

PREVIEW QUESTION BANK

Module Name : Irrigation and Drainage Engineering-ENG
Exam Date : 09-Jul-2023 Batch : 14:30-16:30

Sr. No.	Client Question ID	Question Body and Alternatives	Marks	Negative Marks
Objective Question				
1	2001	Which one of the following is not one of the features of parliamentary form of government? 1. Majority party rule 2. Collective Responsibility 3. Integrated and Independent Judiciary 4. Dissolution of the lower house A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
2	2002	Which of the following term implies that 'India is a neither a dependency nor a dominion of any other nation'? 1. Socialist 2. Sovereign 3. Secular 4. Democratic A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
3	2003	Which of the following form the maximum water composition on the earth's surface? 1. Oceans 2. Ice caps 3. Glaciers 4. Lakes A1 : 1 A2 : 2	4.0	1.00

		A3 : 3		
		A4 : 4		
Objective Question				
4	2004	Which one of the following does not fall under the category of 'biomes? 1. Forest 2. Sky 3. Desert 4. Grassland A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
5	2005	IUCN publishes information about which of the following species as Red List of threatened species? 1. Endangered Species 2. Vulnerable Species 3. Extinct Species 4. Rare Species A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
6	2006	Who was the first Indian to win an individual medal in Olympics? 1. Milkha Singh 2. Karnam Malleshwari 3. P. T. Usha 4. K. D. Jadhav A1 : 1 A2 : 2 A3 : 3	4.0	1.00

		A4 : 4		
Objective Question				
7	2007	Who among the following reformers founded "Arya Samaj"? 1. Raja Ram Mohan Roy 2. Swami Dayananda Saraswati 3. Atmaram Pandurang 4. Ishwarchandra Vidyasagar A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
8	2008	What does "Triratna" mean in Buddhism? 1. Tripitaka 2. Buddha, Dhamma (dharma), Sangha 3. Satya, Ahimsa, Karuna 4. Sheel, Samadhi, Sangha A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
9	2009	Who started the Indian Reforms Association? 1. Narayan Guru 2. Swami Vivekananda 3. Krishna swami Aiyar 4. Keshav Chandra Sen A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				

10	2010	Consider the following statements (A). UN General Assembly has declared 2023 as the international year of millets (B). Odisha govt. ropes in FICCI to promote millets globally (C). Odisha Millets Mission is a flagship programme of the Odisha government to revive millets in farms and on plates 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), (B) and (C). A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

11	2011	Phomopsis blight occurs in which of the following crops? 1. Brinjal 2. Bajra 3. Sugarcane 4. Potato A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

12	2012	Endemic pests can be described as? 1. Pest occurs in a few specific area. 2. Pest occurs in same area, year after year. 3. Pest occurs frequently in current season in abundance. 4. Pest occurs in severe form. A1 : 1 A2 : 2 A3 : 3	4.0	1.00
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A4 : 4

Objective Question

13	2013	Which country is the largest producer of raw silk? 1. Japan 2. India 3. China 4. South Korea A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

14	2014	Transfer of Ownership is the example of which utility..... 1. Time utility 2. Place utility 3. Possession utility 4. Form utility A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

15	2015	What happens to the total number of chromosomes during mitotic cell division? 1. gets doubled 2. gets halved 3. remains the same 4. divides into four A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

16	2016	What is the minimum forest cover to be maintained as per the National Forest Policy, 1988? 1. One-half 2. One-third 3. One-fourth 4. Two-third A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

17	2017	Who among the following is known as the "Father of Agronomy"? 1. Stephen Hales 2. Gregor Johann Mendel 3. Peter Decresenzi 4. D N Walia A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

18	2018	Which of the following plant hormones helps in shoot elongation? 1. Auxin 2. Gibberellic acid 3. Absciscic acid 4. Cytokinin A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

19	2019		4.0	1.00
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		Select from the following the chemical property of soil..... 1. Colour 2. pH 3. Texture 4. Structure A1 : 1 A2 : 2 A3 : 3 A4 : 4		
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Objective Question

20	2020	The process of separating quality grains from chaff is called as..... 1. Winnowing 2. Threshing 3. Harvesting 4. Tilling A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

21	101001	Given below are two statements: Statement (I): The straight-line method is the most practical and most common for calculating depreciation Statement (II): In the straight-line method, the amount of annual depreciation is equal to the new cost minus the trade-in value at the end of the assumed life, divided by the estimated life in years In light of the above statements, choose the <i>most appropriate</i> 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
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Objective Question

22	101002	Given below are two statements, one is labelled as Assertion (A) and other one labelled as Reason (R). Assertion (A) : Oblique cutting of plant material reduces the peak cutting process Reason (R) : In oblique cutting oblique angle is not equal to zero In light of the above statements, choose the <i>correct</i> 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	4.0	1.00
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Objective Question

23	101003	The correct sequence of power transmission in agricultural tractor is: (A). Engine (B). Drive wheels (C). Clutch (D). Crank shaft (E). Differential (F). Flywheel (G). Final drives (A), (B), (C), (D), (E), (F), (G) (A), (D), (F), (C), (E), (G), (B) (B), (A), (G), (D), (E), (C), (F) (C), (E), (B), (D), (F), (A), (G) A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

24	101004		4.0	1.00
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Which type of mould board is preferred for more sticky soils where it is difficult for MB to scour well?

1. General purpose
2. Stubble
3. Sod
4. Slat

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

25	101005	Given below are two statements, one is labelled as Assertion (A) and other one labelled as Reason (R). Assertion (A) : To stop a tractor with implement at high speed, brakes are to be applied in addition to declutching Reason (R) : A device to declutch the tractor will not afford much protection to an implement when speed is high In light of the above statements, choose the <i>correct</i> 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
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Objective Question

26	101006	Given below are two statements: Statement (I): Aerobic fermentation of organic matter produces CO₂ and NH₃ while anaerobic fermentation produces CO₂ and CH₄ Statement (II): When the main aim is to render the material hygienic and recover plant nutrients for reuse in fields, the better practice to follow is anaerobic fermentation In light of the above statements, choose the <i>most appropriate</i> 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	4.0	1.00
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A2 : 2

A3 : 3

A4 : 4

Objective Question

27 101007

4.0 1.00

Given below are two statements:

Statement (I): Traditional biogas plants based on cowdung as feedstock can not be used for water hyacinth

Statement (II): Water hyacinth has tendency to float or settle in the bottom of traditional biogas 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 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

28 101008

4.0 1.00

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

List-I	List-II
Product	Conversion process
(A). Briquettes	(I). Thermo-chemical conversion
(B). Biodiesel	(II). Transesterification
(C). Biogas	(III). Physical conversion
(D). Producer gas	(IV). Bio-chemical conversion

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

29	101009	Given below are two statements: Statement (I): Vegetable oils can be converted into biodiesel by a process of transesterification Statement (II): During biodiesel production glycerine remains on upper side and ester on lower side forming two distinct layers In light of the above statements, choose the <i>most appropriate</i> 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	4.0	1.00
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Objective Question

30	101010	Gasohol contains: 90% ethanol 10% gasoline 50% ethanol 50% gasoline 75% ethanol 25% gasoline 10% ethanol 90% gasoline A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

31	101011	What will be the power generated from an arrangement having 244 solar cells connected in series (i.e. in a string) and 10 such solar strings connected in parallel? (Assume operating voltage of each photo-voltaic cell as 0.45 V and output current as 1.08 A) 10.8 kW 1.19 kW 5.4 kW 19.1 kW A1 : 1 A2 : 2 A3 : 3	4.0	1.00
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A4 : 4

Objective Question

32	101012	Contours of constant wind velocity are called: 1. Isodynes 2. Isohyets 3. Isobars 4. Isovents A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

33	101013	If the diameter (d) of horizontal axis rotor is doubled and wind speed (V) is halved, the available wind power (P_a) will: 1. remain same 2. increase by two times 3. reduce to half 4. increase by four times A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

34	101014	If the measured line voltages are 462, 463 and 455 volts in 3-phase system, the voltage unbalance measured in per cent is: 1. 1 2. 2 3. 3 4. 0 A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

35	101015	Given below are two statements: Statement (I): Payback period does not take into consideration time value of money Statement (II): Net present value takes into consideration time value of money In light of the above statements, choose the <i>most appropriate</i> 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	4.0	1.00
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Objective Question

36	101016	For which type of wheel, pull is zero? - self-propelled wheel - towed wheel - gauge wheel - land wheel of SCFD A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

37	101017	Cast steel crankshaft surface is hardened by: - Nitriding - Normalising - Carburising - Induction heating A1 : 1 A2 : 2 A3 : 3	4.0	1.00
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		A4 : 4		
Objective Question				
38	101018	In drop forging, forging is done by dropping: 1. the work piece at high velocity 2. the hammer at high velocity 3. the die with hammer at high velocity 4. a weight on hammer to produce the requisite impact A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
39	101019	A 9-tyne seed drill operating at 5 km.h^{-1} is used to sow seed in 10.8 ha of land. If the furrow openers are 20 cm apart and the seed drill is working with an efficiency of 80%, what is the time required in hours to complete the sowing operation? 1. 15 2. 20 3. 25 4. 30 A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
40	101020	Pressure at the lubrication oil exit of tractor engine is 1. 100-200 kPa 2. 200-300 kPa 3. 300-400 kPa 4. 400-500 kPa A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00

Objective Question

41	101021	Given below are two statements: Statement (I): Basin lag is the time difference between the centroid of the input i.e. rainfall excess and the output i.e. surface runoff. Statement (II): Basin lag represents the time of travel of water particles from the mid place of the catchment to the outlet during a given storm. In light of the above statements, choose the <i>most appropriate</i> 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	4.0	1.00
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Objective Question

42	101022	A graphical plot between rainfall intensity and time is called - Double mass curve - Hydrograph - Mass curve - Hyetograph A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

43	101023		4.0	1.00
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Match **List-I** with **List-II**

List-I	List-II
(A). Flood routing in storage reservoir	(I). Muskingum method
(B). Channel routing	(II). Sherman
(C). Unit hydrograph	(III). Snyder
(D). Synthetic unit hydrograph	(IV). Modified Pul's method

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

44	101024	Given below are two statements, one is labelled as Assertion (A) and other one labelled as Reason (R). Assertion (A) :The Cipoletti weir is a popular contracted trapezoidal weir having notch slope of 1 horizontal to 4 vertical. Reason (R) : The side slopes of 1 to 4 are just sufficient to correct for the end contraction of nappe and flow is proportional to the length of the weir crest. In light of the above statements, choose the <i>correct</i> 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
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Objective Question

45	101025		4.0	1.00
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- (A). Hydraulic jump is used for reducing the energy of flow.
- (B). Hydraulic jump results in increasing the depth of flow.
- (C). When the flow of water changes from sub-critical to super critical, the hydraulic jump occurs.
- (D). When hydraulic jump occurs in a flowing channel, the velocity of flow increases.
- (E). Hydraulic jump is useful in aerating the city water supply.

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

46	101026	The recommended drainage periods for paddy and sugarcane is 1. 2 days 2. 3 days 3. 4 days 4. 7 days A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

47	101027	Given below are two statements: Statement (I): Drainage coefficient is used in the design of drainage systems for agricultural lands. Statement (II): Drainage coefficient is the depth of water in cm to be removed in 48 hours from the entire drainage area. In light of the above statements, choose the <i>most appropriate</i> 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	4.0	1.00
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A2 : 2

A3 : 3

A4 : 4

Objective Question

48 101028

4.0 1.00

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

List-I	List-II
(A). Evaporation	(I). Anemometer
(B). Infiltration	(II). Barometer
(C). Wind velocity	(III). Infiltrrometer
(D). Atmospheric pressure	(IV). Evaporimeter

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

49 101029

4.0 1.00

Which sequence of water erosion is correct?

- (A).Spalsh erosion
- (B).Rill erosion
- (C).Gully erosion
- (D).Sheet erosion
- (E).Ravine erosion

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

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

A1 : 1

		A2 : 2		
		A3 : 3		
		A4 : 4		
Objective Question				
50	101030	Theoretically centrifugal pump can lift water from a maximum depth of 1. 4.33m 2. 6.33m 3. 8.33m 4. 10.33m A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
51	101031	(A). The level at which the water stands in a well before pumping starts is the static water level. (B). The pressure of water at static water level is atmospheric. (C). Pumping water level does not change with quantity of water being pumped. (D). Drawdown is the difference between the static water level and pumping water level. (E). Drawdown does not affect the yield of well. Choose the correct answer from the options given below: 1. (A), (C) and (D) only. 2. (A), (B) and (D) only. 3. (A), (B), (C) and (D) only. 4. (A), (C), (D) and (E) only. A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
52	101032		4.0	1.00

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

Assertion (A) :In a rotating impeller two flows take place i.e. flow of fluid through the passage plus circulatory flow.

Reason (R) : When the impeller is rotated and water is pumped out, the water tends to rotate in a direction opposite to the direction of rotating impeller.

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

53	101033	AMC II generally refers to 1. Normal condition of soil wetness 2. Dry soil condition 3. Wet soil condition 4. Stoney soil condition A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

54	101034	Given below are two statements: Statement (I):The field application efficiency is the ratio of the required depth to the average applied depth. Statement (II):In level basins, the average depth applied to the field equals the average infiltrated depth as there is no surface runoff. In light of the above statements,choose the <i>most appropriate</i> 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	4.0	1.00
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		A3 : 3		
		A4 : 4		
Objective Question				
55	101035	The rate of application of sprinkler system is limited by 1. Strcuture of the soil 2. Infiltration capacity of the soil 3. Erodibility of the soil 4. Presence of organic matter in the soil A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
56	101036	Given below are two statements: Statement (I):Permanent wilting percentage is the moisture content at which plants can no longer obtain enough moisture to meet transpiration requiremnet. Statement (II):The moisture tension of a soil at the permanent wilting point ranges from 1/10 to 1/3 atmosphere. In light of the above statements,choose the <i>most appropriate</i> 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				
57	101037		4.0	1.00

The steady state flow to a well completely penetrating confined aquifer is derived based on the assumption

- (A). Flow is two-dimensional
- (B). Aquifer is homogenous
- (C). The flow is not horizontal everywhere
- (D). Aquifer is isotropic

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), (B) and (D) only.

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

58	101038	Given below are two statements: Statement (I): The design of drip irrigation system consists of the system layout and determination of number of laterals for irrigation. Statement (II): The friction loss for mains and sub-mains in the drip system can be computed by Kostiakov equation. In light of the above statements, choose the <i>most appropriate</i> 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
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Objective Question

59	101039		4.0	1.00
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Which of the followings are the sub-surface technique of artificial groundwater recharge?

- (A). Injection well
(B). Recharge pit
(C). Recharge basin
(D). Recharge shaft

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

60	101040
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4.0	1.00
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Which type of greenhouse is used in hilly areas?

1. Lean to
2. Even-span
3. Uneven-span
4. Ridge and furrow

A1 : 1

A2 : 2

A3 : 3

A4:4

Objective Question

61	101041
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4.0	1.00
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For cleaning of granular material, a vibratory air-screen cleaner utilizes which among the following properties of feed material?

(A) Physical

(B) Aerodynamic

(C) Textural

(D) Frictional

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

62 101042

4.0 1.00

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

List-I	List-II
(A) Freezing	(I) Heat exchanger
(B) LMTD	(II) D-value
(C) Decimal reduction time	(III) Water activity
(D) BET equation	(IV) Eutectic temperature

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

63 101043

4.0 1.00

Given below are two statements, one is labelled as Assertion (A) and other one labelled as Reason (R).
Assertion (A) : If the temperature of air is increased without altering its humidity ratio, then the relative humidity of air reduces.

Reason (R) : Increase in dry-bulb temperature of air enhances water holding capacity of air.

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

64	101044	PUSA bin, developed by the ICAR-Indian Agricultural Research Institute, is categorised as - 1. Modern storage structure 2. Improved storage structure 3. Traditional storage structure 4. Bag storage structure A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

65	101045	Which among the following parameter(s) of a fruit can be determined by using the platform scale method? (A) Volume (B) Linear dimensions (C) Porosity (D) Specific gravity Choose the correct answer from the options given below: 1. (A) and (B) only. 2. (A), (C) and (D) only. 3. (A) only. 4. (A) and (D) only. A1 : 1	4.0	1.00
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		A2 : 2		
		A3 : 3		
		A4 : 4		
Objective Question				
66	101046	In calculating energy requirement for size reduction, 'work index' is related to - 1. Bond's and Kick's equation 2. Rittinger's equation 3. Bond's equation 4. Rittinger's and Kick's equation A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
67	101047	Process of drying in which all grains are fully exposed to the drying air under constant drying conditions is known as - 1. Deep bed drying 2. Bunker drying 3. Thin layer drying 4. Constant rate drying A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
68	101048		4.0	1.00

Which among the following method(s) are employed for dehusking of pulses?

- (A) Pressure soaking
- (B) Application of edible oil
- (C) Alternate wetting and drying
- (D) Application of red earth

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

69	101049	Crystallization is the process in which - (A) Mass is transferred from a liquid solution to a pure crystal (B) Mass is transferred from a solid medium to a pure crystal (C) Mass is transferred from a liquid solution to a crystal of two components (D) Mass is transferred from a solid medium to a crystal of two components Choose the correct answer from the options given below: 1. (A) only. 2. (A) and (C) only. 3. (B) and (D) only. 4. (C) and (D) only. A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

70	101050		4.0	1.00
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Which of the following processes are regarded as mechanical separation operations?

- (A) Filtration
- (B) Centrifugal separation
- (C) Sedimentation
- (D) Sieving

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

71	1002201	What is total irrigated area in India in Million hectares from all sources of irrigation in quinquennial average from year 1945-46 to 1949-50 (At the time of independence):	4.0	1.00
		1. 17.1 2. 18.0 3. 19.0 4. 19.4		
		A1 : 1		
		A2 : 2		
		A3 : 3		
		A4 : 4		

Objective Question

72	1002202	Water application efficiency is defined as:	4.0	1.00
		1. $\frac{\text{Water needed in the root zone before irrigation}}{\text{Water stored in the root zone after irrigation}} \times 100$ 2. $\frac{\text{Water stored in the root zone}}{\text{Water delivered at the field}} \times 100$ 3. $\frac{\text{Water stored in the root zone}}{\text{Water delivered at root zone}} \times 100$ 4. $\frac{\text{Water stored in the root zone}}{\text{Water delivered from the source}} \times 100$		
		A1 : 1		

A2 : 2

A3 : 3

A4 : 4

Objective Question

73 1002203

4.0 1.00

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

List-I	List-II
(Device)	(Function)
(A). Controller	(I). Controls each component of system
(B). Solenoid valve	(II). Open and closes water system
(C). Fertilizer dosing system	(III). Flow regulation facility
(D). Sensors	(IV). Detect soil moisture

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

74 1002204

4.0 1.00

What is recommended slope of the check basin for proper irrigation:

1. 0.05-0.2 %
2. 0.2-0.4 %
3. 0.4-0.6 %
4. 0 % (Level)

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

75 1002205

4.0 1.00

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

List-I	List-II
(Methods)	(Applications)
(A). Phillip and Ferrel	(I). Irrigation of orchard
(B). Hall	(II). Check basin irrigation
(C). Ring Basin	(III). furrow irrigation
(D). Quarter time rule	(IV). General solution of volume balance function in border strip

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

76 1002206

4.0 1.00

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

List-I	List-II
(Type of soil)	(Border length)
(A). Sandy soil	(I). 60-90 m
(B). Sandy loam soil	(II). 90-120 m
(C). Medium loam soil	(III). 100-180 m
(D). Clay loam soil	(IV). 150-300 m

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

A1 : 1

A2 : 2

A3 : 3

		A4 : 4		
Objective Question				
77	1002207	Type of soil in relation to infiltration rate: (A). Clay (B). Clay loam (C). Sandy loam (D). Loamy sand Arrange the soil type in the increasing order of infiltration rate. 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	4.0	1.00
Objective Question				
78	1002208	There are few steps of the water application of border irrigation system: (A). Entrance of stream of water. (B). Water front advance (C). water storage and rise of water (D). Recession of water Choose the correct order of events in irrigation system. 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	4.0	1.00
Objective Question				
79	1002209		4.0	1.00

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

List I	List II
(Source of light)	(% of light to energy)
(A). Incandescent lamp	(I). 7 %
(B). Fluorescent lamps	(II). 20 %
(C). High pressure sodium lamps	(III). 25 %
(D). Low pressure sodium lamps	(IV). 27%

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

80	1002210	What is the minimum operating pressure (kg/cm^2) required at the last emitter for smooth operation of system.	4.0	1.00
		1. 0.5 2. 1.0 3. 1.5 4. 2.0		
		A1 : 1		
		A2 : 2		
		A3 : 3		
		A4 : 4		

Objective Question

81	1002211	What is commonly used screen size (in mesh) of screen filter in drip irrigation system.	4.0	1.00
		1. 100 2. 200 3. 300 4. 140		

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

82 1002212

4.0 1.00

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

List-I	List-II
(Method)	(Function)
(A). Cosmic rays	(I). Remote sensing image
(B). False colour composite	(II). Interpretation of remote sensing images
(C). Spectral properties of objects	(III). Remote sensing photography
(D). Passive type remote sensing sensor	(IV). Electro-magnetic spectrum

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

83 1002213

4.0 1.00

What is the purpose of performing base flow separation?

1. On a unit hydrograph to get direct runoff hydrograph
2. On a flood hydrograph to obtain the magnitude of effective rainfall
3. On flood hydrograph to obtain the rainfall hydrograph
4. On hydrograph of effluent streams only

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

84	1002214	What does a unit hydrograph represents? 1. One unit of peak discharge 2. One unit of rainfall duration 3. One unit of direct runoff 4. One unit of time base of direct runoff A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

851002215

4.01.00

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

List I	List II
(Hydrological parameter)	(Method of determination)
(A). Runoff	(I). Rational formula
(B). Evaporation	(II). USDA Class A
(C). Evapotranspiration	(III). Lysimeter
(D). Rainfall	(IV). Raingauge

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

86	1002216		4.0	1.00
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Match **List I** with **List II**

List I	List II
(Method)	(Parameter)
(A). Khosla's formula	(I). Evapotranspiration
(B). USLE	(II). Soil loss
(C). Gumbel's method	(III). Probability Analysis
(D). Penman Monteith Equation	(IV). Runoff

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

87 1002217

4.0 1.00

Following are the name of light energy. Arrange these in the increasing order of wave length.

- (A). Ultra violet range
- (B). Red
- (C). Far red
- (D). Infra red range

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

88 1002218

4.0 1.00

How the discharge through cipoletti weir is determined? Where Q is discharge (lit/sec), L is length of crest (cm) and H is head over the crest cm.

1. $Q = 0.0186 LH^{3/2}$
2. $Q = 0.0186 LH^{5/2}$
3. $Q = 0.0186 LH^{1/2}$
4. $Q = 0.0186 H^{5/2}$

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

89	1002219	Analysis of data on maximum one day rainfall depth at a particular place indicates that a depth of 250 mm had a return period of 50 years. What is probability of occurrence of a one-day rainfall depth equal to or greater than 250 mm: 1. 1 % 2. 2 % 3. 5 % 4. 10 % A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

90	1002220		4.0	1.00
Match List-I with List-II				
List-I	List-II			
(Fuel)	(CO₂ yield m³/m³)			
(A). Kerosene	(I). 1.360			
(B). LPG	(II). 0.785			
(C). Natural Gas	(III). 0.523			
(D). Ethanol	(IV). 0.705			
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) - (III), (B) - (IV), (C) - (I), (D) - (II)				
4. (A) - (IV), (B) - (I), (C) - (II), (D) - (III)				

		A1 : 1		
		A2 : 2		
		A3 : 3		
		A4 : 4		
Objective Question				
91	1002221	Given below are two statements, one is labelled as Assertion (A) and other one labelled as Reason (R). Assertion (A) : Transport of nutrients from soil to different parts of plant is governed by water uptake and transpiration. Reason (R) : Evapotranspiration depends on the temperature and RH of the air in greenhouse. In light of the above statements, choose the <i>correct</i> 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	4.0	1.00
Objective Question				
92	1002222	What is the method of determination of the position of the object on ground by GPS signals? - Remote sensing mapping - Remote sensing monitoring - Satellite ranging - Surveying A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
93	1002223		4.0	1.00

Geographical Information System (GIS) uses the following steps (1) Collects data, (2) Store data, (3) Analysis of data and (4) display data. What is sequence of the steps?

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

94	1002224	Arrange the following root materials on the basis of increasing Relative Cation Exchange Capacity (CEC): (A). Clay kaolinite (B). Silt (C). Vermiculite (D). Humus Choose the correct answer from the options given below: 1. (A), (B), (C), (D). 2. (A), (C), (D), (B). 3. (A), (D), (B), (C). 4. (A), (D), (C), (B). A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

95	1002225		4.0	1.00
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Arrange the following crops in the increasing order (ascending) of optimum germination temperature:

- (A). Lettuce
- (B). Cauliflower
- (C). Pepper
- (D). Cucumber

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

96	1002226	Read the following statements about dual crop coefficient (A). It splits K_c into two separate coefficients, one for crop transpiration, i.e., the basal crop coefficient (K_{cb}), and one for soil evaporation (K_e) (B). The dual crop coefficient approach is more complicated and more computationally intensive than the single crop coefficient approach (K_c) (C). It calculates ET_c as the product of ET_o and ($K_{cb} \times K_e$) Choose the correct answer from the options given below: 1. (A) and (C) only. 2. (A), (B) and (C) 3. (A) and (B) only. 4. (B) and (C) only. A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

97	1002227		4.0	1.00
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Read the following statements

- (A). Absolute pressure is defined as the pressure which is measured with reference to a absolute vacuum pressure
- (B). Gauge pressure is defined as the pressure which is measured with the help of pressure measuring instrument, in which atmospheric pressure is taken as datum
- (C). Vacuum pressure is defined as the pressure below absolute pressure

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

98 1002228

4.0 1.00

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

List I	List II
(Physical Quantity)	(Dimensions)
(A). Specific Weight	(I). MLT^{-1}
(B). Dynamic Viscosity	(II). $ML^{-2}T^{-2}$
(C). Surface Tension	(III). MT^{-2}
(D). Momentum	(IV). $ML^{-1}T^{-1}$

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

99 1002229

4.0 1.00

The concentration of different ions in irrigation water is as follows :

Na^+ : 460 ppm, Ca^{++} : 200.4 ppm, Mg^{++} : 97.28 ppm

What is the SAR (Sodium Adsorption Ratio) of the irrigation water?

1. 6.67
2. 37.70
3. 4.71
4. 67.81

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

100	1002230	Mr. Bharatbhai, a farmer from Rajkot district of Gujarat carried out soil testing of his farm due to low productivity of wheat crop. After receiving soil testing report, it was found that the soil has EC 12 dSm^{-1} and pH 7.2. The water in open well situated in his farm also very close to ground surface (less than 1 m deep). Considering above situation answer the following question What kind of land degradation problem exists in Farm of Bharatbhai 1. Sodic soil only 2. Waterlogged sodic soil 3. Saline soil only 4. Waterlogged saline soil A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

101	1002231	Mr. Bharatbhai, a farmer from Rajkot district of Gujarat carried out soil testing of his farm due to low productivity of wheat crop. After receiving soil testing report, it was found that the soil has EC 12 dSm^{-1} and pH 7.2. The water in open well situated in his farm also very close to ground surface (less than 1 m deep). Considering above situation answer the following question What is the most appropriate measure that Bharatbhai should undertake to improve productivity of the soil 1. Gypsum application 2. Surface flooding for salt leaching 3. Install subsurface drainage system 4. Green manuring A1 : 1	4.0	1.00
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A2 : 2

A3 : 3

A4 : 4

Objective Question

102 1002232

4.0

1.00

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

List-I (Flow Measuring Device)	List-II (Characteristic)
(A). V-notch	(I). Must have sharp edges
(B). Cipolletti weir	(II). Well suited for runoff measurement
(C). Orifice	(III). Permit more accurate measurement of low discharge
(D). H-flumes	(IV). Trapezoidal weir

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

103 1002233

4.0

1.00

Which of the following statements regarding Seismic refraction method of groundwater exploration are correct

(A). In this method, a small wave is created at earth surface by the impact of heavy instrument

(B). Seismometer, a device used to record the shock waves are also called as geophones

(C). Wave velocities are greater in unconsolidated materials than in solid rock formations

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

104	1002234	What is the correct sequence of rate of flow of water in saturated soils of various textures 1. Sand > Loam > Clay 2. Clay > Loam > Sand 3. Sand > Clay > Loam 4. Clay > Sand > Loam A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

1051002235

4.01.00

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

List-I (Soil Type)	List-II (Characteristic.)
(A). Black Soil	(I). Formed by transportation in streams and rivers and deposited in flood plains or along coastal belts
(B). Red Soil	(II). Poor physical condition
(C). Alkali Soil	(III). Clay content generally ranges from 40 to 60 %
(D). Alluvial Soil	(IV). Contain gravels, quartz and concretions of iron and aluminium

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

1. (A) - (III), (B) - (II), (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

106	1002236		4.0	1.00
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Which of the following are soil moisture measurement instruments

- (A). Tensiometer
- (B). Time domain reflectrometry
- (C). Flame photometer
- (D). Frequecny domain reflectrometry

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

107 1002237

4.0 1.00

Given below are two statements regarding free overfall in open channels:

Statement (I): It is a speical case of hydraulic jump

Statement (II): It occurs where the bottom of a flat channel is discontinued

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 (II) is true but Statement (I) is false.
- 4. Statement (I) is true but Statement (II) is false.

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

108 1002238

4.0 1.00

Which of the following statements regarding idealized aquifer are true

(A). They are assumed to be homogeneous

(B). They are assumed to be isotropic

(C). Idealized aquifers do not exist

(D). Good quantitative approximations of storage and flow of groundwater can be obtained from idealized aquifer

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

109 1002239

4.0 1.00

What is well drawdown

1. Distance of the water level lowered after pumping
2. Maximum horizontal distance from which well can withdraw water
3. Volume of water drawn from well
4. Increase in the water level after recharge

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

110 1002240

4.0 1.00

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

List-I	List-II
(Soil Water Potential)	(Characteristic)
(A). Osmotic potential	(I). Direct result of overlaying water
(B). Pressure potential	(II). Depend on the elevation
(C). Matric potential	(III). Also termed as solute potential
(D). Gravitational potential	(IV). Results from capillary and adsorptive forces

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

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

111 1002241

4.0 1.00

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

List-I	List-II
(Channel Section)	(Hydraulic Radius)
(A). Trapezoid	(I). $T + \frac{8Y^2}{3T}$
(B). Triangle	(II). $2y + \sqrt{1+z^2}$
(C). Parabola	(III). $b + 2y + \sqrt{1+z^2}$
(D). Round bottomed triangle	(IV). $(\pi - 2)r + b + 2y$
	(V). $\frac{T}{2}\sqrt{1+z^2} - \frac{2r}{z}(1 - z \cot^{-1}z)$

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

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

A1 : 1

A2 : 2

A3 : 3

		A4 : 4		
Objective Question				
112	1002242	Arrange the following materials in increasing order of their porosity ? (A). Gravel (B). Sand stone (C). Clay (D). Limestone Choose the correct answer from the options given below: 1. (B), (D), (A), (C). 2. (D), (B), (A), (C). 3. (C), (A), (B), (D). 4. (C), (D), (B), (A). A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
113	1002243	If the hydraulic conductivity of the aquifer is same in all directions then it is called as 1. Anisotropic aquifer 2. Homogeneous aquifer 3. Heterogeneous aquifer 4. Isotropic aquifer A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
114	1002244	A pump lifts 72000 litres of water per hour against a total head of 38 meters. Compute the water horse power. 1. 10 hp 2. 7.5 hp 3. 12.5 hp 4. 5 hp A1 : 1	4.0	1.00

		A2 : 2		
		A3 : 3		
		A4 : 4		

Objective Question

115	1002245	Given below are two statements: Statement (I): Re-use of drainage effluent water can be practiced when drainage water is of good quality. Statement (II): Drainage effluent from the soils intensively fertilized with nitrogen and phosphorus cause eutrophication of surface waters. In light of the above statements, choose the <i>most appropriate</i> 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	4.0	1.00
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Objective Question

116	1002246	Read the following statements regarding open drains: (A). They can not be used for subsurface drainage (B). They occupy land area (C). They need constant maintenance (D). They are used as both interceptor drains and relief drains Choose the correct answer from the options given below: (A), (B) and (C) only. (A), (B) and (D) only. (A), (B), (C) and (D). (B), (C) and (D) only. A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

117	1002247		4.0	1.00
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In an area of 500 ha, the water table dropped by 3 m. If the porosity is 40% and specific retention is 15%, determine specific yield of aquifer

1. 27.5%
2. 55%
3. 25%
4. 6%

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

118	1002248	Given below are two statements: Statement (I): Force of Buoyancy is equal to the weight of the fluid displaced by the body Statement (II): Force of Buoyancy is downward force exerted by the body on the fluid. In light of the above statements, choose the <i>most appropriate</i> 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
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Objective Question

119	1002249	A tank has water spread area of 5 ha area with depth 3 meter of water. Calculate the area of wheat crop (120 days duration) that can be irrigated, if the duty is 840 ha per m³/s. 1. 22.41 ha 2. 12.15 ha 3. 0.25 ha 4. 8.55 ha A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

120	1002250	Given below are two statements: Statement (I): Agricultural drainage is removal of excess water, known as free or gravitational water from the surface or below the surface of farm land Statement (II): Drainage is necessary not only for the removal of excess water but also for removing the salts from rootzone In light of the above statements, choose the <i>most appropriate</i> 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	4.0	1.00
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