

PREVIEW QUESTION BANK

Module Name : Farm Machinery and Power Engineering-ENG
Exam Date : 09-Jul-2023 Batch : 14:30-16:30

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

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

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

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

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

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

Objective Question

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

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

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

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

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

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

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

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

21	101001	Given below are two statements: Statement (I): The straight-line method is the most practical and most common for calculating depreciation Statement (II): In the straight-line method, the amount of annual depreciation is equal to the new cost minus the trade-in value at the end of the assumed life, divided by the estimated life in years In light of the above statements, choose the <i>most appropriate</i> answer from the options given below. 1. Both Statement (I) and Statement (II) are correct. 2. Both Statement (I) and Statement (II) are incorrect. 3. Statement (I) is correct but Statement (II) is incorrect. 4. Statement (I) is incorrect but Statement (II) is correct. A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

22	101002	Given below are two statements, one is labelled as Assertion (A) and other one labelled as Reason (R). Assertion (A) : Oblique cutting of plant material reduces the peak cutting process Reason (R) : In oblique cutting oblique angle is not equal to zero In light of the above statements, choose the <i>correct</i> answer from the options given below. - Both (A) and (R) are true and (R) is the correct explanation of (A). - Both (A) and (R) are true but (R) is NOT the correct explanation of (A). (A) is true but (R) is false. (A) is false but (R) is true. A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

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

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

25	101005	Given below are two statements, one is labelled as Assertion (A) and other one labelled as Reason (R). Assertion (A) : To stop a tractor with implement at high speed, brakes are to be applied in addition to declutching Reason (R) : A device to declutch the tractor will not afford much protection to an implement when speed is high In light of the above statements, choose the <i>correct</i> answer from the options given below. 1. Both (A) and (R) are true and (R) is the correct explanation of (A). 2. Both (A) and (R) are true but (R) is NOT the correct explanation of (A). 3. (A) is true but (R) is false. 4. (A) is false but (R) is true. A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

26	101006	Given below are two statements: Statement (I): Aerobic fermentation of organic matter produces CO₂ and NH₃ while anaerobic fermentation produces CO₂ and CH₄ Statement (II): When the main aim is to render the material hygienic and recover plant nutrients for reuse in fields, the better practice to follow is anaerobic fermentation In light of the above statements, choose the <i>most appropriate</i> answer from the options given below. 1. Both Statement (I) and Statement (II) are true. 2. Both Statement (I) and Statement (II) are false. 3. Statement (I) is true but Statement (II) is false. 4. Statement (I) is false but Statement (II) is true. A1 : 1	4.0	1.00
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A2 : 2

A3 : 3

A4 : 4

Objective Question

27 101007

4.0

1.00

Given below are two statements:

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

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

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

28 101008

4.0

1.00

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

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

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

29	101009	Given below are two statements: Statement (I): Vegetable oils can be converted into biodiesel by a process of transesterification Statement (II): During biodiesel production glycerine remains on upper side and ester on lower side forming two distinct layers In light of the above statements,choose the <i>most appropriate</i> answer from the options given below. - Both Statement (I) and Statement (II) are true. - Both Statement (I) and Statement (II) are false. - Statement (I) is true but Statement (II) is false. - Statement (I) is false but Statement (II) is true. A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

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

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

Objective Question

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

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

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

35	101015	Given below are two statements: Statement (I): Payback period does not take into consideration time value of money Statement (II): Net present value takes into consideration time value of money In light of the above statements, choose the <i>most appropriate</i> answer from the options given below. - Both Statement (I) and Statement (II) are correct. - Both Statement (I) and Statement (II) are incorrect. - Statement (I) is correct but Statement (II) is incorrect. - Statement (I) is incorrect but Statement (II) is correct. A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

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

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

Objective Question

41	101021	Given below are two statements: Statement (I): Basin lag is the time difference between the centroid of the input i.e. rainfall excess and the output i.e. surface runoff. Statement (II): Basin lag represents the time of travel of water particles from the mid place of the catchment to the outlet during a given storm. In light of the above statements, choose the <i>most appropriate</i> answer from the options given below. - Both Statement (I) and Statement (II) are true. - Both Statement (I) and Statement (II) are false. - Statement (I) is true but Statement (II) is false. - Statement (I) is false but Statement (II) is true. A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

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

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

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

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

44 101024

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 Cipoletti weir is a popular contracted trapezoidal weir having notch slope of 1 horizontal to 4 vertical.

Reason (R) : The side slopes of 1 to 4 are just sufficient to correct for the end contraction of nappe and flow is proportional to the length of the weir crest.

In light of the above statements, choose the *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

45 101025

4.0 1.00

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

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

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

47	101027	Given below are two statements: Statement (I): Drainage coefficient is used in the design of drainage systems for agricultural lands. Statement (II): Drainage coefficient is the depth of water in cm to be removed in 48 hours from the entire drainage area. In light of the above statements, choose the <i>most appropriate</i> answer from the options given below. 1. Both Statement (I) and Statement (II) are true. 2. Both Statement (I) and Statement (II) are false. 3. Statement (I) is true but Statement (II) is false. 4. Statement (I) is false but Statement (II) is true. A1 : 1	4.0	1.00
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A2 : 2

A3 : 3

A4 : 4

Objective Question

48 101028

4.0 1.00

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

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

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

49 101029

4.0 1.00

Which sequence of water erosion is correct?

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

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

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

A1 : 1

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

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

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

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

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

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

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

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

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

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

58	101038	Given below are two statements: Statement (I): The design of drip irrigation system consists of the system layout and determination of number of laterals for irrigation. Statement (II): The friction loss for mains and sub-mains in the drip system can be computed by Kostiakov equation. In light of the above statements, choose the <i>most appropriate</i> answer from the options given below. 1. Both Statement (I) and Statement (II) are correct. 2. Both Statement (I) and Statement (II) are incorrect. 3. Statement (I) is correct but Statement (II) is incorrect. 4. Statement (I) is incorrect but Statement (II) is correct. A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

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

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

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

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

(A) Physical

(B) Aerodynamic

(C) Textural

(D) Frictional

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

62 101042

4.0 1.00

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

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

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

63 101043

4.0 1.00

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

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

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

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

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

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

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

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

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

Objective Question

70	101050		4.0	1.00

Which of the following processes are regarded as mechanical separation operations?

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

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

71	1002001	Given below are two statements: Statement (I): Combustion deposits, mostly carbon, increase octane number requirement (ONR) Statement (II): In general, the smaller the combustion chamber, the lower will be the ONR In light of the above statements, choose the <i>most appropriate</i> answer from the options given below. 1. Both Statement (I) and Statement (II) are correct. 2. Both Statement (I) and Statement (II) are incorrect. 3. Statement (I) is correct but Statement (II) is incorrect. 4. Statement (I) is incorrect but Statement (II) is correct. A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

72	1002002	A diesel fuel has same ignition delay as that of blend of two reference fuels namely 60% n-cetane and 40% hepta methylnonane. The cetane number of the diesel fuel is. 1. 46 2. 56 3. 66 4. 76	4.0	1.00
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		A1 : 1		
		A2 : 2		
		A3 : 3		
		A4 : 4		

Objective Question

73	1002003	Given below are two statements, one is labelled as Assertion (A) and other one labelled as Reason (R). Assertion (A) : In a right-hand offset disc harrow, the right side of the entire harrow runs deeper than the rest of the harrow Reason (R) : For offset disc harrow, the couple of the front gang is usually considerably larger than that of the rear gang In light of the above statements, choose the <i>correct</i> answer from the options given below. - Both (A) and (R) are true and (R) is the correct explanation of (A). - Both (A) and (R) are true but (R) is NOT the correct explanation of (A). (A) is true but (R) is false. (A) is false but (R) is true. A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

74	1002004	A knife chaff cutter fitted with two knives cuts dry hay at 40 rpm, giving 400 kg of cut hay per hour. The throat size of the chaff cutter is 20x 5 cm. The effective distance of centre of throat from flywheel is 14 cm. The blade makes a clearance angle of 12° between the knife support and plane of rotation. Distance of inner edge of throat from flywheel centre is 7 cm. What is the length of cut of chaff in cm? $176 \times \tan(12)$ $88 \times \tan(12)$ $44 \times \tan(12)$ $22 \times \tan(12)$ A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

75	1002005		4.0	1.00
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A tractor drawn four bottom 35 cm plough is operating at 6 km per hour and the time lost in turning is 10 percent. The area covered by the plough in 8 hours is:

1. 6.72 ha
2. 6.05 ha
3. 1.52 ha
4. 5.35 ha

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

76	1002006	In a sprayer, the hydraulic nozzles are fixed at a height of 500 mm above the ground level and a pressure of 275 kPa is maintained. If the pressure is decreased by one-fourth, then what is the percentage change in the flow rate of nozzle at 45° spray angle? 1. 35 2. 40 3. 45 4. 50 A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

77	1002007	In closely coiled helical spring, the helix angle is less than 1. 5° 2. 10° 3. 15° 4. 20° A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

78	1002008		4.0	1.00
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		The material suitable for the share of mould board plough in areas where scouring is not a problem 1. Mild steel 2. Soft centre steel 3. Chilled cast iron 4. Crucible steel A1 : 1 A2 : 2 A3 : 3 A4 : 4		
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Objective Question

79	1002009	What is the maximum percentage of total draft of mould board plough accounted for frictional resistance? 1. 20 2. 30 3. 40 4. 50 A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

80	1002010	A flail mower is operated by a tractor at a forward speed of 10.8 km.h^{-1}. The velocity of flail tip relative to the ground is 15 m.s^{-1}. The length of each flail is 410 mm and diameter of the shaft carrying the flail is 105 mm. If the tractor PTO speed is 540 rpm, the peripheral speed of the flail tip is: 1. 18 m.s^{-1} 2. 15 m.s^{-1} 3. 12 m.s^{-1} 4. 9 m.s^{-1} A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

81	1002011		4.0	1.00
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What is the correct relationship between chip angle on the knife (ϕ_{chk}), bevel angle (ϕ_{bk}), and knife clearance angle (ϕ_{ck})

1. $\phi_{chk} + \phi_{bk} + \phi_{ck} = 90^\circ$
2. $\phi_{bk} = \phi_{chk} + \phi_{ck}$
3. $\phi_{chk} = \phi_{bk} + \phi_{ck}$
4. $\phi_{ck} = \phi_{chk} + \phi_{bk}$

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

82	1002012	The percent of cell fill for a given planter is influenced by: (A). shape of the seeds (B). shape of the cells (C). type of seed metering mechanism (D). exposure time of a cell to seed in the hopper (E). type of furrow opener Choose the correct answer from the options given below: 1. (A), (B) and (D) only. 2. (A), (B), (C) and (D) only. 3. (A), (B) and (C) only. 4. (A), (B), (C), (D) and (E). A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

83	1002013	Given below are two statements, one is labelled as Assertion (A) and other one labelled as Reason (R). Assertion (A) : For equal compression ratio and equal displacement per stroke, a tractor engine cylinder with large stroke-to-bore ratio will have less thermal efficiency Reason (R) : The volumetric efficiency of high-speed engines can be improved by decreasing bore-to-stroke ratio 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.	4.0	1.00
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		A1 : 1		
		A2 : 2		
		A3 : 3		
		A4 : 4		

Objective Question

84	1002014	Which of the followings are dynamic properties of soil? (A). shear (B). tension (C). penetration (D). strength (E). friction Choose the correct answer from the options given below: 1. (A), (B) and (E) only. 2. (A), (B), (C) and (E) only. 3. (A), (B), (D) and (E) only. 4. (A), (B), (C), (D) and (E). A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

85	1002015	The wheel base of a rear wheel driven tractor is 2.0 m. A horizontal pull of 6 kN is applied at a distance of 25 cm below the centre of the rear wheel. If the diameter of the rear wheel is 130 cm, determine the weight transfer from front to rear wheel. 1. 0.75 kN 2. 1.05 kN 3. 1.20 kN 4. 1.50 kN A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

86	1002016		4.0	1.00
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Two bevel gears having equal teeth and equal pitch angles and connecting two shafts whose axis intersect at right angle is known as:

1. Crown bevel gear
2. Miter gear
3. Zero bevel gear
4. Hypoid gear

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

87	1002017	Given below are two statements: Statement (I): The mass median diameter (MMD), volume median diameter (VMD), number median diameter (NMD) are most commonly used parameters for agricultural sprayers. Statement (II): VMD is numerically greater than MMD. In light of the above statements, choose the <i>most appropriate</i> answer from the options given below. 1. Both Statement (I) and Statement (II) are true. 2. Both Statement (I) and Statement (II) are false. 3. Statement (I) is true but Statement (II) is false. 4. Statement (I) is false but Statement (II) is true. A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

88	1002018	A gear pump discharges 120 l.min^{-1} at a system pressure of 20 MPa. The overall efficiency of the pump is 75 percent. What is the input power of the pump in kW? 1. 22.33 2. 33.33 3. 43.33 4. 53.33 A1 : 1 A2 : 2 A3 : 3	4.0	1.00
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		A4 : 4		
Objective Question				
89	1002019	The circumferential speed of the fluted roller is recommended as: 1. 100 mm.s⁻¹ 2. 200 mm.s⁻¹ 3. 300 mm.s⁻¹ 4. 400 mm.s⁻¹ A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
90	1002020	Given below are two statements: Statement (I): The useful soil forces acting upon mould board plough bottom are those resulting from cutting, pulverizing, lifting, and inverting the furrow slice. Statement (II): Parasitic forces like friction and rolling resistance, introduce rotational effect on the plough bottom. In light of the above statements,choose the <i>most appropriate</i> answer from the options given below. 1. Both Statement (I) and Statement (II) are true. 2. Both Statement (I) and Statement (II) are false. 3. Statement (I) is true but Statement (II) is false. 4. Statement (I) is false but Statement (II) is true. A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
91	1002021	Given below are two statements: Statement (I): An impact cutter has a single, high speed cutting element and relies primarily upon the inertia of the material being cut. Statement (II): Impact cutting principle is applied in rotary cutters and flail shredders. In light of the above statements,choose the <i>most appropriate</i> answer from the options given below. 1. Both Statement (I) and Statement (II) are true. 2. Both Statement (I) and Statement (II) are false. 3. Statement (I) is true but Statement (II) is false. 4. Statement (I) is false but Statement (II) is true.	4.0	1.00

		A1 : 1		
		A2 : 2		
		A3 : 3		
		A4 : 4		

Objective Question

92	1002022	Given below are two statements: Statement (I): Rotary tillers are good for cutting up vegetative matter & mixing it thoroughly. Rotary tillers are widely used for rice in Japan and other Asiatic Countries. Statement (II): Because of low power requirement and less soil pulverization, use of rotary tiller is popular in USA. In light of the above statements, choose the <i>most appropriate</i> answer from the options given below. - Both Statement (I) and Statement (II) are true. - Both Statement (I) and Statement (II) are false. - Statement (I) is true but Statement (II) is false. - Statement (I) is false but Statement (II) is true. A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

93	1002023	Given below are two statements: Statement (I): A magneto is used to generate an electric current for producing spark in IC engine. Statement (II): Magneto may be considered as combination of a generator for producing low voltage current and an ignition coil for producing high voltage current. In light of the above statements, choose the <i>most appropriate</i> answer from the options given below. - Both Statement (I) and Statement (II) are incorrect. - Both Statement (I) and Statement (II) are correct. - Statement (I) is correct but Statement (II) is incorrect. - Statement (I) is incorrect but Statement (II) is correct. A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

94	1002024	Given below are two statements: Statement (I): All the hand and foot controls should be positioned in relation to seat in such a way that these can be operated with ease and with minimum possible efforts by the operator in seated position. Statement (II): Leg to thigh angle should be 100-110° for pedal operation with a minimum foot -to-leg angle of 100°. In light of the above statements, choose the <i>most appropriate</i> answer from the options given below. - Both Statement (I) and Statement (II) are correct. - Statement (I) is correct and Statement (II) are incorrect. - Both Statement (I) and Statement (II) are incorrect. - Statement (I) is incorrect but Statement (II) is correct. A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

95	1002025	In case of Automatic Draft-Control system, what is the location of the sensing device, which tells the hydraulic system to lower or raise the hitch system? - Either the lower links or the upper link - Actuator - Draft Control Lever - Position Control Lever A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

96	1002026	The tractor or tractor engine was invented by - Hunt (1790) H. Herris (1890) - Rodolph (1890) J. Watt (1894) A1 : 1 A2 : 2 A3 : 3	4.0	1.00
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		A4 : 4		
Objective Question				
97	1002027	Given below are two statements: Statement (I): Automatic hydraulic control or feed back system compares the output signals to the input signals and uses the difference to change the output. Statement (II): The open loop control system maintains a constant flow of oil, and the closed loop system maintains a constant pressure when not in use. In light of the above statements,choose the <i>most appropriate</i> answer from the options given below. - Both Statement (I) and Statement (II) are true. - Statement (I) is true and Statement (II) is false. - Both Statement (I) and Statement (II) are false. - Statement (I) is false but Statement (II) is true. A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
98	1002028	In tractor swinging drawbar is used when - Long turns than machine width are required - Seed drill or planter is used - VCR or mower is used - Short turns than machine width are required A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
99	1002029	The principal reasons for the use of alloys in steel is to - Decrease the hardenability - Increase the hardenability - Increase the stiffness - Increase the modulus of elasticity A1 : 1 A2 : 2	4.0	1.00

A3 : 3

A4 : 4

Objective Question

100	1002030	Given below are two statements, one is labelled as Assertion (A) and other one labelled as Reason (R). Assertion (A) : Poppet valves are used more often in closed-center than in open-center systems. The spool-type valve is by far the most common type used in power-steering systems today. Reason (R) : Poppet valves have superior sealing capabilities while spool type valve have relative simplicity. In light of the above statements, choose the <i>correct</i> answer from the options given below. - Both (A) and (R) are true and (R) is the correct explanation of (A). - Both (A) and (R) are true but (R) is NOT the correct explanation of (A). (A) is true but (R) is false. (A) is false but (R) is true. A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

101	1002031	A tractor with less wheel base, higher ground clearance and low overall weight may work successfully in _____ soil. - light textured soil - medium textured soil - heavy textured soil - black cotton soil A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

102	1002032	In case of disc plough, the width of cut is how many times that of the diameter of disc blade? 0.2 0.8 0.4 0.6 A1 : 1	4.0	1.00
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		A2 : 2		
		A3 : 3		
		A4 : 4		

Objective Question

103	1002033	The relationship between fixed cost of a machine with the operational use of the machine is 1. positive correlation 2. negative correlation 3. may be positive or negative correlation 4. no correlation A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

104	1002034	The gear box can also be classified based on arrangement of shafts between which the gears are mounted. The arrangement of shaft in a Worm Gear is 1. Parallel shafts 2. Shafts at an angle in the same plane 3. Shafts at an angle not in the same plane 4. Perpendicular shafts A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

105	1002035		4.0	1.00
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Match **List-I** with **List-II**

List-I	List-II
(Test/Apparatus)	(Used for measurement of)
(A). Pensky Martens Apparatus	(I). Nitrogen content
(B). Kjeddahl's apparatus	(II). Potassium content
(C). Photometer	(III). Flash Point
(D). Spectrometer	(IV). Spectral components

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

106 1002036

4.0 1.00

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

List-I	List-II
(Law/Test)	(Used for)
(A). Poiseville Law	(I). Brake power
(B). Morse Test	(II). Dynamic viscosity
(C). Procter Test	(III). Rust and Corrosion property of oils
(D). Mack T-9	(IV). Soil Compaction

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

107	1002037	Peripheral speed of cylinder in thresher, causes the effect on 1. threshing efficiency 2. cleaning of grains 3. grain separation 4. Aspirating efficiency A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

108	1002038	For a tractor with mass 'W', distance of CG from tractor tipping axis 'x', height of CG of tractor 'h', turning speed 'V', What would be the limiting turning radius below which tractor would overturn? 1. $\sqrt{\frac{V \cdot h}{g \cdot x}}$ 2. $\frac{V^2 \cdot g}{h \cdot x}$ 3. $\frac{h \cdot x}{V^2 \cdot h}$ 4. $\sqrt{\frac{V^2 \cdot h}{x \cdot g}}$ A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

109	1002039	Given below are two statements, one is labelled as Assertion (A) and other one labelled as Reason (R). Assertion (A) : Depending upon soil types and plowing conditions, different types of mouldboards are being used and shape of the mouldboard affects the pulverization. Reason (R) : A sod bottom has a relatively short and broad mouldboard with abrupt curvature near the top resulting in greater degree of pulverization than other types. In light of the above statements, choose the <i>correct</i> answer from the options given below. 1. Both (A) and (R) are true and (R) is NOT the correct explanation of (A). 2. Both (A) and (R) are true but (R) is the correct explanation of (A). 3. (A) is true but (R) is false. 4. (A) is false but (R) is true.	4.0	1.00
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		A1 : 1		
		A2 : 2		
		A3 : 3		
		A4 : 4		

Objective Question

110	1002040	Given below are two statements, one is labelled as Assertion (A) and other one labelled as Reason (R). Assertion (A) : Tapered spindles are commonly employed on drum type pickers and speed of spindles have a marked effect upon picking efficiency. Reason (R) : Cotton is left in the burs at slower spindle speed and cotton is thrown by the spindles at higher speed. In light of the above statements, choose the <i>correct</i> answer from the options given below. - Both (A) and (R) are true and (R) is the correct explanation of (A). - Both (A) and (R) are true but (R) is NOT the correct explanation of (A). (A) is true but (R) is false. (A) is false but (R) is true. A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

111	1002041	Given below are two statements, one is labelled as Assertion (A) and other one labelled as Reason (R). Assertion (A) : A certain amount of clearance between the tappets and the valve stems is usually necessary so that the valves are able to seat properly. Reason (R) : In case of insufficient clearance, the valve range will be decreased and the operation of the valve will be noisy whereas in case of excessive clearance, the valve will be held open and the leaking valve will be burned. In light of the above statements, choose the <i>correct</i> answer from the options given below. - Both (A) and (R) are true and (R) is the correct explanation of (A). - Both (A) and (R) are true but (R) is NOT the correct explanation of (A). (A) is false but (R) is true. (A) is true but (R) is false. A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

112	1002042	During Diesel engine operation, black smoke was seen. The possible cause for the same could be (A). Excess fuel delivery (B). Excessively advanced injection timing (C). Intake air restriction (D). Over-cooled engine Choose the correct answer from the options given below: 1. (A), (B) and (C) only. 2. (B), (C) and (D) only. 3. (A), (C) and (D) only 4. (A), (B), (C) and (D) A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

113	1002043	During threshing operation, the threshing drum (cylinder) was observed to be blocked. The possible cause for the same could be (A). over feeding (B). moist crop (C). high drum speed (D). less concave clearance Choose the correct answer from the options given below: 1. (A), (C) and (D) only. 2. (B), (C) and (D) only. 3. (A), (B) and (D) only 4. (A), (B), (C) and (D) A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

114	1002044		4.0	1.00
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Arrange the following important highlights for the development of tractor in sequence

- (A). The Nebraska tractor test law was passed
- (B). Otto patents were issued for an internal-combustion engine
- (C). Hydraulic controls for drawn implements were adopted
- (D). The power take-off was gradually adopted
- (E). Turbocharger and intercoolers were added to diesel engines

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

115 1002045

4.0 1.00

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

List-I	List-II
(LINK)	(Type of Load)
(A). Rocking arm	(I). Axial
(B). Cylinder	(II). Shear, bending and crushing
(C). Pins	(III). Axial, bending and shear
(D). Lower Link	(IV). Bending and shear

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

116 1002046

4.0 1.00

How much area per day of 8 hours can be cut by a combine harvester with 4 metre cutter bar, when it is running at 4 km/h.

(A). 128 acre

(B). 12.8 ha

(C). 32 acre

(D). 32 ha

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

117 1002047

For safety, the minimum recommended length of feeding chute of a thresher is

1. 450 mm
2. 900 mm
3. 600 mm
4. 1200 mm

A1 : 1

A2 : 2

A3 : 3

A4 : 4

4.0 1.00

Objective Question

118 1002048

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

Assertion (A) : In synchromesh gear transmission, gear changes can be made easily without damaging the transmission, even when the vehicle is moving and this transmission has long been used in automobiles.

Reason (R) : The resulting frictional torque is used to prevent engagement of the shifter collar until the rotational speed of the collar and gear are nearly the same.

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 NOT true but (R) is true.
4. (A) is true but (R) is NOT true.

4.0 1.00

		A1 : 1		
		A2 : 2		
		A3 : 3		
		A4 : 4		
Objective Question				
119	1002049	The energy utilization efficiency of a tillage implement is determined by a method proposed by Gill and McCreery, in which the soil samples (clods) are dropped from a known height onto a rigid surface. The kinetic energy applied is related with the mass mean diameters of the segregated soil particles. This procedure is repeated successively and a relationship is drawn between mean mass diameter and total kinetic energy. The method/test described in the above passage is known as? 1. Over the top method 2. Drop Shatter method 3. MMD determination test 4. Soil pulverization test A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
120	1002050	White metal/Babbitt is composed of 1. Zinc, copper and tin 2. Tin, lead, copper 3. Aluminium, antimony and copper 4. Antimony, tin and copper A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00