KENYA CERTIFICATE OF BASIC EDUCATION

SENIOR SCHOOL ASSESSMENT

TERM 2: ENDTERM ASSESSMENT 2026

GRADE 10 – AVIATION 007 JULY

Time: 2 Hours

LEARNER'S DETAILS

Name: _____. **School:** _____.

Assessment Number: _____. **Date:** _____.

School Code: _____. **Signature:** _____.

INSTRUCTIONS TO CANDIDATES

1. Write your name in the spaces provided above.
2. Write the name of your school and your stream in the spaces provided.
3. Write your admission number and the date of the assessment in the spaces provided.
4. This paper consists of two sections: A and B.
5. Answer all questions in section A and section B.
6. Answer the questions in English.
7. All answers MUST be written in the spaces provided in the paper.
8. Do NOT remove any page from this question paper.

FOR OFFICIAL USE ONLY (EXAMINER'S USE)

SECTION	SECTION A	SECTION B	% SCORE	EE1	EE2	ME1	ME2	AE1	AE2	BE1	BE2
SCORE RANGE	30 MARKS	50 MARKS		90-100	75-89	58-74	41-57	31-40	21-30	11-20	1-10
POINTS				8 POINTS	7 POINTS	6 POINTS	5 POINTS	4 POINTS	3 POINTS	2 POINTS	1 POINT
LEARNER'S TOTAL SCORE											

SECTION A (30 MARKS)

Answer ALL questions in this section.

1. (a) Learners from Mang'u Senior School visited a museum and saw various aircraft models. Match the aviation pioneer in Column A with their specific contribution in Column B. *(4 Marks)*

Column A: Pioneer	Column B: Contribution
i) Montgolfier Brothers	A. Developed the first practical helicopter (rotary wing)
ii) Wright Brothers	B. Known as the "Father of Aviation" for glider principles
iii) George Cayley	C. Launched the first successful hot air balloon
iv) Igor Sikorsky	D. Achieved the first powered, controlled fixed-wing flight

(b) Based on your knowledge, list two examples of **lighter-than-air aircraft**. *(2 Marks)*

i._____

ii. _____

2. While at Jomo Kenyatta International Airport (JKIA), a learner noticed several signs in the terminal area.

i) Identify the three categories of safety signs. *(3 Marks)*

i._____

ii. _____

iii._____

ii) Mention one area of the airport categorized as **airside**. *(1 Mark)*

_____

3. State whether the following statements regarding aviation weather are **TRUE or FALSE**. *(4 Marks)*

a) Cirrus clouds are found at very high altitudes and are made of ice crystals. [_____]
b) Humidity has no effect on the performance of an aircraft engine. [_____]
c) The troposphere is the lowest layer of the atmosphere where weather occurs. [_____]
d) A wind vane is used to measure the speed of the wind at an airstrip. [_____]

4. Kamau, a Grade 10 student at Alliance High School, is using a drawing board to create an isometric view of a wing component.

i) Define an **isometric drawing**. *(2 Marks)*

_____

_____

ii) Describe one characteristic of the axes used in the drawing. *(2 Marks)*

_____

_____

5. Distinguish between **physical properties** and **mechanical properties** of aircraft materials *(2 Marks)*

_____

_____

_____

_____

6. Three learners are discussing the properties of the atmosphere: Three learners gave their views as follows:-

Zawadi: "I think pressure increases as you go higher."

Mutua: "No, the air gets thinner and the density decreases."

Achieng: "And don't forget the temperature; it generally drops in the lower layer."

i) Identify the learner who made a **false statement**. *(1 Mark)*

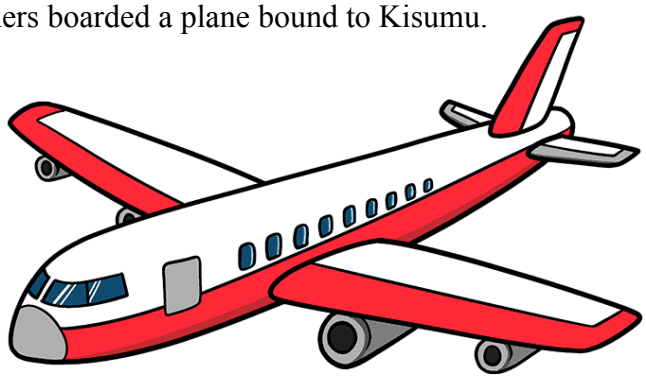
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ii) Outline the two main physical properties of the atmosphere being discussed. *(2 Marks)*

i. _____

ii. _____

7. Grade 10 learners boarded a plane bound to Kisumu.



List the four forces that act on an aircraft during steady flight in Kisumu airspace. *(4 Marks)*

i. _____

ii. _____

iii. _____

iv. _____

8. Mention three standard first aid items found in an aviation workshop kit. *(3 Marks)*

i. _____

ii. _____

iii. _____

SECTION B (50 MARKS)

(Answer ALL questions in this section)

9. (a) Below is a diagram of a fixed-wing aircraft used for training at Wilson Airport.





D A

i) Name the parts labeled. *(4 Marks)*

A: _____ B: _____

C: _____ D: _____

ii) Explain the function of: *(4 Marks)*

B _____

C _____

(b) Amina, a Grade 10 learner, wants to construct a heavier-than-air model. Outline three locally available materials she can use. *(3 Marks)*

i. _____

ii. _____

iii. _____

10. Aviation Communication. Aircraft "5Y-KAA" is communicating with the tower at Eldoret International Airport.

i) Using ICAO phonetics, spell out the aircraft call sign **5Y-KAA**. *(5 Marks)*

5: _____

Y: _____

K: _____

A: _____

A: _____

ii) Identify the standard phrase used to mean: *(2 Marks)*

"I have received all of your last transmission": _____.

"My transmission is ended and I expect a response from you": _____.

iii) Describe the marshalling signal for **"Stop."** *(2 Marks)*

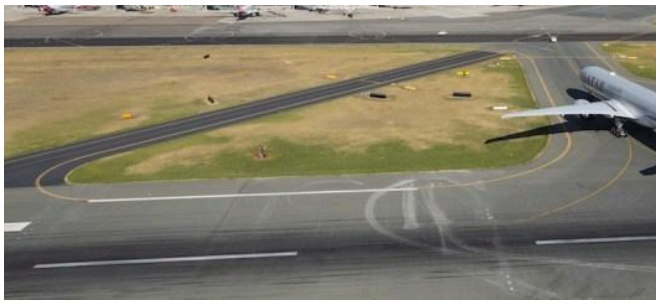
i. _____

ii. _____

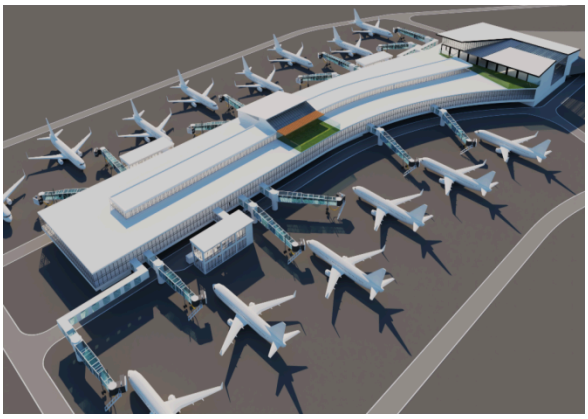
11. Airport Operations and Business. Malindi Senior School learners are analyzing the layout of Malindi Airport.



M



N



O



P

a) Identify the physical components shown in the layout. *(4 Marks)*

M: _____.

N: _____.

O: _____.

P: _____.

b) Categorize the following services as **Landside** or **Airside**. *(4 Marks)*

i. Duty-Free Shop: _____

ii. Aircraft Refueling: _____

iii. Car Parking: _____

iv. Baggage Handling: _____

c) Explain the role of the Kenya Civil Aviation Authority (KCAA) in consumer protection. *(2 Marks)*

i. _____

ii. _____

12. During a practical lesson at a flight training workshop, learners observed how an aircraft moves in different directions while in flight. They discussed how these movements occur along different axes and how forces act on the aircraft

a) Name the motion about the following axes. *(3 Marks)*

i. Longitudinal Axis: _____

ii. Lateral Axis: _____

iii. Vertical Axis: _____

b) Describe how the **weight** of an aircraft is affected by gravity. *(2 Marks)*

i. _____

ii. _____

13. Safety and Hazards. In the aviation workshop at Starehe Boys' Centre, a learner is using a powered cutting tool.

a) State two hazards visible in the scenario. *(2 Marks)*

i. _____

ii. _____

b) Mention two safety precautions when using powered tools. *(2 Marks)*

i. _____

ii. _____

c) Explain the first aid procedure for a minor **electric shock** injury. *(4 Marks)*

i. _____

ii. _____

iii. _____

iv. _____

14. Four learners are discussing the financial side of a flight school.

i. *Wanjiku:* “The money we get from student fees is our revenue.”
ii. *Otieno:* “The fuel we buy and the salaries we pay are our expenses.”
iii. *Ali:* “If our revenue is higher than our expenses, we have made a profit.”
iv. *Moraa:* “We need to do budgeting to plan how much we will spend next term.”

a) Identify the learner describing a **plan for future spending**. *(1 Mark)*

_____

b) Define **profit** as used by Ali. *(2 Marks)*

_____
_____

c) List two rights of a consumer at an airport as protected by ICAO. *(2 Marks)*

i. _____
ii. _____

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