education
Department:
Education
PROVINCE OF KWAZULU-NATAL
FET MATHEMATICS
GRADE 12
SBA ADMINISTRATION DOCUMENTS

2019

## KZN DEPARTMENT OF EDUCATION MATHEMATICS ANNUAL TEACHING PLAN <br> GRADE 12-2019

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| TERM 1 |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| DATES | TOPIC | CURRICULUM STATEMENT | ASSESSMENT | F/IF | DATE <br> STARTED | DATE COMPLETED | HOD:SIGNATURE <br> and DATE | \% COM- <br> PLETED |
| $\begin{gathered} 09 / 1-14 / 1 \\ (4 \text { days }) \end{gathered}$ | PATTERNS, SEQUENCES AND SERIES | 1. Number patterns, including arithmetic and geometric sequences and series. |  |  |  |  |  | 4\% |
| $\begin{gathered} 15 / 1-22 / 1 \\ \text { ( } 6 \text { days) } \end{gathered}$ | PATTERNS, SEQUENCES AND SERIES | 2. Sigma notation. <br> 3. Derivation and application of the formulae for the sum of arithmetic and geometric series: <br> 3.1 $\quad S_{n}=\frac{n}{2}\left[2 a+(n-1) d=\frac{n}{2}(a+l)\right.$; <br> $3.2 \quad S_{n}=\frac{a\left(r^{n}-1\right)}{r-1}$ for $r \neq 1$; and <br> $3.3 \quad S_{\infty}=\frac{a}{1-r}$ for $-1<r<1$. |  |  |  |  |  | 9\% |
| $\begin{gathered} 23 / 1-30 / 1 \\ (6 \text { days }) \end{gathered}$ | EUCLIDEAN GEOMETRY | 1. Revise earlier work on the necessary and sufficient conditions for polygons to be similar. <br> 2. Prove (accepting results established in earlier grades): that a line drawn parallel to one side of a triangle divides the other two sides proportionally (and the Midpoint Theorem as a special case of this theorem); <br> 3. Solve proportionality problems and prove riders. |  |  |  |  |  | 14\% |
| $\begin{gathered} 31 / 1-08 / 2 \\ \text { ( } 7 \text { days) } \end{gathered}$ | EUCLIDEAN GEOMETRY | 4. Prove (accepting results established in earlier grades): <br> 4.1 that equiangular triangles are similar; <br> 4.2 that triangles with sides in proportion are similar; and <br> 4.3 the Pythagorean Theorem by similar triangles. <br> 5. Solve similarity problems and prove riders. | ASSIGNMENT SBA Weighting: 15 | F |  |  |  | 21\% |


| TERM 1 (continued) |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| DATES | TOPIC | CURRICULUM STATEMENT | ASSESSMENT | F/IF | $\begin{aligned} & \text { DATE } \\ & \text { STARTED } \end{aligned}$ | DATE COM- PLETED | HOD: SIGNATURE and DATE | \% COM- <br> PLETED |
| $\begin{gathered} 11 / 2-25 / 2 \\ (12 \text { days }) \end{gathered}$ | TRIGONOMETRY: COMPOUND ANGLES | Compound angle identities: <br> 1. $\cos (\alpha \pm \beta)=\cos \alpha \cos \beta \mp \sin \alpha \sin \beta$ <br> 2. $\sin (\alpha \pm \beta)=\sin \alpha \cos \beta \pm \cos \alpha \sin \beta$ <br> 3. $\sin 2 \alpha=2 \sin \alpha \cos \alpha$ <br> 4. $\cos 2 \alpha=\cos ^{2} \alpha-\sin ^{2} \alpha$ <br> 5. $\cos 2 \alpha=2 \cos ^{2} \alpha-1$ <br> 6. $\cos 2 \alpha=1-2 \sin ^{2} \alpha$ | INVESTI- <br> GATION <br> SBA Weighting: 15 (to be completed by: 11/02) | F |  |  |  | 32\% |
| $\begin{gathered} 26 / 2-4 / 3 \\ (5 \text { days }) \\ \hline \end{gathered}$ | TRIGONOMETRY: 2D/3D | Solve problems in two and three dimensions. |  |  |  |  |  | 37\% |
| $\begin{gathered} 05 / 3-15 / 3 \\ (9 \text { days }) \end{gathered}$ | REVISION and MARCH TEST | MARCH TEST to cover all the work done in Term 1, also including the work done in Grade 11 on all these topics; BUT with the exception of 2D/3D Problems in Trigonometry. | MARCH TEST SBA Weighting: 10 | F |  |  |  |  |


| TERM 2 |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| DATES | TOPIC | CURRICULUM STATEMENT | ASSESSMENT | F/IF | $\begin{gathered} \text { DATE } \\ \text { STARTED } \end{gathered}$ | DATE COMPLETED | HOD:SIGNATURE <br> and DATE | \% COM- <br> PLETED |
| $\begin{gathered} 02 / 4-05 / 4 \\ (4 \text { days }) \\ \hline \end{gathered}$ | ANALYTICAL GEOMETRY | 1. The equation $(x-a)^{2}+(y-b)^{2}=r^{2}$ defines a circle with radius $r$ and centre $(a ; b)$. |  |  |  |  |  | 41\% |
| $\begin{gathered} 08 / 4-10 / 4 \\ (3 \text { days }) \\ \hline \end{gathered}$ | ANALYTICAL GEOMETRY | 2. Determination of the equation of a tangent to a given circle. |  |  |  |  |  | 44\% |
| $\begin{gathered} 11 / 4 \\ \text { (1 day) } \end{gathered}$ | FUNCTIONS, INVERSES AND LOGARITHMS | 1. Definition of a function. <br> 2. General concept of the inverse of a function. <br> 3. Determine and sketch graphs of the inverse of the function defined by $y=a x+q$ <br> 4. Focus on the following characteristics: domain and range, intercepts with the axes, shape and symmetry, gradient, whether the function increases/decreases. |  |  |  |  |  | 45\% |
| $\begin{gathered} 12 / 4-15 / 4 \\ (2 \text { days }) \end{gathered}$ | FUNCTIONS, INVERSES AND LOGARITHMS | 5. Determine and sketch graphs of the inverse of the function defined by $y=a x^{2}$ <br> 6. Determine how the domain of the function may need to be restricted (in order to obtain a one-to-one function) to ensure that the inverse is a function. <br> 7. Focus on the following characteristics: domain and range, intercepts with the axes, turning points, minima, maxima, shape and symmetry, average gradient (average rate of change), intervals on which the function increases/decreases. |  |  |  |  |  | 47\% |
| $\begin{gathered} 16 / 4-18 / 4 \\ \text { (3 days) } \end{gathered}$ | FUNCTIONS, INVERSES AND LOGARITHMS | 8. Determine and sketch graphs of the inverse of the function defined by $y=b^{x}$ for $b>0, b \neq 1$. <br> 9. Focus on the following characteristics: domain and range, intercepts with the axes, asymptotes (horizontal and vertical), shape and symmetry, average gradient (average rate of change), intervals on which the function increases/decreases. <br> 10. Understand the definition of a logarithm: $y=\log _{b} x \Leftrightarrow x=b^{y}$, where $b>0$ and $b \neq 1$. <br> 11. The graph of the function defined by $y=\log _{b} x$ for both the cases $0<b<1$ and $b>1$. |  |  |  |  |  | 50\% |
| $\begin{gathered} 23 / 4-26 / 4 \\ (4 \text { days }) \end{gathered}$ | $\begin{gathered} \text { FUNCTIONS, } \\ \text { INVERSES AND } \\ \text { LOGARITHMS } \\ \hline \end{gathered}$ | 12. Further sketching and interpretation of graphs of functions and their inverses. |  |  |  |  |  | 54\% |

## TERM 2 (continued)

| DATES | TOPIC | CURRICULUM STATEMENT | ASSESSMENT | F/IF | $\begin{aligned} & \text { DATE } \\ & \text { STARTED } \end{aligned}$ | DATE COMPLETED | HOD:SIGNATURE <br> and DATE | \% COM- <br> PLETED |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{gathered} 29 / 4 \\ (1 \text { day }) \end{gathered}$ | CALCULUS | 1. An intuitive understanding of the limit concept. <br> 2. Use limits to define the derivative of a function $f$ at any $x$ : $f^{\prime}(x)=\lim _{h \rightarrow 0} \frac{f(x+h)-f(x)}{h}$ <br> Generalise to find the derivative of $f$ at any point $x$ in the domain of $f$, i.e., define the derivative function $f^{\prime}(x)$ of the function $f(x)$. <br> Understand intuitively that $f^{\prime}(a)$ is the gradient of the tangent to the graph of $f$ at the point with $x$-coordinate $a$. |  |  |  |  |  | 55\% |
| $\begin{gathered} 30 / 4-02 / 5 \\ (2 \text { days }) \end{gathered}$ | CALCULUS | 3. Using the definition (first principles), find the derivative, $f^{\prime}(x)$, for <br> a. $f(x)=a x^{2}+b x+c$; <br> b. $f(x)=a x^{3}$; <br> c. $\quad f(x)=\frac{a}{x}$; and <br> d. $f(x)=c \quad(a, b$ and $c$ are constants). |  |  |  |  |  | 57\% |
| $\begin{gathered} 03 / 5-08 / 5 \\ (4 \text { days }) \end{gathered}$ | CALCULUS | 4. Use the formula $\frac{d}{d x}\left(a x^{n}\right)=a n x^{n-1}$, for any real number $n$, together with the rules <br> a. $\frac{d}{d x}[f(x) \pm g(x)]=\frac{d}{d x}[f(x)] \pm \frac{d}{d x}[g(x)] ;$ and <br> b. $\frac{d}{d x}[k f(x)]=k \frac{d}{d x}[f(x)] \quad(k$ a constant $)$. | TERM 2 TEST SBA Weighting: 10 |  |  |  |  | 61\% |
| $\begin{gathered} \hline 09 / 5 \\ (1 \text { day }) \\ \hline \end{gathered}$ | CALCULUS | 5. Find equations of tangents to graphs of functions. |  |  |  |  |  | 62\% |
| $\begin{gathered} 10 / 5 \\ (1 \text { day }) \end{gathered}$ | CALCULUS | 6. Apply the Remainder and Factor Theorems to polynomials of degree at most 3 . <br> 7. Factorise third degree polynomials. |  |  |  |  |  | 63\% |

## TERM 2 (continued)

| DATES | TOPIC | CURRICULUM STATEMENT | ASSESSMENT | F/IF | $\begin{gathered} \text { DATE } \\ \text { STARTED } \end{gathered}$ | DATE COMPLETED | HOD: <br> SIGNATURE <br> and DATE | \% COM- <br> PLETED |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{gathered} 13 / 5-20 / 5 \\ (6 \text { days) } \end{gathered}$ | CALCULUS | 8. Introduce the second derivative $f^{\prime \prime}(x)=\frac{d}{d x}\left[f^{\prime}(x)\right]$ of $f(x)$, and how it determines the concavity of a function. <br> 9. Sketch graphs of polynomial functions using differentiation to determine the coordinates of stationary points, and points of inflection (where concavity changes). Also determine the $x$ intercepts of the graph, using the factor theorem and other techniques. |  |  |  |  |  | 69\% |
| $\begin{gathered} 21 / 5-27 / 5 \\ (5 \text { days }) \\ \hline \end{gathered}$ | CALCULUS | 10. Solve practical problems concerning optimisation and rate of change, including calculus of motion. |  |  |  |  |  | 74\% |
| $\begin{gathered} 28 / 5-14 / 6 \\ (14 \text { days }) \end{gathered}$ | REVISION and JUNE EXAMINATIONS | JUNE EXAMINATION to cover <br> - The work done in Terms 1 and 2, including the work done in Grade 11 on all these topics. Also: <br> - Algebra, Equations and Inequalities <br> - Gr. 11 Finance, Growth and Decay; and <br> - Gr. 11 Probability. | JUNE EXAM SBA Weighting: 15 | F |  |  |  |  |


| TERM 3 |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| DATES | TOPIC | CURRICULUM STATEMENT | ASSESSMENT | F/IF | $\begin{aligned} & \text { DATE } \\ & \text { STARTED } \end{aligned}$ | DATE COMPLETED | HOD:SIGNATURE <br> and DATE | \% COM- <br> PLETED |
| $\begin{gathered} 09 / 7-10 / 7 \\ (2 \text { days }) \end{gathered}$ | FINANCE, GROWTH AND DECAY | 1. Make use of logarithms to calculate the value of $n$, the time period, in the equations $A=P(1+i)^{n}$ or $A=P(1-i)^{n}$. |  |  |  |  |  | 76\% |
| $\begin{gathered} 11 / 7-22 / 7 \\ \text { (8 days) } \end{gathered}$ | FINANCE, GROWTH AND DECAY | 2. Solve problems involving present value and future value annuities. <br> 3. Critically analyse investment and loan options and make informed decisions as to best option(s), including pyramid schemes. |  |  |  |  |  | 84\% |
| $\begin{gathered} 23 / 7-29 / 7 \\ (5 \text { days) } \end{gathered}$ | COUNTING AND <br> PROBABILITY | 1. Apply the fundamental counting principle to solve probability problems. |  |  |  |  |  | 89\% |
| $\begin{aligned} & 30 / 7-05 / 8 \\ & (5 \text { days }) \end{aligned}$ | COUNTING AND <br> PROBABILITY | 2. Revise <br> a. dependent and independent events; <br> b. the product rule for independent events: $P(A \text { and } B)=P(A) \times P(B)$ <br> c. the sum rule for mutually exclusive events: $P(A \text { or } B)=P(A)+P(B) ;$ <br> d the identity: $P(A$ or $B)=P(A)+P(B)-P(A$ and $B)$; <br> e. the complementary rule: $P(\operatorname{not} A)=1-P(A)$. <br> f. solving of probability problems (where events are not necessarily independent) by using Venn-diagrams, tree diagrams, two-way contingency tables and other techniques. |  |  |  |  |  | 94\% |
| $\begin{gathered} 06 / 8-14 / 8 \\ \text { ( } 6 \text { days) } \end{gathered}$ | STATISTICS: <br> REGRESSION <br> AND <br> CORRELATION | 1. Revise symmetric and skewed data. <br> 2. Use statistical summaries, scatterplots, regression (in particular the least squares regression line) and correlation to analyse and make meaningful comments on the context associated with given bivariate data, including interpolation, extrapolation and discussions on skewness. | TERM 3 TEST SBA Weighting: 10 | F |  |  |  | 100\% |
| $\begin{gathered} 15 / 8-20 / 9 \\ (27 \text { days }) \end{gathered}$ | $\begin{gathered} \hline \text { REVISION and } \\ \text { TRIAL } \\ \text { EXAMINATIONS } \end{gathered}$ | TRIAL EXAMINATION to cover all the TOPICS dealt with in both Grades 11 and 12. | TRIAL EXAM SBA Weighting: 25 | F |  |  |  |  |



# RECORDS OF SBA MODERATION <br> GRADE 12 MATHEMATICS 2019 

NAME OF DISTRICT: $\qquad$

NAME OF CLUSTER: $\qquad$

NAME OF SCHOOL: $\qquad$

NAME OF TEACHER: $\qquad$

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Please note the following colours to be
used in the moderation of learner
evidence:
                            School-GREEN
    Cluster - ORANGE
    District - PINK
    Province - BROWN
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PART A: SCHOOL LEVEL MODERATION PRE-ASSESSMENT MODERATION (the PART should be completed for EACH task to be ADMINISTERED) NB: Should be done before the task is administered AND comments serve as feedback to the educator.

| TERM 1 | NB: COMMENTS ONLY. |  |  |
| :---: | :---: | :---: | :---: |
| Task Name | INVESTIGATION | ASSIGNMENT | MARCH TEST |
| 1. TECHNICAL CRITERIA |  |  |  |
| a) The question paper is neatly typed, complete and with relevant marking guideline. |  |  |  |
| b) The cover page has all relevant details such as date, time allocation, nature of the task, name of the subject and instructions to candidates. |  |  |  |
| c) The instructions to candidates are clearly specified and unambiguous. |  |  |  |
| d) The task has the correct numbering. |  |  |  |
| e) The layout of the task is candidate friendly and accessible to candidates with barriers to learning. |  |  |  |
| f) Diagrams or illustrations are clear, accurate and correctly labelled. |  |  |  |
| g) Mark allocations are clearly indicated on both the task and the marking guideline and they correspond. |  |  |  |
| 2. CONTENT |  |  |  |
| a) The task is in accordance with CAPS and within the broad scope of NSC. |  |  |  |
| b) The content tested in the assessment task adequately covers the targeted topics. |  |  |  |


| c)The assessment task covers all four cognitive <br> levels in the correct weighting. |  |  |  |
| :--- | :--- | :--- | :--- |
| d) The cognitive analysis grid is included. |  |  |  |
| 3. QUALITY OF INDIVIDUAL <br> QUESTIONS |  |  |  |
| a)The questions are original (Repetition of <br> questions from previous examinations is <br> avoided). <br> b)Questions are following a progression from <br> easy to difficult (scaffolding). <br> c)Candidates are able to answer the questions in <br> the allocated time. <br> 4. MARKING GUIDELINE <br> a) <br> The marking guideline is laid out clearly, <br> neatly typed and accurate. <br> b) The marking guideline allows for alternative <br> responses. |  |  |  |
| c)The marking guideline is complete with mark <br> allocation and distribution within the <br> questions. |  |  |  |
| NAME OF MODERATOR |  |  |  |
| SIGNATURE OF MODERATOR |  |  |  |
| DATE OF MODERATION |  |  |  |
| The educator incorporated comments from <br> MODERATOR into the assessment/task before it <br> was administered |  |  |  |
| NAME OF MODERATOR |  |  |  |
| SIGNATURE OF MODERATOR |  |  |  |


| TERM 2 | TERM 2 TEST | JUNE EXAMINATION |
| :---: | :---: | :---: |
| 1. TECHNICAL CRITERIA |  |  |
| a) The question paper is neatly typed, complete and with relevant marking guideline. |  |  |
| b) The cover page has all relevant details such as date, time allocation, nature of the task, name of the subject and instructions to candidates. |  |  |
| c) The instructions to candidates are clearly specified and unambiguous. |  |  |
| d) The task has the correct numbering. |  |  |
| e) The layout of the task is candidate friendly and accessible to candidates with barriers to learning. |  |  |
| f) Diagrams or illustrations are clear, accurate and correctly labelled. |  |  |
| g) Mark allocations are clearly indicated on both the task and the marking guideline and they correspond. |  |  |
| 2. CONTENT |  |  |
| a) The task is in accordance with CAPS and within the broad scope of NSC. |  |  |
| b) The content tested in the assessment task adequately covers the targeted topics. |  |  |
| c) The assessment task covers all four cognitive levels in the correct weighting. |  |  |
| d) The cognitive analysis grid is included. |  |  |
| 3. QUALITY OF INDIVIDUAL QUESTIONS |  |  |
| a) Repetition of questions from previous examinations is avoided. |  |  |
| b) Questions or tasks are free from subject error from an academic point of view, e.g. historic or scientific facts. |  |  |
| 4. MARKING GUIDELINE |  |  |
| a) The marking guideline is laid out clearly, neatly typed and accurate. |  |  |
| b) The marking guideline makes allowance for alternative solutions. |  |  |
| c) The marking guideline is complete with mark allocation and distribution within the questions. |  |  |


| NAME OF MODERATOR |  |  |
| :--- | :--- | :--- |
| SIGNATURE OF MODERATOR |  |  |
| DATE OF RE-MODERATION |  |  |
| The educator incorporated comments from MODERATOR into the <br> assessment/task before it was administered |  |  |
| NAME OF MODERATOR |  |  |
| SIGNATURE OF MODERATOR |  |  |
| DATE OF RE-MODERATION |  |  |


| TERM 3 | TERM 3 TEST | PREPARATORY EXAMINATION |
| :---: | :---: | :---: |
| 1. TECHNICAL CRITERIA |  |  |
| a) The question paper is neatly typed, complete and with relevant marking guideline. |  |  |
| b) The cover page has all relevant details such as date, time allocation, nature of the task, name of the subject and instructions to candidates. |  |  |
| c) The instructions to candidates are clearly specified and unambiguous. |  |  |
| d) The task has the correct numbering. |  |  |
| e) The layout of the task is candidate friendly and accessible to candidates with barriers to learning. |  |  |
| f) Diagrams or illustrations are clear, accurate and correctly labelled. |  |  |
| g) Mark allocations are clearly indicated on both the task and the marking guideline and they correspond. |  |  |
| 2. CONTENT |  |  |


| a)The task is in accordance with CAPS and within the broad <br> scope of NSC. |  |  |  |
| :--- | :--- | :--- | :--- |
| b)The content tested in the assessment task adequately covers <br> the targeted topics. |  |  |  |
| c)The assessment task covers all four cognitive levels in the <br> correct weighting. |  |  |  |
| d)The Assessment Framework (cognitive analysis grid) is <br> included |  |  |  |
|  | 3. QUALITY OF INDIVIDUAL QUESTIONS |  |  |
| a) <br> Repetition of questions from previous examinations is <br> avoided. |  |  |  |
| b)Questions or tasks are free from subject error from an <br> academic point of view, e.g. historic or scientific facts. |  |  |  |
| 4. MARKING GUIDELINE |  |  |  |
| a) The marking guideline is laid out clearly, neatly typed and |  |  |  |
| accurate. |  |  |  |



LEARNER AND TEACHER EVIDENCE OF ASSESSMENT (COMMENTS ONLY)

|  |  | FIRST MODERATION | SECOND MODERATION | THIRD MODERATION |
| :--- | :--- | :--- | :--- | :--- |
| Does the Teacher's <br> Records of Assessment <br> contain... | An updated Programme of <br> Assessment? |  |  |  |
|  | an updated Work Schedule? |  |  |  |
|  | up to date Mark Sheets? |  |  |  |
| Is the following <br> available for each <br> learner... | The relevant tasks, arranged in <br> an easily accessible way? |  |  |  |
|  | An up to date Consolidation <br> form (including a learner's <br> declaration of authenticity)? |  |  |  |


| MODERATOR | FIRST <br> MODERATION | SECOND <br> MODERATION | THIRD <br> MODERATION | PRINCIPAL | FIRST <br> MODERATION | SECOND <br> MODERATION | THIRD <br> MODERATION |
| :--- | :---: | :---: | :---: | :--- | :--- | :--- | :--- |
| Name |  |  |  | Name |  |  |  |
| Rank |  |  |  | Signature |  |  |  |
| Signature |  |  |  | Date |  |  |  |
| Date |  |  |  |  |  |  |  |

PART B: CLUSTER/DISTRICT LEVEL MODERATION


| LEARNER AND TEACHER EVIDENCE OF ASSESSMENT (COMMENTS ONLY) |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :---: | :---: |
|  |  | FIRST MODERATION | SECOND MODERATION | THIRD MODERATION |  |  |
| Does the <br> Teacher's <br> Records of <br> Assessment also <br> contain... | An updated Programme of <br> Assessment? | an updated Work Schedule? |  |  |  |  |
|  | up to date Mark Sheets? |  |  |  |  |  |
| Is the following <br> available for <br> each learner... | The relevant tasks, arranged <br> in an easily accessible way? |  | An up to date Consolidation <br> form (including a learner's <br> declaration of authenticity)? |  |  |  |


| MODERATOR | FIRST <br> MODERATION | SECOND <br> MODERATION | THIRD <br> MODERATION | CLUSTER <br> COORDINATOR | FIRST <br> MODERATION | SECOND <br> MODERATION | THIRD <br> MODERATION |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Name |  |  |  | Name |  |  |  |
| School |  |  |  | School |  |  |  |
| Signature |  |  |  | Signature |  |  |  |
| Date |  |  | Date |  |  |  |  |

OVERALL FINDINGS AND RECOMMENDATIONS (CLUSTER/ DISTRICT MODERATOR)

|  | TERM 1 | TERM 2 | TERM 3 |
| :---: | :---: | :---: | :---: |
| HAVE RECOMMENDATIONS <br> FROM PREVIOUS <br> MODERATION BEEN <br> IMPLEMENTED? |  |  |  |
| GOOD PRACTICES |  |  |  |
| AREAS OF CONCERN |  |  |  |
| RECOMMENDATIONS |  |  |  |


| NAME OF SUBJECT <br> ADVISOR | COMMENTS | DATE | SIGNATURE |
| :--- | :--- | :--- | :--- |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

## MATHEMATICS GRADE 12 PROGRAMME OF ASSESSMENT 2019

## SCHOOL

EDUCATOR $\qquad$

| TERM | TASK | TOPIC(S) | MARKS <br> * see footnote below | $\begin{aligned} & \text { ASSESSMENT } \\ & \text { TOOL } \end{aligned}$ | WEIGHTING | DATE |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | Assignment |  |  |  | 10 |  |
|  | Project/ Investigation |  |  |  | 20 |  |
|  | March <br> Controlled Test |  | $\begin{aligned} & 100 \\ & \text { (One Paper) } \end{aligned}$ |  | 10 |  |
| 2 | Test |  |  |  | 10 |  |
|  | Examination |  | $\begin{aligned} & 300 \\ & (\mathrm{P} 1+\mathrm{P} 2) \end{aligned}$ |  | 15 |  |
| 3 | Test |  |  |  | 10 |  |
|  | Trial <br> Examination |  | $\begin{aligned} & 300 \\ & (\mathrm{P} 1+\mathrm{P} 2) \end{aligned}$ |  | 25 |  |
| $\begin{array}{\|c\|} \hline \text { SBA } \\ \hline \text { ASSESSMENT } \\ \text { MARK } \end{array}$ |  |  |  |  | 100 |  |
| $\begin{gathered} \text { SBA MARK } \\ \text { (As \% of } \\ \text { Promotion } \\ \text { Mark) } \\ \hline \end{gathered}$ |  |  |  |  | 25\% |  |

Nb: Test/Assignment/Investigation minimum (at least) 50 marks

## MATHEMATICS GRADE 12

## SBA CONSOLIDATION FORM

 2019NAME OF LEARNER:
NAME OF TEACHER:
NAME OF SCHOOL:


I declare that the above CASS tasks were done by me, and the marks indicated above are authentic.

| Name: | Term 1 | Term 2 | Term 3 |
| :--- | :--- | :--- | :--- |
| Date : |  |  |  |
| Signatures: |  |  |  |

PROVINCE OF KWAZULU NATAL
DEPARTMENT OF EDUCATION PROVINCIAL EXAMINATIONS AND ASSESSMENT

## ANNEXURE 1

DECLARATION OF AUTHENTICITY: TO BE COMPLETED BY THE LEARNER

| NAME OF SCHOOL |  |
| :--- | :--- |
| NAME OF LEARNER <br> (Full name(s) and surname) |  |
| EXAMINATION NUMBER <br> (where applicable) |  |
| NAME OF EDUCATOR |  |

I hereby declare that all pieces of writing contained in this evidence of performance are my own original work and that if I have made use of any resources, I have acknowledged sources.

## ABSENCE:

- I agree that should I miss a component of School -Based Assessment (SBA) without a valid reason, I will be awarded a zero mark ("0") for such component.
- I shall endeavor to be present for all tests and examinations and should this be impossible, I shall provide evidence for my absence.

I am aware that frequent absence from school may result in my School-Based Assessment being affected.

I agree that if it is proved that I have engaged in copying information from publications, electronic media and from previous candidates' work or I have engaged in any fraudulent activities in connection with my SBA task(s), then I could forfeit the marks for this assessment.

## CANDIDATE'S SIGNATURE

DATE
As far as I know, the above declaration by the learner is true and I accept that the work offered is his or her own.
TEACHER'S SIGNATURE
DATE


SCHOOL：
DISTRICT：
1．TERM ANALYSIS

|  |  | Term 1 |  |  |  |  | Term 2 |  |  |  |  | Term 3 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\begin{aligned} & \text { U } \\ & \dot{\circ} \text {. } \\ & \text { 己 } \\ & \hline \end{aligned}$ | 安范 |  |  | $\begin{array}{cc} \infty & 0 \\ \stackrel{0}{0} \\ \stackrel{\sim}{0} \\ \dot{\sim} \end{array}$ | 気 |  | $\begin{aligned} & \text { च्0 } \\ & \text { ت/ } \\ & \dot{\text { B }} \end{aligned}$ |  | $\begin{aligned} & \infty \\ & \stackrel{\infty}{c} \stackrel{0}{0} \\ & \stackrel{n}{2} \end{aligned}$ | 気 |  | $\begin{aligned} & \text { 苟 } \\ & \text { ت } \\ & \dot{\text { B }} \end{aligned}$ | \％ 0 0 0 0 |
| All learners | Grade 10 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Progressed Learners | Grade 10 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| All learners | Grade 11 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Progressed Learners | Grade 11 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| All learners | Grade 12 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Progressed Learners | Grade 12 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Signature of teacher

Signature of HOD

TEACHER：
YEAR：

SUBJECT：
TERM：

1．TERM ANALYSIS

Date ．．．．．．．．．．／．．．．．．．．．／20．．．．．．

Date $\qquad$ ／20．

2. QUARTERLY TARGETS

|  | Grade | Target <br> March | \%Achieved <br> March | Target <br> June | \% Achieved <br> June | Target <br> Trial/Sept |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| All learners |  |  | \% <br> Achieved <br> Trial /Sept | Target <br> Nov | Achieved <br> Nov \% |  |  |  |  |
| Progressed Learners | Grade |  |  |  |  |  |  |  |  |
| All learners | Grade |  |  |  |  |  |  |  |  |
| Progressed Learners | Grade |  |  |  |  |  |  |  |  |
| All learners | Grade |  |  |  |  |  |  |  |  |
| Progressed Learners | Grade |  |  |  |  |  |  |  |  |

$\qquad$ Date $\qquad$
$\qquad$ /20......
Signature of teacher

Date $\qquad$
$\qquad$ /20.....


| NAME OF SCHOOL |  |  |  |  |
| :--- | :--- | :--- | :--- | :---: |
| NAME OF TEACHER |  |  |  |  |
| GRADE |  |  |  |  |
| TYPE OF ASSESSMENT TASK |  |  |  |  |
| ASPECTS/ SECTIONS COVERED |  | DURATION |  |  |
| MAXIMUM MARK |  |  |  |  |


| DISTRIBUTION OF MARKS |  |  |  |
| :---: | :--- | :---: | :--- |
| RATING CODE | RATING | MARKS $\%$ | NUMBER OF LEARNERS |
| 7 | Outstanding achievement | $80-100$ |  |
| 6 | Meritorious achievement | $70-79$ |  |
| 5 | Substantial achievement | $60-69$ |  |
| 4 | Adequate achievement | $50-59$ |  |
| 3 | Moderate achievement | $40-49$ |  |
| 2 | Elementary achievement | $30-39$ |  |
| 1 | Not achieved | $0-29$ |  |


| NO. WROTE | NO. PASSED |  | NO. FAILED |  | AVERAGE $\%$ |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |

(Identify the questions where learners have performed poorly and indicate the reason/s for the poor performance. The reason/s could relate to teaching, learning or both or any other)

| Question <br> Number | Description of specific errors | Reasons for poor performance | Remedial Measures |
| :--- | :--- | :--- | :--- |
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COMMENTS BY MODERATOR : $\qquad$

TEACHER $\qquad$ DATE : $\qquad$ MODERATOR : $\qquad$ DATE: $\qquad$

