Part-FCL question bank

BPL

(Excerpt)

Published sample questions

Please note that this excerpt of the question catalogue contains only a part of the examination questions. Unknown tasks will also appear in the examination.

Revision & Quality Assurance

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If you have any comments or suggestions regarding the content of the questionnaire, please send them to info@aircademy.com.

1   The rotational axis of the Earth runs through the...

☐A)   geographic North Pole and on the magnetic south pole.

☐B)   magnetic north pole and on the geographic South Pole.

☐C)   magnetic north pole and on the magnetic south pole.

☑D)   geographic North Pole and on the geographic South Pole.

2   Which approximate, geometrical form describes the shape of the Earth best for navigation systems?

☐A)   Perfect sphere
☑B)   Ellipsoid
☐C)   Sphere of ecliptical shape
☐D)   Flat plate

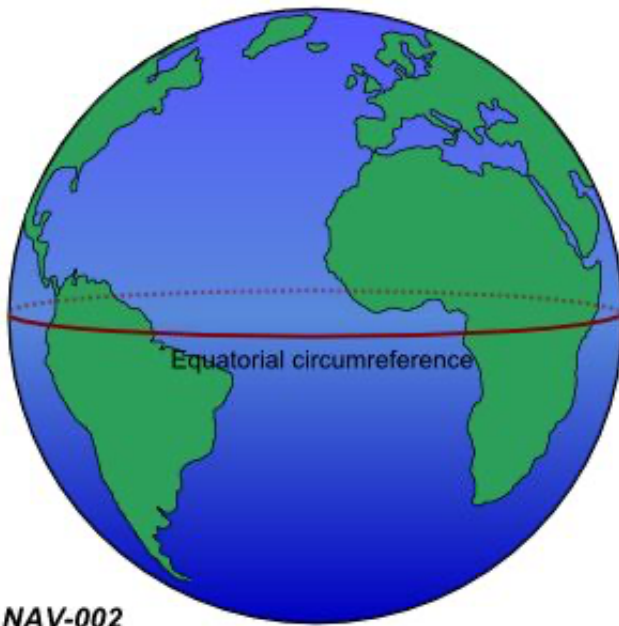**3   The shortest distance between two points on Earth is represented by a part of...**

☐A)   a small circle.
☐B)   a parallel of latitude.
☑C)   a great circle.
☐D)   a rhumb line.

4   The circumference of the Earth at the equator is approximately...

See figure (NAV-002)

Please pay attention to annex 1

☐A)   10800 km.
☑B)   21600 NM.
☐C)   40000 NM.
☐D)   12800 km.

NAV-002

5 **What is the difference in latitude between A (12°53'30"N) and B (07°34'30"S)?**

☐A) 05,19°
☐B) 20,28°
☑C) 20°28'00"
☐D) 05°19'00"

6 **What is the distance between the parallels of latitude 48°N and 49°N along a meridian line?**

☐A) 111 NM
☐B) 10 NM
☐C) 1 NM
☑D) 60 NM

7 **What distance corresponds to one degree difference in latitude along any degree of longitude?**

☐A) 60 km
☐B) 30 NM
☐C) 1 NM
☑D) 60 NM

8 **Point A on the Earth's surface lies exactly on the parallel of latitude of 47°50'27"N.**

Which point is exactly 240 NM north of A?

☑A) 51°50'27'N'
☐B) 53°50'27"N
☐C) 43°50'27"N
☐D) 49°50'27"N

9 **What is the great circle distance between two points A and B on the equator when the difference between the two associated meridians is exactly one degree of longitude?**

☐A) 120 NM
☑B) 60 NM
☐C) 400 NM
☐D) 216 NM

10 **What is the difference in time when the sun moves 20° of longitude?**

☐A) 0:40 h
☑B) 1:20 h
☐C) 1:00 h
☐D) 0:20 h

11 **What is the difference in time when the sun moves 10° of longitude?**

☐A) 1:00 h
☑B) 0:40 h
☐C) 0:30 h

☐D) 0:04 h

12 **With Central European Summer Time (CEST) given as UTC+2, what UTC time corresponds to 1600 CEST?**

☑A) 1400 UTC.

☐B) 1700 UTC.

☐C) 1500 UTC.

☐D) 1600 UTC.

13 **With Central European Time (CET) given as UTC+1, what UTC time corresponds to 1700 CET?**

☑A) 1600 UTC.
☐B) 1800 UTC.
☐C) 1500 UTC.
☐D) 1700 UTC.

14 Given:
TC: 179°; WCA: -12°; VAR: 004° E; DEV: +002°

What are MH and MC?

☐A)   MH: 167°.
     MC: 175°.
☐B)   MH: 163°.
     MC: 161°.
☑C)   MH: 163°.
     MC: 175°.
☐D)   MH: 167°.
     MC: 161°.

15   The term 'True Course' (TC) is defined as...

☑A)   the angle between true north and the course line.
☐B)   the direction from an arbitrary point on Earth to the magnetic north pole.

☐C)   the direction from an arbitrary point on Earth to the geographic North Pole.

☐D)   tthe angle between magnetic north and the course line.

16   Given:
TC: 183°; WCA: +011°; MH: 198°; CH: 200°

What are TH and VAR?

☐A)   TH: 172°.
     VAR: 004° W

☑B)   TH: 194°.
     VAR: 004° W

☐C)   TH: 194°.
     VAR: 004° E

☐D)   TH: 172°.
     VAR: 004° E

17   **Given:**
      TC: 183°; WCA: +011°; MH: 198°; CH: 200°

      What are the VAR and the DEV?

☐A)   VAR: 004° E.
      DEV: +002°.

☐B)   VAR: 004° W.
      DEV: +002°.

☑C)   VAR: 004° W.
      DEV: -002°.

☐D)   VAR: 004° E.
      DEV: -002°.

18   **Where does the inclination reach its lowest value?**

☐A)   At the geographic equator
☑B)   At the magnetic equator
☐C)   At the magnetic poles
☐D)   At the geographic poles

19   **The angle between compass north and magnetic north is called...**

☑A)   deviation.
☐B)   variation.
☐C)   inclination.
☐D)   WCA.

20   **The term 'isogonal' or 'isogonic line' is defined as a line on an aeronautical chart, connecting all points with the same value of...**

☐A)   inclination.
☐B)   heading.
☑C)   variation.
☐D)   deviation.

21   **Which are the official basic units for horizontal distances used in aeronautical navigation and their abbreviations?**

☐A)   Land miles (SM), sea miles (NM)
☐B)   Yards (yd), meters (m)
☐C)   feet (ft), inches (in)

☑D)   Nautical miles (NM), kilometers (km)

22 1000 ft equal...

☐A) 30 km.
☐B) 30 m.
☐C) 3000 m.
☑D) 300 m.

23 5500 m equal...

☐A) 10000 ft.
☐B) 7500 ft.
☑C) 18000 ft.
☐D) 30000 ft.

24 Which are the properties of a Mercator chart?

☐A) The scales increases with latitude, great circles are depicted as straight lines, rhumb lines are depicted as curved lines
☐B) The scale is constant, great circles are depicted as curved lines, rhumb lines are depicted as straight lines

☐C) The scale is constant, great circles are depicted as straight lines, rhumb lines are depicted as curved lines

☑D) The scales increases with latitude, great circles are depicted as curved lines, rhumb lines are depicted as straight lines

25 Which are the properties of a Lambert conformal chart?

☑A) The chart is conformal and nearly true to scale
☐B) Rhumb lines are depicted as straight lines and the chart is conformal
☐C) The chart is conformal and an equal-area projection
☐D) Great circles are depicted as straight lines and the chart is an equal-area projection

26 The distance between two airports is 220 NM.
On an aeronautical navigation chart the pilot measures 40.7 cm for this distance.

The chart scale is...

☑A) 1 : 1000000.
☐B) 1 : 500000.
☐C) 1 : 2000000.
☐D) 1 : 250000.

27 **A distance of 7.5 cm on an aeronautical chart represents a distance of 60.745 NM in reality.**

What is the chart scale?

☐A) 1 : 1 000000
☐B) 1 : 150000
☐C) 1 : 500000
☑D) 1 : 1500000

28 **An aircraft travels 100 km in 56 minutes.**

The ground speed (GS) equals...

☑A) 107 km/h.
☐B) 198 kt.
☐C) 58 km/h.
☐D) 93 kt.

29 **How many satellites are necessary for a precise and verified three-dimensional determination of the position?**

☐A) Five
☑B) Four
☐C) Two
☐D) Three

30 **When using a GPS for tracking to the next waypoint, a deviation indication is shown by a vertical bar and dots to the left and to the right of the bar.**

What statement describes the correct interpretation of the display?

☐A) The deviation of the bar from the center indicates the track error as angular distance in degrees; the scale for full deflection is +-10°.
☑B) The deviation of the bar from the center indicates the track error as absolute distance in NM; the scale for full deflection depends on the operating mode of the GPS.
☐C) The deviation of the bar from the center indicates the track error as absolute distance in NM; the scale for full deflection is +-10 NM.
☐D) The deviation of the bar from the center indicates the track error as angular distance in degrees; the scale for full deflection depends on the operating mode of the GPS.
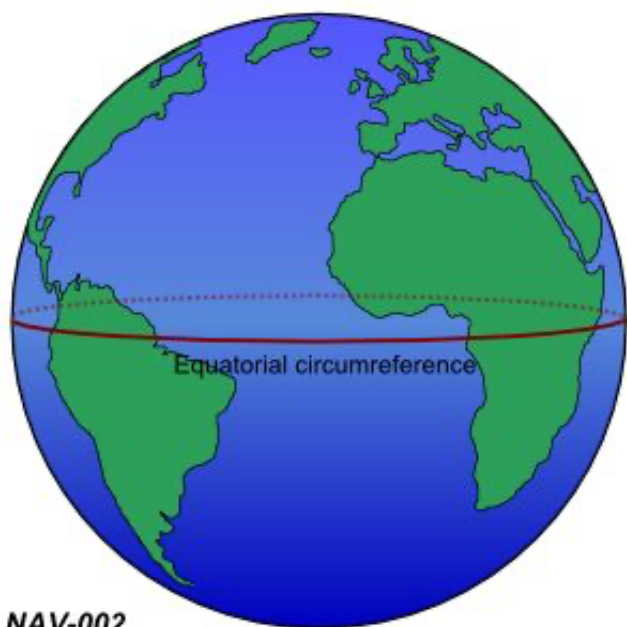
31 **What is meant by the term "terrestrial navigation"?**

☑A) Orientation by ground features during visual flight
☐B) Orientation by GPS during visual flight
☐C) Orientation by instrument readings during visual flight
☐D) Orientation by ground celestial object during visual flight

32 What ground features should preferrably be used for orientation during visual flight?

☑A) Rivers, railroads, highways
☐B) Farm tracks and creeks
☐C) Power lines
☐D) Border lines

Annex 1

Equatorial circumreference

NAV-002