External assessment 2021

Multiple choice question book

Aerospace Systems

General instruction

- Work in this book will not be marked.

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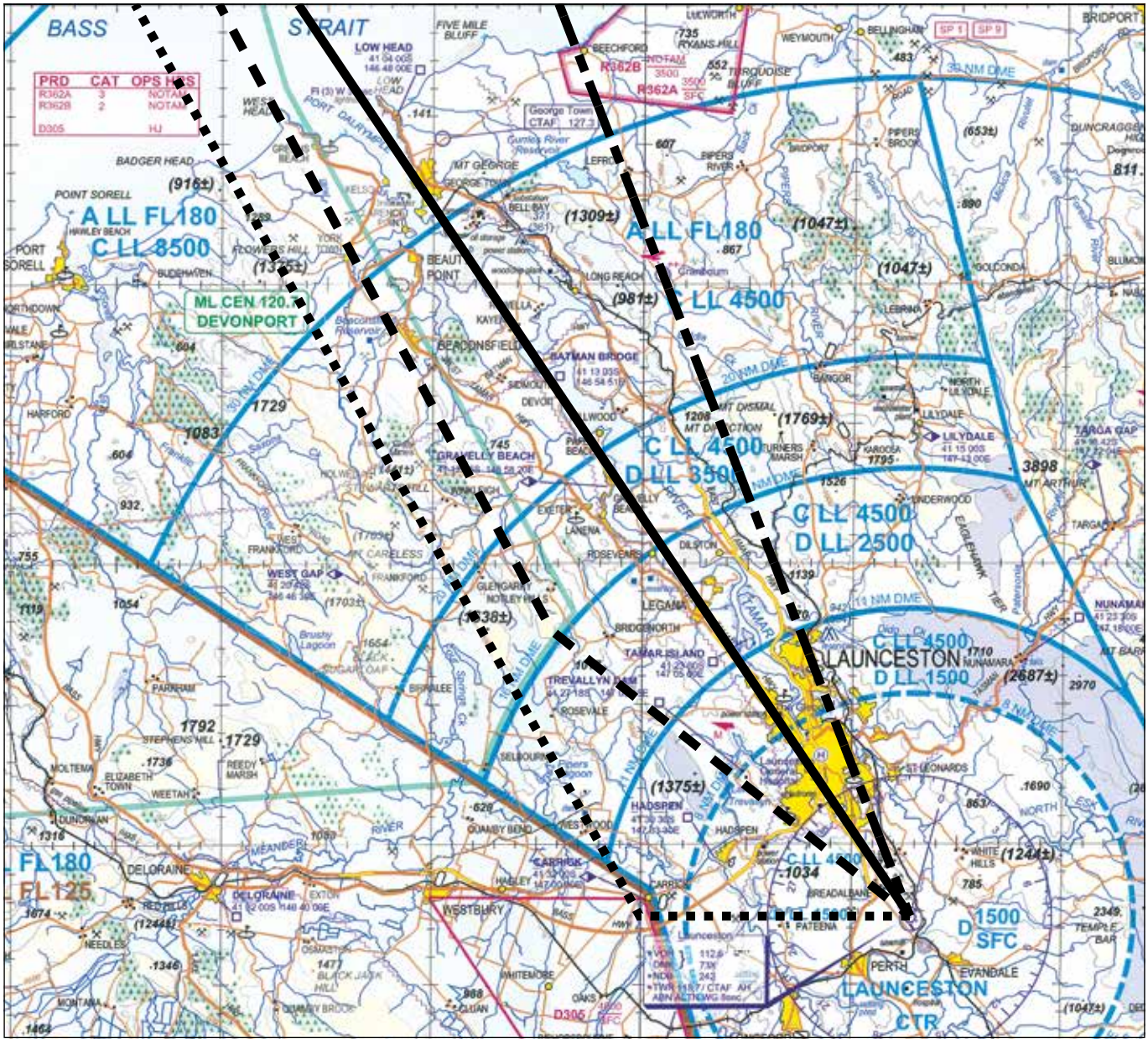
Section 1

QUESTION 1



Which flight path for an aircraft departing Launceston does not pass through class G frequency or danger area airspace boundaries?

(A) ▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪

(B) ▪ ▬ ▬ ▬ ▬ ▬ ▬ ▪

(C) ▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬

(D) ▪ ▬ ▬▬ ▬ ▬▬ ▬ ▬▬

QUESTION 2

What is the ground speed of an aircraft experiencing winds of 135/20 M on a heading of 070° M while maintaining a TAS of 155 kt?

(A) 135 kt

(B) 145 kt

(C) 155 kt

(D) 165 kt

QUESTION 3

The ADS-B system determines the position of an aircraft by using the aircraft's avionics and

(A) satellites.

(B) radarscopes.

(C) interrogators.

(D) transponders.

QUESTION 4

An aircraft with a TAS of 135 kt requires a track of 186° M to reach an airport for landing. The wind is 155/35 M. What is the true heading required to reach the airport?

(A) 177°

(B) 179°

(C) 185°

(D) 193°

QUESTION 5

When carburettor heat is applied as an anti-icing measure during icy conditions, the aircraft engine experiences a decrease in power due to

(A) water in the fuel.

(B) a richer fuel–air mixture.

(C) a leaner fuel–air mixture.

(D) incomplete fuel vaporisation.

QUESTION 6

Determine which display and justification is most appropriate for an approaching pilot with low visibility of the aerodrome.

	Display	**Justification**
(A)	Primary flight	Greatly reduces a pilot's workload while in manual flight, which minimises stress in low visibility conditions.
(B)	Heads up	Cause the pilot to become focused, also known as tunnelling, which allows clear view of the runway in low visibility conditions.
(C)	Primary flight	Display virtually all information the pilot requires to determine basic flight parameters, especially in low visibility conditions.
(D)	Heads up	Enhance situational awareness for flight in low visibility conditions in the vicinity of visible terrain, water, ground-based obstacles or other aircraft.

QUESTION 7

An aircraft about to land on runway 02 with winds at 070/35 M would experience a

(A) 22 kt crosswind from the left and a 28 kt tailwind.

(B) 28 kt crosswind from the left and a 22 kt tailwind.

(C) 22 kt crosswind from the right and a 28 kt headwind.

(D) 28 kt crosswind from the right and a 22 kt headwind.

QUESTION 8

Determine the form of hypoxia that occurs when the blood is not able to carry a sufficient amount of oxygen to cells in the body.

(A) hypoxic hypoxia

(B) stagnant hypoxia

(C) hypemic hypoxia

(D) histotoxic hypoxia

QUESTION 9

The part of the inner ear that detects linear acceleration or deceleration is the

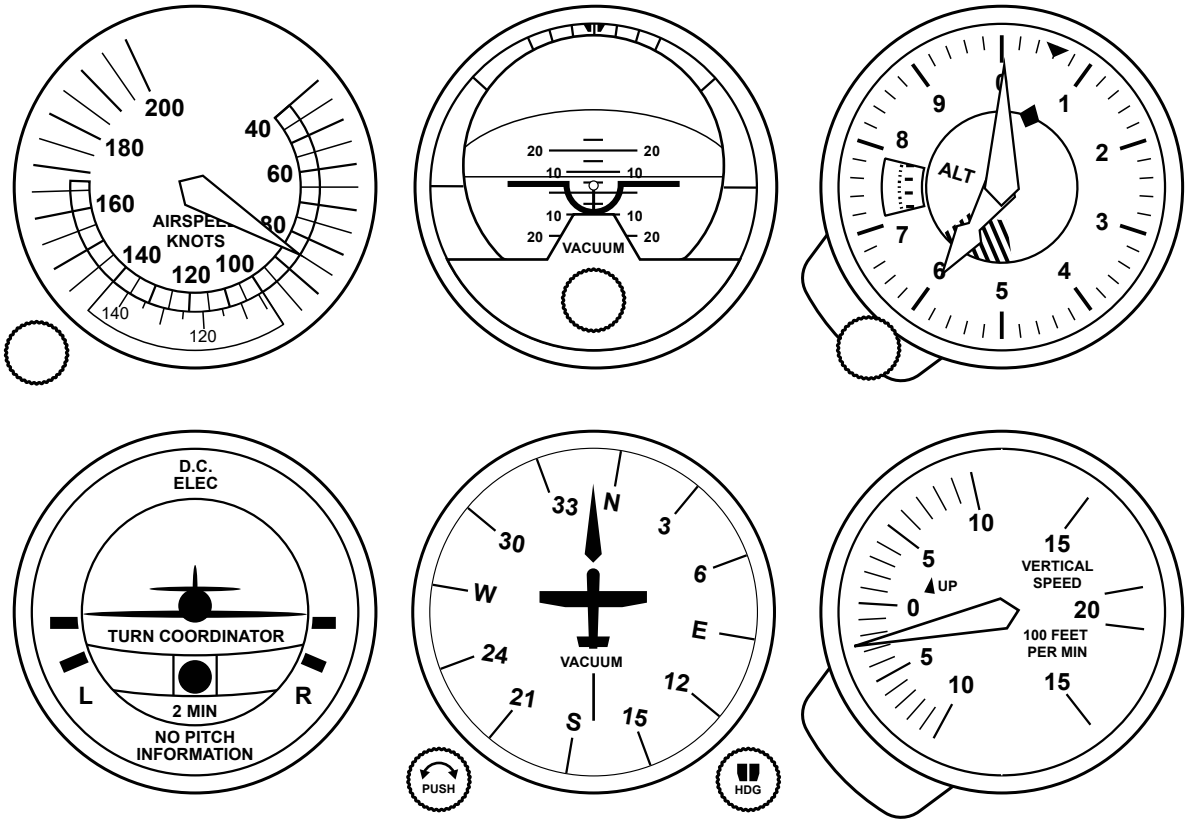
(A) utricle.

(B) cupula.

(C) cochlea.

(D) Eustachian tube.

QUESTION 10



These flight instruments indicate that the aircraft is

(A) in level flight at 6000 ft.

(B) climbing through 6000 ft at 250 ft per minute.

(C) descending through 6000 ft at 250 ft per minute.

(D) levelling out at 6000 ft after descending at 250 ft per minute.

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References

Question 1

Airservices Australia, AIP Chart, Launceston
https://www.airservicesaustralia.com/aip/aip.asp?pg=60&vdate=07NOV2019&sect=VTC&ver=1
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