1) A front is a

(1) narrow zone of fog between a cyclone and an anticyclone.
(2) line of thunderstorms.
(3) narrow transition zone between two air masses.
(4) mass of layer cloud which is very thick and which covers a wide area.

2) During the passage of a cold front

(1) warm air is compressed as cold air rides over it.
(2) temperature rises owing to increased pressure.
(3) fog will always form from the interaction of warm and cold air.
(4) warm air is lifted as colder air pushes under it.

3) The following sequence of clouds is observed at an airport: cirrus, altostratus, nimbostratus. The observer should expect

(1) the passage of a cold front.
(2) anticyclonic weather.
(3) the passage of a warm front.
(4) clearing skies and a decrease in temperature.

4) Cloud heights in Canadian Aerodrome Forecasts (TAF) are given in

(1) feet AGL.
(2) feet ASL.
(3) metres AGL.
(4) metres ASL.

5) The conditions required for the formation of thunderstorms are

(1) moist air, high temperature, and an inversion.
(2) stratus cloud, high humidity and a lifting force.
(3) unstable air, high humidity and a lifting force.
(4) a mixing of two different air masses.

6) Radiation fog forms as a result of the

(1) passage of cold air over a warm surface.
(2) air becoming moist as it moves over the sea.
(3) clouds becoming cold and heavy at night so that they settle to the ground.
(4) ground becoming cold at night and cooling the air in contact with it.

7) In the northern hemisphere, the winds blow

(1) clockwise around high and low pressure areas.
(2) counter-clockwise around high and low pressure areas.
(3) clockwise around a high pressure area and counter-clockwise around a low pressure area.
(4) counter-clockwise around a high pressure area and clockwise around a low pressure area.

8) A major early symptom of hypoxia is

(1) drowziness.
(2) dizziness.
(3) euphoria.
(4) hyperventilation.

9.) Clouds form when moist warm air overruns cold air because the warm air

(1) is cooled by the cold air underneath.
(2) is cooled by the surrounding cold air aloft.
(3) becomes unstable as a result of cooling from below.
(4) cools as a result of expansion as it rises.

10.) Advection fog forms when

(1) moist air moves from a warm surface to a colder surface.
(2) the cold ground cools the air in contact with it at night.
(3) moist air is influenced by orographic effect.
(4) moist cool air moves from a cold surface to a warm surface.

11.) Relative humidity is the

(1) amount of moisture present in the air.
(2) weight of water present in the air.
(3) amount of moisture present in the air compared to the amount the air could hold at that temperature and pressure.
(4) temperature to which the air must be lowered to bring about saturation.

12.) The cloud type usually associated with steady rain is

(1) altostratus.
(2) altocumulus.
(3) stratocumulus.
(4) nimbostratus.

13.) When in VFR flight within the altimeter setting region, the altimeter should be set to

(1) the current altimeter setting of the nearest station along the route of flight.
(2) 29.92 in. Hg. or 1013.2 mb.
(3) the station pressure of the nearest weather reporting station.
(4) the standard altimeter setting.

14.) Ground effect will enable an aeroplane to become airborne below normal flying speed primarily due to

(1) a decreased lift/drag ratio.
(2) a decrease in induced drag.
(3) an increase in downwash.
(4) an increase in wing tip vortices.

15.) If ice has accumulated on an aerofoil in flight, the stalling speed will

(1) remain unchanged.
(2) decrease in all flight conditions.
(3) increase in level flight only.
(4) increase in all flight conditions.

16.) "Day" in Canada is defined as that period of time between

(1) sunrise and sunset.
(2) one hour before sunrise and one hour after sunset.
(3) the end of morning civil twilight and the beginning of evening civil twilight.
(4) the beginning of morning civil twilight and the end of evening civil twilight.

devices fitted to the wing, which increase ____ and decrease ____.

a Drag lift
b Lift drag
c Weight lift
d Speed drag

17.) If an aircraft is rolling to the right aileron drag will cause the aircraft to yaw to the ____.

a Left
b Right
c No adverse yaw will be present
d None of the above

18.) A _____ is an adjustable tab either fixed or hinged to a control surface that helps the pilot by eliminating the need to exert excessive pressure on the flight controls during the various phases of flight.

a Hinge tab
b Cowl tab
c. Trim tab
d. Control tab

19.) Most of the "weather" occurs in the _____ because of the presence of water vapour and strong vertical currents.

a Troposphere
b Tropopause
c Stratosphere
d Mesosphere

20.) In the ICAO standard atmosphere the rate of decrease of temperature with height is _____ per 1,000 feet.

a 15°C
b 1.98°C
c 3°C
d 5°C

21.) The altimeter setting is _____.

a 30.00 inches of mercury
b 29.90 inches of mercury
c 1030.0 hectopascals
d 990.0 hectopascals

Given: Track = 090°T
Variation = 12°W
Deviation = 3°E

22.) What is the compass heading?

a. 081°
b 099°
c 105°
d 075°

WEATHER SYNOPSIS # 100 (PAGE 7 OF 7)

FTCN34 CWEG 071000

TAF CYBR 071030Z 0711/0723 27010KT P6SM SCT020 RMK NXT FCST BY 071700Z=
TAF CYPG 071245Z 0713/0723 34015KT P6SM SCT010 SCT020 RMK NXT FCST BY 071700Z=
TAF CYWG 071030Z 0711/0811 36015KT P6SM SCT010 SCT020 FM071200 36015KT P6SM SCT020 BECMG 0723/0724 27010KT RMK NXT FCST BY 071700Z=
TAF CYGX 071245Z 0713/0723 VRB03KT P6SM IC SKC FM071800 26010KT P6SM SCT100 SCT250 RMK NXT FCST BY 071700Z=
TAF CYYQ 071030Z 0711/0811 30010KT WS015/35030KT P6SM IC SCT250 FM072100 26010KT WS015/35030KT P6SM SCT030 SCT100 BKN250 FM080200 33015KT P6SM BKN030 BKN100 TEMPO 0802/0809 3SM -SN FM080900 34020KT 3SM BLSN OVC020 TEMPO 0809/0811 1SM -SN BLSN OVC020 RMK NXT FCST BY 081700Z=

SACN31 CWAO 071500

METAR CYBR 071500Z 29012KT 15SM SCT020 BKN 100 M21/M25 A3043 RMK SLP351=
METAR CYPG 071500Z 34010KT 15SM FEW015 FEW250 M20/M24 A3045 RMK SC1CI1 SLP342=
METAR CYWG 071500Z 34008KT 15SM SKC M24/M28 A3043 RMK SLP332=
METAR CYGX 071500Z 26006KT 15SM SKC M29/M34 A3027 RMK SLP275=
METAR CYYQ 071500Z 25006KT 15SM IC FEW090 M30/M35 A3023 RMK AC1 SLP249=

FDCN CWAO 061920

ISSUED 1200Z 07 FEB 2008 FOR USE 6-17Z

	3000	6000	9000	12000	18000	24000
CYWG	2825	2728-07	2932-10	2935-15	2939-26	2841-38
CYBR	3030	3132-06	3133-10	3135-15	3041-28	2948-40
CYYQ	3529	3428-13	3229-14	3130-19	3032-32	2733-42
CYYL	3327	3435-10	3338-14	3337-19	3136-31	3038-44

STATION IDENTIFIERS

CYBR – Brandon
CYPG – Portage la Prairie
CYWG – Winnipeg
CYQD – The Pas
CYTH – Thompson
CYGX – Gillam
CYYL – Lynn Lake
CYYQ – Churchill

Refer to the Appendix: WEATHER SYNOPSIS # 100 (TAF).

23.) The Gillam (CYGX) 1800Z wind is forecast to be

(1) 260°T at 10 kt.
(2) 260°M at 10 kt.
(3) variable at 3 kt.
(4) calm.

Refer to the Appendix: WEATHER SYNOPSIS # 100 (METAR/TAF).

24.) The 1500Z Portage La Prairie (CYPG) METAR indicates that the

(1) visibility is greater than forecast.
(2) ceiling is lower than forecast.
(3) winds are weaker than forecast.
(4) ceiling is as forecast.

Refer to the Appendix: WEATHER SYNOPSIS # 100 (METAR).

25.) The ceiling at Brandon (CYBR) at 1500Z is

(1) 200 ft.
(2) 1,000 ft.
(3) 2,000 ft.
(4) 10,000 ft.

Refer to the Appendix: WEATHER SYNOPSIS # 100 (METAR).

26.) The 1500Z temperature/dewpoint spread at Portage La Prairie (CYPG) is

(1) 24°C.
(2) 20°C.
(3) 15°C.
(4) 4°C.

Refer to the Appendix: WEATHER SYNOPSIS # 100 (METAR).

27.) The altimeter setting at Winnipeg (CYWG) is

(1) 30.43 in. Hg.
(2) 30.43 mb.
(3) 933.2 in. Hg.
(4) 1332.0 mb.

28.) A METAR describes the weather

(1) expected at a station at a given time.
(2) expected at a station over a 12 hour period.
(3) observed at a station at the time of the report.
(4) observed at a station during the previous day.

29.) _____ is movement about the vertical or normal axis and is controlled by ____

a. Yaw, rudder
b. Roll, aileron
c. Pitch, elevator
d. Sideslip, elevator

30.) Air that will resist upward or downward displacement and tends to return to its original horizontal level is said to be _____.

a. Unstable
b. Saturated
c. Sublimation
d. Stable

31.) Relative humidity:

a Is the ratio of water vapor present in the air compared to the amount the same volume of air could hold if it were saturated.
c Is the ratio of water vapor present in the air compared to the amount the same volume of air could hold if it were dry.
c Decreases when a given mass of air is cooled and no new water vapor is added.
a Both a and c

32.) Terminal Aviation Forecasts (TAFs) are issued _____ times daily and are valid for _____.

a 24. 90 minutes
a 4. 24 hours
c 6. 4 hours
a 2. 36 hours

33.) When two aircraft are converging at approximately the same altitude, the aircraft that has the other on its right shall give way except that

(1) aeroplanes shall give way to rotary wing aircraft.
(2) helicopters shall give way to aeroplanes.
(3) gliders shall give way to aeroplanes.
(4) power-driven heavier-than-air aircraft shall give way to airships, gliders and balloons.

34.) When two aircraft are approaching head-on or approximately so and there is danger of collision, each pilot shall

(1) alter heading to the right.
(2) alter heading to the left.
(3) avoid the other by changing altitude.
(4) turn on the anti-collision lights.

35.) What is the minimum fuel required on an aeroplane, other than an ultra-light, at the commencement of a day VFR flight? Sufficient fuel to fly to the destination

(1) at minimum cruising speed.
(2) plus 45 minutes at normal cruising speed.
(3) plus 30 minutes at normal cruising speed.
(4) and then to a specified alternate.

36.) In Southern Domestic Airspace, runway 27 at an aerodrome would have a bearing of approximately

(1) 027°T.
(2) 270°T.
(3) 027°M.
(4) 270°M.

37.) No person shall fly or attempt to act as a flight crew member of an aircraft if that person

(1) is less than 18 years of age.
(2) has consumed alcohol or drugs 48 hours prior to take-off.
(3) is suffering or is likely to suffer from fatigue.
(4) is over 60 years of age.

38.) Unless otherwise specified, a control zone is

(1) the same as a control area.
(2) controlled airspace around an aerodrome that extends vertically from the surface to 3,000 feet AGL.
(3) always Class D airspace.
(4) controlled airspace along airways above 2,200 feet ASL.

39.) When flying from an area of a high pressure to an area of low pressure, the altimeter will read _____ than what the aircraft is actually flying

a Higher
b Lower
c The same
d The difference

40.) The use of low octane fuel in a high compression engine may result in

(1) too lean a mixture for best operation.
(2) carburettor icing.
(3) fouling of the spark plugs.
(4) detonation.

41.) If one magneto should fail on an engine equipped with dual ignition

(1) a slight loss of power would result.
(2) there would be no effect on the engine.
(3) the engine would stop.
(4) half of the cylinders would not fire.

42.) The use of carburettor heat will

(1) increase manifold pressure and enrich the mixture.
(2) increase manifold pressure and lean out the mixture.
(3) decrease manifold pressure and enrich the mixture.
(4) decrease manifold pressure and lean out the mixture.

43.) Under which conditions would the most serious carburettor icing be expected?
Outside air temperature range of . . . . . and . . . . . humidity.

(1) -5°C to 15°C, high
(2) 5°C to 27°C, low
(3) -21°C to 0°C, low
(4) -21°C to 0°C, high

Given: Distance flown = 240 statute miles
Time required = 3 hours

44.) Then the ground speed will be _____.

a. 80 knots
b. 80 MPH
c. 48 MPH
d. 45 MPH

45.) 100 nautical miles = _____ statute miles.

a. 115
b. 87
c. 132
d. 40

Given: Track = 360°T
Variation = 10°E
Deviation = 4°W
TAS = 150 MPH
Wind = 020°T at 40 knots

46.) What is the resultant ground speed and compass heading to maintain track?

a. 106 MPH, 360°
b. 112 MPH, 360°
c. 196 MPH, 012°

d. 196 MPH, 036°