

PREVIEW QUESTION BANK

Module Name : PHYSICAL SCIENCE-ENG
Exam Date : 09-Jul-2023 Batch : 10:00-12:00

Sr. No.	Client Question ID	Question Body and Alternatives	Marks	Negative Marks
Objective Question				
1	501	<p>Water use efficiency in increasing order</p> <p>(A) Surface Irrigation</p> <p>(B) Sprinkler Irrigation</p> <p>(C) Drip Irrigation</p> <p>(D) Pitcher pot Irrigation</p> <p>Choose the <i>correct</i> answer from the options given below :</p> <p>1. (A), (B), (C), (D).</p> <p>2. (D), (C), (A), (B).</p> <p>3. (B), (A), (D), (C).</p> <p>4. (C), (B), (D), (A).</p> <p>A1 : 1</p> <p>A2 : 2</p> <p>A3 : 3</p> <p>A4 : 4</p>	4.0	1.00
Objective Question				
2	502		4.0	1.00

Match List-I with List-II

List-I (Nature of reaction)	List-II (Nature of the process)
(A) Reduction of iron in waterlogged soil	(I) Argillation
(B) Leaching of dispersed particles	(II) Podsolisation
(C) Intermixing of soil horizon	(III) Gleisation
(D) Eluviation of oxides of Fe, Al & Humus	(IV) Pedoturbation

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

- (A) - (I), (B) - (II), (C) - (III), (D) - (IV)
- (A) - (I), (B) - (IV), (C) - (III), (D) - (II)
- (A) - (I), (B) - (II), (C) - (IV), (D) - (III)
- (A) - (III), (B) - (IV), (C) - (II), (D) - (I)

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

3 503

4.0 1.00

Given below are two statements :

Statement (I) : Saline soil has the characteristics of $EC > 4$ ds/m, $ESP > 15$, and $pH < 8.5$

Statement (II) : Alkaline soils have the characteristics of $EC > 4$ ds/m, $ESP < 15$, and $pH > 8.5$

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

- Both **Statement (I)** and **Statement (II)** are true.
- Both **Statement (I)** and **Statement (II)** are false.
- Statement (I)** is true but **Statement (II)** is false.
- Statement (I)** is false but **Statement (II)** is true.

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

4	504	<p>What will be the soil texture if it contains 60% clay, 20% silt, and 20% sand particles ?</p> <ol style="list-style-type: none">1. Sandy clay2. Clayey3. Silty loam4. Loamy sand <p>A1 : 1</p> <p>A2 : 2</p> <p>A3 : 3</p> <p>A4 : 4</p>	4.0	1.00
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Objective Question

5	505	<p>The ionic product of water at ordinary temperature (25°C) is a constant value of :</p> <ol style="list-style-type: none">1. 10^{-4}2. 10^{-7}3. 10^{-8}4. 10^{-14} <p>A1 : 1</p> <p>A2 : 2</p> <p>A3 : 3</p> <p>A4 : 4</p>	4.0	1.00
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Objective Question

6	506		4.0	1.00
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Match **List-I** with **List-II**

List-I (Method)	List-II (Estimation)
(A) Kjeldahl method	(I) Estimation of Soil moisture
(B) Walkley & Black method	(II) Estimation of Sedimentation of soil particals
(C) Hydrometer method	(III) Estimation of Organic Carbon
(D) Gravimetric method	(IV) Estimation of Nitrogen

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

- (A) - (I), (B) - (II), (C) - (III), (D) - (IV)
- (A) - (IV), (B) - (I), (C) - (III), (D) - (II)
- (A) - (IV), (B) - (III), (C) - (II), (D) - (I)
- (A) - (III), (B) - (IV), (C) - (I), (D) - (II)

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

7 507

Identify the copper-containing minerals.

- Covellite
- Azurite
- Powellite
- Limonite

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

- Only (A) and (B)
- Only (B) and (C)
- Only (A) and (C)
- Only (B) and (D)

A1 : 1

4.0 1.00

A2 : 2

A3 : 3

A4 : 4

Objective Question

8

508

4.0

1.00

Given below are two statements, one is labeled as **Assertion (A)** and the other one is labeled as **Reason (R)**.

Assertion (A) : The organochlorine pesticides accumulate in the fatty tissues in the human body.

Reason (R) : Organochlorine pesticides are chemically unstable and hydrophobic.

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

1. Both **(A)** and **(R)** are correct and **(R)** is the correct explanation of **(A)**.
2. Both **(A)** and **(R)** are correct and **(R)** is not correct explanation of **(A)**.
3. **(A)** is correct but **(R)** is not correct.
4. **(A)** is not correct but **(R)** is correct.

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

9

509

4.0

1.00

Which of the following method likely to be used where the water supply is limited and the market value of the crop is high ?

1. Sprinkler irrigation
2. Drip irrigation
3. Furrow irrigation
4. Surface irrigation

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question				
10	510	<p>Plantation of high water - consuming for withdrawal of ground water is term as :</p> <ol style="list-style-type: none">1. Surface drainage2. Bio drainage3. Sub surface drainage4. Mole drainage <p>A1 : 1</p> <p>A2 : 2</p> <p>A3 : 3</p> <p>A4 : 4</p>	4.0	1.00

Objective Question				
11	511	<p>The word soil has been derived from.</p> <ol style="list-style-type: none">1. French2. Latin3. Greek4. Arabic <p>A1 : 1</p> <p>A2 : 2</p> <p>A3 : 3</p> <p>A4 : 4</p>	4.0	1.00

Objective Question				
12	512		4.0	1.00

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

List-I (Name of Scientist)	List-II (Discovered)
(A) James Wilson	(I) Nitrogen-fixing bacteria
(B) Winogradsky	(II) Host plant resistance
(C) R.H. Painter	(III) Hybrid wheat
(D) S.S. Bains	(IV) Relay cropping

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

- (A) - (I), (B) - (II), (C) - (III), (D) - (IV)
- (A) - (IV), (B) - (II), (C) - (III), (D) - (I)
- (A) - (III), (B) - (I), (C) - (II), (D) - (IV)
- (A) - (III), (B) - (IV), (C) - (I), (D) - (II)

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

13 513

4.0 1.00

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

List-I (Name of Author)	List-II (Name of Book)
(A) Rachel Carson	(I) Elements of Agricultural Chemistry
(B) Humphrey Davy	(II) Natures of plant
(C) Theophrastus	(III) Soil Genesis and classification
(D) S. Buol	(IV) Silent Spring

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

- (A) - (I), (B) - (II), (C) - (III), (D) - (IV)
- (A) - (IV), (B) - (I), (C) - (II), (D) - (III)
- (A) - (I), (B) - (II), (C) - (IV), (D) - (III)
- (A) - (III), (B) - (IV), (C) - (I), (D) - (II)

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

14	514	<p>The science that deals with soil genesis and classification is called as :</p> <ol style="list-style-type: none"> 1. Petrology 2. Pedology 3. Pedagology 4. Petrography <p>A1 : 1</p> <p>A2 : 2</p> <p>A3 : 3</p> <p>A4 : 4</p>	4.0	1.00
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Objective Question

15	515	<p>Diseases occurring due to Ca deficiency are</p> <ol style="list-style-type: none"> (A) Hollow heart in Groundnut (B) Frenching of Citrus (C) Pod popping in Groundnut (D) Pillowing of Cucumber <p>Choose the correct answer from the options given below :</p> <ol style="list-style-type: none"> 1. Only (A) and (B) 2. Only (B) and (C) 3. Only (A) and (D) 4. Only (C) and (D) <p>A1 : 1</p> <p>A2 : 2</p>	4.0	1.00
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A3 : 3

A4 : 4

Objective Question

16 516

4.0 1.00

Which are the fundamental soil-forming process ?

- (A) Eluviation
- (B) Illuviation
- (C) Laterization
- (D) Humification

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

17 517

4.0 1.00

Suppose roots, straw, and grains of a wheat crop produce dry matter of 2.5 t/ha, 6 t/ha, and 4 t/ha containing 0.2%, 0.5%, and 1.5% N, respectively. How much total N uptake by the above-ground portion ?

1. 30 kg/ha
2. 60 kg/ha
3. 90 kg/ha
4. 120 kg/ha

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

18 518

4.0 1.00

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

List-I	List-II
Instrument	Used for Measurement of
(A) Liquid Limit Device	(I) Wind speed
(B) Pycnometer	(II) Soil Plasticity
(C) Beaufort scale	(III) Depth of water table
(D) Piezometer	(IV) Specific Gravity of soil

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

- (A) - (I), (B) - (II), (C) - (III), (D) - (IV)
- (A) - (II), (B) - (IV), (C) - (I), (D) - (III)
- (A) - (I), (B) - (II), (C) - (IV), (D) - (III)
- (A) - (III), (B) - (IV), (C) - (I), (D) - (II)

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

19 519

4.0 1.00

Given below are two statements, one is labeled as **Assertion (A)** and the other one is labeled as **Reason (R)**.

Assertion (A) : *Bacillus megaterium* is an efficient P-solubilizing bacteria.

Reason (R) : *Bacillus megaterium* produces different organic acids for dissolution.

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

- Both (A) and (R) are true and (R) is the correct explanation of (A).
- Both (A) and (R) are true but (R) is NOT the correct explanation of (A).
- (A) is true but (R) is false.
- (A) is false but (R) is true.

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

20	520	<p>Given below are two statements, one is labeled as Assertion (A), and the other one is labeled as Reason (R).</p> <p>Assertion (A) : Humic acids are more resistant than fulvic acid.</p> <p>Reason (R) : Humic acids have low molecular weight and simple structure than fulvic acids.</p> <p>In light of the above statements, choose the <i>correct</i> answer from the options given below.</p> <ol style="list-style-type: none"> Both (A) and (R) are true and (R) is the correct explanation of (A). Both (A) and (R) are true but (R) is NOT the correct explanation of (A). (A) is true but (R) is false. (A) is false but (R) is true. 	4.0	1.00
	A1 : 1			
	A2 : 2			
	A3 : 3			
	A4 : 4			

Objective Question

21	521		4.0	1.00
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Which of the following theories are associated with humus formation ?

- (A) Polyphenol theory
- (B) Linin-protein theory
- (C) Chemiosmosis theory
- (D) Sugar-amine condensation theory

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

22 522

The Strategic Research Extension Plan (SREP) is related with

1. National Institute of Agriculture Extension Management (MANAGE).
2. Agriculture Technology Information Centre (ATIC).
3. Agriculture Technology Management Agency (ATMA).
4. National Bank for Agricultural & Rural Development (MABARD).

A1 : 1

A2 : 2

A3 : 3

A4 : 4

4.0 1.00

Objective Question

23 523

4.0 1.00

The characteristics of the Plinthite horizon are

- (A) It is rich in humus
- (B) It is rich in sesquioxide
- (C) Presence of yellowish or greyish mottles
- (D) Hardens reversibly due to repeated wetting and drying

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

1. (A) and (D) only.
2. (B) and (C) only.
3. (A) and (C) only
4. (A) and (B) only.

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

24 524

4.0 1.00

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

List-I	List-II
(Land Capability Classes)	(Colour)
(A) Class II	(I) Green
(B) Class IV	(II) Yellow
(C) Class III	(III) Brown
(D) Class I	(IV) Pink

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

25 525

4.0 1.00

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

List-I	List-II
(Soil Moisture Regime)	(Mean Annual Soil Temperature)
(A) MESIC	(I) 15° C to < 22° C
(B) THERMIC	(II) 8° C to < 15° C
(C) HYPERTHERMIC	(III) 28° C or more
(D) MEGHATHERMIC	(IV) 22° C to < 28° C

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

- (A) - (I), (B) - (II), (C) - (III), (D) - (IV)
- (A) - (IV), (B) - (II), (C) - (III), (D) - (I)
- (A) - (II), (B) - (I), (C) - (IV), (D) - (III)
- (A) - (III), (B) - (IV), (C) - (I), (D) - (II)

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

26 526

4.0 1.00

Given below are two statements, one is labeled as **Assertion (A)** and the other one is labeled as **Reason (R)**.

Assertion (A) : Universal Soil Loss Equation $A = RKLSCP$

Reason (R) : Universal soil loss equation determination for the reduction of soil erosion to tolerable limits necessitates the adoption of properly planned cropping practices and soil conservation measures.

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.

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

27 527

4.0 1.00

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

List-I	List-II
(A) Land use	(I) Cover crop
(B) C : N ratio	(II) Hilly areas
(C) Landslide	(III) Mineralization and immobilization
(D) Soil and water conservation	(IV) Soil capability classification

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

28 528

4.0 1.00

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

List-I	List-II
(Parameter)	(Unit)
(A) Relative Humidity	(I) Okta
(B) Temperature	(II) km/hr
(C) Wind Speed	(III) °C
(D) Cloud Cover	(IV) %

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

- (A) - (I), (B) - (II), (C) - (III), (D) - (IV)
- (A) - (IV), (B) - (III), (C) - (II), (D) - (I)
- (A) - (I), (B) - (II), (C) - (IV), (D) - (III)
- (A) - (III), (B) - (IV), (C) - (I), (D) - (II)

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

29 529

4.0 1.00

Given below are two statements, one is labeled as **Assertion (A)** and the other one is labeled as **Reason (R)**.

Assertion (A) : Water requirement for wheat crops varies from 300 to 600 mm.

Reason (R) : Water requirement varies depending on the soil type and rainfall and variety.

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

1. Both (A) and (R) are correct and (R) is the correct explanation of (A).
2. Both (A) and (R) are correct but (R) is NOT the correct explanation of (A).
3. (A) is correct but (R) is not correct.
4. (A) is not correct but (R) is correct.

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

30 530

(i) Very dark, cracking clay-dominated soils; (ii) locally called regur, karail, and bhal; (iii) high clay varying from 30-60%, base-rich; (iv) occur in Maharashtra, Madhya Pradesh., Gujarat, Rajasthan, Chhattisgarh and some parts of Karnataka and T.N. is called

- (A) Black Soils
- (B) Alluvial Soils
- (C) Red Soils
- (D) Laterite and Lateritic Soils

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

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

A1 : 1

4.0 1.00

A2 : 2

A3 : 3

A4 : 4

Objective Question

31 531

4.0 1.00

Objective of GIS

- (A) Maximizing the efficiency of planning and decision-making.
- (B) Providing efficient means for data distribution and handling.
- (C) Elimination of redundant database - minimize duplication.
- (D) Capacity to integrate information from many sources.

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

32 532

4.0 1.00

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

Assertion (A) : The notation of Munsell colour chart is 2.5YR5/6.

Reason (R) : Because hue is 2.5 YR, value is 5 and chroma is 6

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.

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

33 533 4.0 1.00

Soil Water Content increasing order

(A) field capacity

(B) Oven dry

(C) Hygroscopic

(D) Permanent wilting

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

1. (A), (B), (C), (D).

2. (B), (C), (D), (A).

3. (B), (A), (D), (C).

4. (C), (B), (D), (A).

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

34 534 4.0 1.00

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

List-I	List-II
(Institutes)	(Headquarts)
(A) I I S S	(I) Hyderabad
(B) I I H R	(II) Bangalore
(C) C R I D A	(III) Jodhpur
(D) C A Z R I	(IV) Bhopal

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

- (A) - (I), (B) - (III), (C) - (II), (D) - (IV)
- (A) - (IV), (B) - (II), (C) - (I), (D) - (III)
- (A) - (II), (B) - (I), (C) - (IV), (D) - (III)
- (A) - (III), (B) - (IV), (C) - (II), (D) - (I)

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

35 535

The characteristics of Imogolite are

- They are found in Andisol
- They have low bulk density and high plasticity
- They have a high Potassium fixation capacity
- They are paracrystalline in nature

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

- (A) and (B) only
- (B) and (C) only
- (A) and (C).only
- (A) and (D) only

A1 : 1

4.0 1.00

A2 : 2

A3 : 3

A4 : 4

Objective Question

36	536	<p>A soil 80 cm deep has a volume water content = 0.12. Find out the quantity of water that must be added to bring the volume water content to 0.30.</p> <ol style="list-style-type: none"> 1. 9.6 2. 24.0 3. 14.4 4. 18.4 <p>A1 : 1</p> <p>A2 : 2</p> <p>A3 : 3</p> <p>A4 : 4</p>	4.0	1.00
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Objective Question

37	537	<p>When structure of two soils is compared, it will be better in that soil whose cumulative mean weight diameter (CMWD) is :</p> <ol style="list-style-type: none"> 1. unity 2. zero 3. lower 4. higher <p>A1 : 1</p> <p>A2 : 2</p> <p>A3 : 3</p> <p>A4 : 4</p>	4.0	1.00
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Objective Question

38	538		4.0	1.00
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Unit of Mixing Ratio is

1. %
2. kg/m^3
3. kg/kg
4. m^3/m^3

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

39 539

4.0 1.00

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

List-I	List-II
(Soil parameters)	(Measurement)
(A) Bulk Density	(I) Cl^{36}
(B) Soil water content	(II) C^{13}
(C) Seepage	(III) H^2
(D) Soil salinity	(IV) Am – Be
(E) Soil aggregation	(V) Cs^{137}

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

40 540

What is the average life of a radioactive element whose half-life of 30 days ?

1. 60.03
2. 15.21
3. 20.79
4. 43.29

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

41 541

Which of the following is a representation of vector map ?

(a) Point, (b) Pixel, (c) Polygon

1. (a) only
2. (b) only
3. (a) and (b) only
4. (a) and (c) only

A1 : 1

A2 : 2

A3 : 3

A4 : 4

4.0 1.00

Objective Question

42 542

4.0 1.00

Match List-I with List-II

List-I	List-II
(Element)	(Electronic Configuration)
(A) Mg	(I) 2, 1
(B) Na	(II) 2, 8, 7
(C) Li	(III) 2, 8, 1
(D) Cl	(IV) 2, 8, 2

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

- (A) - (I), (B) - (II), (C) - (III), (D) - (IV)
- (A) - (I), (B) - (III), (C) - (IV), (D) - (II)
- (A) - (IV), (B) - (III), (C) - (I), (D) - (II)
- (A) - (III), (B) - (IV), (C) - (I), (D) - (II)

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

43 543

Water has Maximum density at temperature

- 273 ⁰K
- 277 ⁰K
- 289 ⁰K
- 298 ⁰K

A1 : 1

A2 : 2

A3 : 3

A4 : 4

4.0 1.00

Objective Question

44 544

Normalized Difference Vegetation Index to monitor crop health is determined from

1. Reflectance of red band
2. Reflectance of blue and red band
3. Reflectance of shortwave and red band
4. Reflectance of near-infrared and red band

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

45 545

Vertical movement of air and heat from earth surface to the atmosphere is

1. Convection
2. Conduction
3. Advection
4. Sublimation

A1 : 1

A2 : 2

A3 : 3

A4 : 4

4.0 1.00

Objective Question

46 546

Training dataset is used to identify desired features in remote sensed images in

1. Supervised classification method
2. Self-learning image analysis method
3. Classification using manually
4. Un-supervised classification method

A1 : 1

A2 : 2

A3 : 3

A4 : 4

4.0 1.00

Objective Question

47	547	<p>The equation governing flow of water in saturated soil is</p> <ol style="list-style-type: none">1. Poiseuille's equation2. Bernoulli equation3. Darcy's equation4. Navier-Stokes equation <p>A1 : 1</p> <p>A2 : 2</p> <p>A3 : 3</p> <p>A4 : 4</p>	4.0	1.00
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Objective Question

48	548	<p>The capillary rise in soil (h, cm) with average pore radius (r, cm) is related as</p> <ol style="list-style-type: none">1. $hr = 0.15$2. $hr = 1.5$3. $hr = 0.30$4. $hr = 3.0$ <p>A1 : 1</p> <p>A2 : 2</p> <p>A3 : 3</p> <p>A4 : 4</p>	4.0	1.00
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Objective Question

49	549	<p>The value of tortuosity in soil is</p> <ol style="list-style-type: none">1. 02. <13. >14. 1 <p>A1 : 1</p> <p>A2 : 2</p> <p>A3 : 3</p>	4.0	1.00
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A4 : 4

Objective Question

50 550

4.0 1.00

The term “Infiltrability” is coined by

1. Robert E. Horton
2. Daniel Hillel
3. J.R. Philip
4. Green, W. H., and G. A. Ampt

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

51 551

4.0 1.00

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

List-I	List-II
Physical parameter	Unit
(A) Surface tension	(I) Kilogram per cubic meter
(B) Viscosity	(II) Newton per meter
(C) Soil permeability	(III) Meter per hour
(D) Particle density	(IV) Pascal
(E) Soil water potential	(V) Pascal-second

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

52 552

4.0 1.00

The soil hydraulic head is expressed by

- (A) Potential energy per unit mass of soil water
- (B) Potential energy per unit volume of soil water
- (C) Potential energy per unit weight of soil water
- (D) Height of standing water on the soil surface

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

53 553

4.0 1.00

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

Assertion (A) : Soil clay has maximum influence on soil behavior.

Reason (R) : Clay has greater surface area per unit mass and is most physicochemical active.

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.

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

54 554

4.0 1.00

Arrange the following soil texture with decreasing field capacity water content.

(A) Sandy loam

(B) Sandy

(C) Silty loam

(D) Clay

(E) Clay loam

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

1. (A), (B), (C), (D), (E)

2. (A), (C), (D), (E), (B)

3. (B), (A), (C), (E), (D).

4. (D), (E), (C), (A), (B)

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

55 555

4.0 1.00

Given below are two statements :

Statement (I) : Alluvial soils are the largest group of soils in India.

Statement (II) : Alluvial soils are rich in nitrogen but deficient in potassium.

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.

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

56 556

4.0 1.00

Given below are two statements :

Statement (I) : At field capacity matric potential, the soil water content is higher when dry soil is getting wet.

Statement (II) : The drying of soil depends on the narrow radii of the connecting channels, whereas the wetting process depends on large pore diameters.

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

1. Both **Statement (I)** and **Statement (II)** are true.
2. Both **Statement (I)** and **Statement (II)** are false.
3. **Statement (I)** is true but **Statement (II)** is false.
4. **Statement (I)** is false but **Statement (II)** is true.

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question



57	557	<p>Microwave remote sensing is useful in monitoring</p> <p>(A) Soil moisture</p> <p>(B) Canopy structure</p> <p>(C) Snow cover</p> <p>(D) Moisture profiling in the atmosphere</p> <p>(E) Ocean circulation</p> <p>Choose the correct answer from the options given below :</p> <p>1. (A), (B) and (D) only.</p> <p>2. (B), (C) and (D) only.</p> <p>3. (A), (B), (C) and (D) only.</p> <p>4. (A), (B), (C) and (D) and (E).</p> <p>A1 : 1</p> <p>A2 : 2</p> <p>A3 : 3</p> <p>A4 : 4</p>	4.0	1.00
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Objective Question

58	558		4.0	1.00
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Match **List-I** with **List-II**

List-I	List-II
(Book etc.)	(Author, etc.)
(A) Soil Physics	(I) Sehgal
(B) A Text Book on Pedology	(II) Bahl and Bahl
(C) A Text Book on Organic Chemistry	(III) Chakraborty and Sahoo
(D) Fundamentals of Geographic Information System	(IV) Ghildyal and Tripathi

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

- (A) - (I), (B) - (II), (C) - (III), (D) - (IV)
- (A) - (IV), (B) - (I), (C) - (II), (D) - (III)
- (A) - (III), (B) - (II), (C) - (IV), (D) - (I)
- (A) - (I), (B) - (IV), (C) - (III), (D) - (II)

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

59 559

Arrange the following minerals in terms of increasing stability

- Biotite
- Quartz
- Hornblende
- Muscovite

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

- (A), (B), (C), (D).
- (B), (C), (A), (D).
- (C), (A), (B), (D).
- (C), (A), (D), (B).

A1 : 1

4.0 1.00

A2 : 2

A3 : 3

A4 : 4

Objective Question

60 560

4.0 1.00

Arrange the following atmospheric gases in terms of increasing global warming potential

(A) CH₄(B) N₂O(C) CO₂(D) SF₆

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

1. (C), (A), (B), (D).
2. (B), (A), (C), (D).
3. (A), (B), (D), (C).
4. (C), (B), (D), (A).

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

61 561

4.0 1.00

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

Assertion (A) : The sky is blue due to scattering of sunlight.

Reason (R) : The sky reflects the sea and ocean, which are blue.

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.

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

62 562

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

Assertion (A) : Raster data is obtained from satellite images, aerial cameras, and scanned maps.

Reason (R) : Georeferencing allows you to viewed, query, and analyze raster data with other geographic data.

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.

A1 : 1

A2 : 2

A3 : 3

A4 : 4

4.0 1.00

Objective Question

63	563	<p>Sequence the steps for georeferencing a map in QGIS</p> <p>(A) Select transformation type</p> <p>(B) Open the image to be georeferenced</p> <p>(C) Open the map that you want to georeference</p> <p>(D) Find ground control points</p> <p>Choose the correct answer from the options given below :</p> <p>1. (A), (B), (C), (D).</p> <p>2. (A), (C), (B), (D).</p> <p>3. (B), (A), (D), (C).</p> <p>4. (C), (B), (D), (A).</p> <p>A1 : 1</p> <p>A2 : 2</p> <p>A3 : 3</p> <p>A4 : 4</p>	4.0	1.00
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Objective Question

64	564	<p>Given below are two statements, one is labelled as Assertion (A) and other one labelled as Reason (R).</p> <p>Assertion (A) : Primary objective of summer ploughing is opening of the soil crust and turn the soil underneath</p> <p>Reason (R) : It facilitates to sow the crops immediately after onset of monsoon</p> <p>In light of the above statements, choose the correct answer from the options given below.</p> <p>1. Both (A) and (R) are true and (R) is the correct explanation of (A).</p> <p>2. Both (A) and (R) are true but (R) is NOT the correct explanation of (A).</p> <p>3. (A) is true but (R) is false.</p> <p>4. (A) is false but (R) is true.</p> <p>A1 : 1</p> <p>A2 : 2</p>	4.0	1.00
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A3 : 3

A4 : 4

Objective Question

65 565

4.0 1.00

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

Assertion (A) : Sentinel satellite mission is one of the European Space Agency's next-generation earth-observation missions.

Reason (R) : There are six Sentinel satellites which provide free data to the user.

In light of the above statements, choose the *most appropriate* 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 correct but **(R)** is not correct.
4. **(A)** is not correct but **(R)** is correct.

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

66 566

4.0 1.00

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

List-I	List-II
(Characteristic)	(Terminology)
(A) Si^{4+} is replaced by Al^{3+} ions	(I) Ionic double layer
(B) Attachment of Ca^{2+} on clay surface	(II) pH dependent charge
(C) Na^+ replacing other cations on clay surface	(III) Dispersion of clay
(D) H dissociated from hydroxyl ions on clay surface	(IV) Isomorphous substitution

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

- (A) - (I), (B) - (II), (C) - (IV), (D) - (III)
- (A) - (III), (B) - (IV), (C) - (I), (D) - (II)
- (A) - (I), (B) - (III), (C) - (IV), (D) - (II)
- (A) - (IV), (B) - (I), (C) - (III), (D) - (II)

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

67 567

4.0 1.00

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

Assertion (A) : Crop residue on soil surface in conservation tillage systems can decrease the rate of soil temperature change.

Reason (R) : Surface residue increases the reflection of incident solar radiation.

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

- Both (A) and (R) are correct and (R) is the correct explanation of (A).
- Both (A) and (R) are correct but (R) is NOT the correct explanation of (A).
- (A) is correct but (R) is not correct.
- (A) is not correct but (R) is correct.

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

68 568

4.0 1.00

Arrange the following space mission (earlier to most recent)

- (A) Radar Imaging Satellite-1
- (B) Chandrayan-2
- (C) Mars orbital mission
- (D) Indian National Satellite-1A

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

1. (A), (B), (C), (D).
2. (D), (C), (B), (A).
3. (B), (A), (D), (C).
4. (D), (A), (C), (B).

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

69 569

4.0 1.00

Order the following electromagnetic radiation in terms of their decreasing energy level

- (A) Infrared rays
- (B) Gamma rays
- (C) Visible rays
- (D) Radio waves

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

1. (A), (B), (C), (D).
2. (B), (C), (A), (D).
3. (B), (A), (D), (C).
4. (C), (B), (D), (A).

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

70 570

Remote sensing of vegetation characteristics is obtained by using

- (A) UV rays
- (B) Visible light
- (C) Microwave
- (D) Infrared rays

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

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

A1 : 1

A2 : 2

4.0 1.00

A3 : 3

A4 : 4

Objective Question

71	571	_____ is the determination of one or few constituents from the sample.	4.0	1.00
		1. Partial analysis		
		2. Completer analysis		
		3. Proximate		
		4. ultimate		
		A1 : 1		
		A2 : 2		
		A3 : 3		
		A4 : 4		

Objective Question

72	572	The pH range at which the desirable colour change occurs for a particular indicator is _____.	4.0	1.00
		1. pH		
		2. pF		
		3. Rh		
		4. pT		
		A1 : 1		
		A2 : 2		
		A3 : 3		
		A4 : 4		

Objective Question

73	573	Equivalent weight of a salt depends on _____.	4.0	1.00
		1. No. of equivalent weight of an acid that combine into salt		
		2. Basicity		
		3. Acidity		
		4. Weight of oxygen		

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

74 574

Error in measurement caused by factors which vary with measurements is _____.

1. Crude error
2. Reagent error
3. Random error
4. Operational error

A1 : 1

A2 : 2

A3 : 3

A4 : 4

4.0

1.00

Objective Question

75 575

Which of the following is true ?

1. Uptake of Mo by plant reduces with S application
2. Boron toxicity decreases with decreasing concentration of calcium
3. Iron plays a synergistic role in relation to zinc
4. High copper in soil cause dieback in citrus

A1 : 1

A2 : 2

A3 : 3

A4 : 4

4.0

1.00

Objective Question

76 576

4.0

1.00

Active absorption is governed by _____ theory.

1. Diffusion
2. Mass flow
3. Lecithin
4. Donnan equilibrium

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

77 577

Mass of sample in picogram method is _____ gram.

1. 1-10
2. $<10^{-12}$
3. 10^{-6} -0.001
4. 0.05-0.5g

A1 : 1

A2 : 2

A3 : 3

A4 : 4

4.0 1.00

Objective Question

78 578

4.0 1.00

Phosphorus is immobile in soil because

- (A) phosphate ions are held by anion exchange
- (B) Phosphate ions are held by ligand exchange
- (C) Phosphate ions are adsorbed as sparingly soluble phosphates of Fe/Al/Ca
- (D) Phosphate ions are leached as completely soluble phosphates of Fe/Al/Ca

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

79 579

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

Assertion (A) : Surface tension of water is very high (72.7 dynes/cm) compared to other liquids.

Reason (R) : High attraction of water molecules for each other is because of H bond.

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.

A1 : 1

A2 : 2

4.0 1.00

A3 : 3

A4 : 4

Objective Question

80 580

4.0 1.00

When the original value of N in urea is 46% and the estimated value is 45.5 %,then the relative error is _____%.

1. 0.5
2. 1.068
3. 0.005
4. 0.1068

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

81 581

4.0 1.00

Point out the mobile nutrients in soil

- (A) Cu^{2+} , NO_3^- , Fe^{2+} , H_3BO_3^-
- (B) NO_3^- , Cl^- , H_2PO_4^- , MoO_4^{2-}
- (C) NO_3^- , Cl^- , H_3BO_3^-
- (D) NO_3^- , Cl^- , H_3BO_3^- , NH_4^+

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4



Objective Question				
82	582	<p>Arrange the minerals based on the descending order of weatherability</p> <p>(A) Biotite>Augite>Garnet >Quartz</p> <p>(B) Zircon>Tourmaline>Olivine> Muscovite</p> <p>(C) Albite>Ilmenite>Hornblende>Olivine</p> <p>(D) Anorthite> apatite>Zircon>Titanite</p> <p>Choose the <i>correct</i> answer from the options given below :</p> <p>1. Only (A)</p> <p>2. (A) and (B)</p> <p>3. (A), (B) and (C)</p> <p>4. (A), (B), (C) and (D)</p> <p>A1 : 1</p> <p>A2 : 2</p> <p>A3 : 3</p> <p>A4 : 4</p>	4.0	1.00

Objective Question				
83	583	<p>Quantity of Na_2CO_3 required to prepare 500 ml of 0.1N Na_2CO_3 is _____.</p> <p>1. 2.65</p> <p>2. 0.265</p> <p>3. 26.5</p> <p>4. 0.00265</p> <p>A1 : 1</p> <p>A2 : 2</p> <p>A3 : 3</p> <p>A4 : 4</p>	4.0	1.00

Objective Question				
84	584		4.0	1.00

Estimating the colored complex with chelating agent is _____.

1. Precipitometry
2. Complexometry
3. Argentometry
4. Thiocyanometry

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

85 585

4.0 1.00

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

List-I (Theory proposed)	List-II (Author)
(A) Father of fertilizer Chemistry	(I) Jackson
(B) Nutrient index	(II) Stanley A Barber
(C) Root interception	(III) Liebig
(D) Weathering index	(IV) Parker

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

86 586

4.0 1.00

Arrange the soil particles in the ascending order of its diameter (mm)

- (A) silt
- (B) clay
- (C) fine sand
- (D) coarse sand

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

1. (B), (A), (C), (D).
2. (A), (C), (D), (B).
3. (C), (D), (A), (B).
4. (D), (A), (B), (C).

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

87 587

4.0 1.00

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

List-I	List-II
(Theory proposed)	(Author/formula)
(A) Textural triangle	(I) Sorenson
(B) Ideal gas	(II) Schofield
(C) pH	(III) Whitney
(D) pF	(IV) $PV=nRT$

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

88 588

4.0

1.00

Match List-I with List-II

List-I (Theory proposed)	List-II (Author)
(A) Contact exchange	(I) Bray
(B) Air capacity of soil	(II) Jenny and Overstreet
(C) Mobility of nutrients	(III) Mitscherlich
(D) Growth factor and yield	(IV) Khonke

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

- (A) - (II), (B) - (IV), (C) - (I), (D) - (III)
- (A) - (I), (B) - (II), (C) - (III), (D) - (IV)
- (A) - (IV), (B) - (III), (C) - (II), (D) - (I)
- (A) - (III), (B) - (IV), (C) - (I), (D) - (II)

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

89 589

4.0

1.00

Arrange the minerals in the order of decreasing weathering index

- (A) Kaolinite
- (B) Montmorillonite
- (C) Vermiculite
- (D) Mica

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

1. (A), (B), (C), (D)
2. (B), (C), (D), (A)
3. (C), (D), (A), (B)
4. (D), (A), (B), (C)

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

90 590

4.0 1.00

Given below are two statements :

Statement (I) : International pipette method is regarded as the standard method for particle size analysis due to its accuracy.

Statement (II) : The hydrometer method is rapid but less accurate.

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

1. Both **Statement (I)** and **Statement (II)** are true.
2. Both **Statement (I)** and **Statement (II)** are false.
3. **Statement (I)** is true but **Statement (II)** is false.
4. **Statement (I)** is false but **Statement (II)** is true.

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

91	591	<p>Arrange the soil in the decreasing order of soil wetness</p> <p>(A) Friable/firm</p> <p>(B) Very plastic</p> <p>(C) Hard</p> <p>(D) Indunated</p> <p>Choose the <i>correct</i> answer from the options given below :</p> <p>1. (A), (B), (C), (D).</p> <p>2. (B), (C), (D),(A)</p> <p>3. (B), (A), (C), (D).</p> <p>4. (C), (B), (D), (A).</p> <p>A1 : 1</p> <p>A2 : 2</p> <p>A3 : 3</p> <p>A4 : 4</p>	4.0	1.00
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Objective Question

92	592		4.0	1.00
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Match **List-I** with **List-II**

List-I	List-II
Soil type	Bulk density (Mg m^{-3})
(A) Peat	(I) 2.0
(B) Compact	(II) 1.1 to 1.4
(C) Fine textured	(III) 1.4 to 1.75
(D) Coarse textured	(IV) 0.5

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

- (A) - (IV), (B) - (I), (C) - (II), (D) - (III)
- (A) - (I), (B) - (II), (C) - (III), (D) - (IV)
- (A) - (II), (B) - (IV), (C) - (I), (D) - (III)
- (A) - (III), (B) - (IV), (C) - (I), (D) - (II)

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

93 593

4.0 1.00

Given below are two statements :

Statement (I) : Olivine is least stable.

Statement (II) : Has independent silica tetrahedron and held together by forming bonds with hydrolysable Magnesium or oxidisable Iron.

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

- Both **Statement (I)** and **Statement (II)** are correct.
- Both **Statement (I)** and **Statement (II)** are incorrect.
- Statement (I)** is correct but **Statement (II)** is incorrect.
- Statement (I)** is incorrect but **Statement (II)** is correct.

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

94 594

4.0 1.00

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

Assertion (A) : Mobility is the overall process where by nutrients reach the root surface and sorption into plant.

Reason (R) : Mobility involves the solution or exchange of nutrients and movement to root surface.

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.

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

95 595

4.0 1.00

Consider the following statements :

Characteristic feature of Minerals are.

- (A) Minerals have a definite chemical composition
- (B) Minerals are inorganic in nature
- (C) The atoms that make up minerals are not arranged in an orderly pattern
- (D) Minerals are the “Building Blocks” of rocks

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

96 596

When the benzene ring is a substitution in a molecule, it is known as :

- 1. Phenyl group
- 2. Phenol group
- 3. Imidazole group
- 4. Prosthetic group

A1 : 1

A2 : 2

A3 : 3

A4 : 4

4.0 1.00

Objective Question

97 597

4.0 1.00

What is the common formula for the alkanes ?

1. C_nH_{2n}
2. C_nH_{2n+2}
3. C_nH_{2n-2}
4. C_nH_n

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

98 598

What is the common name of Butan-1-ol ?

1. Methanol
2. n-Butyl alcohol
3. n-Butanol n-Butyl alcohol
4. Isobutyl alcohol

A1 : 1

A2 : 2

A3 : 3

A4 : 4

4.0 1.00

Objective Question

99 599

What type of covalent bonds link the amino acids in a protein ?

1. Peptide bonds
2. Hydrogen bonds
3. Glycosidic bonds
4. Ester bonds

A1 : 1

A2 : 2

A3 : 3

A4 : 4

4.0 1.00

Objective Question

100 600

4.0 1.00

Mutations are errors in DNA that :

1. Always harmful
2. Increase tumor growth
3. Occur spontaneously at a low rate
4. Only occur on the X chromosome

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

101 601

4.0 1.00

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

List-I	List-II
Column A	Column B
(A) n- hexadecanoic acid	(I) Watson and Crick
(B) Secondary amino group	(II) Proline
(C) Double helical DNA	(III) Palmitic acid
(D) Enantiomer	(IV) Optical isomer

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question



102	602	<p>Arrange the following carbohydrate molecules in the increasing molecular weights :</p> <p>(A) Starch</p> <p>(B) Sucrose</p> <p>(C) Glucose</p> <p>(D) Amylopectin</p> <p>Choose the correct answer from the options given below :</p> <p>1. (A), (B), (C), (D)</p> <p>2. (B), (A), (C), (D)</p> <p>3. (B), (A), (D), (C)</p> <p>4. (A), (D), (C), (B)</p> <p>A1 : 1</p> <p>A2 : 2</p> <p>A3 : 3</p> <p>A4 : 4</p>	4.0	1.00
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Objective Question

103	603	<p>Arrange the following amino acids on the basis of increasing side chain size</p> <p>(A) Alanine</p> <p>(B) Glycine</p> <p>(C) Isoleucine</p> <p>(D) Leucine</p> <p>Choose the correct answer from the options given below :</p> <p>1. (A), (B), (C), (D).</p> <p>2. (B), (D), (A), (C).</p> <p>3. (B), (A), (D), (C).</p> <p>4. (A), (D), (C), (B).</p> <p>A1 : 1</p> <p>A2 : 2</p>	4.0	1.00
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A3 : 3

A4 : 4

Objective Question

104 604

Photochemical smog formation in urban areas is mainly due to the presence in the atmosphere of.

1. Ozone, PAN, and Nitrogen dioxide.
2. Fog and Smoke.
3. Particulates and fog.
4. Winter climate and high humidity

A1 : 1

A2 : 2

A3 : 3

A4 : 4

4.0

1.00

Objective Question

105 605

Under which law the industries likely to cause environmental pollution should be examined by

1. The Factories Act,1948
2. The Water Act 1974.
3. The Environment Protection Act 1986
4. The Air Act 1981

A1 : 1

A2 : 2

A3 : 3

A4 : 4

4.0

1.00

Objective Question

106 606

Riparian Erosion occurs at

1. Clear cut forest land
2. Harvested croplands
3. Banks of streams
4. Places having excessive grazin

4.0

1.00

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

107 607

The Environment Protection Act was enacted in India in the year

1. 1988
2. 1987
3. 1989
4. 1986

A1 : 1

A2 : 2

A3 : 3

A4 : 4

4.0 1.00

Objective Question

108 608

The process of self purification process of polluted waters can be noted by the

1. Physical changes
2. Chemical changes
3. Biological changes
4. Physical, chemical and biological changes.

A1 : 1

A2 : 2

A3 : 3

A4 : 4

4.0 1.00

Objective Question

109 609

4.0 1.00

Which of the following is an amino acid

1. Cysteine
2. Histidine
3. Proline
4. Glycine

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

110 610

Which of the following statement is incorrect :

1. Amylose is water soluble fraction of starch
2. Amylopectin is water-insoluble fraction of starch
3. α - D Glucose units are present in amylose and amylopectin.
4. Amylose is water-insoluble fraction of starch

A1 : 1

A2 : 2

A3 : 3

A4 : 4

4.0 1.00

Objective Question

111 611

In plants, the photoassimilates are translocated as

1. Sucrose
2. Sorbitol
3. Stachyose
4. Sucrose, Sorbitol and Stachyose

A1 : 1

A2 : 2

A3 : 3

4.0 1.00

A4 : 4

Objective Question

112 612

4.0 1.00

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

List-I	List-II
(Column A)	(Columns B)
(A) DNA is found at the end of the linear eukaryotic chromosome	(I) Centromere
(B) Protein structure on eukaryotic chromosomes where spindle fiber attaches	(II) Telomere
(C) DNA site where kinetochores are found	(III) Nucleolar organizer
(D) DNA sequence that serves as the template for synthesis and amplification	(IV) Kinetochore

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

- (A) - (I), (B) - (II), (C) - (III), (D) - (IV)
- (A) - (II), (B) - (IV), (C) - (I), (D) - (III)
- (A) - (I), (B) - (II), (C) - (IV), (D) - (III)
- (A) - (III), (B) - (IV), (C) - (I), (D) - (II)

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

113 613

4.0 1.00

- (A) Enzymes enhance reaction rate by a factor of 2 to 10.
- (B) Activation energy of a reaction is lowered by enzymes.
- (C) Interactions between enzymes and substrates are hydrogen, ionic and hydrophobic bonds.
- (D) Substrate concentration does not affect the rate of enzyme-catalyzed reactions.

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

1. (A) and (B) only.
2. (B) and (C) only.
3. (A) and (C) only.
4. (A) and (D) only

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

114 614

4.0 1.00

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

List-I	List-II
(Mineral Element)	(Function)
(A) Molybdenum	(I) Water Oxidation
(B) Manganese	(II) Chlorophyll Structure
(C) Magnesium	(III) Nitrogen fixation
(D) Zinc	(IV) Auxin Synthesis

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

115 615

4.0

1.00

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

List-I	List-II
(Discover)	(Scientist)
(A) Nutrient essentiality criteria	(I) Y.L. Nene
(B) Stages of cell	(II) Arnon and Stout
(C) Cell	(III) Robert Hooke
(D) Khaira disease	(IV) Walther Fleming

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

- (A) - (I), (B) - (II), (C) - (III), (D) - (IV)
- (A) - (I), (B) - (II), (C) - (III), (D) - (IV)
- (A) - (I), (B) - (II), (C) - (IV), (D) - (III)
- (A) - (II), (B) - (IV), (C) - (III), (D) - (I)

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

116 616

4.0

1.00

Which of the following group of compounds is produced by *Streptomyces hygroscopicus* ?

- Tetranactin
- Avermectins
- Strobilurins
- Milbemycin

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

117 617

4.0

1.00

Which of the following is not insecticide synergist ?

1. Dillapiole
2. Sesamol
3. Nimbinol
4. PBO

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

118 618

4.0

1.00

Given below are two statements :

Statement (I) : Black gram as a cover crop reduces surface runoff and soil loss during rainy seasons.

Statement (II) : Black gram as a live mulch crop reduces surface runoff and soil loss during rainy seasons.

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.

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

119 619

4.0

1.00

The following is the list of pesticides

- (A) B.H.C.
- (B) D.D.T
- (C) NaCN
- (D) Heptachlor
- (E) Carbendazim

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

1. (A) to (E) Pesticide are banned for use in India
2. Only (E) is banned for use in India
3. (A) to (E) are not banned for use in India
4. (A) to (D) are banned for use in India except (E)

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

120 620

4.0 1.00

Given below are Four statements :

Statement (I) : Bromadiolone is used as a rodenticide.

Statement (II) : Atrazine is a herbicide.

Statement (III) : Carbamate group of pesticides was related to the Bhopal gas incident.

Statement (IV) : Rotenone a, natural compound is used as an insecticide and herbicide.

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

1. **Statements (I) and (II) and Statements (III) and (IV)** are true.
2. **Statements (I) and (II) and Statements (III) and (IV)** are false.
3. **Statement (I)** is true but **Statement (II)** is false.
4. **Statement (III)** is false but **Statement (IV)** is true.

A1 : 1

A2 : 2

A3 : 3

A4 : 4