Convection and heat transfer in the atmosphere

Questions

1 In paragraph 1 the writer *implies* that:

A – a dry atmosphere is stable against convection.

B – a dry atmosphere is uninteresting.

C – the dry-air lapse rate is 9.8oC per 1000 m.

D – upward movement of air is due to buoyancy forces.

2 According to the writer what effects can be seen in figure 1.

A – The dew point level.

B – Upward convection.

C – Evaporation at high levels.

D – The release of latent heat.

3 What property of low level cumulus clouds does the writer say is due to convection cells.

A – the clouds look like sheep.

B – many clouds form at the same height.

C – the clouds are white and fluffy.

D – the clouds are not randomly spaced.

4 What effect does the writer say is illustrated by the stereo pair (figure 3).

A – the clouds look like sheep.

B – many clouds form at the same height.

C – the clouds are white and fluffy.

D – the clouds are not randomly spaced. .

5 From what the writer says about pyro-cumulus clouds and from the illustrations (figures 4 and 5) we can conclude that pyro-cumulus clouds:

A – only appear one at a time (never in groups).

B – never lead to thunderstorms.

C – are always associated with smoke.

D – never become anvil clouds.

6 According to the writer anvil clouds form:

A – always in the afternoon.

B – only in tropical countries.

C – when upward convection ceases.

D – spread in only one layer.

7 The writer explains the high number of images of mammatus clouds on the web by saying:

A – they are often photographed.

B – they occur at sunset.

C – they are common in the tropics.

D – they are spectacular.

8 The writer identifies the clouds in figure 11 as being cirrocumulus because:

A – they are mammatus clouds.

B – they are above the ice trail.

C – they formed the late afternoon.

D – they are at high altitude.

9 The writer identifies the cloud formation in figure 12 as being rare because:

A – it looks like ink falling in warm water.

B – it is a cirrus cloud formation.

C – it is a very unusual formation.

D – it involves downward convection.

10 The writer recommends the linked article for further reading because:

A – it describes the different lapse rates.

B – it describes the changes in lapse rates with altitude.

C – it describes adiabatic cooling.

D – it is written in simple terms.