Q1 Electricity in the aircraft is provided by

a). Single battery of 12 volt

b). Two battery of 24 volt

c). Two battery of 12 volts each

d). Single battery of 24 volts

Q2 Electric power in cessna 310 is supplied by

a). 12 Volt batteries connected in series

b). 24 volt batteries connected in series

c). 12 volt batteries connected in parallel

d). 24 volt batteries connected in parallel

Q3 Landing gear position indication lights are

a). One green for down position and one Red for up position

b). 3 green and one red

c). 3 green and 3 red

d). One red light only

Q4 Landing gear lock system for aircraft when a/c is standing on ground

a). A safety switch on left shock strut which represents the operation of lending gear on ground

b). A safety switch is provided on the right shock strut which prevents operation of up circuit until the right strut is fully extended.

c). Landing gear con not be operated on ground due to weight of the aircraft is on gear.

d). Up and down limit switch of gear box in the system to prevent overload on the mechanism

Q5 Landing gear horn comes at what power setting

a). When manifold decreases below 17" of Hg.

b). When manifold decreases below 10" of Hg.

c). The horn will sound if either throttle is retarded below 13 inches of manifold pressure with landing gear up

d). When both the throttle is retraced below 15" inches of manifold with gear up

Q6 What is the single engine go around speed in cessna 310 a/c with obstacle ahead

a). 110 MPH

b). 109 MPH

c). 121 MPH

d). 105 MPH

Q7 How many air vents are there and location

a). 8 air vents

b). 6 air vents plus a row of ven holes

c). Eight air outlets plus a row of vent holes along the cabin front forward of the rudder pedals.

d). Air vent plus a row of vent holes

Q8 Deicer operation for the wings and horizontal stablizer should be turned on

a). When OAT is -10 C.

b). With less than 1/4" of ice build up

c). More than 1/4" of ice should be allowed to build up before activating the system

d). 1 & 2 are correct

Q9 What is the location of flight and engine Instruments

a). All flight instruments are mounted on the left side of the panel & Engine instruments on the right side

b). Flight and engine instruments are arranged on above the others

c). Engine instrument son left hand side and flight instruments on right sie of the instrument panel

d). Flight instruments on the center of the instrument pannel

Q10 Which instrument is not suction operated

a). Mach meter

b). Artificial horizon

c). Directional gyro

d). All above are incorrect

Q11 What is fuel submerged pump and what is its purpose

a). This pumps is an aid to the primary fuel pump for T/o & ldg and for emergencies only (Booster Pump)

b) The pump is used to supply fuel to engines at all times

c) The pump is used for Take off and landing only

Q12 Which engine is started first

a). Left

b). Right

c). Both

d). None of the above

Answer

1.(c)	2 (a)	3. (a)	4. (b)	5.(c)	6.(a)
7. (c)	8.(c)	9.(a)	10.(d)	11.(a)	12.(a)

Q13 Single engine best rate of climb speed at sea level

a). 380 FPM
b). 475 FPM
c). 500 FPM
d). 450 FPM

Q14 With nose up what is the minimum quantity of oil in Qts

a). 7 Qts
b). 6 Qts
c). 5 Lts
d). 12 Lts

Q15 The duration of oil dilution in semi cold weather
a). 3 min
b). 6 min
c). More than 6 min
d). None of the above

Q16 How to feather the propeller
a). The propeller control should be pulled back past the detent in the slot to the extreme rear position

b) the prop control should be brought to just ahead of the detent

c) the prop control should be taken at the full forward position

Q17 T.S.I. works on
a). 12 volt D.C.
b). 24 volts A.C.
c). 12 Volts A.C.
d). 24 volts D.C.

Q18 T.SI. circuit test light also works as
a). Landing gear light
b). Heater over heat light
c). Low voltage warning light
d). None of the above

Q19 What is the total oil sump capacity
a). 6 Qts
b). 9 Qts
c). 12 Qts
d). 16 Qts

Q20 How many batteries are in this aircraft and in what sequences
a). Two 12 volt batteries in series
b) One 24 volt battery
c) Two 12 volt batteries in Parallel

Q21 Nose wheel can be turned by ruder pedal at what angle
a).55^0 Left & right
b).15^0 right or left of center with free swiveling up to 55 deg. Of either side
c). 30^0 left & right
d). Positive control up to 200

Q22 Manifold pressure is measured at
a). Carburetor inlet
b). Carb. Out let
c). Engine intake
d). Ambient pressure

Q23 How do you increase power & RRM
a). Throttle later
b). Prop first
c).Prop later
d).1 & 2 correct

Q24 Fuel booster pump used for
a). Take off & landing
b). Priming
c). For emergencies
d). All above are correct

Q25 CHT gauge has
a).Inductance type of thermo couple
b).Capacitance type of thermo couple
c).CHT gauge has baynot-type thermo couple with 24 volt D.C. Resistance type
d). None of the above

Q26 How does CHT operate
a). Two thermo couple
b). One thermo couple
c). Two thermo couple with 12 volt DC in series resistance type
d). One thermo couple with 24 volts D.C Resistance type

Answer

13.(a)	14 (b)	15. (b)	16. (a)	17.(d)	18.(b)	19. (c)
20.(a)	21.(b)	22.(d)	23.(d)	24.(d)	25.(c)	26.(d)

Q27 Electrical power is supplied by

a). Two 24 volts D.C. generators
b). As in 1 & two 12 volts batteries in series
c). Both 1 & 2 are correct
d). None of the above is correct

Q28 The Cabin heater is

a). Heater is a seal flame internal combustion type, controlled by a three position toggle switch

Q29 What will be the stalling speed with Flap 15^0 Bank $20^{0,}$ gear down 4500 Ibs wt? IAS is 80 what is TAS
a). 85
b). 79
c). 90
d). 100

Q30 With 45^0 bank IAS 80 MPH what is TAS?

a). 80 MPH
b) 85 MPH
c) 75 MPH

Q31 With nose up attitude what is the minimum quantity of oil in Qts
a). 6 Qts
b). 9 Qts
c). 12 Qts
d). 7.5 Qts

Q32 What is the purpose of booster pump in fuel system
a). Booster pumps in the tanks provide a positive fuel flow as Emergency pumps in the event of failure of engine driven fuel pumps and provide fuel pressure for priming and starting
b) Through out the flight
c) For emergencies only

Q33 What is the ground roll for T/o

Gross wt	Ground Roll (Nil wind Conditions)
4000 lbs	580 ft
4300 lbs	690 ft
4600 lbs	795 ft

Q34 What is the ROC at sea level with twin engine 4600 Lbs with standard temperature
a). 1500'

b). 1700'
c). 1885'
d). 1300'

Q35 Fuel pressure limitation

a).10 to 15 PSI
b). 9 to 25 PSI
c). 9 to 15 PSI (Green arc)
d). 10 to 25 PSI

Q36 How much distance the aircraft is reguired for decelerating to a stop with 93 MPH speed and heavy breaking
a). 3200'
b). 3500'
c). 4000'
d). 2900'

Q37 Ice formation in induction air filter in non icing condition

a). Con be de-ice
b). Can be remove manually
c). Removed by air blast
d). Con not be removed

Q38 Cabin heater switch positions
a). Heat-off-fan
b) Fan-Heat-Off
c) Off-Fan-Heat

Answer

27. (c)	28 (a)	29. (b)	30. (a)	31.(a)	32.(a)
33. ( )	34.(b)	35.(c)	36.(a)	37.(c)	38.(a)

Q39 Propeller feather system. How it is operated

a).Decrease propeller controls below the detents and the mixture control should always be pulled back to I.C.O. (Ideal cut off)

b) Keep the prop controls just above the detents and mixture full rich

c) Decrease propeller controls below the detents and the mixture control should be full forward.

Q40 Manifold pressure is

a). Pressure of fuel air mixture
b) Pressure of oil
c) Pressure of fuel

Q41 Duration of oil dilution in severe cold weather

a). 6 min
b). 3 min
c). More than 6 min

Q42 Flap 45 deg, power off, hard surface runway, zer0 wind landing distance 3000. Find landing dist. If HWC is 12 Mph –H.W.C. (Head wind component)

a). 2700
b). 2400
c). 2550
d). 2100

Q43 At 15^0 flap IAS is 90 mph. How much correction is applied to get TAS

a). 2 mph
b). 1 mph
c). 3 mph
d). 5 mph

Q44 Mark the correct statement for oil temp. regulate

a). Regulated manually be electing the hot or the cool
b). Regulated automatically by the electric magnetic method
c). Automatically by thermo statically controlled oil cooler
d). Automatically by electro statically

Q45 With gears down, bank 40^0 , flap 15^0 weight 4600 Lbs. the stalling speed will be

a). 88 MPH

b). 80 MPH

c). 84 PMH

d). 82 MPH

Q46 In the event of short/ malfunctioning of electrical systems

a). Battery switch is to be turned off
b). Gen. switch off and as in (1)
c). Engine will stop
d). All of the above

Q47 At a given altitude with normal temperature total dist. Over 50 obstacle is 1260 ft., if temperature increases 50^0f above std temp., then what will be the distance required

a). 1512 ft.
b). 1008
c). 1386
d). 1134

Q48 On a single engine full power stall there is loss of

a). Directional control
b). Directional and longitudinal control
c). Lateral and longitudinal / directional control
d). Longitudinal control

Q49 The rate of climb for twin & single engine at sea level and Std. temperature is

a). 2100 ft. per m. & 600 F/m
b). 1500 f/m sea 500 f/m sea
c). 1700 ft/min. and 380 ft/min.
d). 1800 ft/min. and 495 ft/min.

Q50 The max. speed at which you can use abrupt control

a).130 mph.
b).159 mph.
c). 200 mph.
d). 110 mph.

Answer

39. (a)	40 (a)	41. (c)	42. (b)	43.(b)	44.(c)
45. (a)	46.(b)	47.(a)	48.(c)	49.(c)	50.(b)

Q51 At 45^0 flaps, I.A.S. 80, TAS is
a). 82
b). 80
c). 85
d). 78

Q52 CHT Gauge works on

a). One thermo couple
b). 2 thermo couples connected in series
c). 1 thermo couple of 24 volts, D.C.
d). 2 thermo couple of 12 volts each in parallel

Q53 Propeller control lever

a). Has a black grooved knob
b). When moved forward is in a high RPM. High pitch
c). When move forwards is in low RPM, low pitch
d). All of the above

Q54 Which of the following may not be carried in the airplane at all times
a). Weight & balance Data
b). Equipment list
c). Airplane fog book
d). Engine log book

Q55 Prolonged idling should be done at
a). 600-800 RPM
b). 800-1000 RPM
c). 800-1200 RPM
d). 1000-1200 RPM

Q56 The total quantity of unusable fuel in C- 310 is

a). 5 Gallons.
b). 2 Gallons (1 gallon in each tank)
c). 1 Gallon
d). 1.5 Gallon

Q57 Full feathering of propeller takes
a). 1 min.
b). 2 min.
c). 30 seconds
d). None of the above is correct (7 to 10 seconds)

Q58 Max. speed for landing gear & Flaps extended is
a). 130 MPH for both
b) 140 MPH for ldg gear and 130 MPH for flaps
c) 130 MPH for landing gear and 140 MPH for flaps

Q59 The flight load factor with flaps down is
a). + 3.0
b). +3.8
c). -1.52
d). + 2.0

Q60 With complete engine failure the approach speed for a forced landing is
a). 95 mph
b). 110 mph
c). 105 mph
d). 130 mph

Q61 When preparing the airplane for hungering turn the propeller
a). Vertical position
b). Horizontal position
c). 45 to the ground
d). None of the above

Q62 In severe cold conditions you use oil dilution for

a). 4 min. with 9 quarts oil
b). 6 min. with 12 quarts oil
c). 3 min. with 12 quarts oil
d). 6 min. with oil level less than 12 quarts

Q63 The best rate of climb at 15,000 ft. will be
a). 130 mph
b). 121 mph
c). 117 mph
d). 123 mph

Q64 If the engine power and RPM are to be decreased then
a). Throttle first
b). And then propeller
c). Throttle and prop. Simultaneously
d). Both 1 & 2

Q65 Oil dilution an be applied for in very cold
a). 6 minutes for 12 quarts oil in engine
b). More than 6 min for less then 12 qts oil
c). 4 min for 4 qts oil in eng

Q66 Manifold press gauge measures pressure of
a). Fuel pressure
b). Air pressure
c). Fuel-Air mix entering cylinder head

Answer

51. (a)	52 (a)	53. (c)	54. (b)	55.(b)	56.(c)
57. (d)	58.(a)	59.(a)	60.(c)	61.(c)	62.(b)
63.(c)	64.(d)	65.(a)	66.(c)		

Q67 Max speed at which abrupt canted can be used
a). 159 MPH
b) 170 MPH
c) 249 MPH

Q68 Climb rate for multi and single engine at 59^0 F at 4600 lbs is
a). 1700 & 380 fpm
b) 2000 & 680 FPM
c) 1400 & 300 FPM

Q69 Aircraft can be turned
a). With positive control up to 15^0 left or right after which is becomes free swinging upto 55 deg.
b) With positive control up to 15^0 left or right only
c) With positive control up to 55^0 left or right only

Q70 Batteries are removed when
a). Water level is low
b). Batt. Unable to actuate solenoid
c). Generators unable to charge batt
d). Both 2 & 3

Q71 Speed for obstacle clearance t/o
a). 103 MPH (best angle of climb speed)
b) 110 MPH
c) 121 MPH

Q72 Approach speed for emergency ldg (complete engine failure)
a). 105 MPH
b) 93 MPH
c) 100 MPH

Q73 Stall warring comes
a). 5 to 10 MPH above stall speed
b) 15 MPH above stall speed
c) 3 MPH above stall speed

Q74 Jet augmenter tubes
a). Provide inc. thoust
b). Pull cooling air through all parts of engine
c). As in 2 and depends on power out put of engine

Q75 CHT is measured by
a). Resist type then mockup
b). Capacitance type
c). Bayonet type thermocouple of 24v resistance type

Q76 Elec. System for each engine consist of
a).24 VDC electrical system driven by two generators
b) 12 VDC electrical system driven by one generator on left engine
c) 12 VDC electrical system driven by one generator on right engine

Q77 Before every flight and after each refueling fuel is drained from
a). Fuel strainer drain valves
b) All fuel draining points
c) Not drained

Q78 Deice system is operated when
a). Ice layer is more than ¼" thick
b) Ice layer is less than ¼" thick
c) Ice layer is more than 1" thick

Q79 Cross wt & empty wt
a). 4600 lbs & 2905 lbs
b) 4800 lbs & 2000 lbs
c) 4200 lbs & 2200 lbs

Q80 During single engine ldg. IAS should not go below 93 MPH unless
a). Aircraft is committed to land
b) Aircraft is 100 ft above the ground
c) Aircraft is on approach

Q81 Cessna 310 equipped with
a). Two 6 cyld. cont 04-470 M 250 BHP
b). Two 6 cyld cont 0-470 240 BHP
c). Two 4 cyld cont 0-470 M 240 BHP
d). Two 4 cyld cyco. Engines

Q82 Air induction box is
a). Though a non icing type still provided with alternate air source
b) icing type
c) non-icing type and hence not provided with alternate air source

Answer

67. (a)	68 (a)	69. (c)	70. (d)	71.(a)	72.(a)
73. (a)	74.(c)	75.(c)	76.(a)	77.(c)	78.(a)
79.(a)	80.(a)	81.(b)	82.(a)		

Q83 Landing gear warning horns function when
a). Landing gear is up and either throttle is retarded below 13 inches of MP
b)Landing gear is down and throttle is below 12 inches of MP
c) Landing gear is UP

Q84 When do we have the need to remove the buttery from the a/c
a). When electrolyte level is low
b). When battery can't be charged by generator
c). Whenever battery is discharged

Q85 What should be the strut extension under the designed gross Weight
a). 1.2"
b). 1.5"
c). 2"
d). 2.5"

Q86 Fuel would be drained before first flight of the day or after each refueling operation from
1). Fuel strainer drain valves
2). Fuel line drain plug
3). Fuel tank drain value
4). All of the above

Q87 Which of these is an optional equipment
a). Taxi light
b). Right landing light
c). All of the above are correct

Q88 Which engine is operated by the battery
a). Left (both engine operated by battery but usually left is operated first)
b). Right
c). Both
d). None

Q89 IAS is 80 MPH what is TIAS at 15^0 flap
a). 82 MPH
b). 90 MPH
c). 80 MPH

Q90 At 45^0 Flaps, what's the TAS if I.A.S. is 110 ?
a).115
b).110
c).109
d).107

Answer

83. (a) 84 (b) 85. (c) 86. (a) 87.(c) 88.(a)

89. (a) 90.(c)