

DGCA CPL Practice Paper 10

Mixed Revision — Set B

QUESTION PAPER

Original educational practice set. Not an official DGCA paper or a full-length examination simulation.

25 MCQs • 25 marks • Suggested practice time: 40 minutes

Choose one answer per question. Practice scoring: +1 for a correct answer; 0 for an incorrect or blank answer. This timing and scoring are for this practice set only. A calculator may be used for practice. Use the assumptions stated in each question.

Name: _____ Date: _____ Score: ____ / 25

01. A 180 NM route must be completed in 90 minutes. Required average ground speed is:

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|-----------|-----------|
| A. 180 kt | B. 120 kt |
| C. 270 kt | D. 90 kt |

02. An aircraft maintains a true heading of 350 degrees. With variation 8 degrees west and deviation 2 degrees east, compass heading is:

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|----------------|----------------|
| A. 344 degrees | B. 000 degrees |
| C. 340 degrees | D. 356 degrees |

03. A flight at 150 kt ground speed has 75 NM left. It is 1020 UTC now. Estimated arrival is:

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|-------------|-------------|
| A. 1050 UTC | B. 1120 UTC |
| C. 1045 UTC | D. 1105 UTC |

04. A chart scale is 1:1,000,000. A straight chart measurement is 9.26 cm. Using 1 NM = 1.852 km, distance is:

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|-----------|------------|
| A. 100 NM | B. 5 NM |
| C. 50 NM | D. 92.6 NM |

05. An aircraft must lose 4,500 ft in 15 NM at 90 kt ground speed. Required average descent rate is:

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|---------------|---------------|
| A. 675 ft/min | B. 300 ft/min |
| C. 450 ft/min | D. 900 ft/min |

06. Fuel quantity is 120 L and density is 0.75 kg/L. What fuel mass should be used in the loading calculation?

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| A. 160 kg | B. 120 kg |
| C. 75 kg | D. 90 kg |

07. A synthetic METAR includes 22012KT 3000 +RA OVC008. Which interpretation is correct?

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|---|--|
| A. Snow with cloud base at 800 ft above sea level | B. Heavy rain with overcast cloud base at 800 ft above the aerodrome |
| C. Light rain with clear sky above 8,000 ft | D. Heavy rain with cloud base at 8,000 ft above sea level |

08. Which process changes water vapour directly into ice crystals?

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|----------------|----------------|
| A. Deposition | B. Melting |
| C. Evaporation | D. Sublimation |

09. Unsaturated air descends and is compressed without exchanging heat with its surroundings. Its temperature generally:

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|-----------------------------|--------------------------------------|
| A. Remains exactly constant | B. Immediately becomes the dew point |
| C. Falls | D. Rises |

10. In the Northern Hemisphere, surface wind around a low-pressure centre generally circulates:

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|-----------------------------|------------------------------|
| A. Clockwise and outward | B. Clockwise and inward |
| C. Anticlockwise and inward | D. Anticlockwise and outward |

11. A small temperature-dew-point spread means the air is:

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|-------------------------------|---|
| A. Close to saturation | B. Necessarily free of cloud for the next day |
| C. Necessarily below freezing | D. Always unstable |

12. Why can a forecast freezing level alone not prove that an aircraft will encounter airframe icing?

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|---|--|
| A. Icing occurs only when temperature is above 30 degrees C | B. Liquid-water content and other conditions also matter |
| C. A freezing level is a wind-direction forecast | D. All clouds below the freezing level contain only ice |

13. For a coordinated level turn, load factor is $1/\cos(\text{bank angle})$. Using $\cos 45 \text{ degrees} = 0.707$, load factor at 45 degrees bank is approximately:

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|---------|---------|
| A. 1.41 | B. 1.00 |
| C. 0.71 | D. 2.00 |

14. An aerofoil's camber is best described as:

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| A. The distance travelled per propeller revolution in every condition | B. The aircraft's angle of bank |
| C. Curvature of its mean camber line | D. The angle between magnetic north and true north |

15. An aircraft is disturbed in pitch and then oscillates with decreasing amplitude. It demonstrates:

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| A. No possible static stability | B. Positive dynamic stability in that motion |
| C. Negative dynamic stability in that motion | D. Neutral dynamic stability in that motion |

16. A 24 V electrical load draws 8 A for 30 minutes. Ignoring losses, energy consumed is:

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|----------|-----------|
| A. 12 Wh | B. 192 Wh |
| C. 96 Wh | D. 384 Wh |

17. Two identical 12 V batteries are connected in series with correct polarity. Their combined nominal voltage is:

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|---------|----------|
| A. 12 V | B. 24 V |
| C. 6 V | D. 144 V |

18. In a typical gas-turbine engine, which sequence correctly follows the main airflow?

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| A. Combustion section, intake, exhaust, compressor, turbine | B. Intake, compressor, combustion section, turbine, exhaust |
| C. Compressor, exhaust, intake, turbine, combustion section | D. Intake, turbine, compressor, exhaust, combustion section |

19. Why can a blocked static source affect several conventional flight instruments at once?

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|---|---|
| A. The altimeter, vertical speed indicator and airspeed indicator use static pressure | B. Static pressure is used only by engine instruments |
| C. Only the magnetic compass uses static pressure | D. The static system directly measures fuel flow |

20. An AIP amendment is marked with a future effective date. When should the revised procedure be treated as operationally effective, unless superseded by other valid information?

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|--|--|
| A. Whenever the pilot first downloads it | B. Only after the next aircraft inspection |
| C. Exactly one year after publication | D. On its stated effective date |

21. A clearance is partly obscured by radio interference. Which phrase is appropriate to request repetition?

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|--------------|-----------|
| A. ROGER | B. WILCO |
| C. SAY AGAIN | D. AFFIRM |

22. A pilot receives a clearance that the aircraft cannot comply with. What is the appropriate immediate communication?

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| A. Acknowledge WILCO while planning not to comply | B. Remain silent until ATC notices |
| C. Assume a clearance changes aircraft performance limits | D. Advise ATC UNABLE and clarify the limitation |

23. During a checklist, a crew member announces completion of an item without checking it. The main weakness is:

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|--|---|
| A. Loss of the checklist's verification function | B. An improvement in error detection |
| C. Excessive use of available evidence | D. A guaranteed reduction in workload-related error |

24. A tired pilot consumes caffeine and feels more alert. Which conclusion is most sound?

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| A. Caffeine guarantees full recovery from any sleep loss | B. Fatigue cannot affect a motivated pilot |
| C. Feeling alert does not prove that fatigue-related performance impairment is removed | D. More alertness makes all checklists unnecessary |

25. During training, a student makes a navigation error but detects and corrects it before an unsafe state develops. This best illustrates:

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| A. A reason to stop cross-checking | B. Automatic elimination of every future threat |
| C. Proof that errors never need review | D. Error management through detection and recovery |