

Unit 10 - Week 9

Course outline

How does an NPTEL online course work?

Week 1

Week 2

Week 3

Week 4

Week 5

Week 6

Week 7

Week 8

Week 9

Ionospheric Layers and Photochemistry

Ionization Processes

Ionospheric Chemical Reactions and Layers

Chapman's Theory of Layer Production

Chapman's Theory of Layer Production-Continued

Quiz : Assignment 9

Assignment 9 Solution

Week 10

Week 11

Week 12

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FEEDBACK

Assignment 9

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

Due on 2020-04-01, 23:59 IST.

1) The ionosphere overlaps with

- Mesosphere
 Thermosphere
 Thermosphere and Exosphere
 Thermosphere, Mesosphere and Exosphere

No, the answer is incorrect.
Score: 0

Accepted Answers:
Thermosphere, Mesosphere and Exosphere

1 point

2) What is the extension of ionosphere above the surface of Earth?

- 60 km to 800+ km
 0 km to 12 km
 400 km to thousands of kilometer
 0 to 100 km

No, the answer is incorrect.
Score: 0

Accepted Answers:
60 km to 800+ km

1 point

3) Which of the following makes the existence of ionosphere possible?

- Rotation of the Earth
 Ultraviolet radiation from sun
 Solar flares
 Radiation from distant stars

No, the answer is incorrect.
Score: 0

Accepted Answers:
Ultraviolet radiation from sun

1 point

4) Which ionospheric layer exists during day time & usually vanishes at night due to highest recombination rate?

- D-region
 Normal E-region
 Sporadic E-region
 F2- region

No, the answer is incorrect.
Score: 0

Accepted Answers:
D-region

1 point

5) If the maximum electron density for F-layer in ionosphere is 4×10^8 electrons/cm³, then what will be the critical frequency of EM wave for F-layer?

- 4 MHz
 9 MHz
 18 MHz
 18 KHz

No, the answer is incorrect.
Score: 0

Accepted Answers:
18 MHz

1 point

6) Which of the following ionospheric chemical reaction dominants

- Radiative recombination
 Dissociative recombination
 Atom-Ion interchange
 Charge exchange

No, the answer is incorrect.
Score: 0

Accepted Answers:
Dissociative recombination

1 point

7) Which among the following plays a primary role in generation of conduction current in an ionosphere due to presence of electric field?

- Ions
 Motion of electrons
 Neutral molecules
 Neutral atoms

No, the answer is incorrect.
Score: 0

Accepted Answers:
Motion of electrons

1 point

8) Which mechanism/s is/are likely to occur in mid-frequency operation corresponding to ionospheric region?

- Only Reflection
 Only Refraction
 Partial reflection & refraction
 None of the above

No, the answer is incorrect.
Score: 0

Accepted Answers:
Partial reflection & refraction

1 point

9) F2 layer of Appleton region acts as a significant reflecting medium for _____ frequency radio waves.

- Low
 Moderate
 High
 Ultra high

No, the answer is incorrect.
Score: 0

Accepted Answers:
High

1 point

10) What is the possible range of height for the occurrence of sporadic E-region with respect to normal E-region?

- 20 km – 50 km
 45 km – 85 km
 90 km – 130 km
 140 km – 200 km

No, the answer is incorrect.
Score: 0

Accepted Answers:
90 km – 130 km

1 point