solve problems involving length.
• Alternative Solutions Indicated
Correct Response: 3 marks
- 1 large + 1 small = 48 cm
Length of ribbon used = 800 - 32 = 768 cm
No. of large and small = 768 + 48 = 16
Total no. of bows = 16 x 2 = 32

Partially Correct Response: 1 mark
- 48 cm
- 768 cm

Incorrect Responses:
- 800 + 48
- 8 + 36 + 12 + 32
- 800 cm

Partially Correct Response: 2 marks
- Correct choice of operations with wrong calculations
- 1 large + 1 small = 48 cm
Length of ribbon used = 800 - 32 = 768 cm
No. of large and small = 768 + 48 = 16

35. Objective: Determine the pattern rule and extend the pattern using concrete materials or pictorial representation.
• Alternative Solutions Indicated
Correct Response: 2 marks
- Any six-sided/polygon.

Partially Correct Response: 1 mark
- Six sides not enclosed.

Incorrect Response:
- Triangle

36. Objective: Describe the properties of specific quadrilaterals (rectangle, square, trapezium, parallelogram and rhombus).
• Alternative Solutions Indicated
Correct Response: 3 marks
Only 1 pair of parallel sides- trapezoid
4 equal angles- rectangle
4 equal sides- rhombus

Partially Correct Response: 2 marks
- Any 2 shapes correct

Partially Correct Response: 1 mark
- 1 shape correct
37. Objective: Determine the number of lines of symmetry in plane shapes – (regular, irregular and curved) and in numerals and letters.
   - Alternative Solutions Indicated
   Correct Response: 2 marks
   - 2 lines of symmetry
   Partially Correct Response: 1 mark
   - 1 line of symmetry
   Incorrect Response:
   - No lines of symmetry drawn

38. Objective: Apply findings from analysis of data to solve problems.
   - Alternative Solutions Indicated
   Correct Response: 2 marks
   - 15 + 7 + 2 = 24
   Partially Correct Response: 1 mark
   - 15 + 7 + 2 with wrong calculation
   Incorrect Response:
   - 15

39. Objective: Represent data using tally charts, frequency tables and graphs (pictographs, block graphs, bar graphs) using various scale factor.
   - Alternative Solutions Indicated
   Correct Response: 2 marks
   - 10 - Two and a half T-shirts
   Partially Correct Response: 1 mark
   - 10
   Incorrect Response:
   - 5 t-shirts

40. Objective: Communicate findings and decisions made using appropriate vocabulary associated with statistics. - Alternative Solutions Indicated
   Correct Response: 3 marks
   - Any sport with a reasonable justification of choice using all of the other data presented (Need to speak about their chosen sport as well as the others presented).
   Partially Correct Response: 2 marks
   - Any sport with a reasonable justification with use of some of the data presented.
   Incorrect Response:
   - Any sport chosen without any explanation.
41. Objective: Solve multi-step problems involving fractions.

**Correct Response: 4 marks**

- Chocolate = 1 - 3/7 = 4/7
  - She sold 1/4 x 3/7 = 3/28 (vanilla) + (5/8 x 4/7) = 10/28 (chocolate)
  - Altogether = 3/28 + 10/28 = 13/28
  - She had 1 - 13/28 = 15/28
  - To find whole = 15/28 x 150 = 280

- Cupcakes remaining = 3/4 x 3/7 = 9/28 vanilla
  - 3/8 x 4/7 = 12/56 chocolate
  - Total remaining = 9/28 + 12/56 = 30/56 = 5/6
  - To find whole = 5/6 x 150 = 280

**Partially Correct Response: 3 marks**

- Chocolate = 1 - 3/7 = 4/7
  - She sold 1/4 x 3/7 = 3/28 (vanilla) + (5/8 x 4/7) = 10/28 (chocolate)
  - Altogether = 3/28 + 10/28 = 13/28
  - She had 1 - 13/28 = 15/28

**Partially Correct Response: 2 marks**

- Chocolate = 1 - 3/7 = 4/7
  - She sold 1/4 x 3/7 = 3/28 (vanilla) + (5/8 x 4/7) = 10/28 (chocolate)
  - Altogether = 3/28 + 10/28 = 13/28

**Partially Correct Response: 1 mark**

- Calculating correct fraction for either vanilla or chocolate sold
42. Objective: Solve multi-step word problems involving any combination of the four basic operations on whole numbers.

- Alternative Solutions Indicated

Correct Response: 4 marks

- 30 mangoes were given free, therefore 30 persons bought 2 mangoes
- Cost of 60 mangoes = 60 x 6 = $360
- Money spent by single customers = $504
- \$360 = $144
- No. of customers who bought single = \(\frac{144}{6}\) = 24

- 30 mangoes were given free, therefore 30 persons bought 2 mangoes
- Total S.P. = $504
- No. of customers = \(\frac{504}{6}\) = 84
- \(= 84 - 60 = 24\)

Partially Correct Response: 3 marks

- 30 mangoes were given free, therefore 30 persons bought 2 mangoes
- Cost of 60 mangoes = 60 x 6 = $360
- Money spent by single customers = 504 - 360 = $144
- No. of customers = \(\frac{504}{6}\) = 84
- \(= 84 - 30 = 54\)

Partially Correct Response: 2 marks

- 30 mangoes were given free, therefore 30 persons bought 2 mangoes
- Cost of 60 mangoes = 60 x 6 = $360
- \(\frac{504}{6}\) = 84

Partially Correct Response: 1 mark

- 30 mangoes were given free, therefore 60 persons bought 2 mangoes
- \(\frac{504}{6}\) = Incorrect answer
43. Objective: Solve problems involving volume/capacity.
- Alternative Solutions Indicated

**Correct Response: 4 marks**
- \( L \times B \times H = 12 \times 6 \times 10 = 720 \text{ cm}^3 \)
  - Vol of 1 small cube = 8 cm\(^3\)
  - No. of cubes = \( \frac{720}{8} = 90 \)
  - More cubes needed = 90 - 8 = 82

- \( 5 \times 6 \times 3 = 90 \text{ cubes} \)
  - 90 - 8 = 82 cubes

- No. of cubes = \( \frac{12 \times 10 \times 6}{2 \times 2 \times 2} = 90 \)
  - More cubes needed = 90 - 8 = 82

**Partially Correct Response: 3 marks**
- \( L \times B \times H = 12 \times 6 \times 10 = 720 \text{ cm}^3 \)
  - Vol of 1 small cube = 8 cm\(^3\)
  - No. of cubes = \( \frac{720}{8} = 90 \text{ cubes} \)

- \( L \times B \times H = 12 \times 6 \times 10 = 720 \text{ cm}^3 \)
  - Vol of 1 small cube = 8 cm\(^3\)
  - No. of cubes = \( \frac{720}{8} = 90 \text{ cubes} \)
  - More cubes needed = 90 - 7 = 83 cubes

- \( L \times B \times H = 720 \text{ cm}^3 \)

- \( \text{No. of smaller cubes} = 8 \)

**Partially Correct Response: 2 marks**

- \( L \times B \times H = 720 \)
  - \( \text{No. of smaller cubes} = 8 \)
44. Objective: (a) Solve problems involving solids.
   (b) Create symmetrical shapes.
   - Alternative Solutions Indicated
     a. Correct Response: 3 marks
        - A quadrilateral drawn with a pair of parallel lines and one angle smaller than a right angle.
     Partially Correct Response: 2 marks
        - A quadrilateral drawn with 1 pair of parallel lines.
        - A quadrilateral drawn with only 1 angle less than a right angle.

   Partially Correct Response: 1 mark
   - Any quadrilateral drawn only.

   b. Correct Response: 1 mark
   - Must show an extension of the quadrilateral which makes it symmetrical.

45. Objective: Use analyzed data to solve problems, draw conclusions and make decisions.
   - Alternative Solutions Indicated
     a. Correct Response: 2 marks
        - Reading off graph at 8 cm and adding the original height $= 12 + 8 = 20$ cm
     Partially Correct Response: 1 mark
        - Reading off graph at 8 cm

   b. Correct Response: 2 marks
      - Drawing the bar to 12 cm
     Partially Correct Response: 1 mark
      - Evidence of pattern with an increase in 2 cm