AME CET English & General Awareness

Sample Paper – 2

Duration: 30 Minutes **Maximum Marks: 120**

Instructions

- This paper contains **30** Multiple Choice Questions (Single Correct Answer), modelled on the combined **English** (Q1–15) and **General Awareness** (Q16–30) sections of the **AME CET** entrance.
- Each correct answer carries **+4 marks**. Each wrong answer carries -1 **mark**. Unattempted questions carry **0 marks**.
- Only **one** option is correct per question. Choose carefully.
- The General Awareness section emphasises **aviation fundamentals, civil-aviation regulation, and basic science** relevant to an Aircraft Maintenance Engineer.
- Use of mobile phones, calculators, or any electronic gadget is strictly prohibited.

Part A: English

Q1. Choose the word that is most nearly the **SYNONYM** of the word in capitals: **CANDID**

(A) Secretive

(B) Cunning

(C) Frank

(D) Polite

Q2. Choose the word that is most nearly the **ANTONYM** of the word in capitals: **TRANSPARENT**

(A) Clear

(B) Glassy

(C) Open

(D) Opaque

Q3. Fill in the blank with the correct preposition: "She is very good _____ mathematics and physics."

(A) at

(B) in

(C) on

(D) with

Q4. Identify the part of the sentence that contains an error. If there is no error, mark (D).
Each of the students (A) *have submitted* (B) *the application form on time.* (C) *No error* (D)

(A) Each of the students

(B) have submitted

(C) the application form on time

(D) No error

Q5. Choose the grammatically **correct** sentence:

(A) He doesn't have no money.

(B) He don't have any money.

(C) He doesn't have any money.

(D) He hasn't got no money.

Q6. Choose the single word for the phrase: "A person who is skilled in repairing machines and engines."

(A) Engineer

(B) Mechanic

(C) Operator

(D) Electrician

Q7. What does the idiom "**a piece of cake**" mean?

(A) Something very easy to do

(B) A small reward

(C) A tasty dessert

(D) A difficult task

Q8. Fill in the blank with the most appropriate word: "The passengers were asked to fasten their seat belts because the aircraft was passing through severe _____."

(A) temperature

(B) tolerance

(C) turbine

(D) turbulence

Q9. Choose the correct **passive voice** form of: "The pilot is flying the plane."

(A) The plane is flown by the pilot.

(B) The plane is being flown by the pilot.

(C) The plane was being flown by the pilot.

(D) The plane has been flown by the pilot.

Q10. Choose the correct **indirect (reported) speech** form of: She said, "I will come tomorrow."

(A) She said that she will come tomorrow.

(B) She said that I would come the next day.

(C) She said that she would come the next day.

(D) She says that she would come tomorrow.

Q11. Read the passage and answer Questions 11 and 12.

A jet engine produces thrust by working on a continuous stream of air. As the aircraft moves forward, the engine draws large amounts of air in through the front intake. A series of spinning compressor blades then squeezes this air into a much smaller volume, raising both its pressure and its temperature. The compressed air is mixed with fuel and burned in the combustion chamber, where it expands rapidly. These hot, high-energy gases rush out through the rear nozzle at very high speed. The backward push of the escaping gases drives the engine, and therefore the aircraft, forward.

Q11. The passage is mainly about:

(A) how a jet engine produces thrust

(B) how passengers board an aircraft

(C) how an altimeter measures height

(D) how runways are constructed

Q12. (Based on the passage above.) According to the passage, the compressor blades:

(A) cool the incoming air down

(B) burn the fuel directly

(C) slow the aircraft on landing

(D) squeeze the air, raising its pressure and temperature

Q13. Fill in the blank with the correct verb: "Each of the engineers _____ a personal toolkit for the inspection."

(A) have

(B) has

(C) have had

(D) are having

Q14. Choose the correct verb form: "I _____ in Delhi since 2018."

(A) live

(B) lived

(C) have lived

(D) am living

Q15. Choose the **correctly spelled** word:

(A) Altitude

(B) Altitud

(C) Altittude

(D) Altetude

Part B: General Awareness

Q16. In aviation, the abbreviation **ATC** stands for:

(A) Air Transport Company

(B) Aircraft Technical Crew

(C) Automatic Throttle Control

(D) Air Traffic Control

Q17. The International Civil Aviation Organization (ICAO) is a specialised agency of the:

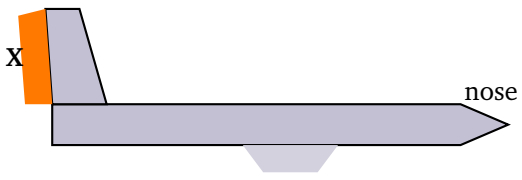
(A) European Union

(B) United Nations

(C) World Bank

(D) Commonwealth of Nations

Q18. In the side-view diagram of the aircraft below, the movable surface marked **X** is hinged to the rear of the vertical tail fin and swings left or right to turn the nose. The motion it controls is called:



(Aircraft, side view)

(A) Roll

(B) Pitch

(C) Yaw

(D) Lift

Q19. The first aviator to complete a solo, non-stop flight across the Atlantic Ocean, in 1927, was:

(A) Charles Lindbergh

(B) Amelia Earhart

(C) Chuck Yeager

(D) Louis Blériot

Q20. Tata Airlines, founded in 1932, was renamed **Air India** in the year:

(A) 1932

(B) 1953

(C) 1969

(D) 1946

Q21. The cockpit instrument that measures the speed of the aircraft **relative to the surrounding air** is the:

(A) Altimeter

(B) Airspeed indicator

(C) Tachometer

(D) Compass

Q22. The lift on a wing is often explained by the fact that air flowing faster over the curved upper surface has *lower* pressure than the slower air beneath it. This is an application of:

(A) Pascal's law

(B) Archimedes' principle

(C) Bernoulli's principle

(D) Ohm's law

Q23. The International Air Transport Association (IATA), the trade body representing the world's airlines, has its head office in:

(A) Montreal, Canada

(B) London, United Kingdom

(C) Geneva, Switzerland

(D) Singapore

Q24. The aerodynamic force that **opposes** an aircraft's forward motion through the air is called:

(A) Lift

(B) Drag

(C) Thrust

(D) Weight

Q25. Which lightweight metal (and its alloys) is most widely used in the structure of conventional aircraft because of its high strength-to-weight ratio?

(A) Lead

(B) Iron

(C) Aluminium

(D) Copper

Q26. The standard spoken radio call made by an aircraft in grave and imminent danger, repeated three times, is:

(A) Roger

(B) Wilco

(C) Over

(D) Mayday

Q27. **NASA**, the space agency of the United States, stands for:

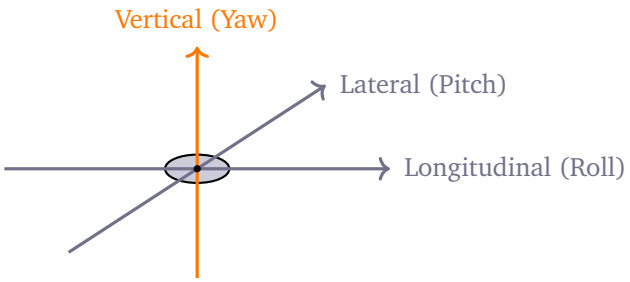
(A) National Aeronautics and Space Administration

(B) North American Space Agency

(C) National Aerospace and Satellite Authority

(D) New Aviation and Space Administration

Q28. The figure shows the three axes of rotation of an aircraft passing through its centre of gravity. Rotation about the **vertical axis**, which swings the nose left or right and is controlled by the rudder, is known as:



(A) Pitch

(B) Yaw

(C) Roll

(D) Thrust

Q29. The SI unit of **pressure**, used when expressing cabin pressure or tyre pressure, is the:

(A) Newton

(B) Joule

(C) Pascal

(D) Watt

Q30. Large passenger jets cruise at high altitudes of around 35,000 feet mainly because, at that height:

(A) the air is warmer and more comfortable

(B) the engines need no fuel at all

(C) gravity is much weaker

(D) the thinner air causes less drag, improving fuel efficiency

Detailed Solutions

Q1.

Solution

Concept — Synonyms: A synonym is a word that has the same or nearly the same meaning as another word.

Step 1 — Meaning of the key word: "Candid" means honest and straightforward in expressing one's thoughts; frank and open.

Step 2 — Match the option: Among the choices, "Frank" carries exactly this sense of being open and truthful in speech.

Why other options are wrong:

- Option A (Secretive): The opposite of candid — it means hiding one's thoughts.
- Option B (Cunning): Means clever in a deceitful way; the reverse of being open.
- Option D (Polite): Means courteous; politeness is not the same as frankness.

Final Answer: CANDID $\approx$ Frank $\Rightarrow$ $\boxed{C}$

Answer: (C) Go Back to Q1

Q2.

Solution

Concept — Antonyms: An antonym is a word opposite in meaning to another word.

Step 1 — Meaning of the key word: "Transparent" means allowing light to pass through so that objects behind can be seen clearly; see-through.

Step 2 — Find the opposite: The opposite is "Opaque," which means not allowing light to pass through; impossible to see through.

Why other options are wrong:

- Option A (Clear): A synonym, not an antonym.
- Option B (Glassy): Suggests a transparent, glass-like quality — a synonym.
- Option C (Open): Related in sense to clear/visible, not opposite.

Final Answer: TRANSPARENT $\leftrightarrow$ Opaque $\Rightarrow$ $\boxed{D}$

Answer: (D) Go Back to Q2

Q3.

Solution

Concept — Prepositions after adjectives: Certain adjectives are followed by a fixed preposition. The adjective "good," when it means skilled or able in a subject or activity, is followed by "at."

Step 1 — Identify the structure: The sentence describes a person's ability in a subject ("mathematics and physics").

Step 2 — Choose the matching preposition: The fixed collocation is "good at (a subject/skill)," so the correct preposition is "at."

Why other options are wrong:

- Option B (in): "Good in" is non-standard for describing ability in a subject.
- Option C (on): "Good on" is not used here; it does not fit the collocation.
- Option D (with): "Good with" is used for handling people or tools ("good with children"), not for a subject of study.

Final Answer: good at mathematics $\Rightarrow$ A

Answer: (A) Go Back to Q3

Q4.

Solution

Concept — Subject–verb agreement with "each of": The phrase "each of…" takes a *singular* verb, because the real subject is "each" (one at a time), not the plural noun that follows.

Step 1 — Locate the verb: The verb is "have submitted," which is plural.

Step 2 — Apply the rule: Since "Each of the students" is treated as singular, the verb must be "has submitted," not "have submitted." The error lies in part (B).

Why other options are wrong:

- Option A: "Each of the students" is a correct singular subject phrase.
- Option C: "the application form on time" is a correct, error-free part.
- Option D (No error): Incorrect, because part (B) does contain a clear agreement error.

Final Answer: The error is "have submitted" (should be "has submitted") $\Rightarrow$ B

Answer: (B) Go Back to Q4

Q5.

Solution

Concept — Negation with "doesn't have any": Standard English uses a single negative. For a third-person singular subject, the negative is "doesn't have any...," not a double negative such as "doesn't have no."

Step 1 — Check the auxiliary: The subject "He" is third-person singular, so the auxiliary must be "does" ("doesn't"), not "do."

Step 2 — Avoid the double negative: After "doesn't," use "any" (not "no"), giving "He doesn't have any money."

Why other options are wrong:

- Option A (doesn't have no): A double negative; "no" should be "any."
- Option B (don't have any): Wrong auxiliary; "he" needs "doesn't," not "don't."
- Option D (hasn't got no): Another double negative; "no" should be "any."

Final Answer: "He doesn't have any money." $\Rightarrow$ C

Answer: (C) Go Back to Q5

Q6.

Solution

Concept — One-word substitution: A single precise word can replace a longer descriptive phrase.

Step 1 — Read the definition: "A person skilled in repairing machines and engines" describes a hands-on tradesperson who fixes mechanical equipment.

Step 2 — Select the term: That person is a "Mechanic."

Why other options are wrong:

- Option A (Engineer): Designs and develops machines; broader than repair work.
- Option C (Operator): Runs or operates a machine, but does not necessarily repair it.

- Option D (Electrician): Deals specifically with electrical wiring, not machines and engines in general.

Final Answer: Mechanic $\Rightarrow$ B

Answer: (B) Go Back to Q6

Q7.

Solution

Concept — Idioms: An idiom is a fixed expression whose meaning cannot be guessed from the literal words.

Step 1 — Recall the idiom: "A piece of cake" is used to describe a task that is very simple and requires little effort.

Step 2 — Match the meaning: The closest meaning is "Something very easy to do."

Why other options are wrong:

- Option B (A small reward): Not the meaning of this idiom.
- Option C (A tasty dessert): A literal reading of "cake," not the idiomatic sense.
- Option D (A difficult task): The opposite of the intended meaning.

Final Answer: a piece of cake = very easy $\Rightarrow$ A

Answer: (A) Go Back to Q7

Q8.

Solution

Concept — Vocabulary in context: The correct word must fit both the grammar and the meaning of the sentence.

Step 1 — Understand the context: Sudden, violent, irregular movement of air that shakes an aircraft in flight is called "turbulence." The mention of seat belts confirms this.

Step 2 — Select the word: "Severe turbulence" is the natural and meaningful collocation.

Why other options are wrong:

- Option A (temperature): A measure of heat, not air movement.
- Option B (tolerance): The ability to endure something; unrelated to air motion.
- Option C (turbine): A rotating engine part, not a description of bumpy air.

Final Answer: severe turbulence $\Rightarrow$ D

Answer: (D) Go Back to Q8

Q9.

Solution

Concept — Active to passive (present continuous): In the passive of a present-continuous sentence, the object becomes the subject, and the verb becomes "is/are being + past participle," with the original subject introduced by "by."

Step 1 — Identify the parts: Subject = "the pilot," verb = "is flying," object = "the plane."

Step 2 — Build the passive: Object first: "The plane" + "is being flown" (present continuous) + "by the pilot."

Why other options are wrong:

- Option A (is flown): Simple-present passive, not the continuous form required.
- Option C (was being flown): Past continuous; the original sentence is present tense.
- Option D (has been flown): Present-perfect passive, not the continuous form.

Final Answer: "The plane is being flown by the pilot." $\Rightarrow$ B

Answer: (B) Go Back to Q9

Q10.

Solution

Concept — Direct to indirect speech: When the reporting verb is in the past ("said"), "will" changes to "would," and time words shift ("tomorrow" becomes "the next day"). First-person pronouns change to agree with the speaker.

Step 1 — Shift the modal: "I will come" becomes "she would come."

Step 2 — Adjust the pronoun and the time word: "I" refers to the speaker "She,"

so it becomes “she”; “tomorrow” becomes “the next day.”

Why other options are wrong:

- Option A (will come tomorrow): Fails to back-shift “will” to “would” and to change “tomorrow.”
- Option B (I would come): Wrongly keeps the first-person pronoun “I.”
- Option D (says): Changes the reporting verb to present, which is not required.

Final Answer: “She said that she would come the next day.” ⇒ C

Answer: (C) Go Back to Q10

Q11.

Solution

Concept — Reading comprehension (main idea): The main idea is the central topic that the whole passage develops, not a single supporting detail.

Step 1 — Survey the passage: Every sentence describes a stage of how a jet engine works — intake, compression, combustion, and exhaust — to produce forward thrust.

Step 2 — Match to an option: This is captured by “how a jet engine produces thrust.”

Why other options are wrong:

- Option B (boarding): The passage never discusses passengers.
- Option C (altimeter): No instrument for measuring height is mentioned.
- Option D (runways): Runway construction is not part of the passage.

Final Answer: how a jet engine produces thrust ⇒ A

Answer: (A) Go Back to Q11

Q12.

Solution

Concept — Reading comprehension (detail recall): Choose the option that restates the passage accurately.

Step 1 — Find the relevant line: The passage states that the compressor blades

"squeeze... this air into a much smaller volume, raising both its pressure and its temperature."

Step 2 — Match to an option: Option D repeats this fact exactly.

Why other options are wrong:

- Option A (cool the air): The passage says the temperature rises, not falls.
- Option B (burn the fuel): Burning happens later, in the combustion chamber, not at the compressor.
- Option C (slow the aircraft): The passage is about producing thrust, not braking on landing.

Final Answer: squeeze the air, raising its pressure and temperature $\Rightarrow$ D

Answer: (D) Go Back to Q12

Q13.

Solution

Concept — "Each of" agreement: The expression "each of + plural noun" is grammatically singular, so it takes a singular verb.

Step 1 — Identify the true subject: The subject is "each" (considering the engineers one by one), not "engineers."

Step 2 — Choose the verb: A singular subject takes the singular verb "has."

Why other options are wrong:

- Option A (have): Plural; wrongly agrees with "engineers" instead of "each."
- Option C (have had): Plural and in the wrong tense for a simple present statement.
- Option D (are having): Plural, and "possessing a toolkit" is normally expressed with the simple "has," not the continuous.

Final Answer: "Each of the engineers has a toolkit." $\Rightarrow$ B

Answer: (B) Go Back to Q13

Q14.

Solution

Concept — Present perfect with "since": An action that began at a point in the past and continues up to now uses the present perfect ("have/has + past participle"), and "since" marks the starting point.

Step 1 — Spot the time signal: "Since 2018" marks a starting point that continues to the present.

Step 2 — Apply the tense: With "since" and a continuing situation, the verb is "have lived."

Why other options are wrong:

- Option A (live): Simple present; cannot be paired with "since 2018" for a continuing state.
- Option B (lived): Simple past; would suggest the living has ended, contradicting "since."
- Option D (am living): Present continuous; not used with "since + a point in time" for this meaning.

Final Answer: have lived $\Rightarrow$ C

Answer: (C) Go Back to Q14

Q15.

Solution

Concept — Correct spelling: Recognise the standard spelling of a commonly misspelled aviation word.

Step 1 — Recall the correct form: The word for height above sea level is spelled **altitude** ("alti-" + "-tude").

Step 2 — Eliminate the misspellings: Only option A matches the dictionary spelling.

Why other options are wrong:

- Option B (Altitud): Missing the final "e."
- Option C (Altittude): An extra "t" in the middle.
- Option D (Altetude): Wrong vowel ("e" instead of "i").

Final Answer: Altitude $\Rightarrow$ A

Answer: (A) Go Back to Q15

Q16.

Solution

Concept — Aviation abbreviations: Common operational abbreviations must be known to anyone working in aviation.

Step 1 — Expand the abbreviation: ATC stands for **Air Traffic Control** — the service that directs aircraft on the ground and in the air to keep them safely separated.

Step 2 — Confirm the role: Controllers in the ATC tower issue take-off, landing, and routing instructions by radio and radar.

Why other options are wrong:

- Option A (Air Transport Company): Not the meaning of ATC.
- Option B (Aircraft Technical Crew): Not a standard aviation expansion.
- Option C (Automatic Throttle Control): A real cockpit feature, but not what ATC stands for.

Final Answer: Air Traffic Control $\Rightarrow$ D

Answer: (D) Go Back to Q16

Q17.

Solution

Concept — International aviation bodies: ICAO sets worldwide standards for safe and orderly civil aviation.

Step 1 — Identify the parent organisation: ICAO is a specialised agency of the **United Nations**, established by the 1944 Chicago Convention.

Step 2 — Confirm its function: As a UN agency, it coordinates standards and practices among member states.

Why other options are wrong:

- Option A (European Union): A regional bloc, not the parent of ICAO.
- Option C (World Bank): A financial institution, unrelated to aviation standards.
- Option D (Commonwealth of Nations): An association of states, not the

parent of ICAO.

Final Answer: United Nations $\Rightarrow$ B

Answer: (B) Go Back to Q17

Q18.

Solution

Concept — Primary flight control surfaces: An aircraft is controlled in roll, pitch, and yaw by movable surfaces on the wings and tail.

Step 1 — Locate the marked surface: The mark X is on the *rear edge of the vertical tail fin* — the standard position of the rudder.

Step 2 — Identify its function: The rudder swings left or right to point the nose left or right; this rotation about the vertical axis is called yaw.

Why other options are wrong:

- Option A (Roll): Controlled by the ailerons on the wings, not the rudder.
- Option B (Pitch): Controlled by the elevators on the horizontal tail, not the rudder.
- Option D (Lift): A force generated by the wings, not a rotation produced by the rudder.

Final Answer: The rudder controls yaw $\Rightarrow$ C

Answer: (C) Go Back to Q18

Q19.

Solution

Concept — History of aviation milestones: The early decades of flight are marked by record-breaking long-distance journeys.

Step 1 — Recall the event: In 1927, **Charles Lindbergh** flew the "Spirit of St. Louis" alone and non-stop from New York to Paris.

Step 2 — Confirm the credit: This was the first solo, non-stop crossing of the Atlantic Ocean.

Why other options are wrong:

- Option B (Amelia Earhart): The first *woman* to fly solo across the Atlantic

(1932), after Lindbergh.
- Option C (Chuck Yeager): Famous for the first supersonic flight (1947), not the Atlantic crossing.
- Option D (Blériot): Crossed the English Channel (1909), a much shorter flight.

Final Answer: Charles Lindbergh $\Rightarrow$ A

Answer: (A) Go Back to Q19

Q20.

Solution

Concept — Indian aviation history: Tata Airlines was the forerunner of India's national carrier.

Step 1 — Recall the renaming: Tata Airlines, founded by J. R. D. Tata in 1932, became a public limited company and was renamed **Air India** in **1946**.

Step 2 — Confirm: After this, in 1953 the airline was nationalised, but the renaming to Air India occurred in 1946.

Why other options are wrong:

- Option A (1932): The year of founding as Tata Airlines, not of renaming.
- Option B (1953): The year of nationalisation, not of the renaming.
- Option C (1969): No relevant event for the renaming.

Final Answer: 1946 $\Rightarrow$ D

Answer: (D) Go Back to Q20

Q21.

Solution

Concept — Flight instruments: Each cockpit instrument measures a specific flight parameter.

Step 1 — Match instrument to quantity: The **airspeed indicator** measures how fast the aircraft is moving relative to the surrounding air, using the difference between dynamic (pitot) and static pressure.

Step 2 — Confirm: It tells the crew the aircraft's speed through the air, which governs lift and stall.

Why other options are wrong:

- Option A (Altimeter): Measures altitude (height), not speed.
- Option C (Tachometer): Measures engine/rotor speed in RPM.
- Option D (Compass): Shows heading or direction, not speed.

Final Answer: Airspeed indicator $\Rightarrow$ B

Answer: (B) Go Back to Q21

Q22.

Solution

Concept — Bernoulli's principle: In a steady flow, where the speed of a fluid is higher, its pressure is lower.

Step 1 — Apply to the wing: Air moves faster over the curved upper surface of the wing than under it, so the pressure above is lower than below.

Step 2 — Name the principle: This pressure difference, which contributes to lift, is explained by Bernoulli's principle.

Why other options are wrong:

- Option A (Pascal's law): Concerns the transmission of pressure in confined fluids (hydraulics), not airflow speed.
- Option B (Archimedes' principle): Concerns buoyancy in fluids, relevant to ships and balloons.
- Option D (Ohm's law): An electrical law relating voltage, current, and resistance.

Final Answer: Bernoulli's principle $\Rightarrow$ C

Answer: (C) Go Back to Q22

Q23.

Solution

Concept — International aviation organisations: IATA is the global trade association of the world's airlines, setting commercial and operational standards.

Step 1 — Recall the head office: IATA has its head office in **Montreal, Canada** (with an executive office in Geneva).

Step 2 — Confirm: Montreal also hosts ICAO, making it a hub of international aviation administration.

Why other options are wrong:

- Option B (London): A major aviation centre, but not IATA's head office.
- Option C (Geneva): Hosts an executive office, but the head office is in Montreal.
- Option D (Singapore): A major air hub, but not the location of IATA's head office.

Final Answer: Montreal, Canada $\Rightarrow$ A

Answer: (A) Go Back to Q23

Q24.

Solution

Concept — The four forces of flight: An aircraft in flight is acted on by lift, weight, thrust, and drag.

Step 1 — Match the description: The force that resists the aircraft's forward motion through the air is **drag**, caused by air resistance.

Step 2 — Confirm the balance: In steady level flight, thrust must overcome drag for the aircraft to keep moving forward.

Why other options are wrong:

- Option A (Lift): Acts upward, opposing weight, not forward motion.
- Option C (Thrust): Acts forward (the engine's push), the opposite of drag.
- Option D (Weight): Acts downward due to gravity, not against forward motion.

Final Answer: Drag $\Rightarrow$ B

Answer: (B) Go Back to Q24

Q25.

Solution

Concept — Aircraft materials: Structural materials are chosen for a high strength-to-weight ratio and good corrosion resistance.

Step 1 — Identify the metal: Aluminium and its alloys are light yet strong, which is why they form most of a conventional aircraft's skin and frame.

Step 2 — Confirm: Aluminium alloys such as duralumin give the strength needed while keeping the aircraft light.

Why other options are wrong:

- Option A (Lead): Very heavy and soft; unsuitable for structures.
- Option B (Iron): Strong but heavy and prone to rust.
- Option D (Copper): Heavy and used mainly for wiring, not the airframe.

Final Answer: Aluminium $\Rightarrow$ C

Answer: (C) Go Back to Q25

Q26.

Solution

Concept — Aviation radio procedure: Standard spoken calls are defined so that distress is recognised instantly worldwide.

Step 1 — Recall the distress call: For grave and imminent danger, the pilot transmits "**Mayday, Mayday, Mayday**" — the international voice distress signal.

Step 2 — Confirm: "Mayday" (from the French *m'aider*, "help me") has the highest priority of all calls.

Why other options are wrong:

- Option A (Roger): Means "message received," not a distress call.
- Option B (Wilco): Means "will comply"; not a distress call.
- Option C (Over): Indicates the end of a transmission, inviting a reply.

Final Answer: Mayday $\Rightarrow$ D

Answer: (D) Go Back to Q26

Q27.

Solution

Concept — Major aerospace organisations: Knowing the full forms of leading space and aviation agencies is part of general awareness.

Step 1 — Expand the abbreviation: NASA stands for **National Aeronautics and Space Administration**, the civilian space agency of the United States.

Step 2 — Confirm its work: NASA conducts space exploration, aeronautics research, and Earth science.

Why other options are wrong:

- Option B (North American Space Agency): Incorrect expansion.
- Option C (National Aerospace and Satellite Authority): Not the meaning of NASA.
- Option D (New Aviation and Space Administration): Not the correct full form.

Final Answer: National Aeronautics and Space Administration $\Rightarrow$ A

Answer: (A) Go Back to Q27

Q28.

Solution

Concept — The three axes of aircraft rotation: An aircraft rotates about three mutually perpendicular axes through its centre of gravity — longitudinal (roll), lateral (pitch), and vertical (yaw).

Step 1 — Identify the vertical axis: The vertical axis runs straight up and down through the aircraft (the orange arrow in the figure).

Step 2 — Name the motion: Rotation about this vertical axis, which swings the nose left or right and is produced by the rudder, is called **yaw**.

Why other options are wrong:

- Option A (Pitch): Rotation about the lateral (wingtip-to-wingtip) axis, controlled by the elevators.
- Option C (Roll): Rotation about the longitudinal (nose-to-tail) axis, controlled by the ailerons.
- Option D (Thrust): A force, not a rotation about an axis.

Final Answer: Yaw $\Rightarrow$ B

Answer: (B) Go Back to Q28

Q29.

Solution

Concept — SI units: Each physical quantity has a defined SI unit.

Step 1 — Recall the unit of pressure: The SI unit of pressure is the **pascal** (Pa), where $1\ \text{Pa} = 1\ \text{N/m}^2$.

Step 2 — Apply to aviation: Cabin pressure and tyre pressure are forces spread over an area, so they are measured in pascals (or kilopascals).

Why other options are wrong:

- Option A (Newton): The SI unit of force, not pressure.
- Option B (Joule): The SI unit of energy or work.
- Option D (Watt): The SI unit of power (rate of doing work).

Final Answer: Pascal $\Rightarrow$ C

Answer: (C) Go Back to Q29

Q30.

Solution

Concept — Cruise altitude and efficiency: Airliners climb to high altitude before settling into cruise for sound aerodynamic reasons.

Step 1 — Describe the high-altitude air: At about 35,000 feet the air is much thinner (less dense) than near the ground.

Step 2 — Reason for cruising high: Thinner air means less aerodynamic drag on the aircraft, so the engines burn less fuel to maintain speed — better fuel efficiency and range.

Why other options are wrong:

- Option A (warmer air): False — the air at altitude is extremely cold, not warm.
- Option B (no fuel needed): Engines always need fuel; thinner air reduces but never removes fuel use.
- Option C (weaker gravity): Gravity is essentially unchanged at cruising altitude.

Final Answer: thinner air causes less drag, improving fuel efficiency $\Rightarrow$ D

Answer: (D) Go Back to Q30

Answer Key

Q	Ans	Q	Ans	Q	Ans	Q	Ans	Q	Ans
1	C	2	D	3	A	4	B	5	C
6	B	7	A	8	D	9	B	10	C
11	A	12	D	13	B	14	C	15	A
16	D	17	B	18	C	19	A	20	D
21	B	22	C	23	A	24	B	25	C
26	D	27	A	28	B	29	C	30	D