PREVIEW QUESTION BANK

Module Name : PHYSICAL SCIENCE-ENG
Exam Date : 14-Jul-2023 Batch : 10:00-12:00

Sr. No.	Client Question ID	Question Body and Alternatives	Marks	Negative Marks
Objective Question				
1	401	Water use efficiency in decreasing order (A). Pitcher Irrigation (B). Drip Irrigation (C). Sprinkler Irrigation (D). Surface Irrigation Choose the **correct** answer from the options given below: 1. (A), (B), (C), (D). 2. (D), (C), (A), (B). 3. (B), (A), (D), (C). 4. (C), (B), (D), (A). A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
2	402	Match **List-I** with **List-II** **List-I (Function)** / **List-II (Nutrient elements)** (A).Nitrogenase & nitrogen reductase enzymes / (I). Phosphorus (B). Component of urease enzymes / (II). Magnesium (C). Energy transfer / (III). Molybdenum (D). Constituent of Chlorophyll / (IV). Nickel 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	4.0	1.00

		A3 : 3 A4 : 4		
Objective Question				
3	403	Given below are two statements: Statement (I): Humus is the amorphous material derived from the decomposition of organic matter. Statement (II): Allophane is a crystallite mineral developed from volcanoes 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	4.0	1.00
Objective Question				
4	404	Which of the nutrient element is luxury consumption? 1. Nitrogen 2. Potassium 3. Calcium 4. Sulphur A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
5	405	The pH of acid sulfate soils. 1. Less than 5.0 2. 5.0 - 6.0 3. 6.0 - 7.0 4. Geater than 7.0 A1 : 1	4.0	1.00

A2 : 2

A3 : 3

A4 : 4

Objective Question

6 406

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

List-I (Method)	**List-II (Estimation / Determination)**
(A).Gravimetric method	(I). Estimation of Nitrogen
(B).Hydrometer method	(II).Estimation of Organic Carbon
(C). Walkley & Black method	(III). Estimation of Soil Texture
(D). Kjeldahl method	(IV). Estimation of Soil moisture

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

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

4.0 1.00

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

7 407

Identify the Manganese containing minerals
(A). Pyrolusite

(B). Malachite

(C). Manganite

(D). Goethite

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

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

4.0 1.00

A1 : 1

A2 : 2

		A3 : 3 A4 : 4		
Objective Question				
8	408	Given below are two statements, one is labeled as Assertion (A), and the other one is labeled as Reason (R). Assertion (A): The molality of a solution in a liquid state changes with temperature. Reason (R): The volume of a solution changes with a change in temperature. 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 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	4.0	1.00
Objective Question				
9	409	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. Surface irrigation 2. Sprinkler irrigation 3. Drip irrigation 4. Pitcher irrigation A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
10	410	World soil day is celebrated every year on : 1. 5^{th} october 2. 5^{th} November 3. 5^{th} December 4. 5^{th} January A1 : 1	4.0	1.00

A2 : 2

A3 : 3

A4 : 4

Objective Question

11 411 4.0 1.00

The DAPOG method of raising rice nurseries was introduced in India from:

1. Philippians
2. Taiwan
3. Japan
4. China

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

12 412 4.0 1.00

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

List-I (Name of Founder)	**List-II (Related Subject)**
(A). D. N . Walia	(I). Nanotechnology
(B). Richard Feynman	(II). Soil Biology
(C). Mason Vaugh	(III). Agricultural Engineering
(D). J. B. Boussingault	(IV). Agrometeorology

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

13 413 4.0 1.00

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

List-I (Name of Author)	**List-II (Name of Book)**
(A). M. Fukuoka	(I). Clay Mineralogy
(B). R. E. Grim	(II). Soil Fertility and Fertilizer
(C). Theophrastus	(III). The One Straw Revolution
(D). S. L. Tisdale	(IV). Enquiry into plants

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

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

14	414	Which of the following is an example of an edible oil cake for feeding cattle? 1. Castor 2. Mahua 3. Neem 4. Mustard A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00

Objective Question

15	415		4.0	1.00

In highly acidic pH, the following nutrients are available in toxic amounts in soil:

(A). Fe

(B). Mg

(C). Mo

(D). Mn

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

16	416	A water column of 10 m in height represents the atmospheric pressure of : (A). 100 kPa (B). 100 dyne/cm^2 (C). 1 bar (D). 0.9 atm 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	4.0	1.00

Objective Question

17	417		4.0	1.00

Which of the following purposes N - serve is used?

1. Phosphate solubility
2. Nitrification inhibitor
3. Chelating agent
4. Urease inhibiter

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

18 418 4.0 1.00

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

List-I	**List-II**
Instrument	**Used for Measurement of**
(A). Lysimeter	(I). Water holding capacity
(B). Keen's Box	(II). Relative humidity
(C). Hygrometer	(III). Direct solar radiation
(D). Pyrheliometer	(IV). Matric potential

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

19 419 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): Within the same mineralogical composition, soils containing higher humus showed higher CEC. Reason (R): Humic substances have different types of negatively charged functional groups with huge numbers. 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				
20	420	Which of the following Scientist are associated with the development of humus? (A). Kononova (B). Waksman (C). Stevenson (D). Beijerinck Choose the ***correct*** answer from the options given below: 1. (A), (B) and (C) only. 2. (A), (B) and (D) only. 3. (A), (C) and (D) only 4. (B), (C) and (D) only. A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
21	421		4.0	1.00

		During the mineralization of the organic P compound, microorganisms cleave the compound by the production the enzymes. (A). ATP sulfurylase (B). Phosphatase (C). Phytase (D). Nitrogenase Choose the ***correct*** answer from the options given below: 1. (A) and (D) only. 2. (B) and (D) only. 3. (B) and (C) only. 4. (C) and (D) only. A1 : 1 A2 : 2 A3 : 3 A4 : 4		
Objective Question				
22	422	Which of the following programme was introduced to bridge the gap between Research System and the Extension System Programme 1. Rastryya Krishi Vikas Yajana (RKVY). 2. National Agricultural Extension Project (NAEP). 3. Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA). 4. Institutional Village Linkage Programme (IVLP). A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
23	423		4.0	1.00

Prismatic soil structure is found in:

(A). Subsurface of arid and semi-arid soils

(B). Grassland Soil

(C). Poorly drained soil

(D). Soils with swelling clay

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).
4. (A), (B) and (D) only.

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

24 424 4.0 1.00

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

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

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

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

25 425 4.0 1.00

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

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

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

26	426	Given below are two statements, one is labeled as Assertion (A), and the other one is labeled as Reason (R). Assertion (A): Wind Erosion Equation E = f (ICKLV) Reason (R): Wind erosion 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	4.0	1.00

Objective Question

27	427		4.0	1.00

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

List-I	**List-II**
Column-A	**Column-B**
(A). Soil conservation	(I). Soil capability classification
(B). Landslides	(II). Mineralization & immobilization
(C). C: N ratio	(III). Hilly areas
(D). Land use	(IV). Strip cropping

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

28 428

4.0 1.00

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

List-I	**List-II**
(Parameter)	**(Unit)**
(A). Cloud Cover	(I). %
(B). Soil Temperature	(II). Km/hr
(C). Wind Speed	(III). ^{O}C
(D). Relative Humidity	(IV). Okta

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

1. (A) - (I), (B) - (II), (C) - (III), (D) - (IV)
2. (A) - (IV), (B) - (III), (C) - (II), (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				
29	429	Given below are two statements, one is labeled as Assertion (A), and the other one is labeled as Reason (R). Assertion (A): The water requirement of Rice varies from 100 to 200 cm. Reason (R): Water requirement varies due to 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	4.0	1.00
Objective Question				
30	430	(i) Formed by the lateralization process ; (ii). Acidic (<6.0), with low CEC (iii). Deficient in almost all nutrients but can be managed well (iv). Occur in about 18 million ha in the southern states, Western Ghats of Maharashtra, Orissa, some part of West Bengal and north-east regions.....is called (A). Alluvial Soils (B). Black Soils (C). Desert Soils (D). Laterite and Lateritic Soils Choose the ***correct*** answer from the options given below: 1. (D) only. 2. (A) and (B) only. 3. (B) and (C) only 4. (B) only. A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
31	431		4.0	1.00

Applications of Geoinformation in Soil Resource Studies
(A). Soil Survey.

(B). Development of Land Evaluation Methods.

(C). Spectra Reflectance Studies.

(D). Soil Resource Mapping and Precision Farming.

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	432	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 Chat is 2.5YR5/6 Reason (R) 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	4.0	1.00

Objective Question

33	433		4.0	1.00

Soil moisture content decreases the order
(A). Permanent willting

(B). Hygroscopic

(C). Field Capacity

(D). Oven dry

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

34 434 4.0 1.00

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

List-I	**List-II**
(Institutes)	**(Headquarter)**
(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:

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

35 435 4.0 1.00

The characteristics of Palygorskite mineral are..

(A). They are found in Humid regions

(B). They have fibrous morphology

(C). They are Amphibole double silica chain

(D). They form double ribbed sheet with two rows of tetrahedral apexes

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

36 436 4.0 1.00

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

List-I	**List-II**
(Database model)	**(Component)**
(A) Relational	(I) One-to-Many relationship
(B) Object Oriented	(II) Child and parent tables
(C) Network	(III) Foreign key
(D) Hierarchical	(IV) Attribute and Class

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

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

37 437 4.0 1.00

		The steady-state soil infiltration rate is: 1. Soil surface controlled 2. Water supply controlled 3. Soil Profile controlled 4. Groundwater controlled A1 : 1 A2 : 2 A3 : 3 A4 : 4		
Objective Question				
38	438	Saturated hydraulic conductivity *in situ* is measured by: 1. Guelph permeameter 2. Infiltrometer 3. Neutron probe 4. Piezometer A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
39	439	The process by which neutrons lose their kinetic energy through elastic collisions in the soil is known as: 1. Normalization 2. Cooling 3. Radiation 4. Thermalization A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
40	440		4.0	1.00

		The pF curve is same as: 1. Moisture-density relation 2. Soil temperature-water content relation 3. Soil pH-base saturation relation 4. Soil water content-matric potential relation A1 : 1 A2 : 2 A3 : 3 A4 : 4		
Objective Question				
41	441	The CO_2 around plant roots in the soil is exchanged with the atmosphere through the process known as: 1. Diffusion 2. Mass flow 3. Respiration 4. Oxidation A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
42	442	In International Union of Soil Science classification system, fine sand has a size range of: 1. 0.2-2.0 mm 2. 0.02-0.2 mm 3. 0.002-0.02 mm 4. <0.002 mm A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
43	443		4.0	1.00

What is the porosity of a soil which has a bulk density of 1.33 Mg m^{-3} [Pick the closest value]

1. 0.49 m^3 m^{-3}
2. 0.53 m^3 m^{-3}
3. 0.47 m^3 m^{-3}
4. 0.55 m^3 m^{-3}

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

44	444	Original design of tensiometer was first proposed by 1. Willard Gardner 2. L. A. Richards 3. B. E. Livingston 4. Henry Darcy A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00

Objective Question

45	445	Gypsum, carbonates, micas, and feldspars are primarily located in: (A) Arid and Temperate regions (B) Temperate and Humid regions (C) Arid and Semi-arid regions (D) Humid and Sub-humid regions Choose the ***correct*** answer from the options given below: 1. (A), (B) and (D) only. 2. (A) and (C) only. 3. (D) only. 4. (C) only. A1 : 1 A2 : 2 A3 : 3	4.0	1.00

		A4 : 4		
Objective Question				
46	446	Which of the following microflora is most abundant in soil? 1. Bacteria 2. Fungi 3. Viruses 4. Nematodes A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
47	447	Given below are two statements: Statement (I): Soil Oxygen Diffusion Rate measurement is based on Fick's law Statement (II): The diffusion coefficient of O_2 is higher than CO_2 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	4.0	1.00
Objective Question				
48	448	Which of the following Atomic Absorption Spectrometers is used for determination of mercury? 1. Graphite furnace atomic absorption 2. Cold vapour atomic absorption 3. Hydride generation atomic absorption 4. Flame atomic absorption A1 : 1 A2 : 2	4.0	1.00

		A3 : 3 A4 : 4		
Objective Question				
49	449	According to Mohr and van Baren, arrange the following five stages of soil development (A) Juvenile Stage (B) Senile (C) Un-weathered parent material stage (D) Virile Choose the **correct** answer from the options given below: 1. (A), (B), (C), (D). 2. (C), (A), (D), (B). 3. (B), (A), (D), (C). 4. (C), (B), (D), (A). A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
50	450	The following statements relate to Kaolinite clay: (A) Kaolinite is formed by the decomposition of orthoclase feldspar (B) It does not expand when it comes in contact with water (C) The kaolinite clays are 2:1 phyllosilicates (D) Kaolinite clays have a fine texture 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 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
51	451		4.0	1.00

		Given below are two statements, one is labelled as Assertion (A) and other one labelled as Reason (R). Assertion (A) : Kaolinite is the most preferred clay for the ceramic industry Reason (R) : Kaolinite does not absorb water and expand 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				
52	452	Given below are two statements, one is labelled as Assertion (A) and other one labelled as Reason (R). Assertion (A) : Salt-affected soils in India are a threat to national food security and economic development Reason (R) : Arid and semi-arid regions with high evaporation rates and with limited freshwater availability to flush out the excess salts from the soil, favoring the formation of saline soils 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	4.0	1.00
Objective Question				
53	453		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:

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

54 454

Arrange the following clay minerals in terms of their increasing activity (measured through cation exchange capacity)
(A) Kaolinite

(B) Vermiculite

(C) Gibbsite

(D) Illite

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

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

4.0 1.00

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

55 455

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 temperature oscillations over a year penetrate deeper in the soil than over a day.

Reason (R) : Damping depth is proportional to angular frequency or period of oscillations.

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

56 456 4.0 1.00

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

List-I	**List-II**
(Field of application)	**(Name of Theory/Law)**
(A) Astrophysics	(I) Pascal's law
(B) Quantum mechanics	(II) Big bang theory
(C) Optics	(III) Beer-Lambert's law
(D) Fluid statics	(IV) Transformation theory

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

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

57 457 4.0 1.00

		Following are some famous space missions. Arrange them in chronology (A) International Space Station, NASA (B) NASA-ISRO Synthetic Aperture Radar (NISAR) (C) Sentinel, ESA (D) Robotic spacecraft Hayabusa, JAXA Choose the **correct** answer from the options given below: 1. (A), (B), (C), (D). 2. (A), (D), (C), (B). 3. (B), (A), (D), (C). 4. (C), (B), (D), (A). A1 : 1 A2 : 2 A3 : 3 A4 : 4		
Objective Question				
58	458	Given below are two statements: Statement (I): Nitrogen is lost from waterlogged soils only by leaching Statement (II): Waterlogged soils may develop iron toxicity to plants 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	4.0	1.00
Objective Question				
59	459		4.0	1.00

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

List-I	**List-II**
(Agricultural input/commodity)	**(Largest producing country)**
(A) Corn	(I) China
(B) Nitrogen fertilizers	(II) Canada
(C) Milk	(III) USA
(D) Potash fertilizers	(IV) India

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

60 460 4.0 1.00

Atomic spectrum is an example of

1. Line spctra
2. Continuous spectra
3. Line and continuos spectra-both
4. Band spectra

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

61 461 4.0 1.00

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

List-I	**List-II**
(Isotopes and Radiation)	**(Use in Agriculture)**
(A) Phosphorus-32	(I) Mutation breeding
(B) Cobalt-60	(II) Photosynthesis
(C) Cesium-137	(III) Food preservation
(D) Carbon-14	(IV) Plant's fertilizer uptake

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

62 462

Arrange with the increasing level of energy required for disruption of soil aggregates:

(A) Ultrasonic dispersion

(B) Gently shaking in water

(C) Dry sieving

(D) Oxidation of organic matter

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

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

4.0 1.00

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

63 463

4.0 1.00

		The following are statements on fertilizer N use efficiency of crops. Which statement or the combinations are true? (A) Partial factor productivity does not account for soil N-supply (B) Agronomic efficiency requires data on soil N supply (C) For soil N supply, the N-balance index is useful (D) Soil N supply does not vary across soil types 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 A3 : 3 A4 : 4		
Objective Question				
64	464	The horizons of the soil profile are given below. Arrange the stages in chronological order. (A) A1-A2-Bt-C-Bt-C (B) A1-A2-Bhir-Bir-C (C) A-B-C (D) Ap-Bhir-Bir-C Choose the **correct** answer from the options given below: 1. (A), (B), (C), (D). 2. (C), (A), (B), (D). 3. (B), (A), (D), (C). 4. (C), (B), (D), (A). A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
65	465		4.0	1.00

The total N contents in livestock manures are given below. Arrange in decreasing order:

(A) Dairy (solid)

(B) Swine (liquid)

(C) Poultry (solid)

(D) Dairy (liquid)

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

66	466	The most abundant soil microorganism is: 1. Bacteria 2. Nematodes 3. Fungi 4. Earthworm A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00

Objective Question

67	467	Soil water matric potential for a wide range of soil wetness can be measured by 1. Resistance blocks 2. Tensiometer 3. Time domain reflectometer 4. Pressure plate/membrane apparatus A1 : 1 A2 : 2 A3 : 3	4.0	1.00

		A4 : 4		
Objective Question				
68	468	Given below are two statements, one is labelled as Assertion (A) and other one labelled as Reason (R). Assertion (A) : Tillage cause sub-surface soil compaction Reason (R) : Splashed soil particles clog soil pores 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	4.0	1.00
Objective Question				
69	469	Given below are two statements, one is labelled as Assertion (A) and other one labelled as Reason (R). Assertion (A) : Gully erosion occurs when water is channeled across unprotected land and washes away the soil along the drainage lines Reason (R) : Devoid of vegetation, inappropriate land use, and compaction of the soil caused by grazing cause gully erosion 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	4.0	1.00
Objective Question				
70	470		4.0	1.00

		Given below are two statements, one is labelled as Assertion (A) and other one labelled as Reason (R). Assertion (A) : Carbon mineralization is tightly coupled to the release of minerals N, P, and S Reason (R) : It is driven by microbial requirements for C and nutrients for their maintenance, growth, and the production of extracellular metabolites including enzymes 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				
71	471	----------established the essentiality of Vanadium in microorganisms. 1. Broyer 1954 2. McCargue 1954 3. Nicholas 1961 4. Thomas & Way 1907 A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
72	472	Compounds having common ion but different solubility constants can be separated by ------ 1. Post precipitation 2. Surface attraction 3. Fractional precipitation 4. Inclusion A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00

Objective Question				
73	473	Number of replaceable hydroxyl groups in one molecule of a base is ------ 1. Basicity 2. Acidity 3. Reduction 4. Oxidation A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
74	474	One l of 1 M H_2SO_4 contains ----g of H_2SO_4 1. 98 2. 9.8 3. 49 4. 4.9 A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
75	475	Which of the following is **not correctly** matched component with its function? (A).Bulk density - Stickiness and Plasticity (B).Cohesion -- Attraction of water molecules for each other (C).Water – Photosynthesis (D).Consistency - Stickiness and Plasticity 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				
76	476	Non-ferromanesian group of minerals are ---- 1. Inoslilcates 2. Phyllosilicates 3. Tectosilsicates 4. Cyclosilicates A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
77	477	Given below are two statements: Statement (I):The occurrence of two or more patches of colours in soil is called 'mottling'. Statement (II):The mottled colour is due to residual products of reduction & oxidation of Fe and Mn compounds 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	4.0	1.00
Objective Question				
78	478		4.0	1.00

		The moisture content at which soil ceases to be plastic, becomes semi-fluid and tends to flow like a liquid (A). Plastic limit (B). Plasticity number (C). Liquid limit (D).Shrinkage limit 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. (B), (C) and (D) only. A1 : 1 A2 : 2 A3 : 3 A4 : 4		
Objective Question				
79	479	Elements which readily form metallic bonds is---------- 1. Siderophile 2. lithophile 3. Atmosphile 4. Biophile A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
80	480	Difference between true value and observed value is ----- 1. Accuracy 2. Precision 3. Error 4. Endpoint A1 : 1 A2 : 2 A3 : 3	4.0	1.00

		A4 : 4		
Objective Question				
81	481	When the original value of N in urea is 46%,the estimated value is 45.5 %, then the absolute error is ----- 1. 0.5 2. 1.06 3. 0.05 4. 0.106 A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
82	482	The stability sequence of divalent cations in the formation of chelates is: (A). Cu^{2+} (B). Ni^{2+} (C).Co^{2+} (D). Zn^{2+} Choose the **correct** answer from the options given below: 1. (A), (B), (C), (D). 2. (A), (C), (D),(B) 3. (B), (A), (D), (C). 4. (C), (B), (D), (A). A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
83	483	Relationship between plant growth response and addition of growth factor was given by ------ 1. Baule 2. Mitscherlich 3. Bray 4. Liebig	4.0	1.00

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

84 484 4.0 1.00

Arrange the liming materials based on their decreasing neutralizing value of CCE(%)
(A).Dolomite

(B).Basic slag

(C). Calcite

(D).Calcium oxide

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

85 485 4.0 1.00

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

List-I	**List-II**
Essentaitliy of Nutrients	**Authors**
(A).Molybdenum	(I). Sachs & Knop
(B).Zinc	(II).Preistley
(C).Sulphur	(III). Arnon & Stout
(D). Carbon	(IV).Somner & Lipman

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

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

86 | 486 | 4.0 | 1.00

Arrange the minerals in the order of increasing weathering index
(A).Quartz

(B).Gypsum

(C).Haematite

(D).Allophane

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

87 | 487 | 4.0 | 1.00

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

List-I	**List-II**
Soil characteristics	**Methods of estimation**
(A).Gypsum requirement	(I). Bouyoucos
(B).Soil crust strength	(II).Core sampler
(C). Bulk density	(III). Penetrometer
(D). Density of suspension	(IV).Schoonover

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				
88	488	Given below are two statements: Statement (I):High Cu in soil causes Fe chlorosis in citrus Statement (II):Application of potassium increases Mn & Fe content in rice 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	4.0	1.00
Objective Question				
89	489	Growth factor necessary to produce yield that is 50% of the difference between maximum possible yield and yield before that unit was applied was given by ------- (A).Mitscherlich & Bray (B).Mitscherlich & Baule (C).Baule only (D). Baule, Arnon & Bray Choose the **correct** answer from the options given below: 1. (A), (B), (C), (D). 2. (C) only 3. (B), (A), (D), (C). 4. (C), (B), (D), (A). A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
90	490		4.0	1.00

		Given below are two statements: Statement (I):Translocation of sugars is increased in K deficient plants Statement (II):Potassium is taken by crops as chelates from the soil solution 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	491	Find out the value of pF when there is a tension head of 100 cm of water: 1. 10 2. 0.01 3. 2 4. 1 A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
92	492		4.0	1.00

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

List-I	**List-II**
Theory proposed	**Author**
(A).Stokes law	(I). Schofield and Taylor
(B).Baule unit	(II).Puri
(C). Lime potential	(III). Stokes
(D). Salt index	(IV).Baule

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

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

93	493	Given below are two statements, one is labelled as Assertion (A) and other one labelled as Reason (R). Assertion (A) :Weathering produces minerals which is assigned with a weathering index Reason (R) : The sequence of weathering is largely controlled by intensity and capacity factor as a fraction of time 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

94	494		4.0	1.00

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

List-I	**List-II**
Soil structure	**Ratings**
(A). Structureless	(I). 2
(B). Moderate	(II).3
(C). Weak	(III). 0
(D). Strong	(IV).1

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

95 495 4.0 1.00

Boron regulates

(A).Ribosomal fraction

(B).Translocation of sugars

(C).Carbohydrate metabolism

(D).Calcium metabolism

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

96 496 4.0 1.00

		Lecithin is the common name of: 1. Phosphatidyle ethanolamine 2. Phaphatidyle choline 3. Phosphatidyl Serine 4. Phasphatidyl Inositol A1 : 1 A2 : 2 A3 : 3 A4 : 4		
Objective Question				
97	497	All of the following are storage carbohydrates except: 1. Starch 2. Glycogen 3. Cellulose 4. Amylase A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
98	498	Which of the following can have a quaternary structure: 1. Fatty acid 2. Protein 3. Polysaccharide 4. RNA A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
99	499		4.0	1.00

		All the following molecules contain more than one ring except: 1. Cholesterol 2. Sucrose 3. Glucose 4. Progesterone A1 : 1 A2 : 2 A3 : 3 A4 : 4		
Objective Question				
100	500	Which one of the following is a nucleoside? 1. Purine + Pyrimidine 2. Pyrimidine + Phosphate group 3. Purine + Phosphate group 4. Pyrimidine + Pentose sugar A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
101	501	Given below are two statements, one is labeled as Assertion (A), and the other one is labeled as Reason (R). Assertion (A): Alcohols are weaker acids than water. Reason (R): Water is a better proton donor than alcohol. 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	4.0	1.00

Objective Question

102	502	Given below are two statements, one is labeled as Assertion (A), and the other one is labeled as Reason (R). Assertion (A): 2 Proline is an aromatic amino acid as it has a ring structure. Reason (R): Aromatic amino acids have a benzene ring of its derivative side chain structures. 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	4.0	1.00

Objective Question

103	503	Die back of citrus is due to deficiency of: 1. Iron 2. Manganese 3. Copper 4. Boron A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00

Objective Question

104	504	Chilling resistant plants have more percentage of: 1. Saturated fatty acids 2. Unsaturated fatty acids 3. Palmitic acid 4. Stearic acid A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00

Objective Question				
105	505	A useful measure of the photosynthetic efficiency of plants is: 1. Relative Growth Rate 2. Absolute Growth Rate 3. Cumulative growth Rate 4. Net Assimilation Rate A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
106	506	Which of the following statements is correct? (A). Allosteric enzymes don't obey Michaelis mentioned kinetics (B). Some regulatory enzymes are modulated by reversible covalent modification (C). Allosteric enzymes undergo reversible covalent modification (D). Reversible covalent modification caused by phosphorylation Choose the ***correct*** answer from the options given below: 1. (A) and (B) only. 2. (A), (B) and (C) only. 3. (A), (B) and (D). 4. (A), (B), (C) and (D) A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
107	507		4.0	1.00

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

List-I	**List-II**
(Growth Parameter)	**(Unit)**
(A). Leaf Area Duration (LAD)	(I). cm^2d^{-1}
(B). Crop Growth Rate (CGR)	(II). $g\ m^{-2}day^{-1}$
(C). Leaf Area Ratio (LAR)	(III). m^2g^{-1}
(D). Net Assimilation Rate (NAR)	(IV). $g\ m^{-2}day^{-1}$

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

108 508 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

109 509 4.0 1.00

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

List-I	**List-II**
(Coenzyme)	**(Chemical group transfers)**
(A). Coenzyme A	(I). Aldehyde group
(B). Flavin adenine dinucleotide	(II). Amino group
(C). Pyridoxalphosphate	(III). Hydrogen atoms
(D). Thymine pyrophosphate	(IV). Acyl groups

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

110 510 4.0 1.00

Indicate which pair of sugars consist of epimers
(A). D-glucose and D-mannose

(B). D-Ribose and D-ribulose

(C). D-galactose and D-glucose

(D). D-glyceraldehyde and Dihydroxyacetone

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

111 511 4.0 1.00

		Which statement about M-phase cyclin is correct 1. Cyclin synthesis and destruction is essential for cell cycle progression 2. Cyclin synthesis and no destruction is essential for cell cycle progression 3. Cyclins play no role in cell cycle progression 4. No Cyclin synthesis and no destruction is essential for cell cycle progression A1 : 1 A2 : 2 A3 : 3 A4 : 4		
Objective Question				
112	512	Endosulphan belongs to group: 1. Organochlorine 2. Organophasphorus 3. Carbamate 4. Cyclodiene A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
113	513	Contaf" is a trade name of: 1. Hexaconazole 2. Propiconazole 3. Imidacloprid 4. Cyhalothrin A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
114	514		4.0	1.00

Options 1-4 are the different combinations of botanical pesticides. Which combination is a correct representation of the botanical pesticide Cinerin -II

1. Chrysanthemic acid + cinerolone

2. Pyrethric acid + cinirolone

3. Chrysanthemic acid + Pyrathrolone

4. Pyrethroic acid + Pyrethrolone

1. Option 1 is a correct representation of the botanical pesticide Cinerin –II
2. Option 2 is a correct representation of the botanical pesticide Cinerin –II
3. Option 3 is a correct representation of the botanical pesticide Cinerin –II
4. Option 4 is a correct representation of the botanical pesticide Cinerin –II

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

115 515 4.0 1.00

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

List-I	**List-II**
Column-A	**Column-B**
(A). Principle of Pescticide Chemistry	(I). Herbicide
(B). Albendazol	(II). Acaricide
(C). trans-10-cis-12-hexadecadienol	(III). Pheromone
(D). 2,4-D	(IV). S.K. Handa

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

116 516 4.0 1.00

Find out the correct match (s)

(A). Dichlorovos – Weedicide

(B). Acephate – systemic Insecticide

(C). Benzyl benzoate - repellent

(D). 2 4-d – Weedicide

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

1. A is correctly matched B, C and D are not correctly matched
2. A is incorrectly matched B, C and D are correctly matched
3. A, B, C and D are correctly matched
4. A, B, C and D are incorrectly matched

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

117	517	Which statement is correct for the following structures 1 and 2? Statement (I): Black gram as a cover crop to reduce surface runoff and soil loss during rainy seasons. Statement (II): Black gram as a live mulch crop to reduce 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 1 and 2 are synthetic pesticides and are environmental friendly 2. Compound 1 is plant originated while compound 2 is synthetic and persists for a long time in the environment 3. Compound 1 is derived from the carbamate group while compound 2 is organochlorine 4. Due to puckered structure compound 2 is degraded fast while compound 1 in active A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00

Objective Question

118	518	Example of a secondary pollutant is: 1. CFCS's 2. CH_4 3. PAN 4. CO A1 : 1	4.0	1.00

		A2 : 2 A3 : 3 A4 : 4		
Objective Question				
119	519	Trees and shrubs commonly planted in rows at right angles to the prevailing winds are called: 1. Shelterbelts 2. Terrace cultivation 3. Strip cropping . 4. Mulching A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
120	520	The Environment Protection Act was enacted in the year: 1. 1988 2. 1981 3. 1986 4. 1987 A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00