

## Course outline

How does an NPTEL online course work?

Week 0 :

 Quiz: Week 0 : Assignment 0

Week 1:

Week 2:

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Assignment Solution

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# Week 0 : Assignment 0

The due date for submitting this assignment has passed.

**Due on 2021-07-26, 23:59 IST.**

As per our records you have not submitted this assignment.

1) Who is regarded as the 'Father of Indian Space Program'?

1 point

- (a) Dr. Vikram Sarabhai  
 (b) Dr. Abdul Kalam  
 (c) Dr. Satish Dhawan  
 (d) None of the above

No, the answer is incorrect.

Score: 0

Accepted Answers:

(a) Dr. Vikram Sarabhai

2) What is the wavelength range for visible region of electromagnetic radiation?

1 point

- (a) 0.2-0.65  $\mu\text{m}$   
 (b) 0.4-0.75  $\mu\text{m}$   
 (c) 0.45-0.9 $\mu\text{m}$   
 (d) None of the above

No, the answer is incorrect.

Score: 0

Accepted Answers:

 (b) 0.4-0.75  $\mu\text{m}$ 

3) A perfectly black body

1 point

- (a) is a diffuse emitter  
 (b) absorbs all the radiations of every wavelengths  
 (c) Scattering by the suspended particulate matter  
 (d) all of the above

No, the answer is incorrect.

Score: 0

Accepted Answers:

(d) all of the above

4) Which among the following is the increasing order of RADAR wavelength bands, used in pulse transmission?

1 point

- (a) L<P<C<S  
 (b) C<L<P<S  
 (c) P>L>S>C  
 (d) P>L>C>S

No, the answer is incorrect.

Score: 0

Accepted Answers:

(c) P&gt;L&gt;S&gt;C

5) Which of the following feature absorbs maximum amount of electromagnetic radiation?

1 point

- (a) Vegetation  
 (b) Water  
 (c) Soil  
 (d) Rock

No, the answer is incorrect.

Score: 0

Accepted Answers:

(b) Water

6) Which of the following influence vegetation spectral reflectance in optical remote sensing?

1 point

- (a) Pigments  
 (b) Cell structure  
 (c) Moisture content  
 (d) All of the above

No, the answer is incorrect.

Score: 0

Accepted Answers:

(d) All of the above

7) Which of the following is not a greenhouse gas?

1 point

- (a) Oxygen  
 (b) Methane  
 (c) Nitrous Oxide  
 (d) Carbon Dioxide

No, the answer is incorrect.

Score: 0

Accepted Answers:

(a) Oxygen

8) Leaf surface facilitates exchange of fluxes such as

1 point

- (a) Carbon  
 (b) Water  
 (c) Energy  
 (d) all of the above

No, the answer is incorrect.

Score: 0

Accepted Answers:

(d) all of the above

9) The source of carbon to plants in the carbon cycle is

1 point

- (a) Fossil fuels  
 (b) Carbonate rocks  
 (c) Atmospheric  $\text{CO}_2$   
 (d) all of the above

No, the answer is incorrect.

Score: 0

Accepted Answers:

 (c) Atmospheric  $\text{CO}_2$ 

10) Vegetation with more chlorophyll will reflect more in \_\_\_\_ region of EMR.

1 point

- (a) Ultraviolet  
 (b) Visible  
 (c) Near-infrared  
 (d) Thermal infrared

No, the answer is incorrect.

Score: 0

Accepted Answers:

(c) Near-infrared

Identify, 'True' or 'False' statement

11) Trees are primary producers in a forest ecosystem.

1 point

- a. True  
 b. False

No, the answer is incorrect.

Score: 0

Accepted Answers:

a. True

12) In absence of greenhouse gasses, the Earth's effective temperature would have been warmer than what it is today.

1 point

- a. True  
 b. False

No, the answer is incorrect.

Score: 0

Accepted Answers:

b. False

13) Photosynthesis and Transpiration are two independent processes.

1 point

- a. True  
 b. False

No, the answer is incorrect.

Score: 0

Accepted Answers:

b. False

 14) Deforestation decreases the loading of  $\text{CO}_2$  in the atmosphere.

1 point

- a. True  
 b. False

No, the answer is incorrect.

Score: 0

Accepted Answers:

b. False

15) Leaf Area Index (LAI) is a dynamic biophysical parameter w.r.t. space and time.

1 point

- a. True  
 b. False

No, the answer is incorrect.

Score: 0

Accepted Answers:

a. True

16) Leaf Area Index (LAI) is very well related to photosynthesis.

1 point

- a. True  
 b. False

No, the answer is incorrect.

Score: 0

Accepted Answers:

a. True

17) SAR and LIDAR data provide poor estimation of biomass and productivity in comparison to optical RS data.

1 point

- a. True  
 b. False

No, the answer is incorrect.

Score: 0

Accepted Answers:

b. False

18) Stomata are regulated so as to maximize carbon gain and minimize water loss.

1 point

- a. True  
 b. False

No, the answer is incorrect.

Score: 0

Accepted Answers:

a. True

19) Gross Primary Productivity (GPP) is the amount of carbon fixed by terrestrial ecosystems through photosynthesis.

1 point

- a. True  
 b. False

No, the answer is incorrect.

Score: 0

Accepted Answers:

a. True

20) Remote Sensing signals acquired from vegetation cover are influenced by the (a) amount of leaf area in the canopy and (b) canopy architecture.

1 point

- a. True  
 b. False

No, the answer is incorrect.

Score: 0

Accepted Answers:

a. True