ATPL - Airline Transport Pilot license - General Navigation



STUDENT NAME:	DATE AND TIME:

01. The current in a DC circuit, according to Ohm's law, can be described as:

- a) Directly Proportional To Both The Voltage And The Resistance.
- b) Inversely proportional to the resistance and directly proportional to the voltage.
- c) Inversely proportional to both the voltage and the resistance.
- d) Equal To The Voltage And Directly Proportional To The Resistance.

02. An aeroplane is provided with spoilers and in- and outboard ailerons. Roll control during cruise is provided by:

- a) Outboard ailerons and roll-spoilers.
- b) Inboard and outboard ailerons.
- c) Inboard ailerons and roll-spoilers.
- d) Outboard ailerons only.

03. What is the influence of decreasing aeroplane weight on Mcrit at constant IAS?

- a) Mcrit increases as a result of compressibility effects.
- b) Mcrit increases as a result of flying at a smaller angle of attack.
- c) Mcrit decreases as a result of flying at a greater angle of attack.
- d) Mcrit decreases.

04. The circumference of the parallel of latitude at 60°N is approximately:

- a) 20000 NM
- b) 18706 NM
- c) 34641 NM
- d) 10800 NM

05. According to JAR-OPS 1, for aeroplanes with a maximum certificated take-off mass over 5700 kg, flight data recorders shall be capable of retaining the data recorded during at least the last:

- a) 25 hours of operation.
- b) 10 flights.
- c) 25 flights.
- d) 30 hours of operation.

ATPL - Airline Transport Pilot license - General Navigation



06. The CG of an aeroplane is in a fixed position forward of the neutral point. Which of these statements about the stick force stability is correct?

- a) Maintaining a steady speed above the trim speed requires a pull force
- b) An increase of 10 KT from the trimmed position at low speed has more effect on the stick force than an increase of 10 KT from the trimmed position at high speed
- c) Stick force stability is not affected by trim
- d) Aeroplane nose up trim decreases the stick force stability

07. What does "SQUAWK IDENT" mean?

- a) Operate the SSR transponder "special position identification" feature.
- b) Select the SSR transponder mode to "ALT".
- c) State the aircraft call sign three times.
- d) Select the SSR transponder code to 7000.

08. Which data can be extracted from the Buffet Onset Boundary Chart?

- a) The value of the critical Mach number at various masses and altitudes
- b) The value of maximum operating Mach number (MMO) at various masses and power settings
- c) The value of the Mach number at which low speed and shockstall occur at various masses and altitudes
- d) The values of the Mach number at which low speed and Mach buffet occur at various masses and altitudes

09. What is meant by good microphone technique?

- a) Use a normal conversation tone, speak clearly and distinctly.
- b) Make large use of hesitation sounds as 'er'.
- c) Keep the microphone far away since it improves the readability.
- d) Speak very loudly into the microphone.

10. When a pilot makes a turn in horizontal flight, the stall speed:

- a) Decreases with increasing bank angle
- b) Increases with flap extension
- c) Increases with the load factor squared
- d) Increases with the square root of load factor

ATPL - Airline Transport Pilot license - General Navigation



11. In mass and balance calculations the 'index' is:

- a) An imaginary vertical plane or line from which all measurements are taken.
- b) A location in the aeroplane identified by a number.
- c) The range of moments the centre of gravity (cg) can have without making the aeroplane unsafe to fly.
- d) Is a figure without unit of measurement which represents a moment.

12. An aeroplane performs a continuous descent with	160 KT IAS and 1000 f	fpm vertical speed. In this condition:
---	-----------------------	--

- a) Lift is less than drag
- b) Lift is equal to weight
- c) Drag is less than the combined forces that move the aeroplane forward
- d) Weight is greater than lift

13. The mass of an aircraft is 1950 kg. If 450 kg is added to a cargo hold 1.75 metres from the loaded centre of gravity (cg). The loaded cg will move:

- a) 40 cm.
- b) 33 cm.
- c) 34 cm.
- d) 30 cm.

14. In order to avoid CB a pilot wants to turn right to a magnetic heading of 100 degrees. The correct way to ask the ATC unit for permission is:

- a) Request right turn to heading one-double-0
- b) Request right turn to heading one-hundred degrees
- c) Request right turn to heading one-point-zero-zero
- d) Request right turn, heading one-zero-zero

15. To ensure that the fuel flow is kept directly proportional to the volume of air flowing through the choke, thus preventing the main jet supplying excessive fuel as engine speed is increased, a carburettor is fitted with:

- a) A diffuser
- b) A mixture control
- c) An accelerator pump
- d) A Power Jet

ATPL - Airline Transport Pilot license - General Navigation



The state of the s
a) 45°
b) 55°
c) 65°
d) WGS 84
17. At 0020 UTC an aircraft is crossing the 310° radial at 40 NM of a VOR/DME station. At 0035 UTC the radial is 040 and DME distance is 40 NM.Magnetic variation is zero.The true track and ground speed are:
a) 090° - 232 kt
b) 085° - 226 kt
c) 088° - 232 kt
d) 080° - 226 kt
18. The maximum aft position of the centre of gravity is, amongst others, limited by the:
a) Maximum longitudinal stability of the aeroplane.
b) Required minimum value of the stick force per g.
c) Inability to achieve maximum rotation rate during take-off.
d) Maximum elevator deflection.
19. A pilot wishes to turn right on to a southerly heading with 20° bank at a latitude of 20° North. Using a direct reading compass, in order to achieve this he must stop the turn on an approximate heading of:
a) 170°
b) 150°
c) 200°
d) 190°
20. The middle marker transmits on:
a) 75MHz
b) 1300Hz

c) 75Hzd) 1300MHz

ATPL - Airline Transport Pilot license - General Navigation



21. In an ATC Hight plan item	15 (route), in terms of latitude and longitude, a significant point at 41 35 m	Orth 4 15
east should be entered as:		

- a) 4135N00415E
- b) N4135 E00415
- c) N04135E0415
- d) 41°35' N 04° 15'E
- 22. The maximum quantity of fuel that can be loaded into an aircraft's tanks is given as 2200 l. If the fuel density (specific gravity) is given as 0.79 the mass of fuel which may be loaded is:
- a) 1738 kg
- b) 1798 kg
- c) 2098 kg
- d) 2785 kg
- 23. The general information, instructions and recommendations on the transport of dangerous goods are specified in the:
- a) Flight manual.
- b) Operations manual.
- c) Air operator certificate.
- d) AIP (Aeronautical Information Publication).

24. The Warsaw convention and later amendments deals with:

- a) Operator's licence for international scheduled aviation
- b) The regulation of transportation of dangerous goods
- c) The security system at airports
- d) Limitation of the operator's liability for damage caused to passengers and goods transported
- 25. A fire occurs in a wheel and immediate action is required to extinguish it. The safest extinguishant to use is:
- a) Water
- b) CO2 (carbon dioxide)
- c) Dry powder
- d) Foam

ATPL - Airline Transport Pilot license - General Navigation



26. In a primary radar using pulse technique, the ability to discriminate between targets in azimuth is a factor of:

- a) Aerial rotation rate
- b) Pulse Recurrence Rate (PRR)
- c) Beam width
- d) Decrease in the aircraft's rate of descent of 50 FT/MIN

27. In which air mass are extremely low temperatures encountered?

- a) Continental polar air.
- b) Maritime arctic air.
- c) Continental tropical air.
- d) Maritime polar air.

28. The barometric pressure has dropped to 1/2 of the pressure at sea level at

- a) 10 000 feet
- b) 18 000 feet
- c) 30 000 feet
- d) 25 000 feet

29. Which facility associated with the ILS may be identified by a two-letter identification group?

- a) Locator.
- b) Glide path.
- c) Outer marker.
- d) "Request QDR".

30. Using passenger oxygen in case of severe cabin smoke is:

- a) Useless because breathing oxygen would explode under smoke conditions
- b) Useless because the oxygen units do not operate under smoke conditions
- c) Possible and recommended
- d) Useless because the toxic cabin smoke is mixed with the breathing oxygen

ATPL - Airline Transport Pilot license - General Navigation



31. The OBS is set to 235°. The indications of the VOR are half full scale deflection left and "to". The aircraft is on the radial:
a) 230°
b) 050°
c) 240°
d) 100 NM
32. In a precision approach category I, lighting system, the single, two and three light sources on the centre line have a length of:
a) 300 m.
b) 250 m.
c) 200 m.
d) 150 m.
33. At about what geographical latitude as average is assumed for the zone of prevailing westerlies?
a) 50N
b) 80N
c) 30N
d) 10N
34 Traffic load is the difference between:
a) The operating mass and the basic empty mass.
b) The take-off mass and the basic empty mass.
c) The take-off mass and the basic empty mass plus trip fuel.
d) The take-off mass and the operating mass.
35. Which word or phrase shall be used in order to repeat for clarity or emphasis?
a) Confirm
b) Read back

c) I say again d) Verify

ATPL - Airline Transport Pilot license - General Navigation



36. Cruising level IFR during cruise within controlled airspace shall be given as flight level (FL)

- a) When QNH is higher than the standard pressure 1013 hPa
- b) Only in airspace class A
- c) Above the transition altitude when applicable
- d) If the obstacle clearance is more than 2000 feet

37.	The MN	IPS	(Minimum	Navigation	Performance S	pecification) airsı	oace extends	vertically	v between fl	iaht levels

- a) 285 and 420
- b) 275 and 400
- c) 280 and 390
- d) 280 and 400

38. When a turbo-prop aeroplane decelerates during the intial part of the landing roll, a constant speed propeller within the beta range:

- a) Is Feathered.
- b) Produces zero thrust.
- c) Produces positive thrust.
- d) Produces negative thrust.

39. Which of the following cloud types is most readily detected by airborne weather radar when using the 'weather beam'?

- a) Cirrocumulus
- b) Stratus
- c) Cumulus
- d) 2.5° up

40. What does the abbreviation 'RVR' mean:

- a) Runway visibility report
- b) Radar vectors requested
- c) Recleared via route...
- d) Runway visual range

ATPL - Airline Transport Pilot license - General Navigation



41. What is the correct way for the pilot to acknowledge that ATIS Information Golf has been received:

- a) Information Golf
- b) We have the ATIS Golf
- c) We have the Information
- d) Weather Golf received

42. A pitot tube covered by ice which blocks the ram air inlet will affect the following instrument (s):

- a) Vertical speed indicator only.
- b) Altimeter only.
- c) Airspeed indicator, altimeter and vertical speed indicator.
- d) Airspeed indicator only.

43. What is the minimum field length required for the worst wind situation, landing a twin jet aeroplane with the anti-skid inoperative? Elevation: 2000 ftQNH: 1013 hPaLanding mass: 50 000 kgFlaps: as required for minimum landing distance Runway condition: dryWind: Maximum allowable tailwind: 15 kt Maximum allowable headwind: 50 kt

- a) 2600 m.
- b) 3100 m.
- c) 2900 m.
- d) 2700 m.[see Annex]

44. If the GPWS (Ground Proximity Warning System) activates, and alerts the pilot with an aural warning 'DON'T SINK' (twice), it is because:

- a) The aircraft experiences an unexpected proximity to the terrain, with landing gear retracted.
- b) At too low altitude, the aircraft has an excessive rate of descent.
- c) During take-off or missed approach manoeuvre, the aircraft has started to lose altitude.
- d) The aircraft experiences an unexpected proximity to terrain, without landing-flap selected.

45. The geostrophic wind is greater than the gradient wind around a low pressure system because the:

- a) Centrifugal force is added to the pressure gradient
- b) Centrifugal force opposes the pressure gradient
- c) Coriolis force opposes to the centrifugal force
- d) Coriolis force is added to the pressure gradient

ATPL - Airline Transport Pilot license - General Navigation



46. Rotation about the lateral axis is called:

つ)	Yawin	\sim
a)	ıawııı	ч

- b) Slipping
- c) Pitching
- d) Rolling

47. Which is true of the aircraft basic empty mass?

- a) It is a component of dry operating mass.
- b) It is the actual take-off mass, less traffic load.
- c) It is dry operating mass minus traffic load.
- d) It is dry operating mass minus fuel load.

48. An aircraft is over position HO (55°30'N 060°15'W), where YYR VOR (53°30'N 060°15'W) can be received. The magnetic variation is 31°W at HO and 28°W at YYR.What is the radial from YYR?

- a) 028°
- b) 332°
- c) 031°
- d) 208°

49. On an aircraft landing gear, an under-inflated tyre:

- a) Will Have An Increased Critical Hydroplaning Speed
- b) It's tread will deteriorate faster
- c) Will be more subject to viscosity aquaplaning on dry runway
- d) Will wear at the shoulders

50. Accommodation, which enables a clear image to be obtained, is accomplished by which of the following?

- a) The rods
- b) The crystalline lens
- c) The retina
- d) The cones

ATPL - Airline Transport Pilot license - General Navigation



51. The correct drag formula is:

- a) D = CD 1/2 RHO V S
- b) D = CD 2 RHO V2 S
- c) D = CD 1/2 1/RHO V2 S
- d) D = CD 1/2 RHO V2 S

52. According with DOC 4444 (ICAO), a wake turbulence non-radar separation minima of 3 minutes shall be applied to:

- a) LIGHT aircraft taking-off behind a MEDIUM aircraft from a parallel runway separated by less than 760 m. (using whole runway)
- b) LIGHT aircraft taking -off behind a MEDIUM aircraft when aircraft are using the same runway
- c) LIGHT aircraft landing behind a MEDIUM aircraft
- d) MEDIUM aircraft landing behind a HEAVY aircraft

53. The use of reduced take-off thrust is permitted, only if:

- a) The actual take-off mass (TOM) including a margin is greater than the performance limited TOM
- b) The take-off distance available is lower than the take-off distance required one engine out at V1
- c) The actual take-off mass (TOM) is greater than the climb limited TOM
- d) The actual take-off mass (TOM) is lower than the field length limited TOM

54. During the flight of two aircraft in MNPS airspace with a leading aircraft flying at higher speed, the longitudinal separation must not be below:

- a) 5 minutes
- b) 20 minutes
- c) 15 minutes
- d) 10 minutes

55. For turbojet engine driven aeroplane, given: Taxi fuel 600 kgFuel flow for cruise 10000 kg/h Fuel flow for holding 8000 kg/h Alternate fuel 10200 kgPlanned flight time to destination 6 h Forecast visibility at destination 2000 m The minimum ramp fuel required is:

- a) 76100 kg
- b) 80500 kg
- c) 77800 kg
- d) 79200 kg

ATPL - Airline Transport Pilot license - General Navigation



56. An aircraft is flying in the southern hemisphere at low altitude (less than 2000') and going directly away from a centre of low pressure. What direction, relative to the aircraft, does the wind come from?

- a) From the right and slightly on the tail
- b) From the right and slightly on the nose
- c) From the left and slightly on the tail
- d) From the left and slightly on the nose

57. The Flight Management Computer (FMC) position is:

- a) The actual position of the aircraft at any point in time
- b) The same as that given on the No. 1 IRS
- c) The computed position based on a number of sources (IRS, Radio, ILS, GPS etc)
- d) Clear air turbulence

58. On a chart, the distance along a meridian between latitudes 45°N and 46°N is 6 cm. The scale of the chart is approximately:

a) 1: 1 000 000

b) 1: 1 850 000

c) 1: 18 500 000

d) 1: 185 000

59. What does the abbreviation 'AIS' mean?

- a) Aerodrome identification signal-area
- b) Aeronautical information service
- c) Aerodrome information service
- d) Airport information system

60. Which statement about reduced thrust is correct?

- a) Reduced thrust is primarily a noise abatement procedure
- b) Reduced thrust can be used when the actual take-off mass is less than the field length limited take-off mass
- c) In case of reduced thrust V1 should be decreased
- d) Reduced thrust is used in order to save fuel

ATPL - Airline Transport Pilot license - General Navigation



61. The performance of the man machine system is above all:

- a) A combination which is based on decreasing the pilot's workload and increasing his time for supervision
- b) A combination in which the pilot must keep the main repetitive tasks and automated systems under his control in line with rule-based behaviour
- c) A combination which must make the pilot available for the sphere in which he is most qualified, namely checking departures from the normal operating range
- d) A balanced combination between someone actively engaged in his work and automated systems which serve to control the pilot's workload

62. Which of the following statements concerning the variable, or directional, signal of a conventional VOR is correct?

- a) The transmitter changes the frequency of the variable signal by 30 Hz either side of the allocated frequency each time it rotates
- b) The transmitter varies the amplitude of the variable signal by 30 Hz each time it rotates
- c) The receiver adds 30 Hz to the variable signal before combining it with the reference signal
- d) The rotation of the variable signal at a rate of 30 times per second gives it the characteristics of a
- 30 Hz amplitude modulation

63. How shall a pilot inform a radar control unit that the aircraft is not equipped with transponder:

- a) Negative transponder
- b) Negative squawk
- c) Transponder not available
- d) No SSR

64. Which of the following sequences shows the correct elements of a position report in the correct order? 1) call sign 2) reported position 3) heading (°M) 4) level or altitude 5) next position 6) ETA of the next position7) aircraft type8) time of reported position

- a) 1, 2, 3, 4, 5, 6
- b) 1, 2, 8, 4, 5, 6,
- c) 1, 7, 2, 6, 4
- d) 1, 2, 4, 5, 6

ATPL - Airline Transport Pilot license - General Navigation



65. A ground proximity warning system (GPWS), when mandatory installed on board an aircraft, must in all cases generate:

- a) At least one sound alarm to which a visual alarm can be added
- b) A visual alarm to which a sound alarm can be added
- c) A sound and visual alarm
- d) A sound alarm or a visual alarm

66. In the case of parallel runways, each runway designation number shall be supplemented:

- a) By a letter for example 2 parallel runways 'L' and 'R' for 3 'L', 'C' and 'R'.
- b) By a letter for example 3 parallel runways 'L' and 'R' and the central has no letter.
- c) By a letter for 2 parallel runways.
- d) By a number like '0' and '01' for 2 parallel runways.

67. What is the radiotelephony call sign suffix for the aeronautical station indicating clearance delivery?

- a) CLEARANCE
- b) DELIVERY
- c) RADIO
- d) CLEARANCE DELIVERY

68. Taxiway edge lights shall be:

- a) Fixed showing blue.
- b) Flashing showing blue.
- c) Fixed showing yellow.
- d) Fixed showing green.

69. Accident investigationWho is responsible for the initiation of an accident investigation?

- a) The Operators of the same aircraft type.
- b) The Authority of the State in which the accident took place.
- c) The State of design and manufacturer.
- d) The aircraft manufacturer.

ATPL - Airline Transport Pilot license - General Navigation



70. The span-wise flow is caused by the difference between the air pressure on top and beneath the wing and its direction of movement goes from:

- a) Beneath to the top of the wing via the wing tip
- b) The top to beneath the wing via the leading edge
- c) Beneath to the top of the wing via the trailing edge
- d) The top to beneath the wing via the wing's trailing edge

ATPL - Airline Transport Pilot license - General Navigation



Response Scheme Compare your answers with the following diagram and mark your score!

01: B	02: C	03: B	04: D
05: A	06: B	07: A	08: D
09: A	10: D	11: D	12: D
13: B	14: D	15: A	16: B
17: B	18: B	19: C	20: B
21: A	22: A	23: B	24: D
25: C	26: C	27: A	28: B
29: A	30: D	31: B	32: A
33: A	34: D	35: C	36: C
37: A	38: D	39: C	40: D
41: A	42: D	43: B	44: C
45: B	46: C	47: A	48: A
49: D	50: B	51: D	52: C
53: D	54: A	55: C	56: D
57: C	58: B	59: B	60: B
61: A	62: D	63: A	64: B
65: A	66: A	67: B	68: A
69: B	70: A		

ATPL - Airline Transport Pilot license - General Navigation



Response form Use this form to mark your answers

01:	02:	03:	04:
05:	06:	07:	08:
09:	10:	11:	12:
13:	14:	15:	16:
17:	18:	19:	20:
21:	22:	23:	24:
25:	26:	27:	28:
29:	30:	31:	32:
33:	34:	35:	36:
37:	38:	39:	40:
41:	42:	43:	44:
45:	46:	47:	48:
49:	50:	51:	52:
53:	54:	55:	56:
57:	58:	59:	60:
61:	62:	63:	64:
65:	66:	67:	68:
69:	70:		