Term 3 Test Mathematics Grade 9 Framework – Skills and Content

| **Item No** | **CONTENT AREA** | **TOPICS** | **CONCEPTS AND SKILLS** | **DESCRIPTIVE STATEMENTS**  Learners will be assessed on:- | **Cognitive**  **Level** | **Level of**  **Difficulty** | **Type of item (MCQ/ OE)** | **Max Score** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1.1  2.1  2.2  2.3 | Patterns Functions and Algebra | Functions and Relationships | **Input, output values and Equivalent Forms** | **Input and output values**   * Determine input values, output values or rules for patterns and relationships using: * flow diagrams * tables * formulae * equations   **Equivalent forms**   * Determine, interpret and justify equivalence of different descriptions of the same relationship or rule presented: * verbally * in flow diagrams * in tables * by formulae * by equations * by graphs on a Cartesian plane | R  K  R  R | M  E  E  M | MCQ  OE  OE  OE | 1  3  2  2 |
| 1.2  3.1.1  3.1.2  3.2  3.3  3.4 | Patterns Functions and Algebra |  | Drawing and Interpreting graphs | **Interpreting graphs**   * Extend the focus on features of graphs with special focus on the following features of **linear graphs**: * -intercept and -intercept * Gradient   **Drawing graphs**   * Use tables of ordered pairs to plot points and draw graphs on the Cartesian plane * Extend drawing of graphs with special focus on: * drawing linear graphs from given equations * determining equations from given **linear graphs.** | R  R  R  K  K  C | M  M  M  E  E  M | MCQ  OE  OE  MCQ  OE  OE | 1  3  2  1  1  4 |
| 1.5  4.1.1  4.1.2  4.2 | Space and Shape | Transformation Geometry | Recognize, describe and perform transformations | **Transformations**   * Recognize, describe and perform transformations   with points, line segments and simple geometric figures on a co-ordinate plane, focusing on:   * reflection in the X-axis or Y- axis * translation within and across quadrants | K  K  K  R | E  E  E  E | MCQ  OE  OE  OE | 1  1  1  3 |
| 1.4  5.1  5.2.1  5.2.2  5.2.3  5.3 | Space and Shape | Geometry of straight lines | Angle relationships and Solving problems | **Angle relationships**   * Revise and write clear descriptions of the   relationship between angles formed by:   * perpendicular lines * intersecting lines * parallel lines cut by a   transversal  **Solving problems**   * Solve geometric problems using the relationships between pairs of angles described above | K  K  R  R  R  P | E  E  E  E  E  M | MCQ  OE  OE  OE  OE  OE | 1  1  2  2  2  5 |
| 1.3  6.1.1  6.1.2  6.2  6.3.1  6.3.2 | Space and Shape | Geometry of 2D shapes |  | **Classifying 2D shapes**   * Revise and write clear definitions of quadrilaterals   in terms of their sides, angles and diagonals,  distinguishing between:   * parallelogram * rectangle * square * rhombus * trapezium * kite | K  K  K  R  C  C | E  E  E  E  M  M | MCQ  OE  OE  OE  OE  OE | 1  1  2  2  3  2 |
| **50** | | | | | | | | |

**KEYS**

K: Knowledge

R: Routine procedure

C: Complex procedure

P Problem solving

E: Easy

M: Moderate

D: Difficult

MCQ: Multiple-choice question

OE: Open ended

**Term 3 Test Grade 9**

**Summary: Cognitive Levels**

| **Cognitive Level According To CAPS** | **Number of items** | **Total marks** | | **Expected CAPS Proportion (%) (Weighting)** | **Actual weighting of the paper** |
| --- | --- | --- | --- | --- | --- |
|  |  | **PFA** | **SS** |  |  |
| Knowledge | 11 | 5 | 9 | ±25% | 28% |
| Routine Procedure | 11 | 11 | 11 | ±45% | 44% |
| Complex Procedure | 3 | 4 | 5 | ±20% | 18% |
| Problem Solving | 1 | 0 | 5 | ±10% | 10% |
| **Grand Total** | 26 | 50 | | 100% | 100% |

**Summary: Type of item**

| **Type of item** | **Number of items** | **Total marks** | **Proportion (%) of total paper mark**  **(Weighting)** |
| --- | --- | --- | --- |
| MCQ | 6 | 6 | 12% |
| OE | 20 | 44 | 88% |
| **Grand Total** | 26 | 50 | 100% |

**Summary: Level of Difficulty**

| **Level of Difficulty** | **Number of items** | **Total marks** | **Expected Proportion (%) of total paper mark (Weighting)** | **Actual Proportion (%) of total paper mark (Weighting)** |
| --- | --- | --- | --- | --- |
| Easy | 17 | 27 | 30% | 54% |
| Moderate | 9 | 23 | 60% | 56% |
| Difficult | 0 | 0 | 0% | 0% |
| **Grand Total** | 26 | 50 | 100% | 100% |