DOCUMENT
GSM-AUS-CPL.024

DOCUMENT TITLE
METEOROLOGY FOR AUSTRALIA

CHAPTER 35 – PAPER 5

Version 3.0
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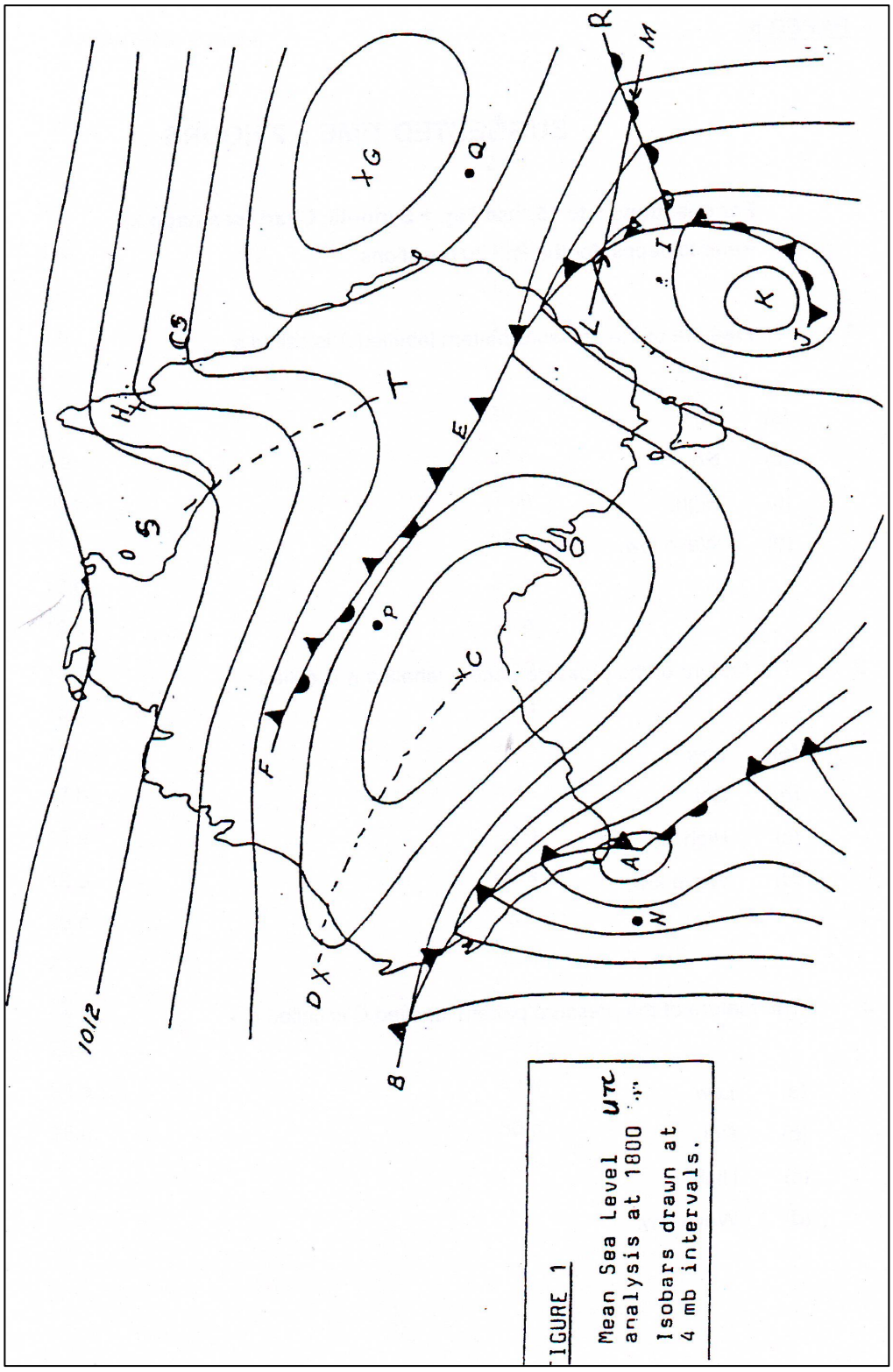
PAPER 5

Suggested Time: 2 Hours

For questions 1 to 15, use Fig. 1 below.
Refer to Jepps. for the first 30 questions



1. The feature of the pressure pattern labelled A is called a :-
   a. Low.
   b. Col.
   c. High.
   d. Wave low.

2. The feature of the pressure pattern labelled K is called :-
   a. Low.
   b. Col.
   c. High.
   d. Wave low.

3. The feature of the pressure pattern labelled C is called a :-
   a. Low.
   b. Col.
   c. High.
   d. Wave low.

4. The feature of the pressure pattern labelled G is called a :-
   a. Low.
   b. Col.
   c. High.
   d. Wave low.

5. The feature of the pressure pattern labelled F to E is called a :-
   a. Occluded front.
   b. Warm front.
   c. Cold front.
   d. Quasi-stationary front.

6. The feature of the pressure pattern labelled B to A is called a :-
   a. Occluded front.
   b. Warm front.
   c. Cold front.
   d. Quasi-stationary front.

7. The feature of the pressure pattern labelled I to R is called a :-

   a. Occluded front.
   b. Warm front.
   c. Cold front.
   d. Quasi-stationary front.

8. The feature of the pressure pattern labelled J to I is called a :-

   a. Occluded front.
   b. Warm front.
   c. Cold front.
   d. Quasi-stationary front.

9. The feature of the pressure pattern labelled C to D is called a :-

   a. Ridge of low pressure.
   b. Trough of low pressure.
   c. Ridge of high pressure.
   d. Trough of high pressure.

10. The feature of the pressure pattern labelled S to T is called a :-

   a. Ridge of low pressure.
   b. Trough of low pressure.
   c. Ridge of high pressure.
   d. Trough of high pressure.

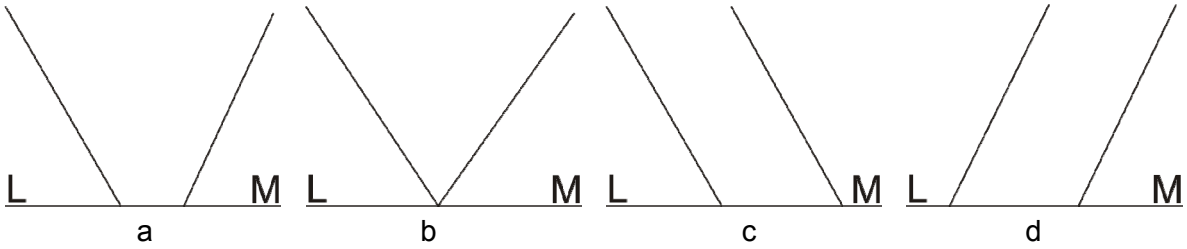
11. The wind at 2,000' over position P would be closest to :-

   a. 110 degrees.
   b. 080 degrees.
   c. 140 degrees.
   d. 290 degrees.

12. The MSL pressure at Q would be nearest to :-

   a. 1026 hPa.
   b. 1019 hPa.
   c. 1024 hPa.
   d. 1028 hPa.

13. Which of the following diagrams represent a vertical cross-section along line L to M?



14. The name of the airstream affecting CAIRNS (Cs) is the :- ch.15,27,28,30.

a. North West Monsoon.

b. South East Monsoon.

c. South East Trades.

d. Westerly Stream.

15. Cumulus clouds formed at N. These clouds were formed by :- ch.15

a. Orographic ascent.

b. Frontal uplift.

c. Latitudinal warming.

d. Local heating.

16. A METAR is a :-

a. radar observation.

b. surface observation.

c. forecast.

d. warning.

17. A METAR refers to :-

a. a domestic flight route.

b. an area forecast area.

c. an aerodrome.

d. an area QNH zone.

18. A TTF METAR refers to :-

    a. a route.

    b. an area.

    c. an aerodrome.

    d. all of the above.

19. A TAF is a :-

    a. radar observation.

    b. surface observation.

    c. forecast.

    d. warning.

20. A TAF refers to :-

    a. a route.

    b. an area.

    c. an aerodrome.

    d. none of the above.

21. An Area QNH is issued routinely every :-

    a. 1 hour.

    b. 2 hours.

    c. 3 hours.

    d. 6 hours.

Questions 22 to 30 refer to the message below :

TTF SPECI YMML 280300 23014G27KT 6000 TS SCT008 BKN020CB 14/10 Q1006 NOSIG

22. The above message is :-

    a. a trend type forecast.

    b. a special observation.

    c. an aerodrome forecast.

    d. an area forecast.

23. The observation has a validity period of :-

    a. From 0300 to 0600 Z.

    b. From 0300 to 0600 LST.

    c. From 0300 to 0000 Z

    d. No period.

24. The observed thunderstorms are probably caused by :- ch.20

    a. Frontal uplift.

    b. Local heating.

    c. Cold stream effect.

    d. Orographic uplift.

25. The wind velocity at 0300 is :-

    a. A mean of 14 to 27 knots.

    b. From 230 degrees true at a mean speed of 14 to 27 knots.

    c. From 230 degrees true at a mean speed of 14 knots with maximum gust to 27 s.

    d. (d) A mean of 14 knots with a maximum gust to 27 knots.

26. The lowest cloud report is :-

    a. SCT 80 feet AGL.

    b. SCT 80 feet AMSL.

    c. SCT 800 feet AGL.

    d. SCT 800 feet AMSL.

27. The term NOSIG means :-

    a. there is no significant weather.

    b. the observation does not differ significantly from the forecast for the same period.

    c. there is not expected to be any significant change from the observed weather in the next 3 hour period.

    d. there is not expected to be any significant change from the observed weather in the next 12 hour period.

28. The reported weather indicates that at the time of observation there were :-

    a. thunderstorms.

    b. thunderstorms with precipitation.

    c. thunderstorms 95 km from the station.

    d. the visibility was reduced to 95 m in thunderstorms.

29. The temperatures in the observations indicate that the :-

    a. air temperature is 10°C and the dew point temperature is 14°C.

    b. air is saturated.

    c. air temperature is 14°C and the wet bulb temperature is 10°C.

    d. air temperature is 14°C and the dew point temperature is 10°C.

30. The trend type forecast has a validity period of :-

    a. 12 hours.

    b. 6 hours.

    c. 3 hours.

    d. no period.

31. During a meteorological briefing you are advised that the lapse rate is equivalent to the standard atmosphere lapse rate. If an aerodrome with an elevation of 1,500 feet reports its temperature as 17°C, you would expect the freezing level to be at an altitude of approximately :- ch.2,3,7.

    a. 7,000 feet.

    b. 7,500 feet.

    c. 8,500 feet.

    d. 10,000 feet.

32. When the air temperature at a particular level is higher than that existing at a lower level :-

    a. the pressure will be low.

    b. the pressure will be high.

    c. an inversion exists.

    d. the air is unstable.

33. Dangerous icing conditions are most frequently encountered in :- ch.19

    a. Cirrus clouds.

    b. Regions of falling pressure.

    c. Regions of rising pressure.

    d. Nimbostratus clouds.

34. You would expect severe turbulence at a height of 3,000 feet above the ground at :- ch.15,16

    a. rapidly moving warm front.

    b. rapidly moving cold front with unstable air.

    c. warm front with unstable air between layers.

    d. slow moving cold front with stable air.

35. Information about the expected occurrence of winds of 40 kt or more within 2,000 ft above ground level, passed to a pilot during flight, is called :- Jepps.

    a. an AIREP.

    b. an AIRMET.

    c. a SIGMET.

    d. a SPECIAL AIREP.

36. Thermal convection which forms cumulus clouds is most frequently caused by :- ch.12,18.

    a. turbulence over a large wooded area.

    b. air moving over hilly or undulating country.

    c. heating of the air near the earth's surface on a sunny day.

    d. heavy precipitation followed by a decrease in temperature.

37. If a body of air has a relative humidity of 60% when its temperature is 10°C, a rise of approximately 10°C will cause :- ch.5

    a. the relative humidity to increase.

    b. the air to become saturated.

    c. the relative humidity to decrease.

    d. no change in the relative humidity.

38. From the following clouds, the one from which heavy rain would most likely to be falling and reaching the ground is :- ch.12

    a. Nimbostratus.

    b. Stratocumulus.

    c. Cirrostratus.

    d. Cirrocumulus.

39. Thick radiation fog occurs frequently with :- ch.14

    a. partial stratus cloud cover.

    b. complete cloud cover.

    c. light winds and clear skies at night.

    d. dead calm conditions and clear skies at night.

40. At the earth's surface around a low in the southern hemisphere, the air blows :- ch.4

    a. anticlockwise and outwards.

    b. clockwise and outwards.

    c. anticlockwise and inwards.

    d. clockwise and inwards.

41. Dust storms are likely over arid land when there are :- ch.14

    a. light winds and stable conditions.

    b. strong winds and stable conditions.

    c. light winds and unstable conditions.

    d. strong winds and unstable conditions.

42. A pilot flying above a continuous layer of stratocumulus cloud at 0900 local time notices that they layer is broken along the leeward side of a mountain range. This phenomenon results from the fact that :- ch.10

    a. solar radiation in the morning has generated convective activity which breaks the layer of cloud.

    b. the Katiabatic wind down the mountain side has drained the cloud which then dissipates because of compressional heating.

    c. the Fohn wind effect has warmed the layer on the leeward side sufficiently for the cloud there to evaporate.

    d. the vertical motion in the lee trough has carried the cloud aloft.

43. One of the preconditions for mountain waves requires that wind strength near the mountain top is at least :- ch18.

    a. 25 kt.

    b. 15 kt.

    c. 35 kt.

    d. 45 kt.

44. Clear icing is most likely encountered in clouds of :- ch.19

    a. Cumuliform type at a temperature of minus 18°C.

    b. Stratiform type at a temperature of minus 2°C.

    c. Cumuliform type at a temperature of minus 2°C.

    d. Stratiform type at a temperature of minus 18°C.

45. Rime ice on an airframe results from :- ch.19

    a. rapid freezing of small water droplets below -10°C.

    b. slow freezing of small water droplets below -10°C.

    c. slow freezing of large water droplets below -10°C.

    d. rapid freezing of large water droplets below -10°C.

46. Which of the following statements about stratocumulus is true ;- ch.12

    a. It is a form of cumulus often formed above a surface inversion.

    b. It is a low cloud from which drizzle may occur.

    c. It is often mixed with altostratus at the same level.

    d. It is formed only as a result of convection.

47. Aerodrome forecasts for your destination must be valid for a period from at least :- Jepps.

    a. 60 minutes before your ETA and 30 minutes after.

    b. 30 minutes before your ETA and 60 minutes after.

    c. 30 minutes before your ETA and 30 minutes after.

    d. 60 minutes before your ETA and 60 minutes after.

48. Trend type forecasts :- Jepps.

    a. supersede aerodrome forecasts but not present weather on VOLMET.

    b. supersede present weather on VOLMET but not aerodrome forecasts.

    c. supersede both the aerodrome forecast and the present weather on VOLMET.

    d. supersede neither the aerodrome forecast nor the present weather on VOLMET.

49. In a VOLMET :- Jepps.

    a. all cloud types are included.

    b. only Cb type is included.

    c. no cloud types are included.

    d. no cloud is included.

50. If you require a route forecast for a domestic multi-stage flight which has a duration of more than 6 hours and for which valid Area Forecasts are not available, you must give at least ;- Jepps.

    a. 12 hours notice.

    b. 8 hours notice.

    c. 3 hours notice.

    d. no notice.

ANSWERS

1.	a	11.	c	21.	c	31.	d	41.	d
2.	a	12.	a	22.	a	32.	c	42.	c
3.	c	13.	a	23.	d	33.	d	43.	a
4.	c	14.	c	24.	c	34.	b	44.	c
5.	d	15.	c	25.	c	35.	b	45.	a
6.	c	16.	b	26.	c	36.	c	46.	b
7.	b	17.	c	27.	c	37.	c	47.	b
8.	a	18.	c	28.	a	38.	a	48.	c
9.	c	19.	c	29.	d	39.	c	49.	c
10.	b	20.	c	30.	c	40.	d	50.	b