

# COMMON ASSIGNMENT 2018

**D9 JE**

**GRADE 9**

MATHEMATICS

# 2014

# SCHOOL BASED ASSESSMENT TASK

# MARKS: 50

# WEIGHTED MARK: 10

# SUGGESTED TIME: 1 hour

# TERM 1: Investigation

**INVESTIGATION**

**2015**

**MARKS: 50**

**TIME: 1 hour**

**This question paper consists of 8 pages**

**NAME:**

**GRADE 9:**

|  |
| --- |
| **MATHEMATICS** |

|  |
| --- |
| **INSTRUCTIONS AND INFORMATION**  1. This question paper consists of **SECTION** A and **SECTION B** based on the prescribed content framework in the CAPS document.  **SECTION A: MULTIPLE CHOICE**  QUESTION 1: CONSISTS OF TEN MULTIPLE CHOICE QUESTIONS  **ANSWER ALL SECTIONS ON THE SPACE PROVIDED**.  **SECTION B: CONSISTS OF THREE QUESTIONS**  QUESTION 2: FINANCIAL MATHEMATICS  QUESTION 3: NUMBER SYSTEMS  QUESTION 4: EXPONENTS AND SCIENTIFIC NOTATION  2. Answer ALL questions in both SECTIONS.  3. A non-programmable calculator may be used unless otherwise stated.  4. In **SECTION A,** **circle** the letter of the correct answer; and if you change your decision cross out the circled letter and circle your new choice.  5. In SECTION B, show all the necessary steps in your working unless otherwise stated.  6. When answering questions, candidates must apply their knowledge, skills and insight.  7. Number the answers correctly according to the numbering system used in this question paper.  8. Write neatly and legibly. |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **SECTION A** | | | |  |
| **Question 1** | | | |  |
| 1. | Circle the letter of the correct answer from the four possible answers. | | |  |
|  |  | | |  |
|  | 1.1 | An approximate value for is | |  |
|  |  | A  B  C  D  E | 2  10  200  20 000  10 000 | (1) |
|  | 1.2 | On earth there are about 10 000 000 000 000 000 ants and 6 000 000 000 humans.  The ratio of humans to ants is approximately equal to: | |  |
|  |  | A  B  C  D  E | 60 000 to 1  1 666 667 to 1  1 to 6 000  1 to 1 666 667  1 to 60 000 000 | (1) |
|  | 1.3 | A sewing machine stitches 0, 6 kilometres of cloth in one hour. The rate of  stitching in metres per minute is: | |  |
|  |  | A  B  C  D  E | 0,01  0,1  1  10  100 | (1) |
|  | 1.4 | A 24-hour digital watch shows 19 : 29 : 00 on its face. The first two digitals indicate the hours, the second two digitals the minutes and the final two digitals the seconds past midnight. The number of minutes before it shows 00 : 00 : 00 is: | |  |
|  |  | A  B  C  D  E | 271  529  431  291  531 | (1) |
|  | 1.5 | The value of is | |  |
|  |  | A  B  C  D  E |  | (1) |
|  | 1.6 | If the square roots of the natural numbers from 1 to 200 are calculated, the number of whole numbers will be: | |  |
|  |  | A  B  C  D  E | 10  11  12  13  14 | (1) |
|  | 1.7 | The group of decimals in ascending order is: | |  |
|  |  | A  B  C  D  E | 261,2; 261,3; 261,342; 261,4  261,2; 261,3; 261,4; 261,342  261,342; 261,4; 261,3; 261,2  261,4; 261,342; 261,3; 261,2  261,03; 261, 30; 261,33; 261,003 |  |
|  | 1.8 | Which group of fractions is in descending order? | |  |
|  |  | A  B  C  D  E |  | (1) |
|  | 1.9 | 15% of R560 – 15% of R500 is: | |  |
|  |  | A  B  C  D  E | R13  R12  R11  R10  R9 | (1) |
|  | 1.10 | The number 36 is 12% of: | |  |
|  |  | A  B  C  D  E | 250  300  350  400  450 | (1) |
|  | | | | **[10]** |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **SECTION B** | | | | |
| **Question 2** | | | | |
| 2.1 | Dumisani earns R42 480 per month. He splits his earnings in the ratio 7: 5 and then saves the lesser amount. How much does he save? | | | | (3) |
| 2.2 | The following table is used to determine how much tax a person has to pay per year. | | | |  |
|  | 2.2.1 | | | How much tax does a person pay if his taxable income per year is the following   1. R75 000 | (2) |
|  |  | | | 1. R150 000 | (3) |
|  | 2.2.2 | | | Use the table in Question 2.2 to complete the table below.   |  |  |  |  | | --- | --- | --- | --- | | Taxable Income |  |  |  | | Tax |  |  |  | | (6) |
| 2.3 | Copy and complete the table below for and :   |  |  |  | | --- | --- | --- | | **Speed(km/h)** | **Time (h)** | **Distance (km)** | |  |  |  | |  |  |  | |  |  |  | | | | | (6) |
| 2.4 | Calculate the simple interest on R4 400 at 4 % per annum for 7 years. | | | | (3) |
| 2.5 | Use the formula or to calculate the  compound interest at 7% per annum on a loan of R 5 600 for 4 years.  Round your answer to the nearest cents. | | | | (3) |
|  | | | | | **[26]** |
| **Question 3** | | | | | |
| Given the list of numbers: ; ; 0,42 ; π ; 36 ; 1 ; 2 ; -48 ; 0;  List a set of the following: | | | | |  |
|  | 3.1 | Rational numbers | | | (2) |
|  | 3.2 | Integers | | | (2) |
|  | 3.3 | Multiples of 6 | | | (2) |
|  | 3.4 | Prime numbers | | | (2) |
|  | 3.5 | Irrational numbers | | | (2) |
|  | | | | | **[10]** |
| **Question 4** | | | | | |
| 4.1 | 4.1.1  4.1.2 | | Write 0,00000356 in scientific notation.  Simplify : (9 + 10 − 9) × 40 + (25 − 30 − 5) × 7 | | (2) |
|  |  | |  | | (3) |
| 4.2 | **Simplify.** | | | |  |
|  | 4.2.1 | Find the HCF of the numbers below  1 820 and 3 510 | | | (3) |
|  | 4.2.2 | Find the LCM of the numbers below  2 310 and 1 275 | | | (3) |
|  | 4.2.3 |  | | | (3) |
|  | | | | | **[14]** |
| **TOTAL: 50** | | | | | |

**FORMULA-SHEET**

|  |  |
| --- | --- |
| Simple Interest: | Compound Interest: |