PREVIEW QUESTION BANK

Module Name : Irrigation and Drainage Engineering - 43-ENG
Exam Date : 29-Jun-2024 Batch : 14:30-16:30

Sr. No.	Client Question ID	Question Body and Alternatives	Marks	Negative Marks
Objective Question				
1	201	Movement of DNA from one bacterium to another through a tubular bridge or pilus: 1. Conjugation 2. Transposition 3. Transfection 4. Transduction A1 : 1 A2 : 2 A3 : 3 A4 : 4		
Objective Question				
2	202	Which of the following is responsible for eliminating toxic oxygen by-products from cells? 1. Mitochondria 2. Golgi complex 3. Peroxisomes 4. Chloroplasts A1 : 1 A2 : 2 A3 : 3 A4 : 4		
Objective Question				
3	203	A form of multiple parasitism in which a parasite preferentially attacks a host that is already parasitized by another species is known as 1. Cleptoparasitism 2. Ectoparasitoid 3. Obligate parasitism 4. Superparasitism A1 : 1		

		A2 : 2 A3 : 3 A4 : 4
Objective Question		
4	204	For mass multiplication of DD-136 nematode, the common host used is 1. Silk moth 2. Fruit sucking moth 3. Codling moth 4. Lesser wax moth A1 : 1 A2 : 2 A3 : 3 A4 : 4
Objective Question		
5	205	Chlorpyriphos methyl is effective against stored product insects except 1. *Rhizopertha dominica* 2. *Tribolium castaneum* 3. *Caryedon serratus* 4. *Oryzaephilus surinamensis* A1 : 1 A2 : 2 A3 : 3 A4 : 4
Objective Question		
6	206	Which of the following insects often cause inhalational allergies in human following large emergence of adult insects 1. Stick insects 2. May flies 3. Ear wigs 4. Preying mantis A1 : 1 A2 : 2

A3 : 3

A4 : 4

Objective Question

7 207

Given below are two statements:

Statement (I): Climate is a weather condition related to smaller areas at a given place and at a given time,

Statement (II): Weather is a condition of atmosphere at a given place and at a given time

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

8 208

The local name of cyclone in Phillippines is

1. Hurricane
2. Cyclone
3. Baquio
4. Typhoon

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

9 209

Which one of the following are secondary tillage implements?

(A).Subsoiler

(B).Cultivator

(C).Disc harrow

(D).Wetland plough

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

10 210

_____ is the most suitable, drought resistant and persistant grass?

1. *Atylosia sp.*
2. *Cenchrus ciliaris*
3. *Stylosanthes hamata*
4. *Sorghum bicolor*

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

11 211

The rainfed area in India is aproximately

1. 30 mha
2. 40 mha
3. 57 mha
4. 70 mha

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

12 212

Which nutrient is often a limiting factor in agricultural production?

1. Nitrogen
2. Carbon
3. Oxygen
4. Hydrogen

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

13 213

What is a potential disadvantage of agroforestry systems?

1. Increased soil erosion
2. Decreased carbon sequestration
3. Reduced biodiversity
4. Enhanced susceptibility to pests

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

14 214

Pungency in mustard oil is due to

1. Amino acid
2. Allyl isothiocyanate
3. Erusic acid
4. Oxalic acid

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

15 215

Sesamum belongs to the family

1. Chenopodiaceae
2. Papilionaceae
3. Leguminosae
4. Pedaliaceae

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

16 216

Dark period is critical in which type of plant?

1. Short day plant
2. Long day plant
3. Day neutral plant
4. All the options

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

17 217

Which of the following is NOT a significant contributor to greenhouse gas emissions from livestock farming?

1. Carbon dioxide
2. Methane
3. Nitrous oxide
4. Ammonia

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

18 218

Fe deficiency is mostly seen in crops growing on

1. Calcareous or alkaline soils
2. Salt affected soils
3. Acidic soils
4. Neutral soils

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

19 219

EDV (Essentially Derived Varieties) are those which are derived from:

1. crossing two commercially known varieties
2. hybrid introduced from other countries
3. existing variety through genetic engineering or mutation
4. crossing commercially known variety with its wild relative

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

20 220

What is the role of "companion planting" in agriculture?

1. Enhancing soil fertility through crop rotation
2. Growing different crop species together to deter pests
3. Cultivating plants in hydroponic system
4. Increasing soil compaction through cover cropping

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

21 2001

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

Assertion (A) : A fluidised bed gasifier is most versatile and can handle biomass with high ash content.

Reason (R) : Fluidised bed generally contains either inert material or reactive material.

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

22 2002

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

Assertion (A) : Noise Induced Hearing Loss (NIHL) is irreversible.

Reason (R) : NIHL is even, being greater in lower frequency than higher frequency.

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

23 2003

		Given below are two statements: Statement (I): The top of the piston heats much more than does the lower skirt Statement (II): The pistons are made larger at the top to absorb excessive heat released during compression stroke, and are said to have skirt taper. In light of the above statements, choose the *most appropriate* answer from the options given below. 1. Both Statement (I) and Statement (II) are correct. 2. Both Statement (I) and Statement (II) are incorrect. 3. Statement (I) is correct but Statement (II) is incorrect. 4. Statement (I) is incorrect but Statement (II) is correct. A1 : 1 A2 : 2 A3 : 3 A4 : 4
Objective Question		
24	2004	Given below are two statements: Statement (I): Premixed combustion is smoother and quieter than diffusion combustion. Statement (II): The longer the ignition delay, the higher percentage of the fuel that burns in premixed combustion and lower the percentage that burns in diffusion combustion. In light of the above statements, choose the *most appropriate* answer from the options given below. 1. Both Statement (I) and Statement (II) are correct. 2. Both Statement (I) and Statement (II) are incorrect. 3. Statement (I) is correct but Statement (II) is incorrect. 4. Statement (I) is incorrect but Statement (II) is correct. A1 : 1 A2 : 2 A3 : 3 A4 : 4
Objective Question		
25	2005	

Given below are two statements:

Statement (I): Hydrodynamic lubrication occurs when oil film is thick enough to prevent projections on one surface from contacting those projections on the mating surface.

Statement (II): All bearings in an engine are in hydrodynamic lubrication when the engine is started from rest or when it is coasting to a stop.

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

26 2006

Most of the gears fail from

(A). bending fatigue

(B). surface wear

(C). stiff housing

(D). pitting

(E). curved surfaces

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), (B), (C) (D) and (E).

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

27 2007

Machine parameters those influence the performance of a combine harvester are

(A). speed of reel

(B). speed of threshing cylinder

(C). extent of vibration

(D). height of cut

(E). speed of straw rack

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

28 2008

Choose the correct characteristics of the Darrieus rotor.

(A). low starting torque

(B). self-starting

(C). high speed

(D). potentially high capital cost

(E). high efficiency

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

29 2009

Which of the following are air heat plate collectors based on absorbing surface?

(A). flat plate absorber

(B). sandwich type absorber

(C). corrugated plate absorber

(D). overlapped transparent plate absorber

(E). transpiration absorber

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

30 2010

Among the different type of combustion chambers, the peak pressure is the lowest for the

1. Open chamber
2. Precombustion chamber
3. Swirl combustion chamber
4. Auxiliary chamber

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

31 2011

Range of aspect ratio for high molded tyres

1. 0.50 or less
2. 0.50-0.75
3. 0.75-1.00
4. 1.00 or higher

A1 : 1

A2 : 2

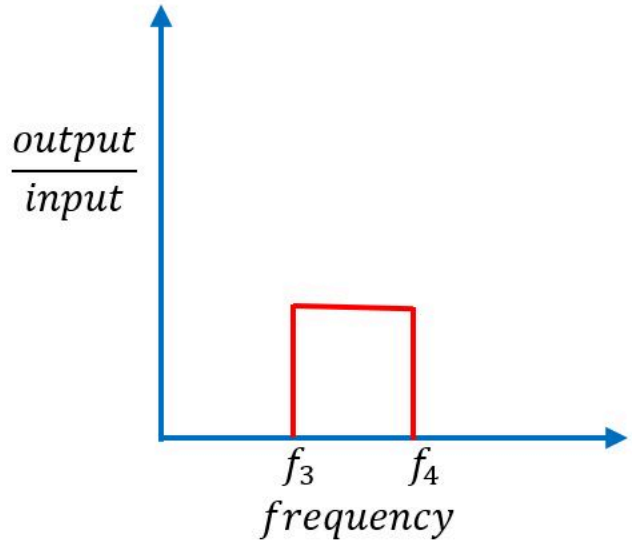
A3 : 3

A4 : 4

Objective Question

32 2012

In the given figure, the amplitude ratio of output of a filter to the input is plotted against frequency. What is the type of the filter?



1. Low pass filter
2. High pass filter
3. Band pass filter
4. Notch type filter

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

33 2013

Which of the following is not a type of solar still?

1. Single effect solar still
2. Multiple effect solar still
3. Tilted tray solar still
4. Wick type solar still

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

34 2014

To minimize ride vibrations, the location of the operator's seat should be

1. Closer to steering wheel
2. Near to the centre of gravity
3. Directly above the rear axle
4. Slightly ahead of the rear axle

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

35 2015

Which of the following is an obtuse angle-type furrow opener?

1. Shovel type
2. Pointed shoe type
3. Stub runner type
4. Hoe type

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

36 2016

What is the terminal velocity for the wheat chaff?

1. $1.5 - 2.5\ \mathrm{m.s^{-1}}$
2. $2.5 - 6.0\ \mathrm{m.s^{-1}}$
3. $6.0 - 9.5\ \mathrm{m.s^{-1}}$
4. $9.5 - 11.5\ \mathrm{m.s^{-1}}$

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

37 2017

Which of the following threshing cylinder is used for producing very fine wheat straw?

1. Spike tooth type
2. Hammer mill type
3. Rasp-bar type
4. Axial flow type

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

38 2018

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

Assertion (A) : Concave end of the disc harrow gang tends to penetrate more deeply than the convex end.

Reason (R) : The radial force, which includes the vertical support force on the disc blade, must pass slightly to the rear of the disc centerline.

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

39 2019

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

Assertion (A) : The power requirement of a rotary mower is much higher than that of a sickle bar mower of the same width.

Reason (R) : The knives of rotary mower are hinged to the disc or drum so that they can swing back if they hit a rock or other obstruction; centrifugal force keeps the knives in cutting position during normal operation.

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

40 2020

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

Assertion (A) : The rotating counterweight commonly provided on the flywheel of a mower pitman drive does not give complete balancing

Reason (R) : Inertia force of the knife varies as the square of crank speed and as the first power of stroke.

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

41 2021

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

List-I	**List-II**
Structure Type	Return Period (Years)
(A). Earth dams having natural spillways	(I). 25
(B). Stock water dams	(II). 25-50
(C). Terrace outlets and vegetated waterways	(III). 15
(D). Field diversions	(IV). 10
	(V). 50-100

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

42 2022

A linear reservoir is one in which storage is directly proportional to:

1. Inflow
2. Outflow
3. Reservoir dimensions
4. Stage

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

43 2023

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

List-I	**List-II**
(A). Percussion (cable tool) drilling	(I). Unconsolidated formations
(B). Rotary drilling	(II). Consolidated formations
(C). Artesian well	(III). Unconfined aquifer
(D). Perched aquifer	(IV). Confined aquifer
	(V). Semi-confined aquifer

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

44 2024

Given below are two statements:

Statement (I): Specific speed of the pump is directly proportional to the square root of head.

Statement (II): The specific speed for a single impeller centrifugal pump varies between 300 to 5000.

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

45 2025

Given below are two statements:

Statement (I): Water requirement of the crops is lesser than the field irrigation requirement.

Statement (II): Field irrigation requirement does not include contribution from other sources except irrigation.

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

46 2026

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

List-I	**List-II**
(A). $I=Kt^{-n}$	(I). Philip's equation
(B). $y=at+b(1-e^{-rt})$	(II). USSCS,1964
(C). $St^{1/2}+At$	(III). Kostiakov's equation
(D). $y=at^{q}+b$	(IV). Lewis and Milne equation
	(V). Horton equation

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

47 2027

Given below are two statements:

Statement (I): Single crop coefficient approach is used for surface irrigation methods.

Statement (II): Dual crop coefficient approach is used for micro irrigation methods.

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

48 2028

Given below are two statements:

Statement (I): Blaney-Criddle method uses mean temperature and monthly percentage day time hours.

Statement (II): Blaney-Criddle method was developed for the humid condition for consumptive use computation.

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

49 2029

Concrete mixture (Cement: Sand: Gravel or broken stone) usually recommended for lining of canals is:

1. 1:2:3
2. 1:3:2
3. 1:3:5
4. 1:3:4

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

50 2030

Given below are two statements:

Statement (I): A channel section is most economical when maximum discharge is obtained for a given cost of construction.

Statement (II): Discharge is maximum when the flow velocity is minimum.

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

51 2031

Drip emission uniformity (EU) is calculated using:

1. $100(1.5-\frac{1.27C_V}{\sqrt{n}})\frac{q_a}{q_m}$
2. $100(1.0-\frac{1.27C_V}{\sqrt{n}})\frac{q_m}{q_a}$
3. $100(2.0-\frac{1.27C_V}{\sqrt{\sqrt[3]{n}}})\frac{q_a}{q_m}$
4. $100(2.0-\frac{1.27C_V}{\sqrt{\sqrt[3]{n}}})\frac{q_m}{q_a}$

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

52 2032

Leaching requirement (LR) is estimated using

1. $\frac{D_d}{D_i}$
2. $\frac{EC_d}{EC_i}$
3. $\frac{D_i}{D_d}$
4. $\frac{2EC_i}{EC_d}$

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

53 2033

Light soils can be irrigated successfully across slope up to:

1. 2 %
2. 3 %
3. 5 %
4. 10 %

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

54 2034

Following are the statements regarding irrigation efficiencies:

(A). Water conveyance efficiency is associated with the canal network.

(B). Water application efficiency is related with the irrigation method.

(C). Economic efficiency is related with the overall performance of the irrigation system.

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

Objective Question

55	2035	Following are the statements regarding sediment loads: (A). Bed load is associated with the movement of coarse particles along the bed surface through sliding, rolling and saltation. (B). Bed load forms less than 25 % portion of total load. (C). Suspended load of a stream is not measured by sampling the stream flow. 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

Objective Question

56	2036	Time of concentration (T_c) is expressed by the following equation: 1. $0.0195\ L^{0.77}\ S^{-0.385}$ 2. $0.0195\ L^{0.77}\ S^{0.385}$ 3. $0.0195\ L^{0.5}\ S^{0.5}$ 4. $0.0195\ L^{0.6}\ S^{0.5}$ A1 : 1 A2 : 2 A3 : 3 A4 : 4

Objective Question

57	2037	

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

Assertion (A) : The lower and upper limit of the curve number corresponds to 0 and 100

Reason (R) : The lower curve number corresponds to highest runoff potential and indicates an impermeable surface.

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

58 2038

Following are the statements regarding grassed waterways:

(A). The Manning's coefficient of roughness is 0.04 for design.

(B). These are designed to carry maximum runoff from a storm of 10 years recurrence interval.

(C). These are constructed across the land slope to remove excess water.

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

Objective Question

59 2039

The minimum length of shelter belt should be how many times of its height?

1. 12
2. 24
3. 36
4. 48

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

60 2040

Compute drainage coefficient if 1 hectare of land is drained and the drainage canal discharges 1 cubic meter of discharge per hour.

1. 1.2 mm
2. 2.4 mm
3. 4.8 mm
4. 7.2 mm

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

61 2041

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

List-I	**List-II**
(A). Janssen's theory	(I). Convection
(B). CAP	(II). Bag storage
(C). Newton's law	(III). Constant humidity
(D). Sensible heating	(IV). Storage structure

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

62 2042

Equation for predicting EMC of agricultural products is given by

(A). Kelvin

(B). Harkins-Jura

(C). Henderson

(D). Janssen

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

63 2043

Given below are two statements:

Statement (I): In a deep bin, plane of rupture strikes the opposite side of structure before it meets the grain surface.

Statement (II): A grain bin can be classified as deep bin when the depth of grain is greater than the equivalent diameter.

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

64 2044

		Thermal vapour compression is used in (A). Evaporator (B). Homogenizer (C). Pasteurizer (D). Blancher Choose the ***correct*** answer from the options given below: 1. (A) and (B) only. 2. (A) and (C) only. 3. (D) only. 4. (A) only. A1 : 1 A2 : 2 A3 : 3 A4 : 4

Objective Question

65	2045	Given below are two statements: Statement (I): Majority of the drying of agricultural produce fall under falling rate regime. Statement (II): Spray dryers are commonly used for liquid foods. In light of the above statements, choose the *most appropriate* answer from the options given below. 1. Both Statement (I) and Statement (II) are correct. 2. Both Statement (I) and Statement (II) are incorrect. 3. Statement (I) is correct but Statement (II) is incorrect. 4. Statement (I) is incorrect but Statement (II) is correct. A1 : 1 A2 : 2 A3 : 3 A4 : 4

Objective Question

66	2046	

Ideal elastic behaviour of a material can be explained by

1. Newtonian liquid
2. St. Venant body
3. Hookean body
4. Janssen equation

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

67 2047

In comparison to other types of conveyors, screw conveyors

1. Require relatively low power and are more susceptible to wear
2. Require relatively high power and are more susceptible to wear
3. Require relatively low power and are less susceptible to wear
4. Require relatively high power and are less susceptible to wear

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

68 2048

Major functions of blanching of fruits and vegetables before dehydration and canning include

(A). Inactivation of enzymes

(B). Killing of pathogenic microbes

(C). Softening of tissue

(D). Cleaning of raw material

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

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

A1 : 1

		A2 : 2 A3 : 3 A4 : 4
Objective Question		
69	2049	Glazing is related to which of the following crop processing? 1. Paddy 2. Wheat 3. Maize 4. Soybean A1 : 1 A2 : 2 A3 : 3 A4 : 4
Objective Question		
70	2050	Capacity of an air screen cleaner depends on which of the following parameters? (A). Grain bed depth (B). Size of screen surface (C). Feeding mechanism (D). Percentage opening area of screen Choose the ***correct*** answer from the options given below: 1. (A), (C) and (D) only. 2. (A) and (C) only. 3. (A), (B), (C) and (D). 4. (B) and (D) only. A1 : 1 A2 : 2 A3 : 3 A4 : 4
Objective Question		
71	1002201	

		An open channel flow is called as steady uniform flow if Statement (I): The depth of flow is the same at every cross section of channel Statement (II): The depth of the flow does not change with time In light of the above statements, choose the *most appropriate* answer from the options given below. 1. Both Statement (I) and Statement (II) are correct. 2. Both Statement (I) and Statement (II) are incorrect. 3. Statement (I) is correct but Statement (II) is incorrect. 4. Statement (I) is incorrect but Statement (II) is correct. A1 : 1 A2 : 2 A3 : 3 A4 : 4
Objective Question		
72	1002202	Which type of salt affected soil/s is/are found in Maharashtra state? (A). Saline Soils (B). Alkali Soils (C). Coastal Saline Soils Choose the ***correct*** answer from the options given below: 1. (A) and (C) only. 2. (A) and (B) only. 3. (A) only. 4. (A), (B) and (C). A1 : 1 A2 : 2 A3 : 3 A4 : 4
Objective Question		
73	1002203	

Read the following statements regarding alkali soils

Statement (I): They have very low infiltration rate

Statement (II): They have white surface incrustation

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

74 1002204

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

List-I	**List-II**
(Component of Underground Pipeline System)	**(Characteristic)**
(A). Pump stand	(I). Portable lines with uniformly spaced outlets for releasing irrigation water to furrows, border strips or check basins
(B). Gated pipe	(II). Placed over riser valve outlets as a means of connecting portable gated pipes to the pipeline
(C). Hydrants	(III). Vertical pipeline structures to release air entrapped into pipeline and to prevent vacuum
(D). Air vents	(IV). A vertical pipe extending above the ground and connected to underground pipeline system

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

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

75 1002205

Given below are two statements regarding drain spacing in tile drains:

Statement (I): In general, deeper the drains the wider the spacing

Statement (II): Hooghoudt equation is used to calculate drain spacing in unsteady state conditions

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

76 1002206

Arrange the following soil texture in decreasing order of infiltration capacity

(A).Loam

(B). Silt loam

(C). Clay loam

(D). Loamy sand

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

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

77 1002207

If the wind velocity at a height of 2 m above ground is 5.0 kmph, its value at a height of 9 m above ground can be expected to be in kmph is about

1. 6.2 kmph
2. 2.6 kmph
3. 9 kmph
4. 22.5 kmph

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

78 1002208

As a thumb rule water spread in the entire basin should be covered in how much time in check basin irrigation ?

1. One-fourth of the time required to infiltrate the net depth of irrigation water
2. Half of the time required to infiltrate the net depth of irrigation water
3. One-third of the time required to infiltrate the net depth of irrigation water
4. Two-third of the time required to infiltrate the net depth of irrigation water

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

79 1002209

A solution 20 g/l concentration of a fluorescent tracer was discharged into a stream at a constant rate of 5 cm^3/s. The background concentration of the dye in stream water was found to be zero. At a downstream section sufficiently far away, the dye was found to reach an equilibrium concentration of 4 parts per billion. Estimated the stream discharge.

1. 50 m^3/s
2. 25 m^3/s
3. 37.5 m^3/s
4. 60 m^3/s

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

80 1002210

The flow characteristics of stream depends on

(A). Rainfall characteristics

(B). Catchment characteristics

(C). Climate factors

Choose the correct answer from the options given below:

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

81 1002211

Read the following statement regarding recession limb of unit hydrograph

(A). It extends from point of inflection at the end of the crest segment to the commencement of the natural groundwater flow

(B). The starting point of recession limb represents the condition of maximum storage

(C). The recession limb is also called as concentration curve

(D). Shape of recession limb depends on storm as well as basin characteristics

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

82 1002212

A water harvesting structure has an expected life of 10 years and is designed for flood magnitude of return period of 20 years. What is the risk of hydrologic design?

1. 40 %
2. 60%
3. 20 %
4. 30%

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

83 1002213

Given below are two statements:

Statement (I): In reservoir routing storage is unique function of the outflow discharge.

Statement (II): In channel routing storage is a function of both outflow and inflow discharges

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

84 1002214

In curve number method, Hydrologic soil group C represents

1. Low runoff potential
2. Moderately low runoff potential
3. Moderately high runoff potential
4. High runoff potential

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

85 1002215

Read the following statements regarding tensiometer

(A). They consist of a porous cup which is located at the bottom

(B). Tensiometers are suitable for tensions more than 0.8 atmosphere

(C). They are not so well adapted in sandy soils

(D). They are filled with water

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

86 1002216

According to the ISSS classification, the diameter of fine sand ranges from

1. 0.2 to 2 mm
2. 0.02 to 0.2 mm
3. 0.25 to 0.5 mm
4. 0.1 to 0.25 mm

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

87 1002217

Given below are two statements:

Statement (I): Specific capacity of a well is measure of the productivity of the well

Statement (II): Larger the specific capacity of the well, better is the performance

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

88 1002218

When the pumps are joined in series then

1. Only discharge increases
2. both discharge and delivery head increases
3. only delivery head increases
4. discharge and delivery head both remain unaffected

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

89 1002219

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

List-I	**List-II**
(Dimensionless Number)	**(Definition)**
(A). Reynold's Number	(I). Square root of ratio of inertia force of flowing liquid to pressure force
(B). Froude's Number	(II). Ratio of inertia force of flowing liquid to viscous force
(C). Euler's Number	(III). Ratio of inertia force of flowing liquid to surface tension force
(D). Weber's Number	(IV). Square root of ratio of inertia force of flowing liquid to gravitational force

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

90 1002220

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

Assertion (A) : Rate of flow of gases is usually expressed as weight of fluid flowing across the section.

Reason (R) : Gases are compressible fluids.

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

91 1002221

The continuity equation in cartesian co-ordinates form is applicable to

(A). Steady and Unsteady flow

(B). Uniform and non-uniform flow

(C). Compressible and incompressible fluids

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

92 1002222

Find the minimum size of glass tube that can be used to measure water level if capillary rise in the tube is to be restricted to a 3 mm. Consider surface tension of water in contact with air as 0.073575 N/m.

1. 2 cm
2. 1.5 cm
3. 3 cm
4. 1 cm

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

93 1002223

A hydraulic jump forms at the downstream end of a spillway having 1 m width and carrying 3.132 m^3/s discharge. If the depth of water before jump is 0.8 m, determine the depth of water after jump.

1. 1.23 m
2. 8.66 m
3. 4.5 m
4. 2.5 m

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

94 1002224

Read the following statements regarding air lift pumps

(A). They use compressed air for lifting water

(B). They do not have any moving parts

(C). It can raise more water through a bore hole of given diameter than any other form of pump

(D). Efficiency of air lift pump are low

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

95 1002225

Read the following statements regarding confined aquifer

(A). It is also called as artesian aquifer

(B). Recharge of this aquifer can be only takes place in the area where it is exposed at the round surface

(C). The piezometric level in confined aquifer coincides with the top level of the aquifer

(D). A confined aquifer is called as leaky aquifer if either or both of its confining beds are aquitards

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. (A) and (B) only.

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

96 1002226

Relative advantages of percussion method of drilling are

(A). Collection of more precise data

(B). Detection of thin and weak water bearing zones

(C). Facility of testing quality and quantity of water as drilling proceeds

(D). Requires much less water for drilling as compared to direct rotary

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

97 1002227

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

List-I	**List-II**
(Soil structure)	**(Characteristics)**
(A). Granular	(I). Structure with sharp edges but rounded corners
(B). Angular	(II). Structure with both edges and corners rounded
(C). Subangular	(III). Structure in which the edges and corners are sharp
(D). Platy	(IV). Structure with horizontal axis longer than vertical

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

98 1002228

Based upon the area arrange the following soil groups of India in decreasing order

(A). Black Soil

(B). Red Soil

(C). Desert Soil

(D). Alluvial Soil

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

99 1002229

Given below are two statements regarding evaporation:

Statement (I): It is the only form of moisture transfer from land and oceans into atmosphere

Statement (II): It is the process by which liquid water is converted into water vapour and removed from the evaporating surface

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

100 1002230

Given below are two statements:

Statement (I): In general, high yielding varieties of crop are more sensitive to water, fertilizer and other agronomic inputs than the traditional low yielding varieties.

Statement (II): Crops grown for their seeds or dry fruits are usually more sensitive to water than those grown for their fresh leaves and fruits.

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

101 1002231

Given below are two statements:

Statement (I): Retention is storage held for a long period of time and depleted by evaporation

Statement (II): Detention is short term storage depleted by flow away from storage location

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

102 1002232

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

List-I	**List-II**
(Base flow separation method)	**(Characteristics)**
(A). Straight line method	(I). Characteristics graph of flow recession curve compiled by superimposing many of the recession curves observed on a given stream
(B). Fixed base method	(II). Baseflow curves are extrapolated
(C). Variable slope method	(III). Surface runoff is assumed to end at a fixed time after the hydrograph peak
(D). Normal depletion curve	(IV). Drawing the horizontal line from the point at which surface runoff begins to the intersection with the recession limb

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) - (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

103 1002233

Arrange the following parts of greenhouse from ground surface to top of the greenhouse

(A). Curtain wall

(B). Side wall

(C). Eave

(D). Ridge

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

104 1002234

Auger hole method is used to determine

1. Infiltration rate
2. Hydraulic conductivity
3. Soil texture
4. Saturation capacity of soil

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

105 1002235

Read the following statements regarding vertical drainage

(A). It is form of subsurface drainage

(B). Drainage is carried out by wells

(C). Water table should be continuous from the shallow layer down to the deep pumped layer

(D). Hydraulic conductivity of drained layer should allow free percolation of water

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

106 1002236

Given below are two statements regarding structures used when irrigation channels are to cross road or drainage channels:

Statement (I): Culverts are used when channel level is almost same or higher than the obstruction

Statement (II): Siphons are used when irrigation channel is at lower elevation than the obstruction to be crossed

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

107 1002237

Given below are two statements about sprinkler nozzles:

Statement (I): The coefficient of discharge for the sprinkler nozzles varies from 0.80 to 0.95

Statement (II): Normally, larger the nozzle, higher is the coefficient

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

108 1002238

In case of surface irrigation, the straight furrows are

1. Laid across the land slope
2. Laid along the contour
3. flat bottom furrows
4. Laid down the prevailing slope

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

109 1002239

The selection of sprinkler is based upon

(A). Diameter of the coverage

(B). Pressure available

(C). Sprinkler discharge

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

110 1002240

Convert 78° 30' 18" into degree decimals

1. 78.505
2. 78.48
3. 78.12
4. 78.518

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

111 1002241

GLONASS satellite navigation system is of which country ?

1. China
2. India
3. Russia
4. Japan

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

112 1002242

What is the correct sequence of following steps involved in crop simulation modelling ?

(A). Define key variables in the system

(B). Calibration and validation

(C). Define system and its boundaries

(D). Quantification of relationship

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

113 1002243

Things to Consider While Selecting a Greenhouse Site are

(A). In Free Standing greenhouse more sunlight is available in winter in East-West oriented greenhouse

(B). In multi-span greenhouses, gutter should be oriented North South

(C). In Naturally ventilated greenhouse, the ventilator should open on the leeward side.

(D). A free standing greenhouse should have its long axis parallel to the wind direction.

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

114 1002244

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

List-I	**List-II**
(Geometric Elements of Channel Section)	**(Definition)**
(A). Wetted perimeter	(I). Ratio of water area to its wetted perimeter
(B). Hydraulic radius	(II). Cross sectional area of the flow normal to the direction of flow
(C). Hydraulic depth	(III). Ratio of water area to the top width
(D). Water Area	(IV). Length of line of intersection of channel wetted surface with a cross sectional plane normal to the direction of flow

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

115 1002245

Given below are two statements:

Statement (I): Greenhouse structures should also be designed for snow load conditions

Statement (II): Minimum snow load (heated greenhouse) value for greenhouse design is 75 kg/m^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

Objective Question

116 1002246

Given below are two statements regarding evaporative cooling in greenhouse:

Statement (I): Only wet bulb temperature is important when dealing with the evaporative cooling systems

Statement (II): The wet bulb temperature is the lowest temperature that can be reached by evaporation of water

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

117 1002247

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

List-I	**List-II**
(Remote Sensing Index)	**(Formula)**
(A). Ratio Vegetation Index	(I). $(NDVI + 0.5)^{1/2}$
(B). Normalized Difference Vegetation Index	(II). $\frac{(R_{NIR} - R_{RED}) \times (1 + L)}{(R_{NIR} + R_{RED} + L)}$
(C). Soil-Adjusted Vegetation Index	(III). $\frac{R_{NIR}}{R_{RED}}$
(D). Transformed Vegetation Index	(IV). $\frac{R_{NIR} - R_{RED}}{R_{NIR} + R_{RED}}$

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

118 1002248

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

List-I	**List-II**
(Groundwater Entity)	**(Characteristic)**
(A). Zone of aeration	(I). Localized water body
(B). Perched water table	(II). Confining formations
(C). Electric logging	(III). Earth's crust which is only partially filled with water
(D). Artesian aquifer	(IV). Geophysical method of groundwater exploration

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

119 1002249

Given below are two statements regarding drip irrigation:

Statement (I): It is also called as trickle irrigation

Statement (II): It restricts root development of crops

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

120 1002250

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

List-I	**List-II**
(Pump characteristic)	**(Pump/theory.)**
(A). Cavitation	(I). Centrifugal pumps
(B). Water hammer	(II). Collapse of water vapour pockets
(C). Bowl assembly	(III). Turbine pumps
(D). Diffuser	(IV). Kinetic energy of flowing fluids

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