PREVIEW QUESTION BANK

Module Name : AGRICULTURAL ENGINEERING AND TECHNOLOGY-ENG
Exam Date : 29-Jun-2024 Batch : 10:00-12:00

Sr. No.	Client Question ID	Question Body and Alternatives	Marks	Negative Marks
Objective Question				
1	100001	Consider the following statistical measures. Which of the given below are measures of central tendency? (A). Arithmetic Mean (B). Median (C). Standard Deviation (D). Quartile Deviation (E). Variance Choose the ***correct*** answer from the options given below: 1. (A) and (C) only. 2. (A) and (B) only. 3. (C), (D) and (E) only. 4. (B) and (D) only. A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
2	100002	Consider the following probability distributions. Which of the following are continuous probability distributions? (A). Normal distribution (B). Binomial distribution (C). Poisson distribution (D). Chi-square distribution (E). F-distribution Choose the ***correct*** answer from the options given below: 1. (B) and (C) only. 2. (A), (B) and (C) only. 3. (A), (D) and (E) only. 4. (D) and (E) only. A1 : 1	4.0	1.00

		A2 : 2 A3 : 3 A4 : 4		
Objective Question				
3	100003	The angle between vectors A=2i-j+2k and B= 6i-3j+6k is 1. Zero 2. 30^0 3. 45^0 4. 60^0 A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
4	100004	For two mutually exclusive events 1. P(A∪B) = P(A) + P (B) 2. P(A∪B) = P(A) x P (B) 3. P(A ∪ B) = $\frac{\mathbf{P(A)+P(B)}}{\mathbf{P(A \cap B)}}$ 4. P(A ∪ B) = P(A) – P (B) A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
5	100005	The median of numbers 11, 10, 12, 13, 9 is 1. 12.5 2. 12 3. 10.5 4. 11 A1 : 1 A2 : 2	4.0	1.00

		A3 : 3 A4 : 4		
Objective Question				
6	100006	Which of the following numerical methods are used for finding roots of an equation? (A). Bisection method (B). Newton-Raphson method (C). Gaussian elimination method (D). Regular falsi method Choose the ***correct*** answer from the options given below: 1. (A), (B) and (C) only. 2. (B), (C) and (D) only. 3. (A), (C) and (D). 4. (A), (B) and (D) only. A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
7	100007	The value of $\frac{d(\log cosx)}{dx}$ will be 1. $Tan(x)$ 2. $-Tan(x)$ 3. $1/cosx$ 4. $-1/cosx$ A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
8	100008		4.0	1.00

		The value of $\int_1^3 x^3$ dx will be 1. 80 2. 20 3. 27 4. 104 A1 : 1 A2 : 2 A3 : 3 A4 : 4		
Objective Question				
9	100009	Which of the following languages does computer understand? 1. Machine language 2. C language 3. Assembly language 4. BASIC language A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
10	100010	Voltage of three phase motor is generally kept at 1. 110 V 2. 220 V 3. 415 V 4. 660 V A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
11	100011		4.0	1.00

		The linear variable differential transformer (LVDT) is an accurate and reliable transducer for measurement of 1. Voltage 2. Displacement 3. Current 4. Temperature A1 : 1 A2 : 2 A3 : 3 A4 : 4		
Objective Question				
12	100012	In India the primary transmission of electric power is carried through 1. 3-phase, 1 wire 2. 1-phase, 3 wire 3. 1-phase, 1 wire 4. 3-phase, 3 wire A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
13	100013	Synchronous Speed of an AC induction motor depends on (A). Frequency of the supply voltage (f) (B). Number of poles (n) (C). Current (I) (D). Voltage (V) (E). Resitance (R) Choose the ***correct*** answer from the options given below: 1. (A) and (B) only. 2. (B) and (C) only. 3. (C) and (D) only. 4. (A), (B), (C), (D) and (E). A1 : 1	4.0	1.00

		A2 : 2 A3 : 3 A4 : 4		
Objective Question				
14	100014	Which of the following types of electric motors is commonly used in applications requiring precise speed control? 1. Induction motor 2. Brushless DC motor 3. Universal motor 4. Synchronous motor A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
15	100015	Given below are two statements, one is labelled as Assertion (A) and other one labelled as Reason (R). Assertion (A) : The copper losses of a single-phase induction motor are high compared to three phase induction motor Reason (R) : In a three-phase induction motor, the load current is distributed among multiple windings In light of the above statements, choose the *correct* answer from the options given below. 1. Both (A) and (R) are true and (R) is the correct explanation of (A). 2. Both (A) and (R) are true but (R) is NOT the correct explanation of (A). 3. (A) is true but (R) is false. 4. (A) is false but (R) is true. A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
16	100016		4.0	1.00

Given below are two statements:

Statement (I): Internal energy and enthalpy are functions of temperature alone.

Statement (II): Specific heat can vary strongly with temperature and pressure of a substance.

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

17	100017	The efficiency of a Carnot heat engine operating between two reservoirs at temperatures T_H (Hot source) and T_C (Cold sink) is given by: 1. $\frac{T_C}{T_H}$ 2. $\frac{T_H}{T_C}$ 3. $1-\frac{T_C}{T_H}$ 4. $1-\frac{T_H}{T_C}$ A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00

Objective Question

18	100018	Cold air at 10 °C is forced to flow over a flat plate maintained at 40 °C . The mean heat transfer coefficient is 30 W/(m^2.°C). What will be the heat flow rate from the plate to the air through a plate area of 2 m^2? 1. 0. 9 kW 2. 1.8 kW 3. 1.5 kW 4. 90 kW A1 : 1	4.0	1.00

A2 : 2

A3 : 3

A4 : 4

Objective Question

19 100019 4.0 1.00

A counter flow, shell and tube type heat exchanger is to be used to cool water from $T_{h, in}$ = 22 °C to $T_{h, out}$ = 6 °C , using brine entering at $T_{c, in}$ = -2 °C and leaving at $T_{c, out}$ = 3 °C. The logarithmic mean temperature difference (ΔT_m) for such system will be

1. $\frac{19-8}{\ln(\frac{19}{8})}$
2. $\frac{16-5}{\ln(\frac{16}{5})}$
3. $\frac{22-6}{\ln(\frac{3}{-2})}$
4. $\frac{24-9}{\ln(\frac{24}{9})}$

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

20 100020 4.0 1.00

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

List-I	**List-II**
Fluid type	**Characteristics**
(A). Ideal fluid	(I). Incompressible and having no viscosity
(B). Newtonian fluid	(II). Shear stress is directly proportional to the rate of shear strain
(C). Real fluid	(III). Shear stress is not proportional to the rate of shear strain
(D). Non- Newtonian fluid	(IV). A fluid which possesses viscosity
(E). Ideal plastic fluid	(V). Shear stress is more than the yield value and shear stress is proportional to the rate of shear

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

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

		A1 : 1 A2 : 2 A3 : 3 A4 : 4		
Objective Question				
21	100021	An error of 1 % in measuring head (H) will produce 1. Same error in discharge over a rectangular weir and triangular weir 2. More error in discharge over triangular weir compared to rectangular weir 3. More error in discharge over rectangular weir compared to triangular weir 4. No error in discharge over a rectangular weir and triangular weir A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
22	100022	Given below are two statements: Statement (I): A rectangular channel will be most economical when width is same as depth of flow. Statement (II): In case of compressible flow, density of the fluid remains constant during flow. In light of the above statements, choose the *most appropriate* answer from the options given below. 1. Both Statement (I) and Statement (II) are correct. 2. Both Statement (I) and Statement (II) are incorrect. 3. Statement (I) is correct but Statement (II) is incorrect. 4. Statement (I) is incorrect but Statement (II) is correct. A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
23	100023		4.0	1.00

		A ball and socket forms a 1. Turning pair 2. Rolling pair 3. Screw pair 4. Spherical pair A1 : 1 A2 : 2 A3 : 3 A4 : 4		
Objective Question				
24	100024	A couple consists of 1. Two like parallel forces of same magnitude 2. Two like parallel forces of different magnitudes. 3. Two unlike parallel forces of same magnitude 4. Two unlike parallel forces of different magnitudes A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
25	100025	The coefficient of uniformity in soil gradation is the ratio of 1. D_{60} to D_{10}. 2. D_{10} to D_{60}. 3. D_{50} to D_{10}. 4. D_{10} to D_{50}. A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
26	100026		4.0	1.00

		Atterberg limits of a soil represent which of the following property at critical stages of soil behaviour? 1. Soil moisture 2. Soil texture 3. Soil structure 4. Soil cohesion A1 : 1 A2 : 2 A3 : 3 A4 : 4		
Objective Question				
27	100027	Fatigue failure occurs due to 1. Sudden application of stress 2. Gradual application of stress 3. Repeated application of stress 4. Constant application of stress A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
28	100028	The compaction of soil reduces 1. Soil strength 2. Soil stability 3. Void ratio 4. Dry density A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
29	100029		4.0	1.00

		The resultant of two forces P & Q (such that P > Q) acting along the same straight line but in opposite direction, is given by 1. P + Q 2. P - Q 3. P x Q 4. $\frac{(P-Q)}{2}$ A1 : 1 A2 : 2 A3 : 3 A4 : 4		
Objective Question				
30	100030	A cantilever beam is subjected to a uniformly distributed load. At what point along the beam's length does the maximum deflection occur? 1. At the fixed end 2. At the midpoint of the beam 3. At a quarter span from the free end 4. At the free end A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
31	100031	Dropping of seeds in furrow in a continuous flow is known as 1. Dibbling 2. Drilling 3. Hill dropping 4. Broadcasting A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
32	100032		4.0	1.00

		Which of the following is true for proper knife registration? 1. Mid-point of the stroke is centered between adjacent guards 2. Outer end of cutter bar is ahead of inner end 3. The knife is in line with pitman 4. Both the ends of cutter bar are at same level A1 : 1 A2 : 2 A3 : 3 A4 : 4		
Objective Question				
33	100033	Which of the following results in increased seed damage during mechanical threshing? (A). Decreased concave clearance (B). Decreased seed moisture content (C). Reduced threshing cylinder diameter (D). Increased feed rate Choose the ***correct*** answer from the options given below: 1. (A) and (B) only. 2. (B) and (C) only. 3. (A) and (D) only 4. (A), (C) and (D) only. A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
34	100034	Reid vapour pressure test is conducted to check 1. Corrosiveness of fuel 2. Volatility of fuel 3. Sulphur content of fuel 4. Knocking characteristics of fuel. A1 : 1 A2 : 2	4.0	1.00

		A3 : 3 A4 : 4		
Objective Question				
35	100035	Which of the following is true for self-ignition temperature of CI engine and SI engine fuel? (A). A good CI engine fuel requires high self-ignition temperature (B). A good SI engine requires low self-ignition temperature (C). A good CI engine fuel requires low self-ignition temperature (D). A good SI engine requires high self-ignition temperature Choose the ***correct*** answer from the options given below: 1. (A) and (B) only. 2. (B) and (C) only. 3. (A) and (D) only. 4. (C) and (D) only. A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
36	100036	Pensky Martens closed tester is used for determination of which of the following property of fuel? 1. Viscosity 2. Carbon residue 3. Flash point 4. Ash content A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
37	100037		4.0	1.00

		Given below are two statements, one is labelled as Assertion (A) and other one labelled as Reason (R). Assertion (A) : The materials used are frequently different for inlet and exhaust valves. Reason (R) : Inlet valves run cooler than exhaust valves 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				
38	100038	In four stroke cycle engines 1. The cam-shaft rotates at one-half the crankshaft speed 2. The crankshaft rotates at one-half the cam-shaft speed 3. The crankshaft rotates at same speed as that of cam-shaft 4. The crankshaft and cam-shaft speeds are independent of each other A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
39	100039	Given below are two statements: Statement (I): The piston attains its maximum velocity at top dead centre. Statement (II): The piston attains its maximum acceleration at top and bottom dead centre. 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	4.0	1.00

		A2 : 2 A3 : 3 A4 : 4		
Objective Question				
40	100040	Which of the following is true incase of turbocharger? (A). Turbocharger is driven by exhaust gas turbine (B). Turbocharging increases the density of air delivered to engine cylinders (C). A turbo-charged engine operates with low cylinder temperatures (D). A Turbo-charged engine has increased fuel consumption for the power produced Choose the ***correct*** answer from the options given below: 1. (A), (B) and (C) only. 2. (B), (C) and (D) only. 3. (A) and (D) only. 4. (A), (B), (C) and (D) A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
41	100041	If transmission and engine system of a tractor produce a noise of 80 dB each, then the overall noise level will be 1. 80 dB 2. 160 dB 3. 83 dB 4. 113 dB A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
42	100042		4.0	1.00

		Which of the following is an indicator of efficiency with which the traction device transforms the torque acting on axle into linear drawbar pull ? 1. Net traction coefficient 2. Tractive efficiency 3. Motion resistance ratio 4. Traction force A1 : 1 A2 : 2 A3 : 3 A4 : 4		
Objective Question				
43	100043	Given below are two statements: Statement (I): A closed-central valve has land width greater than the port width when the spool is in centre Statement (II): An accumulator in hydraulic systems is used to supply energy when the demand of motors and cylinders is greater than the capacity of pump In light of the above statements,choose the *most appropriate* answer from the options given below. 1. Both Statement (I) and Statement (II) are true. 2. Both Statement (I) and Statement (II) are false. 3. Statement (I) is true but Statement (II) is false. 4. Statement (I) is false but Statement (II) is true. A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
44	100044	A per BIS, for safe use of threshers 1. The minimum length of feeding chute should be 90 cm and covered up to a minimum of 45 cm 2. The maximum length of feeding chute should be 90 cm and covered up to a minimum of 45 cm 3. The maximum length of feeding chute should be 90 cm and covered up to a maximum of 45 cm 4. The minimum length of feeding chute should be 90 cm and covered up to a maximum of 45 cm A1 : 1 A2 : 2	4.0	1.00

		A3 : 3 A4 : 4		
Objective Question				
45	100045	Picker is the harvesting system related to 1. Potato 2. Maize 3. Cotton 4. Forage crops A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
46	100046	Knife register and cutterbar alignment are important for proper functioning of which of the following harvesting equipment ? 1. Vertical conveyor reaper 2. Mower 3. Combine harvester 4. Sugarcane harvester A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
47	100047	Which of the following is primary function of seed broadcaster? 1. Open the seed furrow to proper depth 2. Meter and distribute seed over a a given width of land. 3. Deposit the seed in the furrow in acceptable pattern 4. Cover the seed and compact soil around it A1 : 1 A2 : 2 A3 : 3	4.0	1.00

A4 : 4

Objective Question

48 100048 4.0 1.00

If the diameter (d) of horizontal axis rotor is doubled and wind speed (V) is halved, the available wind power (Pa) will

1. Remain same
2. Increase by two times
3. Reduced to half
4. Increase by four times

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

49 100049 4.0 1.00

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

List-I	**List-II**
Product	**Conversion process**
(A). Briquettes	(I). Thermo-chemical conversion
(B). Bio-diesel	(II). Transesterfication
(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				
50	100050	An engine has a swept volume of 275 cm^3 , clearance volume of 25 cm^3. Its volumetric efficiency is 0.80 and mechanical efficiency is 0.90. The volume of mixture taken in per stroke is 1. 200 cm^3 2. 275 cm^3 3. 220 cm^3 4. 180 cm^3 A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
51	100051	A spark ignition engine is idling at 500 rpm. If the average flame speed is 10 $m.s^{-1}$ and the flame front must travel 50 mm from the spark plug to consume 85% of the fuel-air mixture, how much spark advance is needed if 85% of the fuel is to be consumed before the crankshaft reaches 10° after HDC? 1. 16.5° 2. 15° 3. 6.5° 4. 5° A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
52	100052	A pair of straight teeth spur gears is transmitting power at 600 rpm and the pinion has 21 standard full depth involute teeth of module 7 mm. The pitch line velocity of the pinion is 1. 0.09 $m.s^{-1}$ 2. 0.22 $m.s^{-1}$ 3. 2.32 $m.s^{-1}$ 4. 4.62 $m.s^{-1}$ A1 : 1 A2 : 2 A3 : 3	4.0	1.00

		A4 : 4		
Objective Question				
53	100053	A load of "W" kN is acting on a tyre having 160 mm nominal width. The effective friction coefficient of tyre and ground interaction is "μ" and the kingpin offset is 10 mm. Assuming the tyre impression on ground as circle with diameter equal to nominal tyre width, the kingpin torque of the tyre in N.m will be 1. $W\mu\sqrt{3210}$ 2. $\frac{W\mu\sqrt{3210}}{1000}$ 3. $W\mu\sqrt{3300}$ 4. $\frac{W\mu\sqrt{3300}}{1000}$ A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
54	100054	A 2WD tractor with a total weight of 20 kN has a static weight distribution of 25% and 75% at the front and rear axles, respectively. When the tractor is operated on a level ground, the maximum tractive force developed is 10 kN. If external weight of 5 kN is added to the rear axle, neglecting weight transfer, the change in maximum tractive force in kN is 1. 3.33 2. 5.33 3. 7.33 4. 10.33 A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
55	100055		4.0	1.00

The bulk temperature reached by the heat absorbing elements of a clutch after and before engagement are 200°C and 50°C respectively. The total mass of the heat absorbing elements is 10 kg. If "Q" joules of heat is generated in the clutch, required specific heat of heat-absorbing elements (in $J.kg^{-1}.°C^{-1}$) will be

1. $\frac{10Q}{150}$
2. $\frac{Q}{1500}$
3. $\frac{10Q}{250}$
4. $\frac{Q}{2500}$

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

56	100056	The resultant soil thrust and radial force acting on each gang of a single acting disc harrow are 1200 N, and 600 N respectively. The resultant downward force acting on each gang is 2400 N. The perpendicular distance of the soil thrust from the gang axis is 20 cm. What is the distance between line of action of downward force and centre of the gang to get a uniform depth of cut? 1. 5 cm 2. 10 cm 3. 15 cm 4. 40 cm A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00

Objective Question

57	100057	An inclined blade tillage tool of 25 cm wide and 10 cm long is operating at 25 cm depth in cohesionless soil with density equal to 1.25 $g.cm^{-3}$, and angle of internal friction of 39^0 . The normal load on the tool and coefficient of soil-metal friction are 1000 N and 0.3, respectively. The soil cutting resistance per unit length of cutting edge is 25 $N.mm^{-1}$. If the tool lift angle is 30^0 , the specific draft will be [Given: $\cos 30^0 = 0.866$] 1. 1385 N 2. 885 N 3. 760 N 4. 260 N A1 : 1	4.0	1.00

		A2 : 2 A3 : 3 A4 : 4		
Objective Question				
58	100058	During testing of a thresher, 100 N.m is recorded at 600 rpm at the main shaft of threshing cylinder. The diameter of threshing cylinder is 140 mm. The cylinder is operated by a V-pulley and unit mass of v-belt is 1.0 $kg.m^{-1}$. What will be the maximum tension in the v-belt at the condition of maximum power transmission? 1. 1429 N 2. 714 N 3. 58 N 4. 19 N A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
59	100059	The output capacity and cleaning efficiency of a wheat thresher at an optimal operating condition are 600 $kg.h^{-1}$ and 99%, respectively. The grain-straw ratio of the crop is 2:1. If the grain recovery at main grain outlet is 100%, the throughput capacity will be 1. 909 $kg.h^{-1}$ 2. 900 $kg.h^{-1}$ 3. 891 $kg.h^{-1}$ 4. 882 $kg.h^{-1}$ A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
60	100060		4.0	1.00

		The soil forces acting upon a mould board plough bottom resulting from the operations of cutting, pulverising, lifting, and inverting the furrow slice are 2.2 kN, 1.0 kN, and 0.8 kN along longitudinal, transverse, and vertical directions, respectively. The coefficient of soil-metal friction in the friction phase is 0.3. What will be the estimated draft, neglecting the effects of weight of the implement and the vertical reaction? 1. 1460 N 2. 1660 N 3. 2440 N 4. 2500 N A1 : 1 A2 : 2 A3 : 3 A4 : 4		
Objective Question				
61	100061	Given below are two statements, one is labelled as Assertion (A) and other one labelled as Reason (R). Assertion (A) : Angle of repose of material increases with the increase of moisture content of material. Reason (R) : Increasing moisture content of the material softens the tissue. In light of the above statements, choose the *correct* answer from the options given below. 1. Both (A) and (R) are true and (R) is the correct explanation of (A). 2. Both (A) and (R) are true but (R) is NOT the correct explanation of (A). 3. (A) is true but (R) is false. 4. (A) is false but (R) is true. A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
62	100062		4.0	1.00

		Thermal diffusivity of the material depends upon - (A). Thermal conductivity (B). Mass density (C). Specific heat (D). Moisture content 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. (C) and (D) only. A1 : 1 A2 : 2 A3 : 3 A4 : 4		
Objective Question				
63	100063	Drum dryer is suitable for drying of (A). Pulses (B). Fruit puree (C). Concentrated milk (D). Leafy vegetables Choose the ***correct*** answer from the options given below: 1. (B), (C) and (D) only. 2. (A), (B), (C) and (D). 3. (A) and (C) only. 4. (B) and (C) only. A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
64	100064		4.0	1.00

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

List-I	List-II
(A). Pasteurization	(I). Freeze drying
(B). Triple point	(II). Cyclone
(C). Centrifugal force	(III). Idlers
(D). Belt conveyor	(IV). HTST

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

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

65 100065 4.0 1.00

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

Assertion (A) : Dahl produced by wet milling method will take more time to cook as compared to dry milling method.

Reason (R) : Steeping time of pulses affects cooking quality; more steeping time leads to dhal taking more time to cook.

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

66	100066	Cover and plinth (CAP) is related to 1. Condensation 2. Storage 3. Drying 4. Blanching A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
67	100067	Given below are two statements: Statement (I): Cage houses for poultry are generally built in cold regions where birds need protection from cold winds. Statement (II): Usually cages are made of welded steel with slopy floor. In light of the above statements,choose the *most appropriate* answer from the options given below. 1. Both Statement (I) and Statement (II) are true. 2. Both Statement (I) and Statement (II) are false. 3. Statement (I) is true but Statement (II) is false. 4. Statement (I) is false but Statement (II) is true. A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
68	100068	Air is to be moved up through a grain bed at the rate of 2 m^3/s against a pressure of 375 Pa. Determine the input power required. Assume 75% efficiency. 1. 500 W 2. 1000 W 3. 750 W 4. 75 W A1 : 1 A2 : 2 A3 : 3	4.0	1.00

		A4 : 4		
Objective Question				
69	100069	During the process of freeze drying, ice crystals from the food are removed by the process known as : 1. Sublimation 2. Vaporization 3. Re-crystallization 4. Reverse osmosis A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
70	100070	Pen barns are used for the purpose of - (A). Milking (B). Calf rearing (C). Calving (D). Housing sick animals Choose the ***correct*** answer from the options given below: 1. (A) and (B) only. 2. (B), (C) and (D) only. 3. (A), (B) and (C) only. 4. (A), (B), (C) and (D). A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
71	100071		4.0	1.00

		Given below are two statements: Statement (I): Primary function of compressor in a vapour compression refrigeration system is to raise temperature and pressure of the refrigerant vapour. Statement (II): Condenser converts the refrigerant vapour to its liquid form. 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				
72	100072	Given below are two statements, one is labelled as Assertion (A) and other one labelled as Reason (R). Assertion (A) : Sensible heating of air increases the humidity of air. Reason (R) : Process of sensible heating is represented on the psychrometric chart by a straight horizontal line. In light of the above statements, choose the *correct* answer from the options given below. 1. Both (A) and (R) are true and (R) is the correct explanation of (A). 2. Both (A) and (R) are true but (R) is NOT the correct explanation of (A). 3. (A) is true but (R) is false. 4. (A) is false but (R) is true. A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
73	100073	A cold storage system used to store potatoes is observed to remove 2500 calories of heat every second. What will be the capacity of refrigeration system installed in the cold store in terms of ton of refrigeration ? 1. 2.5 2. 3 3. 1 4. 4	4.0	1.00

		A1 : 1 A2 : 2 A3 : 3 A4 : 4		
Objective Question				
74	100074	Factors to be considered while designing an air screen cleaner include: (A). Particle size and shape (B). Distribution of various faction sizes (C). Stickiness and abrasiveness of the particles to be handled (D). Flow characteristics of the material Choose the ***correct*** answer from the options given below: 1. (A), (B) and (D) only. 2. (C) and (D) only. 3. (A), (C) and (D) only. 4. (A), (B), (C) and (D). A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
75	100075	Given below are two statements, one is labelled as Assertion (A) and other one labelled as Reason (R). Assertion (A) : At a given moisture content, grain angle of repose is equal to the angle of internal friction Reason (R) : The angle of internal friction is equal to the tangent of coefficient of friction for the 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	4.0	1.00

Objective Question

76	100076	Sterilization of food in containers can be done by (A). Indirect heating by a saturated steam (B). Forced convection hot air (C). Exposing to blue light (D). By direct flame contact 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), (B), (C) and (D). A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00

Objective Question

77	100077	Given below are two statements: Statement (I): Parboiling process is a mandatory operation in rice milling. Statement (II): Parboiling maximises recovery of head rice by minimizing breakage during milling. In light of the above statements, choose the *most appropriate* answer from the options given below. 1. Both Statement (I) and Statement (II) are correct. 2. Both Statement (I) and Statement (II) are incorrect. 3. Statement (I) is correct but Statement (II) is incorrect. 4. Statement (I) is incorrect but Statement (II) is correct. A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00

Objective Question

78	100078		4.0	1.00

		Process of application of chemicals to seeds for protection against fungal or insect pests in the soil after planting is known as 1. Seed priming 2. Seed conditioning 3. Seed seasoning 4. Seed dressing A1 : 1 A2 : 2 A3 : 3 A4 : 4		
Objective Question				
79	100079	Psychrometric chart can be used to find out (A). Dew point temperature (B). Triple point (C). Humid volume (D). Humidity Choose the ***correct*** answer from the options given below: 1. (A), (B) and (D) only. 2. (A) and (C) only. 3. (A), (C) and (D) only. 4. (A) and (D) only. A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
80	100080		4.0	1.00

Equipment that separates the material based on length include(s)

(A). Indented cylinder separator

(B). Inclined draper

(C). Disk separator

(D). Rotary screen cleaner

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

81 100081 4.0 1.00

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

List-I	**List-II**
(A). Milking parlour	(I). Open air
(B). Milk colony	(II). Pen barn
(C). Sick animal	(III). Loose housing
(D). Lofing barn	(IV). Community barn

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

1. (A) - (III), (B) - (IV), (C) - (II), (D) - (I)
2. (A) - (IV), (B) - (II), (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				
82	100082	What is the amount of dry matter in 100 kg rice having 100% moisture content on d.b. 1. 90 kg 2. 50 kg 3. 70 kg 4. 85 kg A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
83	100083	Which type of idler is used in belt conveyor for transporting granular materials having an angle of repose of not less than 35°? 1. Troughing idlers with 35° trough 2. Troughing idlers with 45° trough 3. Troughing idlers with 20° trough 4. Flat belt idlers A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
84	100084	Given below are two statements: Statement (I): The fineness modulus indicates the uniformity of grind in the resultant product of a feed grinder. Statement (II): The uniformity index indicate distribution of fines and coarses in the resultant product. 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	4.0	1.00

		A3 : 3 A4 : 4		
Objective Question				
85	100085	In which of the following dryer, layers of inverted V ports are arranged in an offset pattern? 1. PHTC dryer 2. Rotary dryer 3. Baffle dryer 4. LSU dryer A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
86	100086	Unit operations those are performed for refining of crude vegetable oils includes (A). Pasteurization (B). Winterization (C). Bleaching (D). Neutralizing Choose the ***correct*** answer from the options given below: 1. (B) and (D) only. 2. (A), (B) and (D) only. 3. (B), (C) and (D) only. 4. (C) and (D) only. A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
87	100087		4.0	1.00

An evaporator concentrating liquid food is producing 100 g of steam every minute. If the steam consumption of evaporator is 10 kg/h; what will be the the steam economy of the evaporator?

1. 0.1
2. 1.0
3. 1.6
4. 0.6

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

88	100088	Which among the following law is used for calculating energy requirement during size reduction? (A). Bond's law (B). Kick's law (C). Henderson law (D). Rittinger's law Choose the ***correct*** answer from the options given below: 1. (A), (B) and (D) only. 2. (A), (B), (C) and (D). 3. (B), (C) and (D) only. 4. (A) and (B) only. A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00

Objective Question

89	100089	Furfural is an economic product that can be produced from which of the following by-product? 1. Cattle waste 2. Bagasse 3. Cow dung 4. Sewage A1 : 1 A2 : 2	4.0	1.00

A3 : 3

A4 : 4

Objective Question

90	100090	Given below are two statements: Statement (I): CFTRI method of pulse milling eliminates use of edible oil for conditioning. Statement (II): Dhal produced using dry milling technique is reported to be of better taste than wet milled dhal. In light of the above statements, choose the *most appropriate* answer from the options given below. 1. Both Statement (I) and Statement (II) are correct. 2. Both Statement (I) and Statement (II) are incorrect. 3. Statement (I) is correct but Statement (II) is incorrect. 4. Statement (I) is incorrect but Statement (II) is correct. A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00

Objective Question

91	100091	Hydrology is the science of water which deals with (A). Occurance (B). Distribution (C). Circulation Choose the ***correct*** answer from the options given below: 1. (A) only. 2. (A) and (B) only. 3. (B) and (C) only. 4. (A), (B) and (C). A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00

Objective Question

92	100092		4.0	1.00

		Given below are two statements: Statement (I): Areas under rainfed agriculture are particularly affected by water erosion. Statement (II): Areas under rainfed agriculture are particularly affected by wind erosion 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				
93	100093	The percentage of earth covered by oceans is about 1. 51 % 2. 61 % 3. 71 % 4. 81 % A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
94	100094	Given below are two statements: Statement (I): In geodetic surveying, the curvature of the earth is taken into account, since large areas are covered. Statement (II): In plane surveying, the curvature of the earth is not taken into account. 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	4.0	1.00

		A2 : 2 A3 : 3 A4 : 4		
Objective Question				
95	100095	Each link in a Gunter's chain is : 1. 0.33 ft 2. 1 ft 3. 0.66 ft 4. 0.5 ft A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
96	100096	Intensity of drizzle is 1. Greater than 3 mm/h 2. Between 1 mm/h to 2 mm/h 3. Less than 1 mm/h 4. Between 2 mm/h to 3 mm/h A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
97	100097	Given below are two statements: Statement (I): Land grading is beneficial in unirrigated areas to conserve moisture. Statement (II): Land smoothing is the final operation in land levelling. 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.	4.0	1.00

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

98 100098 4.0 1.00

Safe limits of land slope (%) for efficient irrigation in medium (loamy) soils is :

1. 0.05 to 0.20
2. 0.20 to 0.40
3. 0.25 to 0.65
4. 0.70 to 0.90

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

99 100099 4.0 1.00

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

List-I	**List-II**
(A). Irrigation	(I). Terrace
(B). Drainage	(II). Surge
(C). Water Pumping	(III). Foot valve
(D). Soil Conservation	(IV). Land reclamation
(E). Water Resources	(V). Dam

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

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

A1 : 1

		A2 : 2 A3 : 3 A4 : 4		
Objective Question				
100	100100	Given below are two statements: Statement (I): Record from the tipping bucket gives data on the rainfall intensity. Statement (II): Natural siphon-type recording raingauge gives a plot of the mass curve of rainfall. In light of the above statements, choose the *most appropriate* answer from the options given below. 1. Both Statement (I) and Statement (II) are correct. 2. Both Statement (I) and Statement (II) are incorrect. 3. Statement (I) is correct but Statement (II) is incorrect. 4. Statement (I) is incorrect but Statement (II) is correct. A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
101	100101	The most appropriate wooden equipment for land smoothening operation is: 1. Leveller board 2. Buck scraper 3. Float 4. U-leveller A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
102	100102		4.0	1.00

		Given below are two statements: Statement (I): Soil profile is a vertical section of the soil from the surface through all its horizons. Statement (II): Soil texture is the arrangement of individual soil particles with respect to each other into a pattern. 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				
103	100103	Consider the statement(s) given below : (A). The porosity of a material is dependent upon the arrangement of the particles, shape of grains and degree of assortment. (B). The rhombohedral arrangement gives the maximum porosity. (C). Transmissivity is expressed as sq. metres per day. Choose the **correct** answer from the options given below: 1. (B) and (C) only. 2. (A) and (C) only. 3. (A) and (B) only. 4. (C) only. A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
104	100104		4.0	1.00

1 cm of rainfall over a catchment area of 1 km^2 represents a volume of water equal to:

1. $10^4\ m^3$
2. $10^4\ m^2$
3. $10^4\ m^4$
4. $10^3\ m^3$

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

105 100105 4.0 1.00

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

List-I	**List-II**
(A). Evaporation	(I). Plant leaves
(B). Infiltration	(II). Humid day
(C). Low evaporation	(III). Rate of entry of rain water in to soil
(D). Evapotranspiration	(IV). Dalton's law
(E). Transpiration	(V). Blaney-Criddle

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

106 100106 4.0 1.00

Which of the following statements regarding hydrologic soil groups are correct?

(A). Group-A soils having high runoff potential.

(B). Group-A soils having high infiltration rates.

(C). Group-C soils having low infiltration rates.

(D). Group-B soils having very low infiltration rates.

(E). Group-D soils having moderately low runoff potential.

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

107	100107		4.0	1.00

Which of the following statements regarding construction and installation of weirs are true?

(A). The velocity of approach of water to the weir should not be considered.

(B). Weir crest should be placed closer than 2H from the bottom of the channel.

(C). The head over the weir should be measured on the upstream side at a distance of at least 4 times the head of flow from the weir.

(D). The falling water surface from the weir should not have free flow.

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

108	100108		4.0	1.00

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

List-I	**List-II**
(A). Engineering soil conservation measures	(I). Rainfall more than 750 mm/year
(B). Agricultural practices	(II). 10 to 30 %
(C). Contour bunding	(III). 2 to 6 %
(D). Graded bunding	(IV). Slope greater than 2 %
(E). Terracing	(V). Slope less than 2 %

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

109 100109

Compute the head loss due to friction in a pipe 7.5 cm in diameter and 120 m long when the water is flowing at a velocity of 1.8 m/s. The value of f may be assumed to be 0.005:

1. 4 m
2. 4.32 m
3. 5.28 m
4. 6 m

4.0 1.00

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

110 100110 4.0 1.00

Given below are two statements:

Statement (I): The direct measurement of relative humidity is done using hygrometer.

Statement (II): The most common method of measuring relative humidity is using dry and wet bulb thermometers.

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

111	100111		4.0	1.00

Which of the following statements regarding basic equation for flow through the weir are correct?

(A). $Q = 0.0186LH^{2/3}$

(B). $Q = 0.0184LH^{7/2}$

(C). $Q = CLH^{m}$

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

112	100112		4.0	1.00

		Given below are two statements: Statement (I): Check basin method is suitable for irrigated crops which are sensitive to wet soil conditions around the stems of plants. Statement (II): Check basin irrigation is the most common method of irrigation in India and in many other countries. 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				
113	100113	Lands under Class II (A). Require moderate conservation practices. (B). Have gentle slope. (C). Severe salinity (D). Slight to moderate salinity (E). Permanent Forest Choose the ***correct*** answer from the options given below: 1. (A), (B) and (D) only. 2. (A), (B) and (C) only. 3. (B), (D) and (E) only. 4. (C), (D) and (E) only. A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
114	100114		4.0	1.00

		Because of the shrinkage, the cut fill ratio should be greater than 1. 2 2. 3 3. 1 4. 5 A1 : 1 A2 : 2 A3 : 3 A4 : 4		
Objective Question				
115	100115	Alkali soils/sodic soil have (A). Very high permeability (B). Salts dominated by bicarbonates, carbonates and silicate of sodium. (C). pH greater than 8.5. (D). Electrical conductivity greater than 4 dS/m. (E). Exchangeable Sodium Percentage is greater than or equals to 15. Choose the ***correct*** answer from the options given below: 1. (A), (B) and (D) only. 2. (A), (B) and (C) only. 3. (B), (C) and (E) only. 4. (C), (D) and (E) only. A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
116	100116		4.0	1.00

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

List-I	**List-II**
(A). Rainfall intensity vs time	(I). Hydrograph
(B). Cumulative discharge vs time in chronological order	(II). Hyetograph
(C). Accumulated precipitation vs time in chronological	(III). Flow duration curve
(D). Stream flow vs time in chronological order	(IV). Mass curve of rainfall
(E). Stream discharge vs percent time the flow in equalled or exceeded	(V). Flow mass curve

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

117 100117 4.0 1.00

A Persian wheel with an average discharge of 230 litres/minute irrigates 1 ha of wheat crop in 50 hrs. What is the average depth of irrigation?

1. 3.6 cm
2. 4 cm
3. 5 cm
4. 6.9 cm

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

118 100118 4.0 1.00

Which of the following statements regarding Hooghoudt's equation are correct?

(A). Gives the relation between the spacing of drains and the height of the water table.

(B). Darcy's law is valid for the flow.

(C). The soil is heterogenous.

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

119 100119 4.0 1.00

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

List-I	**List-II**
(A). Erosivity	(I). Tubewell
(B). Erodibility	(II). Tubewell spacing
(C). Application efficiency	(III). Rainfall
(D). Radial flow	(IV). Soil
(E). Cone of depression	(V). Irrigation

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question				
120	100120	A lateral has 12 sprinklers spaced 14 metres apart. The laterals are spaced 20 metres on the main line. Determine the amount of fertilizer to be applied at each setting when the recommended fertilizer dose is 80 kg/ha. 1. 22 kg 2. 20 kg 3. 27 kg 4. 30 kg A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00