

National Testing Agency

Question Paper Name: 5257Climate Change30th June 2019 Shift 2
Subject Name: Climate Change
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Duration: 180
Total Marks: 100
Display Marks: Yes

Climate Change

Group Number : 1
Group Id : 489994188
Group Maximum Duration : 0
Group Minimum Duration : 120
Revisit allowed for view? : No
Revisit allowed for edit? : No
Break time: 0
Group Marks: 100

Climate Change

Section Id : 489994244
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: 489994262
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 long-term prevalent weather conditions of a region is called _____

- A. climate
- B. atmosphere
- C. variability
- D. none of the above

Options :

1. 1

- 2. 2
- 3. 3
- 4. 4

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

Climate change happens over what time scales?

- A. Tectonic
- B. Decadal
- C. Millennial
- D. All of the above

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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

The unit for measurement of CO₂ concentration in the atmosphere is _____

- A. per mill, $^{\circ}/_{00}$
- B. parts per million, ppm
- C. $^{\circ}$ C
- D. mm/d

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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 trap outgoing _____ radiation from the earth's surface.

- A. solar
- B. longwave
- C. ultraviolet
- D. none of the above

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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

Which one of the following is not an external forcing?

- A. Changes in earth's orbit
- B. Changes in plate tectonics
- C. Changes in vegetation
- D. Changes in sun's strength

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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 component of the climate system has the fastest/shortest response time?

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

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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

The major portion of the solar energy that heats up the earth's surface is from the _____ part of the electromagnetic spectrum.

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

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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 average solar radiation received per unit area at the top of the earth's atmosphere is

_____ W/m²

- A. 1340
- B. 340
- C. 412
- D. 512

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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

The reflectivity of a surface is called its _____

- A. refractivity
- B. albedo
- C. transparency
- D. heat capacity

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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

The net energy received at the earth's surface is _____ in low-latitudes and _____ in high latitudes.

- A. deficit, surplus
- B. surplus, deficit
- C. low, high
- D. none

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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

Which one of the following statements is true?

- A. Water holding capacity of air is independent of temperature
- B. Cold air holds more water vapour than hot air
- C. Warm air holds more water vapour than cold air
- D. Both a and b

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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

Most day to day changes in weather, as well as important changes in earth's climate occur in the lowermost layer of atmosphere. This layer is called the _____

- A. stratosphere
- B. atmosphere
- C. mesosphere
- D. troposphere

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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 of the following climate archives have annually deposited layers?

- A. Tree rings
- B. Corals
- C. Both a and b
- D. None

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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 of the following tools are used to project climate into future?

- A. Climate proxies
- B. Climate observations
- C. Climate models
- D. All of the above

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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

CO₂ has been an important factor in climate change at _____ time scales.

- A. Decadal
- B. Millennial
- C. Yearly
- D. All of the above

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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

The smallest to biggest carbon reservoirs on Earth (starting from smallest to the largest)

- A. Sediments & rocks, soils, vegetation and deep ocean
- B. Vegetation, soils, deep ocean, sediments & rocks
- C. Ocean mixed layer, vegetation, sediments & rocks, deep ocean
- D. None of the above

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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

Chemical weathering acts as a _____ climate feedback.

- A. negative
- B. positive
- C. neutral
- D. none of the above

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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 tectonic motion of lithospheric plates is derived from _____ signatures of rocks

- A. thermal
- B. chemical
- C. physical
- D. magnetic

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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

Large volumes of evaporites formed during 200 Myr indicate very _____ condition on Pangaea.

- A. wet
- B. dry
- C. active
- D. humid

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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

Which one of the following hypotheses predicts that atmospheric CO₂ concentrations and climate are driven by the global mean rate of sea floor spreading?

- A. Milankovitch
- B. Kepler
- C. BLAG
- D. None

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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

What causes seasons on Earth?

- A. Orbit of the earth
- B. Tilt of the axis of rotation
- C. Rotation of earth
- D. All of the above

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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

Which of the following is not an orbital parameter?

- A. Obliquity
- B. Precession
- C. Ellipticity
- D. Velocity

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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

The largest distance between sun and the earth is called _____

- A. Perihelion
- B. Aphelion
- C. Solstice
- D. None

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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

Changes in eccentricity causes the changes in _____

- A. tilt
- B. shape of orbit
- C. velocity
- D. rotation

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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 eccentricity of earth's orbit varies at periods of _____ years

- A. 100,000
- B. 413,000
- C. both a and b
- D. neither a nor b

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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

The tilt of the axis of rotation causes _____ changes in the polar regions of both hemispheres in their respective summer and winter seasons.

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

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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

Which of the following is the only true statement?

- A. The square root of a planet's orbital period is equal to the cube of its semi-major axis
- B. The square of a Planet's orbital period is equal to the cube of its semi-major axis
- C. A Planet's orbital period is reciprocal of its semi-major axis
- D. None of the above

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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

Global scale reconstruction of sea surface temperatures during summer at the last glacial maximum shows _____ compared to the present.

- A. warmer subtropical gyres, cooler north Atlantic
- B. cooler subtropical gyres, warmer Indian ocean
- C. warmer deep tropics, subtropical gyres
- D. warmer Indian and north Atlantic

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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

During the last glaciation, the limits of mountain glaciers in the Andes were _____ than they are today.

- A. 5km higher
- B. 500 m higher
- C. 600-1000m lower
- D. the same

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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

Deglaciation results in _____ in sea level.

- A. a decrease
- B. no change
- C. an increase
- D. None of the above

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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

Stronger summer monsoon simulated 9000 years ago was supported from ocean cores indicating _____ along the coast of east Africa.

- A. strong upwelling in Arabian sea
- B. strong downwelling in Arabian sea
- C. both a and b
- D. neither a nor b

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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

Change factor method is also known as _____

- A. delta change method
- B. partial correlation
- C. partial regression
- D. none

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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

Deglaciation after the last glacial maximum was triggered by _____

- A. greenhouse gases
- B. ice breaking
- C. strong monsoons
- D. orbital forcing

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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 time scale of Millennial oscillations is _____ of years.

- A. thousands
- B. hundreds
- C. tens
- D. none

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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

Which of the following statements is true?

- A. Solar forcing causes millennial oscillations
- B. Solar variability does not explain millennial scale variability
- C. Millennial oscillations is a product of random behaviour in climate system
- D. Both b and c

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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

Ocean can take up more atmospheric heat over the regions of _____.

- A. upwelling
- B. downwelling
- C. everywhere
- D. none

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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

What climate proxies indicate periods of prolonged drought during the time that Mayan civilization disappeared?

- A. Ice cores
- B. Corals
- C. Tree rings
- D. Lake sediments

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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

Volcanic dust reaching the _____ can stay for longer time and can impact climate for longer periods.

- A. troposphere
- B. stratosphere
- C. poles
- D. equator

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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

Which of the following is a warm water current?

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

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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

Upwelling regions have low chlorophyll content. True or false?

- A. False
- B. True

Options :

- 1. 1
- 2. 2

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 North Atlantic is an important region of _____

- A. ice melting
- B. ocean acidification
- C. deep water formation
- D. global warming

Options :

1. 1
2. 2
3. 3
4. 4

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

The full form of SOI is _____

- A. Solar Oscillation Intensity
- B. Strong Ocean Index
- C. Southern Oscillation Index
- D. None

Options :

1. 1
2. 2
3. 3
4. 4

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

The average PH of the global oceans is around _____

- A. 10.4
- B. 1.5
- C. 6.7
- D. 8.2

Options :

1. 1
2. 2
3. 3
4. 4

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

Which one of the following is not an internal mode of climate variability?

- A. ENSO
- B. PDO
- C. NAO
- D. None

Options :

1. 1
2. 2
3. 3

4. 4

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

NAO stands for _____

- A. North Atlantic Oscillation
- B. North Arctic Oscillation
- C. North Antarctic Oscillation
- D. North Asian Oscillation

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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

The atmospheric CO₂ concentration during the pre-industrial period is around _____ ppm.

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

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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

_____ are used in the process of dynamic downscaling to produce high resolution climate information.

- A. Statistical relations
- B. Regional climate models
- C. Global climate models
- D. None of the above

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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

What happens to the concentration of atmospheric CO₂ during a strong El Niño?

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

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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

Which one of the following oceanic regions is the strongest sources of CO₂ into atmosphere?

- A. Warm regions
- B. Upwelling
- C. Down welling
- D. Subtropical gyres

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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 ozone concentration in the atmosphere is measured in units of _____

- A. Pascal
- B. W/m²
- C. Kelvin
- D. Dobson

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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

When the sunspot number is more, the solar irradiance would be _____ than normal.

- A. greater
- B. lower
- C. equal
- D. none

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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 of the following pollutants causes a negative radiative forcing?

- A. Sulphate
- B. CO₂
- C. Tropospheric ozone
- D. CH₄

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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 rate of change of temperature with height in atmosphere is called the _____

- A. rate of reaction
- B. rate of turbulence
- C. lapse rate
- D. falling velocity

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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

The atmosphere is in _____ equilibrium.

- A. kinetic-radiative
- B. thermal-radiative
- C. thermal-convective
- D. radiative-convective

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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

As global warming increases, the height at which earth emits effective radiation _____

- A. increases
- B. decreases
- C. no change
- D. has no relation

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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

The height of the tropopause _____ with global warming.

- A. increases
- B. decreases
- C. no change
- D. none

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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 residence time of CH₄ in atmosphere is about _____ years.

- A. 50-200
- B. 12±3
- C. 1000
- D. 1-2

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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

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

- A. CO₂
- B. N₂O
- C. CH₄
- D. HFCs

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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

Which of the following greenhouse gases has highest global warming potential compared to CO₂?

- A. CH₄
- B. N₂O
- C. SF₆
- D. HFCs

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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

Sea level over colder waters is _____ compared to that over warmer waters.

- A. higher
- B. lower
- C. equal
- D. independent of temperature

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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

Which of the following models are used by hydrologists to simulate stream flow, soil moisture, and evapotranspiration?

- A. Distributed hydrologic models
- B. Land surface models
- C. Weather models
- D. Orbital models

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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 full form of CAPE is _____

- A. Condensed and Accumulated Potential Energy
- B. Convective Available Potential Energy
- C. Computed Accumulated Potential Energy
- D. Computed Accumulated Potential Energy

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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 one of the following is a drought intensity index?

- A. ENSO
- B. PDO
- C. NAO
- D. PDSI

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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

What happens to the ocean acidity when atmospheric CO₂ increases?

- A. It increases
- B. It decreases
- C. It doesn't change
- D. All of the above

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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

Sea water with "low oxygen" is termed as

- A. Saline
- B. Hypoxia
- C. Anoxia
- D. None of the above

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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

The full form of the drought index SPI is _____

- A. Severity precipitation index
- B. Standardized precipitation index
- C. Standalone Precipitation index
- D. None of the above

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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

The change in equilibrium temperature in response to the changes of radiative forcing is known as _____

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

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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

The climate sensitivity estimated for a quadrupling of CO₂ is about _____

- A. 10 °C
- B. 20 °C
- C. 7 °C
- D. 5 °C

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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

Determining the cause of a detected climate change signal is known as _____

- A. identification
- B. detection
- A. Representative concentration pathway
- B. Referred concentration programs
- C. Representative common programs
- D. None of the above

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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

RCP stands for _____

- A. Representative concentration pathway
- B. Referred concentration programs
- C. Representative common programs
- D. None of the above

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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 one of the following is not a standard future scenario used in fifth assessment report (AR5) of IPCC?

- A. RCP 2.0
- B. RCP 8.5
- C. RCP 9.5
- D. RCP 6.0

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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

Which one of the following statement is true regarding the scenario RCP 4.5?

- A. Radiative forcing is 4.5 W/m² by the year 2100
- B. Radiative forcing at the start of the climate simulation is 4.5 W/m²
- C. CO₂ concentration is about 45 ppm by the year 2100
- D. CO₂ concentration is about 45 ppm at the start of the climate simulation

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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

The projected global mean temperature increase by 2100 relative to the period 1850-1900 under RCP 4.5 scenario is about _____

- A. 1-2 °C
- B. 1.7-3.2 °C
- C. 3.2-5.4 °C
- D. 8-9 °C

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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

Which one of the following is a vulnerable tipping point for global warming of 3-5 °C?

- A. Indian monsoon
- B. Greenland ice sheet
- C. Antarctic ice sheet
- D. None of the above

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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

According to IUCN, the increased extinction of species during the recent period is mainly due to _____

- A. warmer temperatures
- B. increasing snowfall
- C. ocean acidification
- D. ecosystem degradation

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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

Global warming induced a _____ shift of diseases.

- A. equatorial
- B. eastward
- C. westward
- D. poleward

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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 sector is the largest contributor to CO₂ emission in India?

- A. Electricity
- B. Residential
- C. Agriculture
- D. None of the above

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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

Which of the following mission attempts to make India litter free by 2019?

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

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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

Which of the following schemes aims to improve watershed development in India?

- A. Clean Ganga
- B. Clean India
- C. HRIDAY
- D. Neeranchal

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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

Which of the following statements regarding the recent changes in Indian summer monsoon in a warming climate are true?

- A. The monsoon arrives late and withdraws early
- B. The length of the rainy season has got shorter
- C. Both a and b
- D. Neither a nor b

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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

Microscopic solids or liquid droplets present in the air that can be inhaled and cause serious health problems are called _____

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

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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

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

- A. PM_{2.5}
- B. PM₁₀
- C. PM₁₀₀
- D. PM₂₅₀

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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

PM_{2.5} is referred to as particulate matter with diameter _____

- A. 2.5 nanometres or less
- B. 2.5 micrometers or less
- C. 2.5 centimetres or less
- D. All of the above

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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 one of following is not a green house gas?

- A. CO₂
- B. O₂
- C. CH₄
- D. H₂O

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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

Excessive Indian summer monsoon rainfall are typically associated with _____

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

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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

El Niño is the warm phase of the El Niño Southern Oscillation and is associated with a band of warm ocean water that develops in the _____

- A. Indian ocean
- B. central and east-central equatorial Pacific
- C. Atlantic ocean
- D. Mediterranean sea

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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

Which one of the following statements is not true?

- A. All the Indian summer monsoon droughts are associated with El Niño
- B. Indian summer monsoon has an influence of PDO
- C. June-September is considered as Indian summer monsoon season
- D. None

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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

Which one of the following has the highest albedo?

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

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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

Long-term trend in the observed frequency of cyclonic disturbances forming over Bay of Bengal indicates _____

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

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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

_____ during Indian summer monsoon season inhibits the formation of cyclones over Bay of Bengal.

- A. Colder SST
- B. Warmer SST
- C. Strong vertical wind shear
- D. Weak vertical wind shear

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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 Indian coastal stations shows the greatest increase in sea level during past few decades?

- A. Visakhapatnam
- B. Kochi
- C. Diamond Harbour
- D. None

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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

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 of the above

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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

National ambient air quality standards in India are prepared by _____

- A. Indian Institute of Tropical Meteorology (IITM)
- B. India Meteorological Department (IMD)
- C. Indian Institute of Science Education and Research (IISER)
- D. Central Pollution control board (CPCB)

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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

A belt of low pressure which circles the Earth generally near the equator where the trade winds of the Northern and Southern Hemispheres come together is called _____

- A. El Niño southern oscillation
- B. Madden-Julian oscillation
- C. Inter Tropical Convergence Zone
- D. None of the above

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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

The ITCZ is also known as the _____

- A. geographical equator
- B. meteorological equator
- C. thermal equator
- D. none

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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

Which monsoon brings about 70-80% of annual rainfall over India?

- A. Southwest monsoon
- B. Northeast monsoon
- C. Both
- D. Neither

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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

. India experiences Northeast monsoon during the months of -----

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

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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

The climatological date of the onset of Southwest monsoon over Kerala is around -----

- A. 25 May
- B. 29 May
- C. 1 June
- D. 1 July

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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

Which one of the following regions contributes more moisture to the mean summer monsoon rainfall over India?

- A. Central Indian ocean
- B. Upper Indian ocean
- C. Western Indian ocean
- D. Eastern Pacific ocean

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

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

Observational based studies indicate _____ in extreme events over core monsoon zone during past few decades.

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

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4