***The Ambassadors College, Ota***

**GRADE 9 (Honours)**

**First Term**

**Mid – Term Holiday Assignment**

**2024/2025 Academic Session**

**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**MATHEMATICS**

1. (a) The cost of maintaining a boarding school is partly constant and partly varies as the number of students. With 50 students, the cost is £15,705.00 and with 40 students, it is £13,305.00.

 (i) Find the cost when there are 44students.

 (ii) If the fee per student is £360.00, what is the least number of pupils for which the school can be run without loss?

1. Evaluate*:* $\frac{log\_{5}\left(0.04\right)}{log\_{3}18-log\_{3}2}$ without using logarithm tables
2. The total surface area of a solid cylinder is 88cm^2, while the height is 7cm. Find, correct to three significant figures, the :

 i. diameter of its cross section;

 ii. volume of the solid (Take π=22/7)

1. Use $log$ table to solve: $\left(\frac{0.0416}{\sqrt{28.1 ×1,634}}\right)^{\frac{2}{3}}$
2. Solve for $y$ in the equation: $10^{y}×5^{\left(2y-2\right)}×4^{\left(y-1\right)}=1$

**CHEMISTRY**

Cambridge Lower Secondary science learners book 9, exercise 5.1 – 5.4, page 204 – 205.

**BIOLOGY**

Cambridge Lower Secondary science learners book 9, Exercise 1.1A – 1.1C, page 2-7.

**PHYSICS**

Cambridge Lower Secondary science learners workbook 9, exercise 9 (9.1A to 9.2B) page 172 – 178.

**BUSINESS STUDIES**

1. Differentiate between division of labour and specialization.
2. State any five advantages of division of labour.

**BASIC TECHNOLOGY**

1. Given a cuboid with dimension 45mm by 30mm by 25mm draw:

1. An isometric projection of the cuboid
2. A third angle orthographic projection the cuboid.

2. (a. Define the term a orthographic projection

 (b. List five (5) important components of a blueprint.

**NATIONAL VALUE EDUCATION**

1. Define Human trafficking

2. Explain 4 social consequences of human trafficking.