

# National Testing Agency

<b>Question Paper Name :</b>	Environmental Sciences 17th September Shift 2
<b>Subject Name :</b>	ENVIRONMENTAL SCIENCES
<b>Creation Date :</b>	2021-09-17 18:54:52
<b>Duration :</b>	120
<b>Total Marks :</b>	480
<b>Display Marks:</b>	Yes

## Environmental Sciences

<b>Group Number :</b>	1
<b>Group Id :</b>	190889136
<b>Group Maximum Duration :</b>	0
<b>Group Minimum Duration :</b>	120
<b>Show Attended Group? :</b>	No
<b>Edit Attended Group? :</b>	No
<b>Break time :</b>	0
<b>Group Marks :</b>	480
<b>Is this Group for Examiner? :</b>	No

## Part A: General Knowledge

<b>Section Id :</b>	190889332
<b>Section Number :</b>	1
<b>Section type :</b>	Online
<b>Mandatory or Optional :</b>	Mandatory

<b>Number of Questions :</b>	20
<b>Number of Questions to be attempted :</b>	20
<b>Section Marks :</b>	80
<b>Enable Mark as Answered Mark for Review and Clear Response :</b>	Yes
<b>Sub-Section Number :</b>	1
<b>Sub-Section Id :</b>	190889372
<b>Question Shuffling Allowed :</b>	Yes

**Question Number : 1 Question Id : 19088915622 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 4 Wrong Marks : 1**

Which of the following is the device used to measure the power and speed of the wind?

1. Avometer
2. Anemometer
3. Airometer
4. Aviontimeter

**Options :**

19088962381. 1

19088962382. 2

19088962383. 3

19088962384. 4

**Question Number : 2 Question Id : 19088915623 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 4 Wrong Marks : 1**

Optical fibre used the concept of which of the following?

1. Reflection
2. Refraction
3. Total internal reflection
4. Total internal refraction

**Options :**

- 19088962385. 1
- 19088962386. 2
- 19088962387. 3
- 19088962388. 4

**Question Number : 3 Question Id : 19088915624 Question Type : MCQ Option Shuffling : No Is**

**Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Yellow vein mosaic is the viral disease of which of the following plants?

- 1. Ladyfinger
- 2. Papaya
- 3. Sugarcane
- 4. Banana

**Options :**

- 19088962389. 1
- 19088962390. 2
- 19088962391. 3
- 19088962392. 4

**Question Number : 4 Question Id : 19088915625 Question Type : MCQ Option Shuffling : No Is**

**Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which of the following organ(s) is affected by Mumps disease?

- 1. Entire body
- 2. Skin
- 3. Eye
- 4. Parotid

**Options :**

- 19088962393. 1
- 19088962394. 2
- 19088962395. 3

19088962396. 4

**Question Number : 5 Question Id : 19088915626 Question Type : MCQ Option Shuffling : No Is**

**Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which of the following is the chemical name of vitamin B<sub>2</sub>?

1. Riboflavin
2. Calciferol
3. Pyridoxin
4. Niacin

**Options :**

19088962397. 1

19088962398. 2

19088962399. 3

19088962400. 4

**Question Number : 6 Question Id : 19088915627 Question Type : MCQ Option Shuffling : No Is**

**Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which of the following is not the input unit of the computer?

1. Mouse
2. Keyboard
3. Screen
4. Scanner

**Options :**

19088962401. 1

19088962402. 2

19088962403. 3

19088962404. 4

**Question Number : 7 Question Id : 19088915628 Question Type : MCQ Option Shuffling : No Is**

**Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

The digital computer operates on which of the following principle?

1. Measurement
2. Calculation
3. Logical
4. Electrification

**Options :**

19088962405. 1

19088962406. 2

19088962407. 3

19088962408. 4

**Question Number : 8 Question Id : 19088915629 Question Type : MCQ Option Shuffling : No Is**

**Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

The non-cooperation movement of Gandhiji was launched in which of the following year?

1. 1915
2. 1922
3. 1920
4. 1930

**Options :**

19088962409. 1

19088962410. 2

19088962411. 3

19088962412. 4

**Question Number : 9 Question Id : 19088915630 Question Type : MCQ Option Shuffling : No Is**

**Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

An Islamic revivalist movement named Wahabi movement was founded by which of the following person?

1. Sian Saheb
2. Syed Ahmed
3. Haji Shariat-Allah
4. DaduMian

**Options :**

19088962413. 1

19088962414. 2

19088962415. 3

19088962416. 4

**Question Number : 10 Question Id : 19088915631 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which of the following is considered as the "Magna Carta of England Education in India"?

1. Hunter education commission
2. Lord Macaulay's Minute
3. Wood's Despatch
4. Thomas Babington Macaulay

**Options :**

19088962417. 1

19088962418. 2

19088962419. 3

19088962420. 4

**Question Number : 11 Question Id : 19088915632 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which of the following nutrient does not come under the ambit of 'macro-nutrients in Soil Health Card?

1. Nitrogen
2. Zinc
3. Phosphorous
4. Potassium

**Options :**

19088962421. 1

19088962422. 2

19088962423. 3

19088962424. 4

**Question Number : 12 Question Id : 19088915633 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Cole crops, root crops and legumes come under the ambit of which of the following?

1. Olericulture
2. Pomology
3. Viticulture
4. Arboriculture

**Options :**

19088962425. 1

19088962426. 2

19088962427. 3

19088962428. 4

**Question Number : 13 Question Id : 19088915634 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

The study of individual trees, shrubs, vines, and perennial woody plants is known as which of the following?

1. Turf management
2. Arboriculture
3. Pomology
4. Viticulture

**Options :**

19088962429. 1

19088962430. 2

19088962431. 3

19088962432. 4

**Question Number : 14 Question Id : 19088915635 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

The ministry is implementing MIDH (Mission for Integrated Development of Horticulture) with effect from which of the following year?

1. 2012-13
2. 2019-20
3. 2015-16
4. 2014-15

**Options :**

19088962433. 1

19088962434. 2

19088962435. 3

19088962436. 4

**Question Number : 15 Question Id : 19088915636 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**



The interaction of soils with living things, particularly plants are well known as which of the following?

1. Edaphology
2. Pedology
3. Soil zoology
4. Pedogenesis

**Options :**

19088962437. 1

19088962438. 2

19088962439. 3

19088962440. 4

**Question Number : 16 Question Id : 19088915637 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which of the following systems has also incorporated social aspects in itself?

1. Landscaping
2. Permaculture
3. Horticulture
4. Forest gardening

**Options :**

19088962441. 1

19088962442. 2

19088962443. 3

19088962444. 4

**Question Number : 17 Question Id : 19088915638 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

What do you term the phenomenon whereby the specific gene is added to the plant for producing a desirable phenotype?

1. Genetic manipulation
2. Genetic recombination
3. Genetic modification
4. Genetic hybridisation

**Options :**

19088962445. 1

19088962446. 2

19088962447. 3

19088962448. 4

**Question Number : 18 Question Id : 19088915639 Question Type : MCQ Option Shuffling : No  
Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

What is the focus of the participatory plant breeding program?

1. Scientists
2. Plants
3. Environment
4. Farmers

**Options :**

19088962449. 1

19088962450. 2

19088962451. 3

19088962452. 4

**Question Number : 19 Question Id : 19088915640 Question Type : MCQ Option Shuffling : No  
Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

How do you term the form of agriculture, in which, industrialized production of crops and animal products takes place?

1. Manufactured agriculture
2. Modern agriculture
3. Industrial agriculture
4. Mechanistic agriculture

**Options :**

19088962453. 1

19088962454. 2

19088962455. 3

19088962456. 4

**Question Number : 20 Question Id : 19088915641 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Micro-irrigation fund of Rs. 5.000 crore has been placed with which of the following organization?

1. NABARD
2. IDBI
3. SBI
4. RRBs

**Options :**

19088962457. 1

19088962458. 2

19088962459. 3

19088962460. 4

## **Part B Core : Natural Resource Management-I**

**Section Id :** 190889333

**Section Number :** 2

**Section type :** Online

<b>Mandatory or Optional :</b>	Mandatory
<b>Number of Questions :</b>	50
<b>Number of Questions to be attempted :</b>	50
<b>Section Marks :</b>	200
<b>Enable Mark as Answered Mark for Review and Clear Response :</b>	Yes
<b>Sub-Section Number :</b>	1
<b>Sub-Section Id :</b>	190889373
<b>Question Shuffling Allowed :</b>	Yes

**Question Number : 21 Question Id : 19088915642 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Digital Interpretation of forest data for the entire country has been done by Forest Survey of India, Dehradun from which cycle of assessment?

1. Fifth
2. Eighth
3. Ninth
4. Tenth

**Options :**

19088962461. 1

19088962462. 2

19088962463. 3

19088962464. 4

**Question Number : 22 Question Id : 19088915643 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

As per ISFR 2019, the area (sq km) under moderate dense forest is

1. 3, 04, 499
2. 3, 08, 472
3. 3, 12, 684
4. 3, 16, 359

**Options :**

19088962465. 1

19088962466. 2

19088962467. 3

19088962468. 4

**Question Number : 23 Question Id : 19088915644 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Match **List I** with **List II**

<b>List I</b>	<b>List II</b>
<b>Act</b>	<b>Year</b>
A. National Green Tribunal Act	I. 2002
B. Biodiversity Act	II. 2010
C. The Environment (Protection) Act	III. 1991
D. The Public Liability Insurance act	IV. 1986

Choose the **correct** answer from the options given below:

1. A - IV, B - II, C - III, D - I
2. A - III, B - I, C - IV, D - II
3. A - II, B - I, C - IV, D - III
4. A - II, B - III, C - I, D - IV

**Options :**

19088962469. 1

19088962470. 2

19088962471. 3

19088962472. 4

**Question Number : 24 Question Id : 19088915645 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

In India, the CGS of measurement was adopted in the year:

1. August, 1947
2. January, 1950
3. October, 1962
4. June, 1972

**Options :**

19088962473. 1

19088962474. 2

19088962475. 3

19088962476. 4

**Question Number : 25 Question Id : 19088915646 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

The 'Bidi' is a thin cigarette or mini-cigar filled with tobacco flake and commonly wrapped in leaves of:

1. *Bauhinia vahlii*
2. *Grewia optiva*
3. *Diospyros melanoxylon*
4. *Terminalia tomentosa*

**Options :**

19088962477. 1

19088962478. 2

19088962479. 3

19088962480. 4

**Question Number : 26 Question Id : 19088915647 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Under Atamnirbhar Bharat Abhiyan, import duty on bamboo has been increased/decreased to encourage domestic use of bamboo

1. No change
2. 5 to 15%
3. 10 to 25%
4. 15 to 50%

**Options :**

19088962481. 1

19088962482. 2

19088962483. 3

19088962484. 4

**Question Number : 27 Question Id : 19088915648 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Arrange the phases of Indian forest transition in the correct sequence.

- A. Deforestation phase
- B. Agriculture stabilization phase
- C. Afforestation phase
- D. Conservation and sustainable management

Choose the *correct* answer from the options given below:

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

**Options :**

19088962485. 1

19088962486. 2

19088962487. 3

19088962488. 4

Question Number : 28 Question Id : 19088915649 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Match List I with List II

List I	List II
<b>International Day</b>	<b>Date and Month</b>
A. Earth day	I. 22 May
B. Biodiversity day	II. 21 March
C. Environment day	III. 5 June
D. International day of forests	IV. 22 April

Choose the **correct** answer from the options given below

1. A - IV, B - I, C - III, D - II
2. A - III, B - I, C - IV, D - II
3. A - II, B - I, C - IV, D - III
4. A - II, B - I, C - III, D - IV

**Options :**

19088962489. 1

19088962490. 2

19088962491. 3

19088962492. 4

Question Number : 29 Question Id : 19088915650 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Under Kyoto Protocol, developing countries (non-annex 1 country) are eligible for:

1. Emission trading only
2. Joint Implementation only
3. Clean Development Mechanism only
4. Emission trading and Clean development Mechanism

**Options :**

19088962493. 1

19088962494. 2

19088962495. 3



19088962496. 4

**Question Number : 30 Question Id : 19088915651 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Given below are two statements

**Statement I:** Van Dhan Yojana or Van Dhan Scheme an initiative targeting livelihood generation for tribal gatherers was launched in 2015

**Statement II:** Major objective of Van Dhan Yojana or Van Dhan Scheme of GOI was to transforming tribals into entrepreneurs

In light of the above statements, choose the *most appropriate* answer from the options given below

1. Both Statement I and Statement II are correct
2. Both Statement I and Statement II are incorrect
3. Statement I is correct but Statement II is incorrect
4. Statement I is incorrect but Statement II is correct

**Options :**

19088962497. 1

19088962498. 2

19088962499. 3

19088962500. 4

**Question Number : 31 Question Id : 19088915652 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which of the following statement is correct about maximum thermometer and minimum thermometer in Stevenson screen?

1. Both are placed vertically
2. Both are placed horizontally
3. Maximum thermometer is placed horizontally and minimum thermometer vertically
4. Both are placed at  $30^\circ$  angle with horizontal

**Options :**

19088962501. 1

19088962502. 2

19088962503. 3

19088962504. 4

**Question Number : 32 Question Id : 19088915653 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which clouds are associated with Nor'wester shower?

1. Nimbostratus clouds
2. Cumulonimbus clouds
3. Altostratus clouds
4. Noctilucent clouds

**Options :**

19088962505. 1

19088962506. 2

19088962507. 3

19088962508. 4

**Question Number : 33 Question Id : 19088915654 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Who invented Barometer?

1. Edmand Halley
2. Benedetto Castelli
3. Evangelista Torricelli
4. Galileo Galilei

**Options :**

19088962509. 1

19088962510. 2

19088962511. 3

19088962512. 4

**Question Number : 34 Question Id : 19088915655 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which of the following climatic phenomena brings rainfall in Tamil Nadu from November to January ?

1. South west monsoon
2. North east monsoon
3. Nor'wester shower
4. Western disturbances

**Options :**

19088962513. 1

19088962514. 2

19088962515. 3

19088962516. 4

**Question Number : 35 Question Id : 19088915656 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

What is the normal date of onset of monsoon in Kerala ?

1. May 25
2. June 1
3. June 15
4. June 29

**Options :**

19088962517. 1

19088962518. 2

19088962519. 3

19088962520. 4

**Question Number : 36 Question Id : 19088915657 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

What is the full form of IMD ?

1. India Meteorological Department
2. Indian Metrology Department
3. Indian Meteorological Division
4. International Meteorological Department

**Options :**

19088962521. 1

19088962522. 2

19088962523. 3

19088962524. 4

**Question Number : 37 Question Id : 19088915658 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

What is the value of one knot in km/h?

1. 1.301
2. 1.609
3. 1.852
4. 3.000

**Options :**

19088962525. 1

19088962526. 2

19088962527. 3

19088962528. 4

**Question Number : 38 Question Id : 19088915659 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Read the statements below:

- A. Latitudes are parallel to each other.
- B. Longitudes are parallel to each other.
- C. International date line is approximately on or near  $180^\circ$  longitude.
- D.  $0^\circ$  latitude is called equator.

Choose the *correct* answer from the options given below:

- 1. A, B and D only
- 2. A, B and C only
- 3. A, C and D only
- 4. A and D only

**Options :**

19088962529. 1

19088962530. 2

19088962531. 3

19088962532. 4

**Question Number : 39 Question Id : 19088915660 Question Type : MCQ Option Shuffling : No  
Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Arrange the following according to increasing wind speed.

- A. Cyclonic Storm
- B. Deep Depression
- C. Depression
- D. Low Pressure

Choose the *correct* answer from the options given below

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

**Options :**

19088962533. 1

19088962534. 2

19088962535. 3

19088962536. 4

**Question Number : 40 Question Id : 19088915661 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which law states that the wavelength of maximum intensity of radiation emitted by a black body is inversely proportional to its absolute temperature?

1. Planck's Law
2. Stefan-Boltzman's Law
3. Kirchoff's Law
4. Wein's Displacement Law

**Options :**

19088962537. 1

19088962538. 2

19088962539. 3

19088962540. 4

**Question Number : 41 Question Id : 19088915662 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which of the following is NOT a form of precipitation?

1. Rain
2. Dew
3. Snow
4. Virga

**Options :**

19088962541. 1

19088962542. 2

19088962543. 3

19088962544. 4

Question Number : 42 Question Id : 19088915663 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Match List I with List II

List I	List II
Atmospheric phenomena	Meteor class
A. Rainbow	I. Hydrometeor
B. Dust storm	II. Electrometeor
C. Thunderstorm	III. Photometeor
D. Snowfall	IV. Lithometeor

Choose the correct answer from the options given below:

1. A - II, B - IV, C - III, D - I
2. A - III, B - IV, C - II, D - I
3. A - I, B - IV, C - II, D - III
4. A - IV, B - III, C - II, D - I

Options :

19088962545. 1

19088962546. 2

19088962547. 3

19088962548. 4

Question Number : 43 Question Id : 19088915664 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

What is the value of environmental lapse rate at troposphere?

1.  $10^{\circ}\text{C km}^{-1}$
2.  $6.5^{\circ}\text{C km}^{-1}$
3.  $4.5^{\circ}\text{C km}^{-1}$
4.  $3.5^{\circ}\text{C km}^{-1}$

Options :

19088962549. 1

19088962550. 2

19088962551. 3

19088962552. 4

**Question Number : 44 Question Id : 19088915665 Question Type : MCQ Option Shuffling : No  
Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Given below are two statements, one is labelled as Assertion A and the other is labelled as Reason R

**Assertion A :** Polar regions of the earth get nearly six-month day and six-month night in a year.

**Reason R :** Day and night occur due to rotation of the earth on its own axis.

In light of the above statements, choose the *correct* answer from the options given below

1. Both **A** and **R** are true and **R** is the correct explanation of **A**
2. Both **A** and **R** are true but **R** is NOT the correct explanation of **A**
3. **A** is true but **R** is false
4. **A** is false but **R** is true

**Options :**

19088962553. 1

19088962554. 2

19088962555. 3

19088962556. 4

**Question Number : 45 Question Id : 19088915666 Question Type : MCQ Option Shuffling : No  
Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**



Select the correct statements from the following:

A. Prevailing westerlies are related to Ferrel cell.

B. Trade winds are related to Hadley cell.

C. Prevailing westerlies are related to Hadley cell.

D. Polar cell gives rise to polar easterlies.

Choose the *correct* answer from the options given below.

1. A and B only
2. B, C and D only
3. A, B and D only
4. A, B and C only

**Options :**

19088962557. 1

19088962558. 2

19088962559. 3

19088962560. 4

**Question Number : 46 Question Id : 19088915667 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Who wrote the book "Talking environment"?

1. Sunita Narayan
2. Al Gore
3. R. K. Pachauri
4. Vandana Shiva

**Options :**

19088962561. 1

19088962562. 2

19088962563. 3

19088962564. 4

**Question Number : 47 Question Id : 19088915668 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which decade considered as United Nation's "Decade of Biodiversity"?

1. 2001-2010
2. 2011-2020
3. 1991-2000
4. 1981-1990

**Options :**

19088962565. 1

19088962566. 2

19088962567. 3

19088962568. 4

**Question Number : 48 Question Id : 19088915669 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

What is the major component of flyash?

1.  $\text{Al}_2\text{O}_3$
2.  $\text{K}_2\text{O}$
3.  $\text{Fe}_2\text{O}_3$
4.  $\text{SiO}_2$

**Options :**

19088962569. 1

19088962570. 2

19088962571. 3

19088962572. 4

**Question Number : 49 Question Id : 19088915670 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

In which device corona discharge occurs?

1. Wet scrubber
2. Thermal precipitator
3. Catalytic precipitator
4. Electrostatic precipitator

**Options :**

19088962573. 1

19088962574. 2

19088962575. 3

19088962576. 4

**Question Number : 50 Question Id : 19088915671 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which type of forest has maximum area in India?

1. Tropical moist deciduous forest
2. Tropical wet evergreen forest
3. Tropical dry deciduous forest
4. Tropical semi evergreen forest

**Options :**

19088962577. 1

19088962578. 2

19088962579. 3

19088962580. 4

**Question Number : 51 Question Id : 19088915672 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which is the form of total amount of water present in soil?

1. Chresard
2. Echard
3. Hollard
4. Morrard

**Options :**

- 19088962581. 1
- 19088962582. 2
- 19088962583. 3
- 19088962584. 4

**Question Number : 52 Question Id : 19088915673 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

In which of the following system “Double digging” method is used?

- 1. Bio-intensive agriculture
- 2. Deforestation
- 3. Afforestation
- 4. Water conservation

**Options :**

- 19088962585. 1
- 19088962586. 2
- 19088962587. 3
- 19088962588. 4

**Question Number : 53 Question Id : 19088915674 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

What is permissible sound level at day time in commercial areas (dBA)?

- 1. 75
- 2. 65
- 3. 55
- 4. 50

**Options :**

- 19088962589. 1
- 19088962590. 2
- 19088962591. 3

19088962592. 4

**Question Number : 54 Question Id : 19088915675 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which is an absorbing solution used for the sampling of  $\text{SO}_2$  from ambient air in the respirable dust sampler (RDS)?

1. Sodium hydroxide and sodium arsenite
2. Potassium tetrachloro mercurate (TCM)
3. 1% KI in 0.1 M Phosphate buffer
4. 0.1N Sulphuric acid

**Options :**

19088962593. 1

19088962594. 2

19088962595. 3

19088962596. 4

**Question Number : 55 Question Id : 19088915676 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which is the dominant source of  $\text{NO}_x$  in the atmosphere?

1. Thermal  $\text{NO}_x$
2. Fuel  $\text{NO}_x$
3. Atmospheric reactions
4. Photochemical smog

**Options :**

19088962597. 1

19088962598. 2

19088962599. 3

19088962600. 4

**Question Number : 56 Question Id : 19088915677 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

If the organic carbon content of a soil profile with a depth of 125 cm is 0.2%, the SOC stock density of the profile will be (assume bulk density =  $1.5 \text{ Mg m}^{-3}$ )

1.  $250 \text{ t ha}^{-1}$
2.  $25 \text{ t km}^{-2}$
3.  $37.5 \text{ t km}^{-2}$
4.  $37.5 \text{ t ha}^{-1}$

**Options :**

19088962601. 1

19088962602. 2

19088962603. 3

19088962604. 4

**Question Number : 57 Question Id : 19088915678 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Flux of water through a saturated soil column depends on

1. Hydraulic conductivity of soil column only
2. Hydraulic gradient of the soil column only
3. Amount of water supplied to the soil column only
4. Both hydraulic conductivity and hydraulic gradient of soil column

**Options :**

19088962605. 1

19088962606. 2

19088962607. 3

19088962608. 4

**Question Number : 58 Question Id : 19088915679 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

If wind speed increases by three times, the erosive energy of the wind regime will be increased by a factor of

1. One
2. Three
3. Six
4. Nine

**Options :**

19088962609. 1

19088962610. 2

19088962611. 3

19088962612. 4

**Question Number : 59 Question Id : 19088915680 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

If the size of a nanoparticle is decreased by two times, the surface-to-volume ratio of the nanoparticle will

1. Increase by two times
2. Remain the same
3. Decrease by two times
4. Increase by eight times

**Options :**

19088962613. 1

19088962614. 2

19088962615. 3

19088962616. 4

**Question Number : 60 Question Id : 19088915681 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

When a monochromatic light of a characteristic wavelength is passed through a medium, the absorbance of the light by the medium depends on

1. Concentration of the medium only
2. Path length of the medium only
3. Both on path length and concentration of the medium
4. Intensity and wavelength of the light

**Options :**

19088962617. 1

19088962618. 2

19088962619. 3

19088962620. 4

**Question Number : 61 Question Id : 19088915682 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

In soil structural evaluation study, it is often said 'Aggregation is flocculation plus'. This 'plus' refers to:

1. settling
2. arrangement
3. sedimentation
4. cementation

**Options :**

19088962621. 1

19088962622. 2

19088962623. 3

19088962624. 4

**Question Number : 62 Question Id : 19088915683 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**



Which of the following statements about forms of precipitation are true?

- A. Drizzle is fairly uniform precipitation composed exclusively of fine drops
- B. In drizzle, drops must be very close together
- C. Drops larger than drizzle form rain
- D. Small drops can also form rain when drops are widely apart

Choose the *correct* answer from the options given below:

- 1. A and B only
- 2. A and C only
- 3. A, B and C only
- 4. A, B, C and D only

**Options :**

19088962625. 1

19088962626. 2

19088962627. 3

19088962628. 4

**Question Number : 63 Question Id : 19088915684 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Isotopes of an atom do NOT have

- 1. the same number of electrons
- 2. the same number of protons
- 3. the same number of neutrons
- 4. the same total number of electrons & protons

**Options :**

19088962629. 1

19088962630. 2

19088962631. 3

19088962632. 4

**Question Number : 64 Question Id : 19088915685 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

SI unit of Energy is Joule. If the dimensions of mass, length and time are M, L and T, respectively, then dimension of Energy is

1.  $M^1L^1T^{-2}$
2.  $M^2L^2T^{-2}$
3.  $M^2L^2T^{-1}$
4.  $M^1L^2T^{-2}$

**Options :**

19088962633. 1

19088962634. 2

19088962635. 3

19088962636. 4

**Question Number : 65 Question Id : 19088915686 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

What is the atmosphere layer where most of weather phenomena occurs?

1. Stratosphere
2. Mesosphere
3. Ozonosphere
4. Troposphere

**Options :**

19088962637. 1

19088962638. 2

19088962639. 3

19088962640. 4

**Question Number : 66 Question Id : 19088915687 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which one of the following models simulates soil water flow processes?

1. SWAT
2. HYDRUS
3. MIKE SHE
4. CROPWAT

**Options :**

19088962641. 1

19088962642. 2

19088962643. 3

19088962644. 4

**Question Number : 67 Question Id : 19088915688 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

For a soil being compacted, which of the following statement/statements are true?

- A. Bulk density of the soil increases
- B. Macropore volume of the soil decreases
- C. Micropore volume decreases
- D. Mesopore volume of soil increases

Choose the *correct* answer from the options given below:

1. A only
2. A, B and C only
3. A, B and D only
4. B only

**Options :**

19088962645. 1

19088962646. 2

19088962647. 3

19088962648. 4

**Question Number : 68 Question Id : 19088915689 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Given below are two statements, one is labelled as **Assertion A** and the other is labelled as **Reason R**

**Assertion A** : Map coordinate system is the result of projection of geographic coordinate system

**Reason R** : Projection is a mathematical transformation of three-dimensional Earth into two-dimensional flat surface (paper)

In light of the above statements, choose the *correct* answer from the options given below

1. Both **A** and **R** are true and **R** is the correct explanation of **A**
2. Both **A** and **R** are true but **R** is Not the correct explanation of **A**
3. **A** is true but **R** is false
4. **A** is false but **R** is true

**Options :**

19088962649. 1

19088962650. 2

19088962651. 3

19088962652. 4

**Question Number : 69 Question Id : 19088915690 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Match **List I** with **List II**

<b>List I</b>	<b>List II</b>
<b>(Physical parameter)</b>	<b>(SI Unit)</b>
A. Work	I. Megagram per cubic meter
B. Momentum	II. Meter
C. Density	III. Joule
D. Wavelength	IV. kg.m/s

Choose the **correct** answer from the options given below:

1. A - II, B - III, C - IV, D - I
2. A - IV, B - I, C - II, D - III
3. A - III, B - IV, C - I, D - II
4. A - I, B - II, C - III, D - IV

**Options :**

- 19088962653. 1
- 19088962654. 2
- 19088962655. 3
- 19088962656. 4

**Question Number : 70 Question Id : 19088915691 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which one of the following is the India's first satellite launched in space?

- 1. Rohini
- 2. Kalpana
- 3. INSAT
- 4. Aryabhata

**Options :**

- 19088962657. 1
- 19088962658. 2
- 19088962659. 3
- 19088962660. 4

## **Part C : Environmental Sciences**

<b>Section Id :</b>	190889334
<b>Section Number :</b>	3
<b>Section type :</b>	Online
<b>Mandatory or Optional :</b>	Mandatory
<b>Number of Questions :</b>	50
<b>Number of Questions to be attempted :</b>	50
<b>Section Marks :</b>	200
<b>Enable Mark as Answered Mark for Review and Clear Response :</b>	Yes

**Sub-Section Number :** 1  
**Sub-Section Id :** 190889374  
**Question Shuffling Allowed :** Yes

**Question Number : 71 Question Id : 19088915692 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Match the following succession with their habitat

List I	List II
Type of succession	Succession habitat
A. Hydrosere	I. aquatic habitat
B. Xerosere	II. bare rock surface
C. Lithosere	III. dry habitat
D. Psammosere	IV. saline soil or water
E. Halosere	V. sandy areas

Choose the correct answer from the options given below

1. A - I, B - V, C - III, D - II, E - IV
2. A - I, B - III, C - V, D - II, E - IV
3. A - I, B - III, C - II, D - V, E - IV
4. A - I, B - III, C - II, D - IV, E - V

**Options :**

19088962661. 1

19088962662. 2

19088962663. 3

19088962664. 4

**Question Number : 72 Question Id : 19088915693 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which is an example of scramble type of interaction?

1. Interspecies competition
2. Mutualism
3. Intra species competition
4. Proto-cooperation

**Options :**

19088962665. 1

19088962666. 2

19088962667. 3

19088962668. 4

**Question Number : 73 Question Id : 19088915694 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which one is the correct expression of vital index for a population?

1.  $(\text{Birth/Death})-100$
2.  $(\text{Death /Birth}) *1000$
3.  $(\text{Birth/Death}) *100$
4.  $(\text{Death /Birth}) *100$

**Options :**

19088962669. 1

19088962670. 2

19088962671. 3

19088962672. 4

**Question Number : 74 Question Id : 19088915695 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which one is the correct sequence for the abundance of elements in Earth's crust?

1. O>Si>Al>Fe
2. Si>O>Al>Fe
3. O>Si>Fe>Al
4. O>Ni>Al>Fe

**Options :**

19088962673. 1

19088962674. 2

19088962675. 3

19088962676. 4

**Question Number : 75 Question Id : 19088915696 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Given below are two statements, one is labelled as **Assertion A** and the other is labelled as **Reason R**

**Assertion A :** Ecotones have more biodiversity.

**Reason R :** The phenomenon of occurrence of additional species found in the ecotone is because of the Edge effect.

In light of the above statements, choose the *correct* answer from the options given below

1. Both **A** and **R** are true and **R** is the correct explanation of **A**
2. Both **A** and **R** are true but **R** is NOT the correct explanation of **A**
3. **A** is true but **R** is false
4. **A** is false but **R** is true

**Options :**

19088962677. 1

19088962678. 2

19088962679. 3

19088962680. 4

**Question Number : 76 Question Id : 19088915697 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**



**Correct Marks : 4 Wrong Marks : 1**

The full potential of physical, chemical and biological factors, a species can use in absence of any competition, is called -

1. Fundamental niche
2. Ecological niche
3. Realized niche
4. Competitive exclusion

**Options :**

19088962681. 1

19088962682. 2

19088962683. 3

19088962684. 4

**Question Number : 77 Question Id : 19088915698 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Given below are two statements, one is labelled as **Assertion A** and the other is labelled as **Reason R**

**Assertion A :** The energy flow in an ecosystem follows the law of thermodynamics.

**Reason R :** The energy flow in an ecosystem is unidirectional and during the transformation of energy from one trophic level to the other, 80 – 90% of energy is lost.

In light of the above statements, choose the *correct* answer from the options given below

1. Both **A** and **R** are true and **R** is the correct explanation of **A**
2. Both **A** and **R** are true but **R** is NOT the correct explanation of **A**
3. **A** is true but **R** is false
4. **A** is false but **R** is true

**Options :**

19088962685. 1

19088962686. 2

19088962687. 3

19088962688. 4

Question Number : 78 Question Id : 19088915699 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Which of the following symbolises correct sequence in hydrosere?

1. Diatoms → Wolffia → Hydrilla → Cyperus → Populus
2. Hydrilla → Wolffia → Cyperus → Populus → Diatoms
3. Cyperus → Diatoms → Hydrilla → Wolffia → Populus
4. Diatoms → Hydrilla → Wolffia → Cyperus → Populus

Options :

19088962689. 1

19088962690. 2

19088962691. 3

19088962692. 4

Question Number : 79 Question Id : 19088915700 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Match the following hypothesis with their innovator

Match List I with List II

List I	List II
(Name of Theory)	(Author/Thinker)
A. Gaia hypothesis	I. Alfred Wegener
B. Big bang theory	II. Abbe Lemaitre
C. Continental drift theory	III. James Lovelock
D. Asian brown clouds	IV. Paul Crutzen

Choose the **correct** answer from the options given below:

1. A - III, B - II, C - IV, D - I
2. A - III, B - IV, C - I, D - II
3. A - II, B - IV, C - III, D - I
4. A - III, B - II, C - I, D - IV

Options :

19088962693. 1

19088962694. 2

19088962695. 3

19088962696. 4

**Question Number : 80 Question Id : 19088915701 Question Type : MCQ Option Shuffling : No  
Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Given below are two statements, one is labelled as **Assertion A** and the other is labelled as **Reason R**

**Assertion A** : Ecological equivalents are unrelated organisms that occupy similar habitats and resemble each other.

**Reason R** : Ecological equivalents result from convergent evolution.

In light of the above statements, choose the *correct* answer from the options given below

1. Both **A** and **R** are true and **R** is the correct explanation of **A**
2. Both **A** and **R** are true but **R** is NOT the correct explanation of **A**
3. **A** is true but **R** is false
4. **A** is false but **R** is true

**Options :**

19088962697. 1

19088962698. 2

19088962699. 3

19088962700. 4

**Question Number : 81 Question Id : 19088915702 Question Type : MCQ Option Shuffling : No  
Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which rule states “the tails, snout, ears and legs of mammals are relatively shorter in colder part than the warmer regions”?

1. Bergman’s Rule
2. Gloger’s Rule
3. Allen’s Rule
4. Rensch’s Rule

**Options :**

- 19088962701. 1
- 19088962702. 2
- 19088962703. 3
- 19088962704. 4

**Question Number : 82 Question Id : 19088915703 Question Type : MCQ Option Shuffling : No  
Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Match the following disease with their cause or vector

List I (Disease)	List II (Cause/vector)
A. Pneumonia	I. Air borne
B. Avian malaria	II. Protozoan
C. Cholera	III. <i>Aedes aegypti</i>
D. Dengu	IV. Water borne

Choose the correct **answer** from the option given below:

- 1. A - I, B - II, C - IV, D - III
- 2. A - II, B - I, C - IV, D - III
- 3. A - II, B - III, C - IV, D - I
- 4. A - IV, B - I, C - II, D - III

**Options :**

- 19088962705. 1
- 19088962706. 2
- 19088962707. 3
- 19088962708. 4

**Question Number : 83 Question Id : 19088915704 Question Type : MCQ Option Shuffling : No  
Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Indicate the type of plants that love to grow in the wasteland, low temperature, dessert, and abundant water conditions, respectively.

1. Mesophyte- Psychrophytes- Eremophytes- Hydrophytes
2. Eremophytes- Psychrophytes- Cherosophytes- Hydrophytes
3. Xerophyte- Eremophytes- Cherosophytes- Hydrophytes
4. Cherosophytes- Psychrophytes- Eremophytes- Hydrophytes

**Options :**

19088962709. 1

19088962710. 2

19088962711. 3

19088962712. 4

**Question Number : 84 Question Id : 19088915705 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

The Cartagena Protocol regulates trade in

1. Endangered species of plants and animals
2. Genetically modified organisms
3. Cloning of organism
4. Pathogenic microbes and related research

**Options :**

19088962713. 1

19088962714. 2

19088962715. 3

19088962716. 4

**Question Number : 85 Question Id : 19088915706 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which was the first Biosphere reserve in the India?

1. Nanda Devi
2. Nilgiri
3. Sundarban
4. Gulf of Mannar

**Options :**

19088962717. 1

19088962718. 2

19088962719. 3

19088962720. 4

**Question Number : 86 Question Id : 19088915707 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which of the following is a type of biodiversity extinction caused primarily due to anthropogenic activities?

1. Carboniferous rain forest collapse
2. Carboniferous mass extinction
3. Cretaceous paleogene extinction
4. Holocene extinction

**Options :**

19088962721. 1

19088962722. 2

19088962723. 3

19088962724. 4

**Question Number : 87 Question Id : 19088915708 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Match the following air pollution episodes with the major pollutant

List I (Air pollution episode)	List II (Pollutant)
A. Bhopal gas tragedy	I. Nuclear radiation
B. Mount St Helens eruption	II. Sulphur dioxide
C. Tuticorin leak	III Methyl isocyanate
D. Chernobyl disaster	IV. Particulate matter

Choose the correct answer from the option given below:

1. A - III, B - II, C - I, D - IV
2. A - IV, B - III, C - I, D - II
3. A - III, B - IV, C - II, D - I
4. A - IV, B - I, C - II, D - III

**Options :**

19088962725. 1

19088962726. 2

19088962727. 3

19088962728. 4

**Question Number : 88 Question Id : 19088915709 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which of the following source of pollution is suitable for gaussian dispersion plume model?

1. Diffused source
2. Single point source
3. Line source
4. Area source

**Options :**

19088962729. 1

19088962730. 2

19088962731. 3

19088962732. 4

Question Number : 89 Question Id : 19088915710 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Match List I with List II for the correct global warming potential (GWP)

List I	List II
(Gas)	(Global warming potential)
A. CH <sub>4</sub>	I. GWP of 298
B. SF <sub>6</sub>	II. GWP of 1
C. N <sub>2</sub> O	III. GWP of 22,800
D. CO <sub>2</sub>	IV. GWP of 25

Choose the correct answer from the options given below:

1. A - II, B - III, C - I, D - IV
2. A - IV, B - III, C - I, D - II
3. A - III, B - II, C - I, D - IV
4. A - III, B - IV, C - I, D - II

Options :

19088962733. 1

19088962734. 2

19088962735. 3

19088962736. 4

Question Number : 90 Question Id : 19088915711 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1



Which of the following are true?

- A. Residence time of methane in atmosphere is 8 to 10 years
- B. Water vapour is the most naturally abundant greenhouse gas in the atmosphere
- C. Methanogens consume methane in anaerobic soils
- D. The stratospheric ozone is the bad ozone

Choose the *correct* answer from the option given below:

- 1. A and B only
- 2. B and C only
- 3. B, C and D only
- 4. A, C and D only

**Options :**

19088962737. 1

19088962738. 2

19088962739. 3

19088962740. 4

**Question Number : 91 Question Id : 19088915712 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

According to WHO guidelines for ambient particulate matter (ambient) air quality (2005), what is the PM<sub>2.5</sub> standard limit on annual mean basis?

- 1. 10  $\mu\text{g}/\text{m}^3$
- 2. 20  $\mu\text{g}/\text{m}^3$
- 3. 25  $\mu\text{g}/\text{m}^3$
- 4. 50  $\mu\text{g}/\text{m}^3$

**Options :**

19088962741. 1

19088962742. 2

19088962743. 3

19088962744. 4

**Question Number : 92 Question Id : 19088915713 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which one is the correct order of the global warming potential (GWP)?

1. Perfluoromethane>Perfluoroethane> Perfluoropropane>Perfluoropentane
2. Perfluoroethane>Perfluoropentane> Perfluoropropane>Perfluoromethane
3. Perfluoropentane>Perfluoromethane>Perfluoroethane> Perfluoropropane
4. Perfluoropropane>Perfluoromethane>Perfluoroethane>Perfluoropentane

**Options :**

19088962745. 1

19088962746. 2

19088962747. 3

19088962748. 4

**Question Number : 93 Question Id : 19088915714 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

In which year, Charles David Keeling started the CO<sub>2</sub> monitoring at Mauna Loa, Hawaii?

1. 1945
2. 1957
3. 1967
4. 1972

**Options :**

19088962749. 1

19088962750. 2

19088962751. 3

19088962752. 4

**Question Number : 94 Question Id : 19088915715 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Match the following remediation technologies with their function

List I (Remediation technology)	List II (Function )
A. Bioslurping	I. Vacuum extraction of floating contaminants
B. Biofuffing	II. Injection of air to stimulate volatilization of pollutants
C. Air stripping	III. Injection to pressurized air to stimulate aerobic degradation
D. Air sparging	IV. Augering soil to increase porosity

Choose the correct answer from the options given below:

1. A - III, B - II, C - I, D - IV
2. A - IV, B - III, C - I, D - II
3. A - I, B - IV, C - II, D - III
4. A - II, B - IV, C - I, D - III

**Options :**

19088962753. 1

19088962754. 2

19088962755. 3

19088962756. 4

**Question Number : 95 Question Id : 19088915716 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Given below are two statements, one is labelled as **Assertion A** and the other is labelled as **Reason R**

**Assertion A :** Chlorofluorocarbons (CFCs) are nontoxic, non-flammable chemicals containing atoms of carbon, chlorine, and fluorine.

**Reason R :** CFCs are generally inert in the lower atmosphere but they undergo significant reaction in the upper atmosphere.

In light of the above statements, choose the *correct* answer from the options given below

1. Both **A** and **R** are true and **R** is the correct explanation of **A**
2. Both **A** and **R** are true but **R** is NOT the correct explanation of **A**
3. **A** is true but **R** is false
4. **A** is false but **R** is true

**Options :**

19088962757. 1

19088962758. 2

19088962759. 3

19088962760. 4

**Question Number : 96 Question Id : 19088915717 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which of the following chemical/s have the attribute of environmental oestrogen (mimic hormones)?

1. Poly vinyl Chloride
2. Mercaptans
3. Dioxins
4. Carbamates

**Options :**

19088962761. 1

19088962762. 2

19088962763. 3

19088962764. 4

**Question Number : 97 Question Id : 19088915718 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which of the following reaction **doesn't** take place in the catalytic convertor?

1. Hydrocarbons to  $\text{CO}_2$
2.  $\text{NO}_2$  to  $\text{N}_2$
3.  $\text{SO}_2$  to S
4. CO to  $\text{CO}_2$

**Options :**

19088962765. 1

19088962766. 2

19088962767. 3

19088962768. 4

**Question Number : 98 Question Id : 19088915719 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

The concentration of amino levulinic acid dehydrase (ALAD) acts as a test marker for the exposure of which metal in the human body?

1. Lead (Pb)
2. Chromium (Cr)
3. Cadmium (Cd)
4. Mercury (Hg)

**Options :**

19088962769. 1

19088962770. 2

19088962771. 3

19088962772. 4

**Question Number : 99 Question Id : 19088915720 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which is the precious by-product in “transesterification” process?

1. Glycerol
2. 3-Glyoxalic acid
3. Glycol
4. Biodiesel

**Options :**

19088962773. 1

19088962774. 2

19088962775. 3

19088962776. 4

**Question Number : 100 Question Id : 19088915721 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

What is the SI unit of radioactivity?

1. Curie
2. Becquerel
3. Sieverts
4. REM

**Options :**

19088962777. 1

19088962778. 2

19088962779. 3

19088962780. 4

**Question Number : 101 Question Id : 19088915722 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Why is sulphanic acid added during the determination of chemical oxygen demand (COD)?

1. It maintains the acidic nature
2. It precipitates the mercury ions
3. It oxidises nitrites to nitrates
4. It reacts with ferrous ammonium sulphate

**Options :**

19088962781. 1

19088962782. 2

19088962783. 3

19088962784. 4

**Question Number : 102 Question Id : 19088915723 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which act covers radioactive waste management in our country?

1. Hazardous Waste (Management, Handling and Trans-boundary Movement)
2. Environment (Protection) Act, 1986
3. Atomic Energy Act, 1962
4. Biomedical Waste (Management & Handling) Rules 1998

**Options :**

19088962785. 1

19088962786. 2

19088962787. 3

19088962788. 4

**Question Number : 103 Question Id : 19088915724 Question Type : MCQ Option Shuffling : No  
Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Match the following agencies with their year of establishment

List I (Agency)	List II (Established)
A. Environmental Protection Agency	I. 1992
B. Earthwatch	II. 1972
C. Earthwalk	III. 1970
D. Earthscan	IV. 1976

Choose the *correct* answer from the option given below:

1. A - III, B - II, C - I, D - IV
2. A - IV, B - II, C - I, D - III
3. A - III, B - I, C - II, D - IV
4. A - IV, B - I, C - II, D - III

**Options :**

19088962789. 1

19088962790. 2

19088962791. 3

19088962792. 4

**Question Number : 104 Question Id : 19088915725 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which one is the most widely employed Solid Waste Management technology in India?

1. Microbial technology
2. Sanitary landfilling
3. Waste to energy
4. Recycling

**Options :**

19088962793. 1

19088962794. 2

19088962795. 3

19088962796. 4

**Question Number : 105 Question Id : 19088915726 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

What is the ideal C:N ratio for composting?

1. 25-30:1
2. 15-20:1
3. 35:1
4. 20:1

**Options :**

19088962797. 1

19088962798. 2

19088962799. 3

19088962800. 4

**Question Number : 106 Question Id : 19088915727 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**



Which is the best technology to treat the waste rich in organic matter?

1. Composting
2. Anaerobic bio-digestion
3. Pyrolysis
4. Incineration

**Options :**

19088962801. 1

19088962802. 2

19088962803. 3

19088962804. 4

**Question Number : 107 Question Id : 19088915728 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which of the following sequence is correct for the pyrolysis process of plastics?

1. Feedstock → cleaning/size reduction → Melt Feed → distillation → Pyrolysis → Products
2. Feedstock → Melt Feed → Pyrolysis → distillation → Products → cleaning/size reduction
3. Feedstock → cleaning/size reduction → Pyrolysis → Melt Feed → distillation → Products
4. Feedstock → cleaning/size reduction → Melt Feed → Pyrolysis → distillation → Products

**Options :**

19088962805. 1

19088962806. 2

19088962807. 3

19088962808. 4

**Question Number : 108 Question Id : 19088915729 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which of the following is the correct sequence of processes which take place in the integrated solid waste management system?

1. Generation-Source separation- facility separation-collection- Transfer and transport-Landfill
2. Generation-Source separation-collection- Transfer and transport -facility separation-Landfill
3. Generation-Source separation-collection-facility separation-Transfer and transport-Landfill
4. Generation-Source separation-collection- Landfill -facility separation-Transfer and transport

**Options :**

19088962809. 1

19088962810. 2

19088962811. 3

19088962812. 4

**Question Number : 109 Question Id : 19088915730 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which of the following are the solid residues obtained after incineration?

1. Slag, fly ash, APC (Air pollution control residue)
2. Klink, ash, BPC (Bottom product component)
3. Gas, slag, APC (Air pollution control residue)
4. Liquids, ash, slag

**Options :**

19088962813. 1

19088962814. 2

19088962815. 3

19088962816. 4

**Question Number : 110 Question Id : 19088915731 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which one is the correct sequence of processes during gasification of biomass?

1. Drying → Pyrolysis → Char gasification → Combustion
2. Drying → Combustion → Pyrolysis → Char gasification
3. Preheating → Pyrolysis → Combustion → Char gasification
4. Preheating → Char gasification → Combustion → Pyrolysis

**Options :**

19088962817. 1

19088962818. 2

19088962819. 3

19088962820. 4

**Question Number : 111 Question Id : 19088915732 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which thermochemical conversion process requires the highest pressure during operation?

1. Pyrolysis
2. Incineration
3. Gasification
4. Liquefaction

**Options :**

19088962821. 1

19088962822. 2

19088962823. 3

19088962824. 4

**Question Number : 112 Question Id : 19088915733 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

What is the efficiency of a silicon solar cell?

1. 1 - 5%
2. 10 - 15%
3. 25 - 35%
4. 50 - 60%

**Options :**

19088962825. 1

19088962826. 2

19088962827. 3

19088962828. 4

**Question Number : 113 Question Id : 19088915734 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Match the following act with the year in which enacted

<b>List I</b>	<b>List II</b>
<b>(Act)</b>	<b>(Year)</b>
A. National Environment Appellate Authority Act	I. 1972
B. National Environmental Tribunal Act	II. 1997
C. Indian Forest Act	III. 1995
D. Wildlife Protection Act	IV. 1927

Choose the **correct** answer from the options given below:

1. A - IV, B - II, C - I, D - III
2. A - IV, B - III, C - I, D - II
3. A - II, B - III, C - IV, D - I
4. A - III, B - II, C - IV, D - I

**Options :**

19088962829. 1

19088962830. 2

19088962831. 3

19088962832. 4

Question Number : 114 Question Id : 19088915735 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Which country constructed the first tidal electricity plant?

1. USA, 1968
2. Germany, 1967
3. China, 1968
4. France, 1966

Options :

19088962833. 1

19088962834. 2

19088962835. 3

19088962836. 4

Question Number : 115 Question Id : 19088915736 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Which of the following component is not present in the biogas?

A. Hydrogen sulfide

B. Water vapour

C. Siloxanes

D. Ammonia

Choose the *correct* answer from the option given below.

1. A, B and C only
2. A, C and D only
3. A and B only
4. A, B, C and D

Options :

19088962837. 1

19088962838. 2

19088962839. 3

19088962840. 4

**Question Number : 116 Question Id : 19088915737 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Where is the National Institute of Solar Energy (NISE) located?

1. Delhi
2. Rajasthan
3. Tamil Nadu
4. Haryana

**Options :**

19088962841. 1

19088962842. 2

19088962843. 3

19088962844. 4

**Question Number : 117 Question Id : 19088915738 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Karl Pearson's coefficient of skewness in chi-square distribution is expressed as-

1.  $(2n - 2)$
2.  $(n - 2)$
3.  $\frac{\sqrt{n}}{2}$
4.  $\sqrt{2/n}$

**Options :**

19088962845. 1

19088962846. 2

19088962847. 3

19088962848. 4

**Question Number : 118 Question Id : 19088915739 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which of the following statements about outliers is NOT true?

1. Outliers are values very different from the rest of the data
2. Influential cases will always show up as outliers
3. Outliers have an effect on the mean
4. Outliers have an effect on regression parameters

**Options :**

19088962849. 1

19088962850. 2

19088962851. 3

19088962852. 4

**Question Number : 119 Question Id : 19088915740 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

In the case of randomized complete block design (RBD), each treatment will occur only once in each

1. Experiment
2. Line
3. Block
4. Sample

**Options :**

19088962853. 1

19088962854. 2

19088962855. 3

19088962856. 4

**Question Number : 120 Question Id : 19088915741 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

In an RBD experimental design, if the number of treatments is 7 and replication is 4, then what will be the error degrees of freedom?

1. 20
2. 18
3. 9
4. 3

**Options :**

19088962857. 1

19088962858. 2

19088962859. 3

19088962860. 4