National Testing Agency

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Water Engineering and Management

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Question Number : 1 Question Id : 61198729100 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

The following is the non-recording type rain gauge

1. Float type rain gauge
2. Symons rain gauge
3. Weighing type rain gauge
4. Tipping bucket rain gauge

Options :

611987114401. 1

611987114402. 2

611987114403. 3

611987114404. 4

Question Number : 2 Question Id : 61198729101 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

If n is the number of years, T is recurrence interval in years and m is ranking of rainfall event, the recurrence interval given by Weibull formula is

1. $m = \frac{T}{n+1}$
2. $T = \frac{m}{n+1}$
3. $n = \frac{m+1}{T}$
4. $T = \frac{n+1}{m}$

Options :

611987114405. 1

611987114406. 2

611987114407. 3

611987114408. 4

Question Number : 3 Question Id : 61198729102 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

In curve number method if Q is actual runoff, P is rainfall, I_a is initial abstraction and S is storage capacity, the relationship is shown by:

1. $Q = \frac{(P-0.8S)^2}{P+0.2S}$
2. $Q = \frac{(P-0.2S)^2}{P+0.8S}$
3. $Q = \frac{(P+0.2S)^2}{P-0.8S}$
4. $Q = \frac{(P+0.8S)^2}{P-0.2S}$

Options :

611987114409. 1

611987114410. 2

611987114411. 3

611987114412. 4

Question Number : 4 Question Id : 61198729103 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

The hydrograph is useful to estimate

1. runoff rate
2. runoff rate, runoff volume
3. rainfall rate, rainfall frequency
4. rainfall rate, rainfall frequency, rainfall intensity

Options :

611987114413. 1

611987114414. 2

611987114415. 3

611987114416. 4

Question Number : 5 Question Id : 61198729104 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Using current meter for measuring flow velocity in a stream having depth of 1 m, the observation readings should be taken at

1. at 0 depth of flow
2. at 0 and 0.2 depth of flow
3. at 0.2 and 0.6 depth of flow
4. at 0.2 and 0.8 depth of flow

Options :

611987114417. 1

611987114418. 2

611987114419. 3

611987114420. 4

Question Number : 6 Question Id : 61198729105 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

In irrigation, the relationship between water content on mass basis θ_m, volume basis θ_v, the bulk density of soil ρ_s and water ρ_w can be expressed as

1. $\theta_v = \theta_m \left(\frac{\rho_s}{\rho_w} \right)$
2. $\theta_v = \theta_m \left(\frac{\rho_w}{\rho_s} \right)$
3. $\theta_m = \theta_v \left(\frac{\rho_s}{\rho_w} \right)$
4. $\theta_m = \theta_v \cdot \rho_s \cdot \rho_w$

Options :

611987114421. 1

611987114422. 2

611987114423. 3

611987114424. 4

Question Number : 7 Question Id : 61198729106 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Given below are two statements: one is labelled as **Assertion A** and the other is labelled as **Reason R**

Assertion A: The clayey soil can retain more water due to more pore space than sandy soil.

Reason R: The sandy soil can release more water due to low soil water tension than clayey soil.

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

1. Both **A** and **R** are correct and **R** is the correct explanation of **A**
2. Both **A** and **R** are correct but **R** is NOT the correct explanation of **A**
3. **A** is correct but **R** is not correct
4. **A** is not correct but **R** is correct

Options :

611987114425. 1

611987114426. 2

611987114427. 3

611987114428. 4

Question Number : 8 Question Id : 61198729107 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Given below are two statements: one is labelled as **Assertion A** and the other is labelled as **Reason R**

Assertion A: The total available water for plant growth (TAW) is the water between field capacity and ultimate wilting point.

Reason R: The maximum allowable deficit (MAD) is a part of total available water (TAW) and is usually considered as 50% of TAW.

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

1. Both **A** and **R** are correct and **R** is the correct explanation of **A**
2. Both **A** and **R** are correct but **R** is NOT the correct explanation of **A**
3. **A** is correct but **R** is not correct
4. **A** is not correct but **R** is correct

Options :

611987114429. 1

611987114430. 2

611987114431. 3

611987114432. 4

Question Number : 9 Question Id : 61198729108 Question Type : MCQ Option Shuffling : No

Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Match the **LIST-I** with **LIST-II**

LIST-I		LIST-II	
A.	Tandom disc harrow	I.	Paddy
B.	Ridger	II.	Double action
C.	Puddler	III.	V shaped furrow
D.	Chisel Plough	IV.	Deep tillage

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

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

Options :

611987114433. 1

611987114434. 2

611987114435. 3

611987114436. 4

Question Number : 10 Question Id : 61198729109 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

A soil is having a field capacity of 42% and permanent wilting point of 19%. If irrigation has to be done at 40% of depletion of available moisture, at what soil moisture percentage the field is to be irrigated?

1. 23%
2. 28.2%
3. 30.5%
4. 32.8%

Options :

611987114437. 1

611987114438. 2

611987114439. 3

611987114440. 4

Question Number : 11 Question Id : 61198729110 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Given below are two statements: one is labelled as **Assertion A** and the other is labelled as **Reason R**

Assertion A: The zone of aeration is consist of three belts viz., (1) soil water belt (2) intermediate belt and (3) capillary fringe.

Reason R: In the zone of saturation all the macropores are filled with air.

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

1. Both **A** and **R** are correct and **R** is the correct explanation of **A**
2. Both **A** and **R** are correct but **R** is NOT the correct explanation of **A**
3. **A** is correct but **R** is not correct
4. **A** is not correct but **R** is correct

Options :

611987114441. 1

611987114442. 2

611987114443. 3

611987114444. 4

Question Number : 12 Question Id : 61198729111 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Consider the following statement for groundwater flow

A. The water in confined aquifers is having pressure greater than atmospheric pressure.
B. The unconfined aquifer is also known as watertable aquifer.
C. The unconsolidated type of formation have secondary porosity.
D. The perched aquifer is a type of unconfined aquifer.
E. Hydraulic conductivity has the dimension of velocity.

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

1. A, B, C, D Only
2. A, B, D, E Only
3. B, C, D, E Only
4. A, C, D, E Only

Options :

611987114445. 1

611987114446. 2

611987114447. 3

611987114448. 4

Question Number : 13 Question Id : 61198729112 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

A 20 cm diameter well is penetrating a 30 m confined aquifer. The rate of discharge is 0.2 m^3/sec, the drawdowns at 10 m and 30 m distance from the well are observed to be 3.5 m and 2 m respectively. Determine hydraulic conductivity and transmissivity of aquifer.

1. 0.0007 m/sec and 0.0233 m^2/sec
2. 0.007 m/sec and 0.233 m^2/sec
3. 0.07 m/sec and 2.33 m^2/sec
4. 0.7 m/sec and 23.3 m^2/sec

Options :

611987114449. 1

611987114450. 2

611987114451. 3

611987114452. 4

Question Number : 14 Question Id : 61198729113 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Which of the following is not a thermal property of a food material?

1. Specific heat
2. Thermal conductivity
3. Rheology
4. Enthalpy

Options :

611987114453. 1

611987114454. 2

611987114455. 3

611987114456. 4

Question Number : 15 Question Id : 61198729114 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

A centrifugal pump at its best point of efficiency discharges 0.04 m^3/sec against a total head of 42m. When the speed of pump is 1370 rpm, compute the specific speed of the pump.

1. 6.52 rpm
2. 18.90 rpm
3. 181.86 rpm
4. 16.60 rpm

Options :

611987114457. 1

611987114458. 2

611987114459. 3

611987114460. 4

Question Number : 16 Question Id : 61198729115 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Choose the correct sequence for irrigation scheduling of crops using climatological approach.

A. Reference ET, Crop Coefficient, Climate data, Crop ET, Irrigation efficiency, Irrigation time
B. Crop ET, Reference ET, Crop Coefficient, Irrigation efficiency, Climate data, Irrigation time
C. Irrigation time, Climate data, Crop coefficient, Reference ET, Crop ET, Irrigation efficiency
D. Climate data, Reference ET, Crop coefficient, Crop ET, Irrigation efficiency, Irrigation time

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

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

Options :

611987114461. 1

611987114462. 2

611987114463. 3

611987114464. 4

Question Number : 17 Question Id : 61198729116 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Consider the following for Crop Evapotranspiration estimation approaches

A. Modified Blaney- Criddle method is only temperature based
B. Modified Penman Monteith method requires more climate data
C. Thornthwaite method is based on temperature data
D. Crop cofficient is multiplied to get reference evapotranspiration by Pan evaporation method
E. Radiation method requires air temperature and sunshine radiation

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

1. A, B, D Only
2. B, D, E Only
3. A, C, E Only
4. B, C, E Only

Options :

611987114465. 1

611987114466. 2

611987114467. 3

611987114468. 4

Question Number : 18 Question Id : 61198729117 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

If d-depth of flow, b-bottom width, θ-angle of repose, then the most economical channel cross section for rectangular and trapezoidal section can be respectively expressed as_____.

1. $b = d/2$; $d = 2b \tan \theta/2$
2. $d = b/2$; $d = b \tan \theta/2$
3. $b = 2d$; $b = 2d \tan \theta/2$
4. $d = 2b$; $b = d \tan \theta/2$

Options :

611987114469. 1

611987114470. 2

611987114471. 3

611987114472. 4

Question Number : 19 Question Id : 61198729118 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

For cultivation of wheat crop in clay loam soil, arrange the farm implements activity in field.

A. M.B. Plough
B. Seed drill
C. Sprayer
D. Disk harrow
E. Combine

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

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

Options :

611987114473. 1

611987114474. 2

611987114475. 3

611987114476. 4

Question Number : 20 Question Id : 61198729119 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Given below are two statements: one is labelled as **Assertion A** and the other is labelled as **Reason R**

Assertion A: The border and check basin method of irrigation have vertical movement of water whereas furrow irrigation have only lateral movement in soil.

Reason R: The Kostiakov' infiltration function can be used to determine infiltration characteristic of soil.

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

1. Both **A** and **R** are correct and **R** is the correct explanation of **A**
2. Both **A** and **R** are correct but **R** is NOT the correct explanation of **A**
3. **A** is correct but **R** is not correct
4. **A** is not correct but **R** is correct

Options :

611987114477. 1

611987114478. 2

611987114479. 3

611987114480. 4

Question Number : 21 Question Id : 61198729120 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Under no wind conditions and at constant operating pressure the 100% overlapping is obtained when sprinklers are spaced at _____.

1. half of radius of throw
2. radius of throw
3. twice of radius of throw
4. thrice of radius of throw

Options :

611987114481. 1

611987114482. 2

611987114483. 3

611987114484. 4

Question Number : 22 Question Id : 61198729121 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Given below are two statements: one is labelled as **Assertion A** and the other is labelled as **Reason R**

Assertion A: The first law of thermodynamics is based on law of conservation of mass.

Reason R: Second law of thermodynamics states that heat flows from a higher temperature to lower temperature.

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

1. Both **A** and **R** are correct and **R** is the correct explanation of **A**
2. Both **A** and **R** are correct but **R** is NOT the correct explanation of **A**
3. **A** is correct but **R** is not correct
4. **A** is not correct but **R** is correct

Options :

611987114485. 1

611987114486. 2

611987114487. 3

611987114488. 4

Question Number : 23 Question Id : 61198729122 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No

Option Orientation : Vertical

Given below are two statements: one is labelled as **Assertion A** and the other is labelled as **Reason R**

Assertion A: The distribution efficiency is an important parameter of uniform water application in surface irrigation method design.

Reason R: The concept of uniformity coefficient used in sprinkler irrigation system design is similar to distribution efficiency in surface irrigation system.

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

1. Both **A** and **R** are correct and **R** is the correct explanation of **A**
2. Both **A** and **R** are correct but **R** is NOT the correct explanation of **A**
3. **A** is correct but **R** is not correct
4. **A** is not correct but **R** is correct

Options :

611987114489. 1

611987114490. 2

611987114491. 3

611987114492. 4

Question Number : 24 Question Id : 61198729123 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Consider the following units for measurement of salinity in irrigation water

A. 1 mhos/m = 1 Siemens/m (s/m)
B. 1 millimhos/cm = 1 decisiemens/m (ds/m)
C. 1 EC $\times 10^{-3}$ = 1 millimhos 1 cm
D. 1 EC $\times 10^{-6}$ = 1 micromhos 1 cm
E. meq/l = 10 $\times$ EC $\times 10^{3}$

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

1. A, B, C Only
2. B, C, D Only
3. A, B, D Only
4. A, B, E Only

Options :

611987114493. 1

611987114494. 2

611987114495. 3

611987114496. 4

Question Number : 25 Question Id : 61198729124 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

In a watershed of 3000 ha in flat topography, drainage coefficient was found to be 5 cm. If the drainage coefficient can be reduced to half by altering cropping pattern, what will be the discharge through drainage channel in both the condition?

1. 0.057 and 11.52 m^3/sec
2. 416.66 and 2.08 m^3/sec
3. 0.173 and 0.83 m^3/sec
4. 17.36 and 8.68 m^3/sec

Options :

611987114497. 1

611987114498. 2

611987114499. 3

611987114500. 4

Question Number : 26 Question Id : 61198729125 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

At 16% wet basis moisture content, the sample of grain contains 16 kg of water and 84 kg of dry matter. If the same amount of grain again dried to 11% moisture content, the final weight of water will be _____.

1. 9.24 kg
2. 9.13 kg
3. 10.38 kg
4. 12.25 kg

Options :

611987114501. 1

611987114502. 2

611987114503. 3

611987114504. 4

Question Number : 27 Question Id : 61198729126 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Match the **LIST-I** with **LIST-II**

LIST-I		LIST-II	
A.	Slip Erosion	I.	Ravines
B.	Erosivity	II.	Land Slides
C.	Gully Erosion	III.	Saltation
D.	Wind Erosion	IV.	I_{30} index

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

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

Options :

611987114505. 1

611987114506. 2

611987114507. 3

611987114508. 4

Question Number : 28 Question Id : 61198729127 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Given below are two statements: one is labelled as **Assertion A** and the other is labelled as **Reason R**

Assertion A: Wind is a climatic factor affecting soil erosion.

Reason R: Wind characteristics influence raindrop velocities and angle of impact and effect soil erosion.

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

1. Both **A** and **R** are correct and **R** is the correct explanation of **A**
2. Both **A** and **R** are correct but **R** is NOT the correct explanation of **A**
3. **A** is correct but **R** is not correct
4. **A** is not correct but **R** is correct

Options :

611987114509. 1

611987114510. 2

611987114511. 3

611987114512. 4

Question Number : 29 Question Id : 61198729128 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

In soil erosion control measure, the following statement are true:

A. Sloping outwards terraces are used in low rainfall region.
B. Wind strip cropping is done parallel to direction of wind.
C. Graded bunds are used in high rainfall areas.
D. Shelter break are used to prevent rainfall erosion.
E. Grassed waterway acts as outlet for graded terraces.

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

1. A, D, E Only
2. B, D, E Only
3. A, C, E Only
4. B, C, D Only

Options :

611987114513. 1

611987114514. 2

611987114515. 3

611987114516. 4

Question Number : 30 Question Id : 61198729129 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

The process of Gully development followed by Gully control involves

A. Growing of vegetation in Gully
B. Stabilization of Gully
C. Channel erosion and deepening of Gully bed
D. Enlargement of Gully head towards upstream
E. Construction of temporary and permanent Gully control structures

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

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

Options :

611987114517. 1

611987114518. 2

611987114519. 3

611987114520. 4

Question Number : 31 Question Id : 61198729130 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

The plan of an area has shrunk such that a line originally 20 cm now measures 19.5 cm, if the original scale of plan is 1 cm = 10 m, determine

(i) correct distance to a measured distance of 198 m

(ii) correct area corresponding to a measured area of 20000 m^2

1. (i) 208.24 m (ii) 22512.5 m^2
2. (i) 195.88 m (ii) 18743.76 m^2
3. (i) 204.12 m (ii) 21256.24 m^2
4. (i) 212.36 m (ii) 17486.76 m^2

Options :

611987114521. 1

611987114522. 2

611987114523. 3

611987114524. 4

Question Number : 32 Question Id : 61198729131 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Match the **LIST-I** with **LIST-II**

LIST-I		LIST-II	
A.	Specific speed	I.	Continuous flow
B.	Spiral	II.	Separator
C.	LSU dryer	III.	Storage structure
D.	Pusa bin	IV.	Blower

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

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

Options :

611987114525. 1

611987114526. 2

611987114527. 3

611987114528. 4

Question Number : 33 Question Id : 61198729132 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Which of the following is not a property of a semi confined aquifer?

1. Storage coefficient
2. Leakage factor
3. Hydraulic resistance
4. Specific yield

Options :

611987114529. 1

611987114530. 2

611987114531. 3

611987114532. 4

Question Number : 34 Question Id : 61198729133 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

In ground water hydrology

A. Dupuit equation are used for unconfined and confined aquifers
B. Theim equation is used for unsteady state conditions
C. Theis equation is used for steady state conditions
D. Theim equation is used for steady state condition

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 and C Only

Options :

611987114533. 1

611987114534. 2

611987114535. 3

611987114536. 4

Question Number : 35 Question Id : 61198729134 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Given below are two statements: one is labelled as **Assertion A** and the other is labelled as **Reason R**

Assertion A: In pumps, suction lift exists when the source of water supply is below the centre line of pump.

Reason R: Total static suction lift is the sum of static suction lift minus friction losses, entrance losses in the suction piping.

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

1. Both **A** and **R** are correct and **R** is the correct explanation of **A**
2. Both **A** and **R** are correct but **R** is NOT the correct explanation of **A**
3. **A** is correct but **R** is not correct
4. **A** is not correct but **R** is correct

Options :

611987114537. 1

611987114538. 2

611987114539. 3

611987114540. 4

Question Number : 36 Question Id : 61198729135 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

The impeller Diameter (D), Speed (n), Capacity (Q), Head (H) and Brake Horse Power (P) of centrifugal pump have following characteristics

A. Q varies directly with D
B. P varies directly with square of n
C. H varies directly with cube of D
D. H varies directly with square of D
E. P varies directly with cube of n

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

1. A, B, C Only
2. B, C, D Only
3. C, D, E Only
4. A, D, E Only

Options :

611987114541. 1

611987114542. 2

611987114543. 3

611987114544. 4

Question Number : 37 Question Id : 61198729136 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Given below are two statements: one is labelled as **Assertion A** and the other is labelled as **Reason R**

Assertion A: In centrifugal pumps, the function of impeller is to impart high velocity of water so that velocity head is increased.

Reason R: The function of casing is to reduce velocity of water so that velocity head is reduced and converted into pressure head.

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

1. Both **A** and **R** are correct and **R** is the correct explanation of **A**
2. Both **A** and **R** are correct but **R** is NOT the correct explanation of **A**
3. **A** is correct but **R** is not correct
4. **A** is not correct but **R** is correct

Options :

611987114545. 1

611987114546. 2

611987114547. 3

611987114548. 4

Question Number : 38 Question Id : 61198729137 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Match the **LIST-I** with **LIST-II**

LIST-I		LIST-II	
A.	Dehydration	I.	Plate heat exchanger
B.	Belt	II.	Fruits and vegetables
C.	Milk	III.	Conveyer
D.	Rice bran	IV.	Oil

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

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

Options :

611987114549. 1

611987114550. 2

611987114551. 3

611987114552. 4

Question Number : 39 Question Id : 61198729138 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Parshall Flume includes the following

A. Converging section is at downstream with upward slope
B. Diverging section is at upstream with downward slope
C. The throat section is at middle with downward slope
D. The converging section is at upstream with level slope
E. The diverging section is at downstream with upward slope

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

1. A, B, C Only
2. B, C, D Only
3. C, D, E Only
4. D, E, A Only

Options :

611987114553. 1

611987114554. 2

611987114555. 3

611987114556. 4

Question Number : 40 Question Id : 61198729139 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

The sequence of ploughing by M.B. Plough includes

A. Lifting the furrow slice
B. Cutting the furrow slice
C. Pulverizing the furrow slice
D. Inverting the furrow slice

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

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

Options :

611987114557. 1

611987114558. 2

611987114559. 3

611987114560. 4

Question Number : 41 Question Id : 61198729140 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

The carrying capacity of a unlined channel section of specifications: bottom width 60 cm, depth of flow 30 cm, bed slope 1 m per kilometer and Manning's roughness coefficient 0.04 will be

1. 0.5 m^3/sec
2. 1.28 m^3/sec
3. 0.04 m^3/sec
4. 15.92 m^3/sec

Options :

611987114561. 1

611987114562. 2

611987114563. 3

611987114564. 4

Question Number : 42 Question Id : 61198729141 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Given below are two statements: one is labelled as **Assertion A** and the other is labelled as **Reason R**

Assertion A: Severe erosion will occur in gully if structure to control velocity of water along the slope is not provided.

Reason R: Drop structures and chute spillways are used to prevent erosion in irrigation channels.

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

1. Both **A** and **R** are correct and **R** is the correct explanation of **A**
2. Both **A** and **R** are correct but **R** is NOT the correct explanation of **A**
3. **A** is correct but **R** is not correct
4. **A** is not correct but **R** is correct

Options :

611987114565. 1

611987114566. 2

611987114567. 3

611987114568. 4

Question Number : 43 Question Id : 61198729142 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Match the **LIST-I** with **LIST-II**

LIST-I		LIST-II	
A.	Gradually varied flow with increasing discharge	I.	Hilly river on steep slope
B.	Turbulent flow	II.	Irrigation canal
C.	Drop structures	III.	Pipe inlet
D.	Gradually varied flow with decreasing discharge	IV.	Drainage ditch

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

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

Options :

611987114569. 1

611987114570. 2

611987114571. 3

611987114572. 4

Question Number : 44 Question Id : 61198729143 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

In design of underground pipeline, if v is velocity of flow, g is acceleration due to gravity and friction head loss at pipe sharp edge entrance is h_e, which is the correct relationship

1. $h_e = v^2/2g$
2. $h_e = 0.5\ v^2/2g$
3. $h_e = 10\ v^2/2g$
4. $h_e = 0.1\ v^2/2g$

Options :

611987114573. 1

611987114574. 2

611987114575. 3

611987114576. 4

Question Number : 45 Question Id : 61198729144 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No

Option Orientation : Vertical

Following soil properties are considered correct

A. The coarser particle of soil are derived from physical weathering of rocks
B. Loamy soils are not considered favorable for plant growth
C. Clay soil contains 40-60% of clay and 40-45% sand and silt
D. Sandy soils have low water holding capacity
E. Silty clay means silt amount is more and clay proportion is less

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

1. A, B, C Only
2. B, C, D Only
3. C, D, E Only
4. A, C, D Only

Options :

611987114577. 1

611987114578. 2

611987114579. 3

611987114580. 4

Question Number : 46 Question Id : 61198729145 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Match the **LIST-I** with **LIST-II**

LIST-I		LIST-II	
A.	Particle density of soil	I.	Total mass of soil/Total volume of soil
B.	Dry bulk density of soil	II.	Dimensionless
C.	Apparent specific gravity of soil	III.	Total mass of soil solids/volume of soil solids
D.	Total (wet) bulk density of soil	IV.	Total mass of soil solids/Total volume of soil

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

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

Options :

611987114581. 1

611987114582. 2

611987114583. 3

611987114584. 4

Question Number : 47 Question Id : 61198729146 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Choose the correct sequence of soil moisture constants for a soil after a heavy rain if no further water is added.

A. Field capacity, Available water, Permanent wilting point, Ultimate wilting point, Saturation capacity
B. Available water, Saturation capacity, Permanent wilting point, Field capacity, Ultimate wilting point
C. Saturation capacity, Field capacity, Permanent wilting point, Ultimate wilting point, Available water
D. Saturation capacity, Field capacity, Available water, Permanent wilting point, Ultimate wilting point

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

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

Options :

611987114585. 1

611987114586. 2

611987114587. 3

611987114588. 4

Question Number : 48 Question Id : 61198729147 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Given below are two statements: one is labelled as **Assertion A** and the other is labelled as **Reason R**

Assertion A: The infiltration rate decreases during heavy rainfall and tends to approach a constant value.

Reason R: The metric potential of soil water decreases with accumulated infiltration.

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

1. Both **A** and **R** are correct and **R** is the correct explanation of **A**
2. Both **A** and **R** are correct but **R** is NOT the correct explanation of **A**
3. **A** is correct but **R** is not correct
4. **A** is not correct but **R** is correct

Options :

611987114589. 1

611987114590. 2

611987114591. 3

611987114592. 4

Question Number : 49 Question Id : 61198729148 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

The Poiseuille's law applicable to saturated flow in soils states that the flow of water in capillary is

1. Directly proportional to square of radius of capillary
2. Inversely proportional to square of radius of capillary
3. Directly proportional to fourth power of radius of capillary
4. Inversely proportional to fourth power of radius of capillary

Options :

611987114593. 1

611987114594. 2

611987114595. 3

611987114596. 4

Question Number : 50 Question Id : 61198729149 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Consider the following data for crop growing at a place. Compute the total crop evapotranspiration.
The ET_o and K_c stands for reference crop evapotranspiration and crop coefficient respectively

	March	April	May	June
ET_o mm/day	4	5.5	7.0	6.5
K_c	0.3	0.8	1.10	0.9

1. 358.4 mm
2. 838.8 mm
3. 853.2 mm
4. 583.4 mm

Options :

611987114597. 1

611987114598. 2

611987114599. 3

611987114600. 4

Question Number : 51 Question Id : 61198729150 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Which of the following is not a method of measuring crop evapotranspiration?

1. Rational method
2. Lysimeter method
3. Field water balance method
4. Climatological method

Options :

611987114601. 1

611987114602. 2

611987114603. 3

611987114604. 4

Question Number : 52 Question Id : 61198729151 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Match the **LIST-I** with **LIST-II**

LIST-I		LIST-II	
A.	Check basin irrigation	I.	Lateral movement of water
B.	Furrow irrigation	II.	Large size field
C.	Sprinkler irrigation	III.	Loss of land
D.	Open ended borders	IV.	Distorted patterns

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

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

Options :

611987114605. 1

611987114606. 2

611987114607. 3

611987114608. 4

Question Number : 53 Question Id : 61198729152 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Choose the correct sequence for leaching operation

A. Water table rise, over irrigation, accumulation of salts, leaching
B. Over irrigation, water table rise, accumulation of salts, leaching
C. Leaching, accumulation of salts, water table rise, over irrigation
D. Accumulation of salts, leaching, water table rise, over irrigation

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

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

Options :

611987114609. 1

611987114610. 2

611987114611. 3

611987114612. 4

Question Number : 54 Question Id : 61198729153 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Given below are two statements: one is labelled as **Assertion A** and the other is labelled as **Reason R**

Assertion A: The ideal fluid do not have shear stress.

Reason R: The Newtonian fluid is the fluid in which shear stress is not proportional to rate of shear strain.

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

1. Both **A** and **R** are correct and **R** is the correct explanation of **A**
2. Both **A** and **R** are correct but **R** is NOT the correct explanation of **A**
3. **A** is correct but **R** is not correct
4. **A** is not correct but **R** is correct

Options :

611987114613. 1

611987114614. 2

611987114615. 3

611987114616. 4

Question Number : 55 Question Id : 61198729154 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Which statements for properties of fluid are correct

A. Water is a incompressible fluid
B. The compressibility is reciprocal of bulk modules of elasticity
C. All manometers are based on Bernoulli's Theorem
D. The density of compressible fluid does not change with change in pressure
E. In laminar flow the streamlines are not straight and parallel

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

1. A, C, E Only
2. B, D, E Only
3. A, B, E Only
4. A, B, C Only

Options :

611987114617. 1

611987114618. 2

611987114619. 3

611987114620. 4

Question Number : 56 Question Id : 61198729155 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

The diameters of a pipe at point A and point B are 5 cm and 7.5 cm respectively. Find the discharge and velocity at point B, if the velocity of water at point A is 2.5 m/sec.

1. 12.5 m/sec 0.005 m^3/sec
2. 1.25 m/sec 0.05 m^3/sec
3. 1.25 m/sec 0.005 $m^{3/}$sec
4. 12.5 m/sec 0.5 m^3/sec

Options :

611987114621. 1

611987114622. 2

611987114623. 3

611987114624. 4

Question Number : 57 Question Id : 61198729156 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Match the **LIST-I** with **LIST-II**

LIST-I		LIST-II	
A.	Real fluid	I.	Reynold number > 4000
B.	Turbulent flow	II.	Constant density
C.	Incompressible fluid	III.	Constant velocity with time
D.	Steady flow	IV.	Bernouli's equation

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

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

Options :

611987114625. 1

611987114626. 2

611987114627. 3

611987114628. 4

Question Number : 58 Question Id : 61198729157 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Which of the following statements are correct regarding the orifices and weirs?

A. In orifice, the coefficient of discharge is product of coefficient of velocity and contraction
B. Vena contracta is term used in rectangular weir
C. The sheet of water flows over a weir is called as nappe
D. Cipolleti is a type of orifice
E. The V type of notch is used for low discharge in furrows

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

1. A, B and C Only
2. A, C and E Only
3. B, D and E Only
4. B, C and D Only

Options :

611987114629. 1

611987114630. 2

611987114631. 3

611987114632. 4

Question Number : 59 Question Id : 61198729158 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

A rectangular weir is installed in a gully to measure runoff. The length of weir crest is 3 m and the head of water over the weir is 40 cm. Find the discharge through weir. Take the value of coefficient of discharge (c_d) as 0.60.

1. 1.07 m^3/sec
2. 1.34 m^3/sec
3. 0.45 m^3/sec
4. 2.24 m^3/sec

Options :

611987114633. 1

611987114634. 2

611987114635. 3

611987114636. 4

Question Number : 60 Question Id : 61198729159 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Given below are two statements: one is labelled as **Assertion A** and the other is labelled as **Reason R**

Assertion A: The Total Energy Line (T.E.L) in open channel or pipe flow is sum of pressure head, elevation head and velocity head of flowing fluid in respect to a reference line.

Reason R: The Hydraulic Grade Line (H.G.L) under same conditions is obtained by substracting velocity head from total energy line.

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

1. Both **A** and **R** are correct and **R** is the correct explanation of **A**
2. Both **A** and **R** are correct but **R** is NOT the correct explanation of **A**
3. **A** is correct but **R** is not correct
4. **A** is not correct but **R** is correct

Options :

611987114637. 1

611987114638. 2

611987114639. 3

611987114640. 4

Question Number : 61 Question Id : 61198729160 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Match the **LIST-I** with **LIST-II**

LIST-I		LIST-II	
A.	Velocity of water	I.	$ML^{-2}T^{-2}$
B.	Kinematic viscosity	II.	$ML^{-1}T^{-2}$
C.	Specific weight	III.	LT^{-1}
D.	Shear stress	IV.	$L^{2}T^{-1}$

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

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

Options :

611987114641. 1

611987114642. 2

611987114643. 3

611987114644. 4

Question Number : 62 Question Id : 61198729161 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

A rectangular vegetated waterway of width 10 m is designed to carry excess runoff. Compute the specific energy of water when discharge is 30 m^3/sec and depth of water is 1.5 m.

1. 1.70 m
2. 0.20 m
3. 0.85 m
4. 3.40 m

Options :

611987114645. 1

611987114646. 2

611987114647. 3

611987114648. 4

Question Number : 63 Question Id : 61198729162 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

According to Indian Standard Soil Classification choose the correct option for different soil particle size in descending order

A. Boulder > Sand > Gravel > Silt
B. Sand > Silt > Clay > Gravel
C. Cobble > Clay > Silt > Sand
D. Gravel > Sand > Silt > Clay

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

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

Options :

611987114649. 1

611987114650. 2

611987114651. 3

611987114652. 4

Question Number : 64 Question Id : 61198729163 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

A fully saturated soil after a heavy rain in a watershed will undergo with following state in sequence if no further water is added.

A. Solid state
B. Semi Plastic state
C. Liquid state
D. Plastic state

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

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

Options :

611987114653. 1

611987114654. 2

611987114655. 3

611987114656. 4

Question Number : 65 Question Id : 61198729164 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Given below are two statements: one is labelled as **Assertion A** and the other is labelled as **Reason R**

Assertion A: The phenomenon of lifting of soil particles is called quick sand.

Reason R: When water flow takes place in upward direction, seepage pressure also acts in upward direction and effective pressure is reduced.

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

1. Both **A** and **R** are correct and **R** is the correct explanation of **A**
2. Both **A** and **R** are correct but **R** is NOT the correct explanation of **A**
3. **A** is correct but **R** is not correct
4. **A** is not correct but **R** is correct

Options :

611987114657. 1

611987114658. 2

611987114659. 3

611987114660. 4

Question Number : 66 Question Id : 61198729165 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Which of the following is not used as test for measurement of shear strength of soil?

1. Direct shear test
2. Pumping test
3. Drained test
4. Triaxial shear test

Options :

611987114661. 1

611987114662. 2

611987114663. 3

611987114664. 4

Question Number : 67 Question Id : 61198729166 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

The length of a line measured with a 30 m chain was found to be 500 m. Calculate the true length of the line if chain was 5 cm too long.

1. 499.17 m
2. 500 m
3. 500.83 m
4. 501.66 mm

Options :

611987114665. 1

611987114666. 2

611987114667. 3

611987114668. 4

Question Number : 68 Question Id : 61198729167 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Choose the correct quadrantal bearing (reduced bearing) of whole circle bearing

LIST-I		LIST-II	
A.	23°40'	I.	S 41°44'W
B.	160°22'	II.	N 42°46'W
C.	221°44'	III.	N 23°40'E
D.	317°14'	IV.	S 19°38'E

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

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

Options :

611987114669. 1

611987114670. 2

611987114671. 3

611987114672. 4

Question Number : 69 Question Id : 61198729168 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Which characteristics of contour lines are true?

A. Contour lines cannot cross each other in general
B. Contour lines close together indicate steep slope
C. A close contour lines with lower value inside represents a hill
D. A close contour lines with higher value inside represents a valley
E. Contour lines spaced for together indicate a gentle slope

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

1. A, B, C Only
2. C, D, A Only
3. B, C, D Only
4. A, B, E Only

Options :

611987114673. 1

611987114674. 2

611987114675. 3

611987114676. 4

Question Number : 70 Question Id : 61198729169 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Match the **LIST-I** with **LIST-II**

LIST-I		LIST-II	
A.	Plane table survey	I.	Theodolite
B.	Horizontal and vertical plane levelling	II.	Line of collimation
C.	Dumpy level	III.	Radiation method
D.	Calculation of volume	IV.	Prismoidal formula

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

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

Options :

611987114677. 1

611987114678. 2

611987114679. 3

611987114680. 4

Question Number : 71 Question Id : 61198729170 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Match the **LIST-I** with **LIST-II**

LIST-I		LIST-II	
A.	Electric Power	I.	0.1 hp
B.	Bullock Power	II.	Motor
C.	Human Power	III.	0.5 hp
D.	Renewable Power	IV.	Non exhaustive

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

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

Options :

611987114681. 1

611987114682. 2

611987114683. 3

611987114684. 4

Question Number : 72 Question Id : 61198729171 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Match the **LIST-I** with **LIST-II**

LIST-I		LIST-II	
A.	External Combustion	I.	Carburator
B.	S.I. Engine	II.	Hybrid Engines
C.	C.I. Engine	III.	Fuel injection pump
D.	Dual fuel	IV.	Boiler

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

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

Options :

611987114685. 1

611987114686. 2

611987114687. 3

611987114688. 4

Question Number : 73 Question Id : 61198729172 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Choose correct answer for different system of Tractor

LIST-I		LIST-II	
A.	Cooling System	I.	Bull gear
B.	Lubrication System	II.	Splash system
C.	Power transmission system	III.	Radiator
D.	Final drive	IV.	Differential

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

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

Options :

611987114689. 1

611987114690. 2

611987114691. 3

611987114692. 4

Question Number : 74 Question Id : 61198729173 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Which of the statements for engine are true?

A. The C.I Engines have high thermal efficiency
B. The compression ratio of SI engines is 5:1 to 8:1
C. In 4 stroke engine the crank case is air tight
D. Crankshaft converts reciprocating motion to rotary motion
E. Camshaft has twice speed than crankshaft in four stroke engine

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

1. A, B, D Only
2. B, C, D Only
3. A, C, D Only
4. B, D, E Only

Options :

611987114693. 1

611987114694. 2

611987114695. 3

611987114696. 4

Question Number : 75 Question Id : 61198729174 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Given below are two statements: one is labelled as **Assertion A** and the other is labelled as **Reason R**

Assertion A: The octane number which is a measure of knock characteristic of fuel is derived from a mixture of 'Iso-octane' and 'Normal Heptane'

Reason R: The normal Heptane has the octane number as 100.

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

1. Both **A** and **R** are correct and **R** is the correct explanation of **A**
2. Both **A** and **R** are correct but **R** is NOT the correct explanation of **A**
3. **A** is correct but **R** is not correct
4. **A** is not correct but **R** is correct

Options :

611987114697. 1

611987114698. 2

611987114699. 3

611987114700. 4