

Unit 8 - Week 7

Course outline

How does an NPTEL online course work?

Week 1

Week 2

Week 3

Week 4

Week 5

Week 6

Week 7

Secondary Cloud Classification and Fog

Atmospheric Stability

Atmospheric Stability Conditions

Stable Unstable and Neutral Atmosphere

Cloud Seeding and Precipitation

Quiz : Assignment 7

Assignment 7 Solution

Week 8

Week 9

Week 10

Week 11

Week 12

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Assignment 7

The due date for submitting this assignment has passed.
As per our records you have not submitted this assignment.

Due on 2020-03-18, 23:59 IST.

1) The cooling of the air near surface due to long-wave emission cause the formation of

1 point

- advection fog
- radiation fog
- valley fog
- upslope fog

No, the answer is incorrect.
Score: 0

Accepted Answers:
radiation fog

2) _____ clouds do not cause precipitation.

1 point

- Nimbostratus
- Altostratus
- Cirrostratus
- Altocumulus

No, the answer is incorrect.
Score: 0

Accepted Answers:
Cirrostratus

3) Calculate the supersaturation corresponding to relative humidity of 100.8 %.

1 point

- 0.8 %
- 8 %
- 2 %
- 0.2 %

No, the answer is incorrect.
Score: 0

Accepted Answers:
0.8 %

4) The Brunt-Väisälä frequency is the frequency of

1 point

- sound waves in the atmosphere
- neutral atmospheric oscillation
- unstable atmospheric oscillations
- stable atmospheric oscillations

No, the answer is incorrect.
Score: 0

Accepted Answers:
stable atmospheric oscillations

5) Noctilucent clouds are found in the atmosphere at an altitude of nearly

1 point

- 10 km
- 5 km
- 50 km
- 80 km

No, the answer is incorrect.
Score: 0

Accepted Answers:
80 km

6) _____ balances the force due to the gravitational pull in hydrostatic equilibrium.

1 point

- Coriolis force
- Vertical pressure gradient force
- Viscous force
- Frictional force

No, the answer is incorrect.
Score: 0

Accepted Answers:
Vertical pressure gradient force

7) In a neutral atmosphere, the environmental lapse rate is

1 point

- less than SALR
- greater than SALR
- equal to SALR
- zero

No, the answer is incorrect.
Score: 0

Accepted Answers:
equal to SALR

8) For snowfall, the vertical temperature profile is

1 point

- negative throughout altitude
- negative in higher altitude and positive in low altitudes
- zero
- positive throughout altitude

No, the answer is incorrect.
Score: 0

Accepted Answers:
negative throughout altitude

9) The size (diameter) of the drizzle is

1 point

- greater than 0.5 mm
- less than 0.02 mm
- less than 0.5 mm
- equal to 0.5 mm

No, the answer is incorrect.
Score: 0

Accepted Answers:
less than 0.5 mm

10) The atmosphere is said to be conditionally stable if

1 point

(Here; SALR = saturated adiabatic lapse rate, ELR = environmental lapse rate, DALR = dry adiabatic lapse rate)

- SALR < ELR > DALR
- SALR < ELR < DALR
- SALR > ELR < DALR
- SALR > ELR > DALR

No, the answer is incorrect.
Score: 0

Accepted Answers:
SALR < ELR < DALR