END TERM 3 2026

GRADE 10

AVIATION

END TERM SUMMATIVE ASSESSMENT

TIME: 2 HOURS

Name:	_____
Assessment Number:	_____
Class / Stream:	_____
Date:	_____

INSTRUCTIONS TO CANDIDATES

1. Write your name and assessment details in the spaces provided.

2. Read all questions carefully before answering.

3. Answer all questions.

4. Show clear working where calculations or reasoning are required.

5. Label diagrams clearly where required.

6. Use appropriate aviation terminology in your responses.

7. Write all answers in the spaces provided where applicable.

8. Use clear and legible handwriting.

9. Check the question paper to ensure that all pages and questions are present.

10. Answer the paper in English.

EXAMINER'S USE ONLY

Section / Question Numbers	Maximum Score	Candidate's Score	Examiner's Initials
Section A — Questions 1–5	20		
Section B — Questions 6–9	20		
Section C — Questions 10–13	20		
Section D — Questions 14–19	20		
TOTAL	80		

SECTION A — AVIATION WEATHER

1. State four elements of weather that are relevant to flight operations. **(4 marks)**

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2. Explain four ways in which weather conditions can affect an aircraft in flight. **(4 marks)**

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3. Distinguish between cirrus, stratus and cumulus clouds in terms of their general appearance and altitude characteristics. **(6 marks)**

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4. A pilot is preparing for a flight and receives information indicating strong winds, high humidity, heavy precipitation and reduced visibility. Explain two operational concerns associated with the reported conditions. **(4 marks)**

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5. Explain two reasons why accurate measurement and observation of weather elements are important in flight operations. **(2 marks)**

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SECTION B — AVIATION COMMUNICATION

6. State four purposes of standard words and phrases in aviation communication. **(4 marks)**

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7. Explain the meaning and use of the following aviation communication phrases: (a) ground-to-ground; (b) ground-to-air; (c) read back; (d) transmission. **(8 marks)**

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8. Describe four features of effective radio communication in an aviation environment. **(4 marks)**

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9. An aircraft is approaching an aerodrome where several ground personnel are working around the movement area. Explain how clear communication between flight crew and ground personnel contributes to safety. **(4 marks)**

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SECTION C — AERODYNAMICS OF FLIGHT

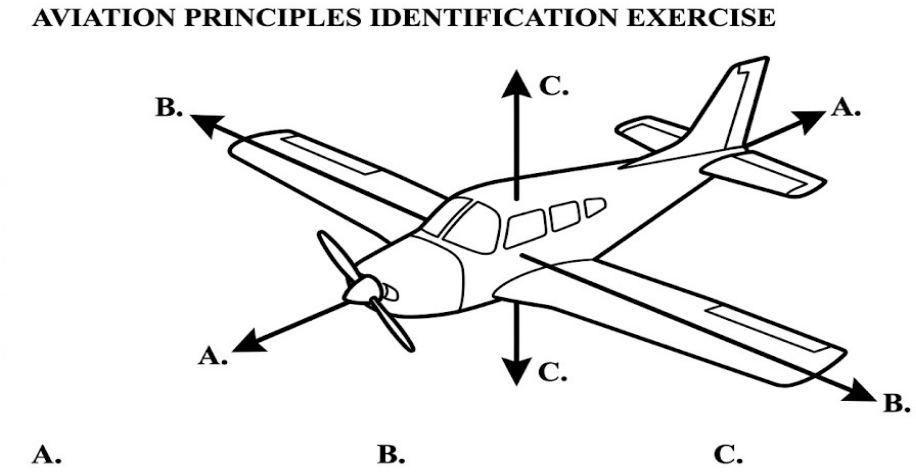
10. (a) Name the two lower layers of the atmosphere discussed in the study of flight. (b) State one characteristic of each layer that is relevant to aviation. **(4 marks)**

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Figure 1



11. Using Figure 1, identify the three principal axes of an aircraft and state the rotational movement associated with each axis. **(6 marks)**

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12. Name the four main forces that act on an aircraft in flight and explain the role of each force. **(6 marks)**

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13. Explain how Bernoulli's principle and Newton's laws help to explain the generation of forces involved in aircraft flight. **(4 marks)**

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SECTION D — AIRPORT OPERATIONS

14. (a) State three categories of airports identified in the Curriculum Design. (b) Give one characteristic or use associated with each category. **(6 marks)**

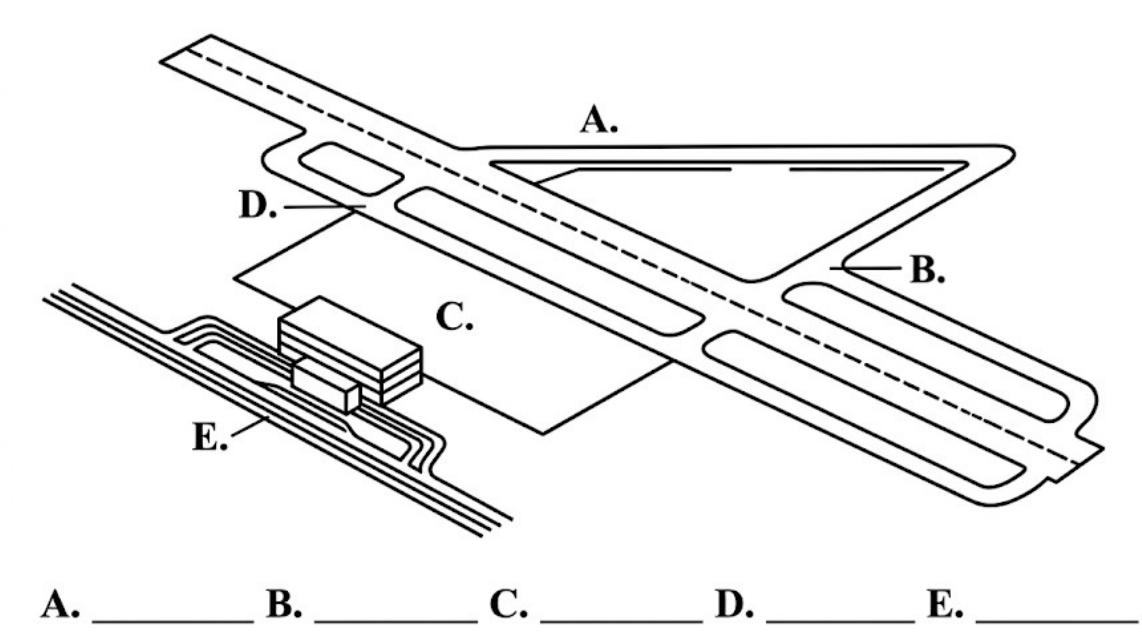
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Figure 2



15. Using Figure 2, (a) identify the runway, taxiway, apron and terminal; (b) explain the function of any two of the identified areas. **(6 marks)**

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16. Explain the roles of the following roads in airport operations: (a) runway; (b) taxiway; (c) service road; (d) access road. **(4 marks)**

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17. State four consumer rights that should be observed in airport operations. **(4 marks)**

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18. A small aviation business records the following amounts during one month: revenue KSh 480,000; expenses KSh 350,000. Calculate the profit and explain why keeping accurate financial records is important to an aviation business. **(4 marks)**

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19. Explain two roles played by aviation businesses in airport operations and two ways in which consumer protection agencies contribute to protecting consumers. **(4 marks)**

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END OF QUESTION PAPER