

# National Testing Agency

**Question Paper Name:** Climate Change 30th March 2019 Shift 2  
**Subject Name:** Climate Change  
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**Duration:** 180  
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**Display Marks:** Yes

## Climate Change

**Group Number :** 1  
**Group Id :** 90958247  
**Group Maximum Duration :** 0  
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**Revisit allowed for view? :** No  
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**Break time:** 0  
**Group Marks:** 100

## Climate Change

**Section Id :** 90958247  
**Section Number :** 1  
**Section type :** Online  
**Mandatory or Optional:** Mandatory  
**Number of Questions:** 100  
**Number of Questions to be attempted:** 100  
**Section Marks:** 100  
**Display Number Panel:** Yes  
**Group All Questions:** No

**Sub-Section Number:** 1  
**Sub-Section Id:** 90958250  
**Question Shuffling Allowed :** Yes

**Question Number : 1 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0**

The day-to-day meteorological conditions of a region is known as its \_\_\_\_\_

- A. climate
- B. weather
- C. climatology
- D. none of the above

**Options :**

1. A
2. B
3. C
4. D

Question Number : 2 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following is a cause of water stress in India?

- A. Low efficiency of water use
- B. Rapid urbanization
- C. Indiscriminate use of ground water
- D. All of the above

Options :

1. A
2. B
3. C
4. D

Question Number : 3 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which one of following is not a greenhouse gas?

- A. CO<sub>2</sub>
- B. O<sub>2</sub>
- C. CH<sub>4</sub>
- D. H<sub>2</sub>O

Options :

1. A
2. B
3. C
4. D

Question Number : 4 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Greenhouse gases cause \_\_\_\_\_

- A. no effect
- B. tectonic movement
- C. global cooling
- D. global warming

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 5 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Anything that changes the net energy balance of earth is called an \_\_\_\_\_ forcing.

- A. climate
- B. internal
- C. external
- D. meteorological

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 6 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which one of the following climate system component has longest response time?

- A. Atmosphere
- B. Deep ocean
- C. Land surface
- D. Sea ice

Options :

- 1. A
- 2. B
- 3. C

4. D

Question Number : 7 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Positive feedbacks within the climate system \_\_\_\_\_ climate changes initially caused by external factors while the negative feedbacks \_\_\_\_\_ initial changes.

- A. amplify, suppress
- B. suppress, amplify
- C. amplify, doesn't change
- D. doesn't change, suppress

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 8 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The wavelength of energy radiated back from the earth's surface is from the \_\_\_\_\_ part of electromagnetic spectrum

- A. infrared
- B. ultra violet
- C. x-rays
- D. visible

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 9 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which one of the following has the highest albedo?

- A. Forest
- B. Water
- C. Fresh snow
- D. Clouds

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 10 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Incoming solar radiation is \_\_\_\_\_ in tropics than at the poles.

- A. lower
- B. higher
- C. both a and b
- D. none of the above

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 11 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The seasonal contrast in radiation received by the Earth's surface is the highest at the

\_\_\_\_\_

- A. equator
- B. tropics
- C. poles
- D. none

Options :

1. A
2. B
3. C
4. D

Question Number : 12 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Coriolis force deflects a moving body to the \_\_\_\_\_ of the direction of motion in Northern hemisphere.

- A. left
- B. right
- C. downwards
- D. upwards

Options :

1. A
2. B
3. C
4. D

Question Number : 13 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which one of the following methods is used to generate scaled future climate?

- A. Partial correlation
- B. Regression method
- C. Change factor method
- D. None

Options :

1. A
2. B
3. C
4. D

Question Number : 14 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which one of the following statement is true?

- A. Temperature increase with height in mesosphere
- B. Temperature decreases with height in stratosphere
- C. Temperature decreases with height in troposphere
- D. Both A. and C.

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 15 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Land-sea breezes are produced due to \_\_\_\_\_

- A. albedo differences over land and ocean
- B. moisture differences over land and ocean
- C. differential heating of land and ocean
- D. all of the above

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 16 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

\_\_\_\_\_ are major climate archives on all time-scales (short and long time-scales).

- A. Ice cores
- B. Tree rings
- C. Layered sediments
- D. None of the above

**Options :**

1. A
2. B
3. C
4. D

**Question Number : 17 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0**

\_\_\_\_\_ signatures in rocks are used to geolocate the position of continents in the past.

- A. Magnetic
- B. Thermal
- C. Radioactive
- D. All of the above

**Options :**

1. A
2. B
3. C
4. D

**Question Number : 18 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0**

The largest reservoir of carbon on earth is \_\_\_\_\_

- A. vegetation
- B. deep ocean
- C. atmosphere
- D. sediments and rocks

**Options :**

1. A
2. B
3. C
4. D

**Question Number : 19 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0**



\_\_\_\_\_ removes atmospheric CO<sub>2</sub> on geological time scales.

- A. Photosynthesis
- B. Snowfall
- C. Dust
- D. Chemical weathering

**Options :**

- 1. A
- 2. B
- 3. C
- 4. D

**Question Number : 20 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0**

Dynamic downscaling uses \_\_\_\_\_ to produce high resolution climate information.

- A. statistical relations
- B. regional climate models
- C. global climate models
- D. none

**Options :**

- 1. A
- 2. B
- 3. C
- 4. D

**Question Number : 21 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0**

Which of the following statements are true regarding the Pangaeon climate simulated by climate models?

- A. Broad areas of tropics and subtropics were dry
- B. There were large seasonal temperature contrast between summer and winter hemispheres
- C. There were super monsoons
- D. All of the above

**Options :**

- 1. A
- 2. B

3. C

4. D

Question Number : 22 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Modern sea floor spreading rates are 10 times faster in the \_\_\_\_\_ than in the \_\_\_\_\_ ocean.

A. Pacific, Atlantic

B. Atlantic, Pacific

C. Atlantic, Indian

D. Pacific, Indian

Options :

1. A

2. B

3. C

4. D

Question Number : 23 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Spatial variability of extreme rainfall during summer monsoon season over India indicate \_\_\_\_\_ trend during past few decades.

A. a decreasing

B. an increasing

C. no change

D. none

Options :

1. A

2. B

3. C

4. D

Question Number : 24 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Thermocline refers to a sharp gradient in \_\_\_\_\_ with depth in the ocean.

- A. pressure
- B. salinity
- C. density
- D. temperature

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 25 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The closing and opening of continental passages have altered earth's climate on \_\_\_\_\_ time scale.

- A. multi-decadal
- B. multi-century
- C. multi-million year
- D. all of the above

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 26 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Earth's orbit around the sun is in the shape of an \_\_\_\_\_

- A. ellipse
- B. circle
- C. parabola
- D. hyperbola

Options :

- 1. A
- 2. B

3. C

4. D

**Question Number : 27 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0**

The minimum distance between sun and the earth is called \_\_\_\_\_

A. Perihelion

B. Aphelion

C. Solstice

D. None

**Options :**

1. A

2. B

3. C

4. D

**Question Number : 28 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0**

Changes in the tilt of Earth's axis of rotation occurs on approximately \_\_\_\_\_ year cycles.

A. 2000

B. 100000

C. 11

D. 41000

**Options :**

1. A

2. B

3. C

4. D

**Question Number : 29 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0**

Increase in tilt causes

- A. more solar radiation to poles in summer and less radiation to poles in winter
- B. equal radiation to poles in summer and winter
- C. less solar radiation to poles in both summer and winter
- D. less solar radiation to poles in summer and more radiation in winter

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 30 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The precession of earth varies at periods of \_\_\_\_\_ years

- A. 26000
- B. 413000
- C. 1000000
- D. 41000

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 31 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Precession causes \_\_\_\_\_ changes for both hemispheres in their respective summer and winter seasons.

- A. out-of-phase
- B. neutral
- C. in-phase
- D. slower

Options :

1. A
2. B
3. C
4. D

Question Number : 32 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following is the correct statement of Kepler's first law?

- A. The orbit of each planet is an ellipse with the Sun at one focus
- B. The planets revolve around the sun
- C. Planets revolve around sun in circular orbits
- D. None of the above

Options :

1. A
2. B
3. C
4. D

Question Number : 33 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Atmospheric CO<sub>2</sub> concentration during the end of the last ice age is about \_\_\_\_\_

- A. 600 ppm
- B. 200 ppm
- C. 200 ppb
- D. 400 ppm

Options :

1. A
2. B
3. C
4. D

Question Number : 34 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The word monsoon is derived from the Arabic "mausam", which means \_\_\_\_\_

- A. season
- B. rainfall
- C. thunder
- D. snowfall

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 35 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

\_\_\_\_\_ brings major portion of annual rainfall to the state of Tamil Nadu.

- A. Southwest monsoon
- B. Northeast monsoon
- C. Both
- D. None

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 36 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The major reason for the cooling of glacial tropics is/are \_\_\_\_\_

- A. tropics are away from the glacial ice sheets
- B. cooler air from poles
- C. lower levels of atmospheric CO<sub>2</sub> and CH<sub>4</sub>
- D. all of the above

Options :

- 1. A
- 2. B

3. C

4. D

Question Number : 37 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Flooding of coastlines was observed during \_\_\_\_\_ period.

A. deglaciation

B. last glacial maxima

C. little ice age

D. none

Options :

1. A

2. B

3. C

4. D

Question Number : 38 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Vegetation feedback at \_\_\_\_\_ latitudes has a stronger impact on climate.

A. low

B. higher

C. tropics

D. none

Options :

1. A

2. B

3. C

4. D

Question Number : 39 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0



ITCZ is characterized by \_\_\_\_\_

- A. convective activity
- B. subsidence
- C. high pressure
- D. low rainfall

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 40 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

India experiences Southwest monsoon (summer monsoon) during the months of \_\_\_\_\_

- A. March-April
- B. January-March
- C. June-September
- D. October-December

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 41 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The time scale of the monsoon intraseasonal oscillations is \_\_\_\_\_

- A. 10-90 days
- B. 20-30 days
- C. 2-5 days
- D. none

Options :

- 1. A

- 2. B
- 3. C
- 4. D

**Question Number : 42 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0**

On average, 90% of heat produced by global warming is absorbed by \_\_\_\_\_

- A. vegetation
- B. atmosphere
- C. oceans
- D. land

**Options :**

- 1. A
- 2. B
- 3. C
- 4. D

**Question Number : 43 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0**

What is the cause for the increased amounts of methane observed in ice cores during historical period?

- A. Volcanic eruptions
- B. Warm SST
- C. Stronger winds
- D. Rice cultivation

**Options :**

- 1. A
- 2. B
- 3. C
- 4. D

**Question Number : 44 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0**

A possible reason for the little ice age is \_\_\_\_\_

- A. permanent Elnino
- B. permanent Lanina
- C. series of volcanic eruptions
- D. none

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 45 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following is a warm water current?

- A. Kuroshio
- B. Benguela
- C. South equatorial current
- D. North equatorial current

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 46 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following is a western boundary ocean current?

- A. Benguela
- B. South equatorial current
- C. North equatorial current
- D. Gulf stream

Options :

- 1. A

2. B
3. C
4. D

Question Number : 47 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

India's first Earth system model is developed by \_\_\_\_\_

- A. Indian Institute of Tropical Meteorology (IITM), Pune
- B. India Meteorological Department (IMD), Delhi
- C. Indian Institute of Science Education and Research (IISER), Pune
- D. None

Options :

1. A
2. B
3. C
4. D

Question Number : 48 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The Oceanic layer where enough sun light is available is called \_\_\_\_\_ zone.

- A. Abyssopelagic
- B. Euphotic
- C. Anoxic
- D. Hypoxic

Options :

1. A
2. B
3. C
4. D

Question Number : 49 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

ENSO stands for \_\_\_\_\_

- A. El Niño Southern Oscillation
- B. ENergy Supply Oscillation
- C. ENhanced Southern Oscillation
- D. None of the above

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 50 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The full form of PDO is \_\_\_\_\_

- A. Perturbed Diurnal Oscillation
- B. Pacific Decadal Oscillation
- C. Projected Diurnal Oscillation
- D. Projected Decadal Oscillation

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 51 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

What is the current concentration of atmospheric CO<sub>2</sub> (in ppm)?

- A. 500
- B. 280
- C. 1200
- D. 400

Options :

1. A
2. B
3. C
4. D

Question Number : 52 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which one of the following greenhouse gases has the highest radiative forcing?

- A. CH<sub>4</sub>
- B. Halocarbons
- C. CO<sub>2</sub>
- D. All of the above

Options :

1. A
2. B
3. C
4. D

Question Number : 53 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The radiative forcing of aerosol direct effect is \_\_\_\_\_

- A. negative
- B. positive
- C. neutral
- D. none

Options :

1. A
2. B
3. C
4. D

Question Number : 54 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

During an El Niño event, the outgasing of CO<sub>2</sub> from the oceans into the atmosphere \_\_\_\_\_

- A. decreases
- B. increases
- C. doesn't change
- D. none

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 55 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

\_\_\_\_\_ is responsible for ozone depletion in the stratosphere.

- A. CO<sub>2</sub>
- B. CH<sub>4</sub>
- C. CFC
- D. H<sub>2</sub>O

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 56 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Swamps, cows and rice fields are major sources of \_\_\_\_\_ emission.

- A. CO<sub>2</sub>
- B. SO<sub>2</sub>
- C. CH<sub>4</sub>
- D. None of the above

Options :

- 1. A
- 2. B

3. C

4. D

Question Number : 57 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The periodicity of sunspot cycle is \_\_\_\_\_.

A. 100 year

B. 11 year

C. 230 year

D. 116 year

Options :

1. A

2. B

3. C

4. D

Question Number : 58 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Net radiative forcing by human activities during 1750-2005 is about \_\_\_\_\_  $W/m^2$ .

A. 8.5

B. 2.6

C. 4.5

D. 1.5

Options :

1. A

2. B

3. C

4. D

Question Number : 59 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0



The radiative forcing of tropospheric and stratospheric ozone are \_\_\_\_\_ respectively.

- A. positive, negative
- B. negative, positive
- C. positive, neutral
- D. neutral, positive

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 60 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The effective emission from earth happens at a height of \_\_\_\_\_ km.

- A. 10-12
- B. 1-2
- C. 6.5-7
- D. 20-25

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 61 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The height of tropopause \_\_\_\_\_ from equator to poles.

- A. increases
- B. decreases
- C. constant
- D. None

Options :

- 1. A
- 2. B

3. C

4. D

Question Number : 62 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The residence time of CO<sub>2</sub> in atmosphere is about \_\_\_\_\_ years.

A. 10-20

B. 50-200

C. 1000

D. 1-2

Options :

1. A

2. B

3. C

4. D

Question Number : 63 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following greenhouse gases has longest residence time in atmosphere?

A. CO<sub>2</sub>

B. N<sub>2</sub>O

C. SF<sub>6</sub>

D. HFCs

Options :

1. A

2. B

3. C

4. D

Question Number : 64 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following sequence is correct when arranged in ascending order of their global warming potential?

- A. HFC, SF<sub>6</sub>, CH<sub>4</sub>, CO<sub>2</sub>
- B. CO<sub>2</sub>, CH<sub>4</sub>, HFC, SF<sub>6</sub>
- C. N<sub>2</sub>O, CO<sub>2</sub>, SF<sub>6</sub>, HFC
- D. N<sub>2</sub>O, CH<sub>4</sub>, SF<sub>6</sub>, HFC

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 65 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Observational studies indicate \_\_\_\_\_ in the daily variance of monsoon rainfall during past few decades.

- A. a decrease
- B. an increase
- C. no change
- D. none

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 66 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Polar amplification refers to \_\_\_\_\_.

- A. high rainfall at poles due to global warming
- B. stronger winds at equator due to global warming
- C. larger warming at high latitudes due to green house warming
- A. all of the above

Options :

- 1. A

2. B
3. C
4. D

**Question Number : 67 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0**

Sea level reconstructions suggest that the current sea levels are about \_\_\_\_\_ than those at last glacial maximum.

- A. 120 m above
- B. 120 m below
- C. 1200 m above
- D. 1200 m below

**Options :**

1. A
2. B
3. C
4. D

**Question Number : 68 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0**

Which of the following sequence is true based on the proportion of moisture contribution to Indian summer monsoon rainfall?

- A. Western Indian Ocean > Central Indian Ocean > Upper Indian Ocean
- B. Central Indian Ocean > Western Indian Ocean > Upper Indian Ocean
- C. Upper Indian Ocean > Western Indian Ocean > Central Indian Ocean
- D. Upper Indian Ocean > Central Indian Ocean > Western Indian Ocean

**Options :**

1. A
2. B
3. C
4. D

**Question Number : 69 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0**

Sea level changes are measured using \_\_\_\_\_

- A. thermometer
- B. barometer
- C. anemometer
- D. tide gauge

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 70 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The observed global mean sea level rise during the last few decades is about \_\_\_\_\_

- A. 2-3 mm/year
- B. 2-3 m/year
- C. 2-3 cm/year
- D. 2-3 km/year

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 71 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following Indian coastal stations measures an increase in sea level rise during past few decades?

- A. Visakhapatnam
- B. Kochi
- C. Diamond Harbour
- D. All of the above

Options :

- 1. A
- 2. B

3. C

4. D

Question Number : 72 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The process of generating high resolution regional climate simulations using a regional climate model by using boundary conditions from a coarser global climate simulation is known as

\_\_\_\_\_

A. downscaling

B. upscaling

C. forecast

D. hindcast

Options :

1. A

2. B

3. C

4. D

Question Number : 73 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

NPP stands for \_\_\_\_\_

A. Net Partial Pressure

B. Net Primary Productivity

C. Net Partial Productivity

D. None of the above

Options :

1. A

2. B

3. C

4. D

Question Number : 74 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

What happens to the pH of the ocean when atmospheric CO<sub>2</sub> increases?

- A. It increases
- B. It decreases
- C. It doesn't change
- D. None of the above

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 75 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The process of eutrophication is related to \_\_\_\_\_

- A. warmer temperatures
- B. excess nutrients
- C. strong winds
- D. high oxygen levels

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 76 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The condition of sea waters with "total depletion of oxygen" is termed as \_\_\_\_\_

- A. saline
- B. hypoxia
- C. Anoxia
- D. none

Options :

1. A
2. B
3. C
4. D

Question Number : 77 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which one of the following statements is true?

- A. Radiative forcing due to anthropogenic greenhouse gases are now within the natural ranges
- B. Radiative forcing due to anthropogenic emission of greenhouse gases are now beyond the natural ranges
- C. Radiative forcing due to anthropogenic greenhouse gases are decreasing since industrial revolution
- D. None of the above are true

Options :

1. A
2. B
3. C
4. D

Question Number : 78 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The full form of the drought index PDSI is \_\_\_\_\_

- A. Potential Drought Severity Index
- B. Palmer Drought Severity Index
- C. Precipitation Drought Sensing Index
- D. None of the above

Options :

1. A
2. B
3. C
4. D

Question Number : 79 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0



The global rate of emission of CO<sub>2</sub> is \_\_\_\_\_ since the industrial revolution.

- A. constant
- B. decreasing
- C. increasing
- D. zero

**Options :**

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 80 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The change in equilibrium temperature in response to changes of the radiative forcing is called

\_\_\_\_\_

- A. climate sensitivity
- B. climate equilibrium
- C. climate response
- D. climate feedback

**Options :**

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 81 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The climate sensitivity estimated for a doubling of atmospheric CO<sub>2</sub> is about \_\_\_\_\_

- A. 10 °C
- B. 20 °C
- C. 3.5 °C
- D. 5 °C

**Options :**

- 1. A
- 2. B

3. C

4. D

**Question Number : 82 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0**

The process of finding out a climate change signal emerging from noise is known as \_\_\_\_\_

- A. detection
- B. identification
- C. quantification
- D. purification

**Options :**

1. A

2. B

3. C

4. D

**Question Number : 83 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0**

The scenarios used for climate projection in the 5th assessment report (AR5) of IPCC are named as \_\_\_\_\_

- A. RCPs
- B. SIPs
- C. TIPs
- D. none

**Options :**

1. A

2. B

3. C

4. D

**Question Number : 84 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0**

Which of the following is called a stabilization scenario?

- A. RCP2.0
- B. RCP 8.5
- C. RCP 4.5
- D. RCP 6.0

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 85 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which one of the following statement is true regarding the scenario RCP 8.5?

- A. Radiative forcing is 8.5 W/m<sup>2</sup> by the year 2100
- B. Radiative forcing at the start of the climate simulation is 8.5 W/m<sup>2</sup>
- C. CO<sub>2</sub> concentration is about 850 ppm by the year 2100
- D. CO<sub>2</sub> concentration is about 850 ppm at the start of the climate simulation

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 86 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The projected global mean temperature increase by 2100 relative to the period 1850-1900 under RCP 8.5 scenario is about \_\_\_\_\_

- A. 1-2 °C
- B. 3.2-5.4 °C
- C. 10-12 °C
- D. 8-9 °C

Options :

- 1. A

2. B
3. C
4. D

Question Number : 87 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The amplitude of El Niño peaks during which season?

- A. June-September
- B. December-February
- C. September-November
- D. March-May

Options :

1. A
2. B
3. C
4. D

Question Number : 88 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Regional climate models are also termed as \_\_\_\_\_

- A. limited area models
- B. climate models
- C. weather models
- D. none

Options :

1. A
2. B
3. C
4. D

Question Number : 89 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The ocean's solubility of gases like oxygen \_\_\_\_\_ with warming?

- A. decreases
- B. increases
- C. doesn't change
- D. none

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 90 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The world's first airport to fully run on solar power is located at \_\_\_\_\_

- A. Pune
- B. Mumbai
- C. Chennai
- D. Kochi

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 91 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following is a new urban renewal mission for 500 cities of India?

- A. AMRUT
- B. Green energy Corridor
- C. Clean India
- D. ZED

Options :

1. A
2. B
3. C
4. D

**Question Number : 92 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0**

\_\_\_\_\_ is the mission launched to bring together urban planning, economic growth and heritage conservation in an inclusive manner.

- A. AMRUT
- B. Green energy Corridor
- C. HRIDAY
- D. ZED

**Options :**

1. A
2. B
3. C
4. D

**Question Number : 93 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0**

ITCZ stands for \_\_\_\_\_

- A. Intensified tropical circulation zone
- B. Inter tropical convergence zone
- C. Inner thermal core zone
- D. None of the above

**Options :**

1. A
2. B
3. C
4. D

**Question Number : 94 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0**

The microscopic solids or liquid droplets present in the air that can be inhaled and cause serious health problems are termed as \_\_\_\_\_

- A. dust
- B. soot
- C. particulate matter
- D. water droplets

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 95 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following particulate matter is referred as "fine particles"?

- A.  $PM_{2.5}$
- B.  $PM_{10}$
- C.  $PM_{100}$
- D.  $PM_{250}$

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 96 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

$PM_{10}$  is referred to the particulate matter with diameter \_\_\_\_\_

- A. 10 micrometers or less
- B. 10 nanometres or less
- C. 10 centimetres or less
- D. all of the above

Options :

1. A
2. B
3. C
4. D

**Question Number : 97 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0**

The principal government agency to take meteorological observations and issue weather forecasts and warnings in India is \_\_\_\_\_

- A. Indian Institute of Tropical Meteorology (IITM)
- B. India Meteorological Department (IMD)
- C. Indian Institute of Science Education and Research (IISER)
- D. None

**Options :**

1. A
2. B
3. C
4. D

**Question Number : 98 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0**

Which of the following statement is true?

- A. The changes in surface air temperature over India shows a reduction during past 100 years
- B. All India averaged surface air temperature shows accelerated warming during recent years
- C. All India averaged surface air temperature doesn't show any trend during recent years
- D. All of the above

**Options :**

1. A
2. B
3. C
4. D

**Question Number : 99 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0**



Most of the years with deficit Indian summer monsoon rainfall are associated with \_\_\_\_\_

- A. El Niño
- B. La Niña
- C. polar amplification
- D. glacier melt

**Options :**

- 1. A
- 2. B
- 3. C
- 4. D

**Question Number : 100 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0**

During a La Niña, the sea surface temperature across the equatorial Eastern Central Pacific Ocean will be \_\_\_\_\_ than normal.

- A. warmer
- B. lighter
- C. cooler
- D. more acidic

**Options :**

- 1. A
- 2. B
- 3. C
- 4. D