IMMACULATE CONCEPTION HIGH SCHOOL DEPARTMENT OF MATHEMATICS
CHRISTMAS TERM PLAN:- September 4, 2023 to December 19, 2023 (15 weeks)

NAMES OF TEACHERS: Ms Thompson, Ms Mossop, Ms. Parker, Ms Pryce, Ms Dudley

GRADE: 10 **TERM : I**	**TERM WEIGHTING:** **Test – 60%** **Coursework - 40%**	**Assessments: 2 Six Weekly Tests** **4 Course work: Graded Homework, Online Quiz/Test, Class Quiz , Project**

WEEK	PERIOD	TOPICS	OBJECTIVE : Students should be able to:	ASSESSMENT
1	**Sept 4 - 8**	**ORIENTATION AND DIAGNOSTIC TESTS**		
2-4	**Sept 11 – 29 (3 weeks)**	**Statistics II (review Statistics I first)**	1. Construct a simple frequency table for a given set of data 2. Determine measures of central frequency from a table 3. Draw a histogram and a frequency polygon of data represented in a simple frequency table] 4. Construct a group frequency table from a set of data 5. Given class size, determine class interval, limit, mid-point and upper/lower boundaries for a given set of grouped data 6. Draw histogram and frequency polygon given a group data 7. Determine the modal class and median from a set of grouped data 8. Use the mid-point of the class interval to estimate the mean of data presented in group frequency table	
5-6	**Oct 2 - 13 (2 weeks)**	**Trigonometry I**	1. Use simple trigonometric ratios to solve problems based on measurements in physical world: - Heights and distances - Angles of elevation and depression - Bearings 2. Apply the sine and cosine rules to the solution of non right-angled triangles.	**Course Work**

7	**Oct 16 - 18**	**MID TERM**		
7	**Oct 19 - 20**	**Trigonometry I (Cont'd)**	1. Use simple trigonometric ratios to solve problems based on problems in the physical world: - Heights and distances - Angles of elevation and depression - Bearings 2. Apply the sine and cosine rules to non-right-angled triangles	
8	**Oct 23 - 27**	**SIX WEEKLY TEST**		
9-10	**Oct 30 – Nov 10 (2 weeks)**	**Coordinate Geometry (Equations of Straight Lines)**	1. Recognize a linear equation connecting two variables 2. Plot a straight-line graph of a given equation, 3. Calculate the gradient of a straight line from its graph or given two points on the line. 4. Recognize the equation and know the gradient for horizontal and vertical lines. 5. Find the y-intercept for any straight line from its graph 6. Recognize the equation of a straight line in the form y=mx+c, and use this to state the gradient and the y-intercept for any straight line 7. Determine the equation of the line given : ● Graph of a line ● The coordinates of two points ● The gradient and a points 8. Calculate midpoint of a line 9. Use distance formula when given two points to calculate to find the distance between them 10. Identify parallel and perpendicular lines and write their equations.	
11-12	**Nov 13 - 24 (2 weeks)**	**Construction (with ruler & compasses only!)** .	1. Construct angles 90° and 60° 2. Bisect angle; Then use this concept to construct other angles e.g. 15°, 30°, 45°, 75°, 105°, 135° etc. 3. Construct a perpendicular bisector to a line. 4. Construct a perpendicular line to another line from : ● Any point on the line segment ● A point outside of the line segment 5. Construct circumcircle & inscribe circle 6. Construct parallel lines 7. Construct quadrilaterals and triangles	

13	**Nov 27 – Dec 1**	**Algebraic Operations**	1. Add, subtract, divide and multiply like terms, Expressions and algebraic fractions 2. Expand (a + b) and (a-b) 3. Solve worded problems involving sum and differences of squares.	**Coursework**
14	**Dec 4 - 8**	**SIX WEEKLY TEST**		
15	**Dec 11 - 15**	**Algebraic Operations (Cont'd)**	1. Add, subtract, divide and multiply like terms, Expressions and algebraic fractions 2. Expand (a + b) and (a-b) 3. Solve worded problems involving sum and differences of squares.	