National Testing Agency

Question Paper Name :Water Science and Technology 23rd Sep 2020 Shift 2Subject Name :WATER SCIENCE AND TECHNOLOGYCreation Date :2020-09-23 19:33:46Duration :120Total Marks :480Display Marks:YesShare Answer Key With Delivery Engine :Yes

Water Science and Technology

Yes

Group Number: 71087069 Group Id: **Group Maximum Duration:** 0 **Group Minimum Duration:** 120 **Show Attended Group?:** No **Edit Attended Group?:** No **Break time:** 0 **Group Marks:** 480 Is this Group for Examiner?: No

Actual Answer Key:

Part A General Knowledge

Section Id: 710870205
Section Number: 1
Section type: Online
Mandatory or Optional: Mandatory
Number of Questions: 20

Number of Questions to be attempted:20Section Marks:80Display Number Panel:YesGroup All Questions:YesMark As Answered Required?:YesSub-Section Number:1

Sub-Section Id: 710870205

Question Shuffling Allowed: Yes

Question Number: 1 Question Id: 7108708221 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

Which one of the following crops is a commercial crop in Punjab and Haryana but is a subsistence crop in Orissa?

- 1. Tea
- 2. Cotton
- 3. Rubber
- 4. Rice

Options:

71087032881. 1

71087032882. 2

71087032883.3

71087032884.4

Question Number: 2 Question Id: 7108708222 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 are the two most important wheat-growing zones of the country?

- A. Ganga-Satluj plains in the north-west
- B. Deltaic regions
- C. Black soil region of the Deccan
- D. Plains of north-east

Choose the *correct* answer from the options below:

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

Options:

71087032885. 1

71087032886. 2

71087032887. 3

71087032888.4

Question Number: 3 Question Id: 7108708223 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

 ${\bf Mandatory: No\ Single\ Line\ Question\ Option: No\ Option\ Orientation: Vertical}$

Correct Marks: 4 Wrong Marks: 1

Indian agriculture is typically characterized as

- 1. Land surplus, labour scarce economy
- 2. Land surplus, labour surplus economy
- 3. Land scarce, labour surplus economy
- 4. Land scarce, labour scarce economy

Options:

71087032890. 2 71087032891. 3 71087032892. 4

Question Number: 4 Question Id: 7108708224 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks : 4 Wrong Marks : 1

Which one of the following countries is the main rival of India in tea export?

1. China

2. Japan

3. Germany

4. Sri Lanka

Options:

71087032893.1

71087032894. 2

71087032895.3

71087032896.4

Question Number: 5 Question Id: 7108708225 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

Statement A: MSP is declared by the government every year to provide incentives to the farmers for raising the production of crops.

Statement B: Buffer stock is created to distribute food grains in the deficit areas and among the poorer strata of the society at the lower price than the market price.

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

- 1. Both Statement A and Statement B are correct
- 2. Both Statement A and Statement B are incorrect
- 3. Statement A is correct but Statement B is incorrect
- 4. Statement A is incorrect but Statement B is correct

Options:

71087032897. 1

71087032898. 2

71087032899. 3

71087032900.4

Question Number: 6 Question Id: 7108708226 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

Which one of the following is a global association of nations of the world to help cooperation in international law, security, economic development and social equity?

- 1. United Nations Organization
- 2. International Monetary Fund
- 3. World Bank
- 4. World Health Organization

71087032901.1

71087032902. 2

71087032903.3

71087032904.4

Question Number: 7 Question Id: 7108708227 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

Under the Ganga Action Plan Phase II, pollution abatement works are being taken up in how many towns?

1.57

2.65

3.52

4.69

Options:

71087032905.1

71087032906. 2

71087032907. 3

71087032908.4

Question Number: 8 Question Id: 7108708228 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

Which one of the following statements is incorrect?

- 1. The highest number of pigs in the world are found in India
- 2. Utter Pradesh provides largest amount of pork
- 3. Assam has the largest number of pork producing pigs
- 4. Pork constitutes about 7.6% of the total meat produced in India

Options:

71087032910. 2

71087032911.3

71087032912.4

Question Number: 9 Question Id: 7108708229 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

Which type of N-fertilizer is suitable for water-logged soils?

- 1. Zinc Phosphate
- 2. Ammonium Sulphate
- 3. Calcium
- 4. Potassium Nitrate

Options:

71087032913.1

71087032914. 2

71087032915.3

71087032916.4

Question Number: 10 Question Id: 7108708230 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

The famous Bailadila range of hills in the Bastar district of Chhattisgarh is famous for its

- 1. Bauxite deposits
- 2. Manganese deposits
- 3. Copper deposits
- 4. High-grade haematite deposits

Options:

71087032919. 3

71087032920.4

Question Number: 11 Question Id: 7108708231 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

A farmer wishes to start a 100 sq. m rectangular vegetable garden. Since he has only 30m barbed wire, he fences three sides of the garden letting his house compound wall act as the fourth side fencing. What is the dimension of the garden?

1. 15 m x 6.67m

2. 20 m x 5 m

3. 30 m x 3.33 m

4. 40 m x 2.5 m

Options:

71087032921.1

71087032922.2

71087032923.3

71087032924.4

Question Number: 12 Question Id: 7108708232 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

In which one of the following industries, the consumption of natural rubber is the largest?

- 1. Auto tyres and tubes
- 2. Footwear
- 3. Dipped goods
- 4. Latex foam

Options:

71087032926. 2

71087032927.3

71087032928. 4

Question Number: 13 Question Id: 7108708233 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

Which one of the following countries was the partner country of 34th Surajkund International Crafts Fair held in Haryana?

- 1. China
- 2. Nepal
- 3. Bhutan
- 4. Uzbekistan

Options:

71087032929. 1

71087032930. 2

71087032931.3

71087032932.4

Question Number: 14 Question Id: 7108708234 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

Nobel laureate Abhijit Vinayak Banerjee was conferred the honorary Doctor of Letters (D. Litt.) by which University?

- 1. University of Delhi
- 2. University of Kolkata
- 3. University of Mumbai
- 4. University of Hyderabad

71087032933.1

71087032934. 2

71087032935.3

71087032936.4

Question Number: 15 Question Id: 7108708235 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

Where is the headquarters of European Union?

- 1. Geneva, Switzerland
- 2. Washington D.C., USA
- 3. New York, US
- 4. Brussels, Belgium

Options:

71087032937. 1

71087032938.2

71087032939.3

71087032940.4

Question Number: 16 Question Id: 7108708236 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

Which of the following would be deficient if one finds high somatic cell count in the cow's milk?

- 1. Butterfat
- 2. Whey protein
- 3. Casein
- 4. Trace minerals

71087032941.1

71087032942. 2

71087032943.3

71087032944.4

Question Number: 17 Question Id: 7108708237 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

Who was the first administrator-statesman to attempt planning as a means for economic development?

1. C. Rajagopalachari

2. V. T. Krishnamachari

3. M. Viswesvarayya

4. Sir C. P. Ramaswami Aiyyar

Options:

71087032945.1

71087032946. 2

71087032947. 3

71087032948.4

Question Number: 18 Question Id: 7108708238 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

Amazon rainforest span over nine countries. In August 2019, in which country did a deadly fire broke out in the Amazon forest?

- 1. Brazil
- 2. Venezuela
- 3. Colombia
- 4. Argentina

71087032949. 1

71087032950. 2

71087032951.3

71087032952.4

Question Number: 19 Question Id: 7108708239 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

Economic liberalization in India started with

1. Sustainable changes in industrial licensing policy

- 2. The convertibility of the Indian Rupee
- 3. Significant reduction of tax rates
- 4. Changes in procedural formalities for FDI

Options:

71087032953.1

71087032954. 2

71087032955.3

71087032956.4

Question Number: 20 Question Id: 7108708240 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

The term 'Delimitation' which was in news recently is associated with which process?

- 1. Fixing the limit of Income tax
- 2. Fixing limits of Affordable housing
- 3. Fixing limits of Territorial constituencies
- 4. Fixing limits of Chairpersons salary

Options:

71087032958. 2 71087032959. 3 71087032960. 4

Part B Core Natural Resource Management-II

Section Id: 710870206

Section Number: 2

Section type: Online

Mandatory or Optional: Mandatory

Number of Questions:

Number of Questions to be attempted:

Section Marks:

Display Number Panel:

Group All Questions:

Yes

Mark As Answered Required?:

Yes

Sub-Section Number:

Sub-Section Id: 710870206

Question Shuffling Allowed: Yes

Question Number: 21 Question Id: 7108708241 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

The most commonly used carrier gas in GC-MS/MS is

- 1. Hydrogen
- 2. Nitrogen
- 3. Helium
- 4. Oxygen

Options:

71087032961.1

71087032964.4

Question Number: 22 Question Id: 7108708242 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

Organic compounds used by insects to convey specific chemical messages that modify behaviour or physiology are

- 1. Semiochemicals
- 2. Chemosterilant
- 3. Juvenile Hormone
- 4. Antibiotics

Options:

71087032965.1

71087032966. 2

71087032967.3

71087032968.4

Question Number: 23 Question Id: 7108708243 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

Carbamate pesticides are developed from which natural lead containing molecule?

- 1. Rotenone
- 2. Nicotine
- 3. Physostigmine
- 4. Anabasine

Options:

71087032969. 1

71087032970. 2

Question Number: 24 Question Id: 7108708244 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

Addition of PBO with the pyrethrum extract is a / an

- 1. Additive effect
- 2. Synergistic effect
- 3. Antagonistic effect
- 4. Symbiotic effect

Options:

71087032973.1

71087032974. 2

71087032975.3

71087032976.4

Question Number: 25 Question Id: 7108708245 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Match List I with List II

List I	List II
A. Insect growth regulator	I. Azadirachtin
B. Insect pheromone	II. Methyl eugenol
C. Insect repellent	III. DEET
D. Insect chitin synthesis inhibitor	IV. Diflubenzuron

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

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

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

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

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

Options:

71087032977. 1

71087032978. 2

71087032979. 3

71087032980.4

Question Number: 26 Question Id: 7108708246 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

 ${\bf Question\ Mandatory: No\ Single\ Line\ Question\ Option: No\ Option\ Orientation: Vertical}$

Correct Marks: 4 Wrong Marks: 1

MRL is the amount of residue that will NOT be a concern to human health. MRL stands for

- 1. Multiple Residue Limit
- 2. Minimum Residue Limit
- 3. Minimum Residual Limit
- 4. Maximum Residue Limit

Options:

71087032981.1

71087032982. 2

Question Number: 27 Question Id: 7108708247 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

Which of the following are NOT true about haemoglobin and leghaemoglobin?

A. Both are oxygen carriers

B. Haemoglobin is red in colour but leghaemoglobin is blue in colour

C. Both are hemoproteins

D. Haemoglobin has significantly higher oxygen affinity than leghaemoglobin

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

1. A and B only

2. B and C only

3. C and D only

4. B and D only

Options:

71087032985.1

71087032986. 2

71087032987. 3

71087032988.4

Question Number: 28 Question Id: 7108708248 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

In which year, did the Supreme Court of India ban production, use and sale of Endosulfan, an organochlorine contact pesticide?

1, 2014

2, 2011

3.1999

4.2006

Options:

71087032989. 1

71087032990. 2

71087032991.3

71087032992.4

Question Number: 29 Question Id: 7108708249 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

Given below are two statements, one is labelled as **Assertion A** and the other is labelled as

Reason R

Assertion A: Insects develop resistance to natural pesticides more than synthetic pesticides

Reason R: Active ingredient of natural pesticides comprises a number of homologous compounds

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

Options:

71087032994. 2

71087032995.3

71087032996. 4

Question Number: 30 Question Id: 7108708250 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

- 2 PAM is known to be effective as a
- 1. Synergist
- 2. Antidote
- 3. Insect growth regulator
- 4. Plant growth regulator

Options:

71087032997. 1

71087032998. 2

71087032999.3

71087033000.4

Question Number: 31 Question Id: 7108708251 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

FSSAI stands for

- 1. Food Standards and Safety Authority of India
- 2. Food Safety and Standards Authority of India
- 3. Food Safety and Sanitary Authority of India
- 4. Food Sanitary and Safety Authority of India

Options:

71087033001.1

71087033003. 3 71087033004. 4

Question Number: 32 Question Id: 7108708252 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

Phosphorus-containing pesticides may be analysed with GLC coupled with which detector?

- 1. ECD
- 2. RI
- 3. NPD
- 4. UV-Vis

Options:

71087033005.1

71087033006.2

71087033007. 3

71087033008.4

Question Number: 33 Question Id: 7108708253 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

In general, which one of the following is NOT the purpose of pesticide formulation?

- 1. To facilitate the application in the field
- 2. To reduce drift hazard
- 3. To improve bioefficacy
- 4. To provide stability to the active ingredient

Options:

71087033009.1

71087033010.2

71087033011.3

Question Number: 34 Question Id: 7108708254 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

World Water Day is celebrated on which day every year?

- 1. 22 April
- 2. 22 March
- 3. 16 October
- 4. 4 December

Options:

71087033013.1

71087033014. 2

71087033015.3

71087033016.4

Question Number: 35 Question Id: 7108708255 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

Downward movement of water through saturated or nearly saturated soil in response to gravity is known as

- 1. Infiltration
- 2. Seepage
- 3. Permeability
- 4. Percolation

Options:

71087033017.1

71087033018. 2

71087033019.3

Question Number: 36 Question Id: 7108708256 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

Given below are two statements

Statement I: Consumptive use of water in a crop is the amount of water lost through evaporation, percolation, run-off and seepage

Statement II: Irrigation water requirement of crop includes water used in evapotranspiration, special operations and water lost through percolation, run-off and seepage etc

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

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

Options:

71087033021. 1

71087033022. 2

71087033023.3

71087033024.4

Question Number: 37 Question Id: 7108708257 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

In a sprinkler irrigation system, the required total capacity of the system is 0.005 m³/s. The total head required is 37 m of water column. Determine the size of a monobloc pumpset. Assume pump and motor efficiency as 70% each.

1. 3.0 h.p

2. 1.0 h.p

3. 7.5 h.p

4. 5.0 h.p

Options:

71087033025.1

71087033026, 2

71087033027.3

71087033028.4

Question Number: 38 Question Id: 7108708258 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

Central Research Institute for Dryland Agriculture is located at

- 1. Jodhpur
- 2. Hyderabad
- 3. Jaipur
- 4. Nagpur

Options:

71087033029.1

71087033030. 2

71087033031.3

71087033032.4

Question Number: 39 Question Id: 7108708259 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

A rectangular wire mesh box filled with stones is a

- 1. Chute spillway
- 2. Gabion
- 3. Drop spillway
- 4. Drop inlet spillway

Options:

71087033033.1

71087033034.2

71087033035.3

71087033036.4

Question Number: 40 Question Id: 7108708260 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

A hydrograph is a graphical representation of

- 1. Rainfall and time
- 2. Total runoff and time
- 3. Surface runoff and time
- 4. Base flow and time

Options:

71087033037. 1

71087033038.2

71087033039.3

71087033040.4

Question Number: 41 Question Id: 7108708261 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: Gypsum is not considered a liming material for reclamation of acid soils although it contains calcium

Reason R: Calcium sulphate dissociates into calcium and sulphate. While the former replaces aluminium in the exchange complex, the latter forms sulphuric acid reacting with soil moisture. Both processes reduce pH.

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

Options:

71087033041.1

71087033042. 2

71087033043.3

71087033044.4

Question Number: 42 Question Id: 7108708262 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

For the sprinkler head to move freely, it is lubricated with

- 1. Oil
- 2. Grease
- 3. Mineral Oil
- 4. No lubricant is used

Options:

71087033047.3

71087033048.4

Question Number: 43 Question Id: 7108708263 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

Water Horse Power (WHP) developed by a pump is given as WHP = (Discharge x Total Head against which pump is working)/75. If the head is in meters then discharge in the formula is in

1. m^3/s

2. Litres/s

3. cm³/s

4. m³/hr

Options:

71087033049.1

71087033050.2

71087033051.3

71087033052.4

Question Number: 44 Question Id: 7108708264 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

Spreading type of varieties in groundnut belong to the sub-species

- 1. Procumbens
- 2. Indica
- 3. Fastigata
- 4. Javanica

Options:

71087033053.1

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71087033055. 3
71087033056. 4
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Question Number: 45 Question Id: 7108708265 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

Which one of the following is a condition influencing weed - crop competition?

- 1. pH
- 2. Nitrogen
- 3. CO₂
- 4. Space

Options:

71087033057. 1

71087033058. 2

71087033059.3

71087033060.4

Question Number: 46 Question Id: 7108708266 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

What is the Rate of atrazine (Kg/ha) if 3 Kg is applied in 2 ha area at 50% WP?

- 1.0.75
- 2. 1.50
- 3.3.00
- 4. 2.25

Options:

71087033061.1

71087033062.2

71087033063.3

Question Number: 47 Question Id: 7108708267 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

A fresh soil sample weighing 100 gm contains 18% soil moisture. Find out the dry weight of the soil.

- 1.84.74
- 2.90.74
- 3.75.74
- 4.82.0

Options:

71087033065.1

71087033066. 2

71087033067.3

71087033068.4

Question Number: 48 Question Id: 7108708268 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

Which of the following is relatively resistant to low water stress?

- 1. Sorghum
- 2. Wheat
- 3. Rice
- 4. Potato

Options:

71087033069. 1

71087033070.2

71087033071.3

Question Number: 49 Question Id: 7108708269 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

Given below are two statements, as per the Mitscherlich equation

Statement I: 1 Baule of N = 1 Baule of P2O5 = 1 Baule of K2O

Statement II: Amount of nutrient required to produce 50% of maximum possible yield.

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 correct but Statement II is false
- 4. Statement I is incorrect but Statement II is true

Options:

71087033073.1

71087033074. 2

71087033075.3

71087033076.4

Question Number: 50 Question Id: 7108708270 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

Statement I: In the Mitscherlich equation, the value of C indicates the efficiency factor of input x

Statement II: There is an inverse relationship between input and efficiency

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 correct but Statement II is false
- 4. Statement I is incorrect but Statement II is true

Options:

71087033077. 1

71087033078. 2

71087033079.3

71087033080.4

Question Number: 51 Question Id: 7108708271 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

Cultivation of chickpeas and sarson is believed to have started around

- 1. 2000 BC
- 2. 2200 BC
- 3. 2300 BC
- 4. 1800 BC

Options:

71087033081.1

Question Number: 52 Question Id: 7108708272 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

Match the following problem soil with it's characteristics

List I	List II Characteristics	
Problem soil		
A. Saline alkali soil	I. pH > 8.5, ESP > 15%, EC > 4 dsm ⁻¹	
B. Alkali soil	II. pH < 8.5, ESP < 15%, EC > 4 dsm ⁻¹	
C. Saline soil	III. pH > 8.5, ESP > 15%, EC < 4 dsm ⁻¹	
D. Non-saline alkali soil	IV. pH > 8.5, compact and dark coloured soils	
E. Degraded alkali soil	V. ESP > 15%	

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

Options:

71087033085.1

71087033086. 2

71087033087.3

71087033088.4

Question Number: 53 Question Id: 7108708273 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Sea water has salt content within the range

- 1. 20,000 30,000 ppm
- 2. 30,000 40,000 ppm
- 3. 40,000 50,000 ppm
- 4. 50,000 60,000 ppm

Options:

71087033089.1

71087033090.2

71087033091.3

71087033092.4

Question Number: 54 Question Id: 7108708274 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

What is the acceptable limit of biuret for most crops?

- 1. 1.0%
- 2. 1.5%
- 3. 2.0%
- 4. 2.5%

Options:

71087033093.1

71087033094.2

71087033095. 3

71087033096.4

Question Number: 55 Question Id: 7108708275 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

The principle of allelopathy was first reported by

- 1. Zimmerman
- 2. Molisch
- 3. Jethro Tull
- 4. Wilcox

Options:

71087033097. 1

71087033098.2

71087033099.3

71087033100.4

Question Number: 56 Question Id: 7108708276 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

The yield obtained from a treated plot is 20 q/ha. The yield obtained from a similar but untreated plot is 10 q/ha. Calculate the weed index (WI)

- 1.40%
- 2.50%
- 3.75%
- 4. 100%

Options:

71087033101. 1

71087033102. 2

71087033103.3

71087033104.4

Question Number: 57 Question Id: 7108708277 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Weeds which mature in few weeks are called as

- 1. Biennial weeds
- 2. Annual weeds
- 3. Ephemerals
- 4. Peripherals

Options:

71087033105.1

71087033106.2

71087033107.3

71087033108.4

Question Number: 58 Question Id: 7108708278 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

Match the name of the weed and the crop in which it occurs

List I	List II Weed	
Crop		
A. Rice	I. Dodder	
B. Sorghum	II. Phalaris	
C. Mango	III. Striga	
D. Oats	IV. Echinochloa	
E. Citrus	V. Loranthus	

Choose the correct answer from the options given below

Options:

71087033109. 1 71087033110. 2

71087033111.3

71087033112.4

Question Number: 59 Question Id: 7108708279 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

Which of the following States has the highest area under drip irrigation?

- 1. Maharashtra
- 2. Rajasthan
- 3. Karnataka
- 4. Telangana

Options:

71087033113.1

71087033114. 2

71087033115.3

71087033116.4

Question Number: 60 Question Id: 7108708280 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

World Wetlands Day is celebrated on

- 1. 2nd October
- 2. 12th October
- 3. 2nd February
- 4. 12th February

Options:

71087033117.1

71087033119. 3 71087033120. 4

Question Number: 61 Question Id: 7108708281 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

Highest proportion of plant tissue is made up of

1. N, P, K

2. C, H, O

3. Ca, Mg, S

4. Zn, Mn, Fe

Options:

71087033121.1

71087033122. 2

71087033123.3

71087033124.4

Question Number: 62 Question Id: 7108708282 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Mineralisation is the process of

- A. Conversion from organic form to an inorganic form
- B. Conversion from inorganic to an organic form
- C. Conversion from oxidised form to a reduced form
- D. Conversion from reduced form to an oxidised form.

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

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

Options:

71087033125. 1

71087033126. 2

71087033127.3

71087033128.4

Question Number: 63 Question Id: 7108708283 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Level terrace or inward sloping is suggested for

A. 6 - 50% slope

B. More than 1000 mm annual rainfall

Choose the correct answer from the options given below

- 1. A only
- 2. B only
- 3. Both A and B
- 4. Neither A nor B

Options:

71087033129.1

71087033130. 2

71087033131.3

71087033132.4

Question Number: 64 Question Id: 7108708284 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

If the natural flow of wind is in the E - W direction, ploughing to prevent soil erosion by wind is suggested to be made in the

- 1. E W direction
- 2. N S direction
- 3. Direction of ploughing has no effect
- 4. Ploughing cannot prevent soil errosion by wind

Options:

71087033133. 1

71087033134. 2

71087033135.3

71087033136.4

Question Number: 65 Question Id: 7108708285 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

For the design of a gravel pack for the aquifer material, the sieve analysis curve is plotted on a

- 1. Simple graph paper
- 2. Semilog paper
- 3. Log-log paper
- 4. Combination of semi-log and log log paper

Options:

71087033137. 1

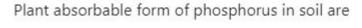
71087033138. 2

71087033139.3

71087033140.4

Question Number: 66 Question Id: 7108708286 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical



A. H₂PO₄⁻¹

B. HPO₄-2

C. PO₄-3

D. H₃PO₄

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

1. A and B only

2. B and C only

3. C and D only

4. A and D only

Options:

71087033141. 1

71087033142. 2

71087033143.3

71087033144.4

Question Number: 67 Question Id: 7108708287 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Match List I with List II

List I	List II
A. Nitrogen	I. Secondary nutrient
B. Calcium	II. Micronutrient
C. Aluminium	III. Macronutrient
D. Zinc	IV. Beneficial nutrient

Choose the correct answer from the options given below:

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

Options:

71087033145. 1

71087033146. 2

71087033147.3

71087033148.4

Question Number: 68 Question Id: 7108708288 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

Ratoon stunting disease of sugar cane is caused by

- 1. Nematode
- 2. Fungi
- 3. Virus
- 4. Bacteria

Options:

71087033149. 1

71087033150. 2

71087033151.3

Question Number: 69 Question Id: 7108708289 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

Match the scientists with their contribution to plant nutrition

List I	List II Contribution	
Scientist		
A. Francis Bacon	I. Water is the sole nutrient of plants	
B. Van Helmont	II. Plants contain salt, spirit and earth	
C. Robert Boyle	III. Saltpeter (KNO ₃) is the principle of vegeta	
D. J. R. Glauber	IV. Principle nourishment to plants is water	
E. John Woodward	V. Earth is the principle of vegetation	

Which of the following match is correct?

Options:

71087033153.1

71087033154. 2

71087033155.3

71087033156. 4

Question Number: 70 Question Id: 7108708290 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

A soil considered to be very fertile, when percent base saturation is

1.50 - 80%

2.30 - 50%

3. < 30%

4. > 80%

Options:

71087033157. 1

71087033158.2

71087033159.3

71087033160.4

Part C Water Science and Technology

Section Id: 710870207

Section Number: 3

Section type: Online

Mandatory or Optional: Mandatory

Number of Questions :50Number of Questions to be attempted :50

Section Marks: 200
Display Number Panel: Yes

Group All Questions:

Mark As Answered Required?:

Yes

Sub-Section Number:

Sub-Section Id: 710870207

Question Shuffling Allowed: Yes

Question Number: 71 Question Id: 7108708291 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Match List I with List II

List I	List II (Irrigation/ power project)	
(State)		
A. Himachal Pradesh	I. Tungabhadra	
B. Madhya Pradesh	II. Gandak	
C. Karnataka	III. Chamera	
D. Bihar	IV. Gandhi Sagar	

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

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

Options:

- 71087033161.1
- 71087033162. 2
- 71087033163.3
- 71087033164. 4

Question Number: 72 Question Id: 7108708292 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Arrange the following states in decreasing order of net sown percentage irrigated area
A. Punjab
B. Uttar Pradesh
C. Haryana
D. West Bengal
Choose the <i>correct</i> answer from the options given below:
1. A, D, C, B 2. A, C, B, D 3. C, B, A, D 4. D, B, C, A Options: 71087033165. 1 71087033166. 2 71087033167. 3 71087033168. 4
Question Number: 73 Question Id: 7108708293 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical Correct Marks: 4 Wrong Marks: 1 Which one of the following is NOT a water allocation method in canal command areas?
1. Warabandi 2. Chakbandi 3. Osrabandi 4. Shejpali Options: 71087033169. 1

71087033170. 2 71087033171. 3 71087033172. 4

Question Number: 74 Question Id: 7108708294 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

Water used in producing grain/ animal products is called

1. Virtual water

- 2. Hygroscopic water
- 3. Blue water
- 4. Green water

Options:

71087033173.1

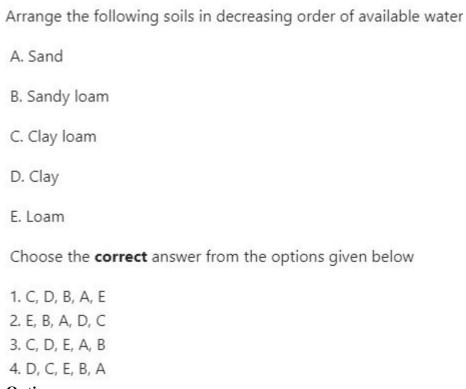
71087033174.2

71087033175.3

71087033176.4

Question Number: 75 Question Id: 7108708295 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical



Options:

71087033177. 1

71087033178. 2

71087033179.3

71087033180.4

Question Number: 76 Question Id: 7108708296 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

Statement I: Water molecule has no charge

Statement II: Water is a good solvent due to its polarity

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

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

Options:

71087033181.1

71087033182. 2

71087033183.3

71087033184.4

Question Number: 77 Question Id: 7108708297 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

Which one of the following is NOT an indirect method of soil moisture measurement?

- 1. Neutron moisture meter
- 2. Gravimetric method
- 3. Time-domain reflectometery
- 4. Electric resistance block

Options:

71087033185.1

71087033186. 2

71087033187.3

71087033188.4

Question Number: 78 Question Id: 7108708298 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

Which one of the following is correct?

- 1. Matric or capillary potential
- 2. Osmotic or pressure potential
- 3. Gravitational or capillary potential
- 4. Solute or pressure potential

Options:

71087033189.1

71087033190.2

71087033191.3

71087033192.4

Question Number: 79 Question Id: 7108708299 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

Which one of the following is NOT a method of evapotranspiration measurement?

- 1. Soil moisture variation method
- 2. Blaney-Criddle method
- 3. Radiation method
- 4. FAO Penman-Monteith method

Options:

71087033193.1

71087033194. 2

71087033195.3

71087033196.4

Question Number: 80 Question Id: 7108708300 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

Infiltration CANNOT be described by

- 1. Philip's equation
- 2. Horton's equation
- 3. Parlange's equation
- 4. Darcy's eqaution

Options:

71087033197.1

71087033198. 2

71087033199.3

71087033200.4

Question Number: 81 Question Id: 7108708301 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

Calculate irrigation water productivity of wheat crop receiving 6 irrigation each of 50 mm depth and producing 5 tonnes grain yield/ha.

- 1. 1.50 kg grain/m³
- 2. 1.66 kg grain/m³
- 3. 2.00 kg grain/m³
- 4. 1.75 kg grain/m³

Options:

71087033201.1

71087033202. 2

71087033203.3

71087033204.4

Question Number: 82 Question Id: 7108708302 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

Given below are two statements, one is labelled as Assertion A and the other is labelled as

Reason R

Assertion A: High temperature, high wind velocity and low humidity increase the water requirement of crops.

Reason R: These factors increase the losses of water through ET

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

Options:

71087033205. 1

71087033206, 2

71087033207.3

71087033208.4

Question Number: 83 Question Id: 7108708303 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

Which one of the following has the strongest effect on the soil moisture characteristics curve?

- 1. Soil electrical conductivity
- 2. Soil structure organic matter content
- 3. Particle density
- 4. Soil texture

Options:

71087033209. 1

71087033210. 2

71087033211.3

71087033212. 4

Question Number: 84 Question Id: 7108708304 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

Which one of the following is a climatological approach of scheduling irrigation?

- 1. Leaf temperature
- 2. Potential evapotranspiration
- 3. Leaf diffusion resistance
- 4. Plant-water content

Options:

71087033213.1

71087033214. 2

71087033215.3

71087033216.4

Question Number: 85 Question Id: 7108708305 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

10 mm of water over one hectare area is equal to how many litres of water?

- 1. 10⁵ litres
- 2. 10⁴ litres
- 3. 10⁶ litres
- 4. None of these

Options:

71087033217. 1

71087033218. 2

71087033219.3

Question Number: 86 Question Id: 7108708306 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

With a discharge of 500 litres of water/minute, 5000 m² area was irrigated in 10 hours. Find out the average depth of irrigation water in the field

- 1. 60 mm
- 2.50 mm
- 3. 40 mm
- 4. 55 mm

Options:

71087033221. 1

71087033222. 2

71087033223.3

71087033224.4

Question Number: 87 Question Id: 7108708307 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

A. Safflower	
B. Rice	
C. Potato	
D. Berseem	
E. Sugarbeet	
Choose the correct answer from the options given below	
1. B, E, C, D, A 2. C, B, E, A, D 3. B, D, E, C, A 4. C, B, E, D, A Options: 71087033225. 1 71087033226. 2 71087033227. 3 71087033228. 4	
Question Number: 88 Question Id: 7108708308 Question Type: MCQ Option Shuffling: No Display Question Number: Ye Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical Correct Marks: 4 Wrong Marks: 1	s Is

Arrange the following crops in decreasing order of their water requirement

Match List I with List II

List I	List II Critical Stages of Irrigation	
Crops		
A. Cotton	I. Fruiting	
B. Sugarcane	II. Peg penetration	
C. Groundnut	III. Tillering	
D. Tomato	IV. Flowering to boll development	

Choose the correct answer from the options given below:

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

Options:

71087033229. 1

71087033230. 2

71087033231.3

71087033232. 4

Question Number: 89 Question Id: 7108708309 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

Statement I: Chemigation is more compatible with surface methods of irrigation

Statement II: Chemigation does not include fertigation

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

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

Options:

71087033233.1

71087033234. 2

71087033235.3

71087033236.4

Question Number: 90 Question Id: 7108708310 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

The volume of water necessary to cover an area of 5000 m² to a depth of 6.0 cm is

- 1. 300000 litres
- 2. 600000 litres
- 3. 500000 litres
- 4. 200000 liters

Options:

71087033237. 1

71087033238. 2

71087033239.3

71087033240.4

Question Number: 91 Question Id: 7108708311 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks : 4 Wrong Marks : 1

Which one of the following surface irrigation methods has the least percentage of wetted area during irrigation?

- 1. Check basin irrigation
- 2. Border irrigation
- 3. Alternate furrow irrigation
- 4. Furrow irrigation

Options:

71087033241. 1

71087033242. 2

71087033243.3

71087033244.4

Question Number: 92 Question Id: 7108708312 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

Given below are two statements

Statement I: In forage-cum-mulch system hedge rows are used both for forage and mulch

Statement II: Ley farming system involves rotation of forage legumes with cereals.

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

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

Options:

71087033245. 1

71087033246. 2

71087033247. 3

71087033248.4

Question Number: 93 Question Id: 7108708313 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

National Commission on Agriculture (1976) carried out the climatic delineation of India by examining

- 1. Monthly rainfall distribution
- 2. Monthly mean maximum temperature
- 3. Mean air temperature
- 4. Annual rainfall and mean temperature

Options:

71087033249.1

71087033250. 2

71087033251.3

71087033252.4

Question Number: 94 Question Id: 7108708314 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

Which one of the following crops is most suitable for dryland farming?

- 1. Rice
- 2. Potato
- 3. Finger millet
- 4. Wheat

Options:

71087033253. 1

71087033254. 2

71087033255. 3

71087033256.4

Question Number: 95 Question Id: 7108708315 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

Given below are two statements, one is labelled as Assertion A and the other is labelled as

Reason R

Assertion A: Organic mulches conserve soil and water

Reason R: Organic mulches decrease the infiltration rate of water

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

Options:

71087033257. 1

71087033258. 2

71087033259.3

71087033260.4

Question Number: 96 Question Id: 7108708316 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

Statement I: Ascorbic acid and 2,4-D are used as reluctant antitranspirants

Statement II: 2,4-D and Atrazine herbicides are also used as stomatal closer antitranspirants

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

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

Options:

71087033261.1

71087033262. 2

71087033263.3

71087033264.4

Question Number: 97 Question Id: 7108708317 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Match List I with List II

List I	List II
A. Permanent drought	I. Annual precipitation is less than the normal rainfall
B. Meteorological drought	II. Depletion of surface water sources
C. Hydrological drought	III. Abnormal failure of rainfall
D. Contingent drought	IV. Desert climate

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

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

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

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

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

Options:

71087033265. 1

71087033266. 2

71087033267. 3

71087033268.4

Question Number: 98 Question Id: 7108708318 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Soil erosion can be prevented by

- A. Cultivating cover crops
- B. Deforestation
- C. Afforestation
- D. Controlled grazing

Choose the correct answer from the options given below

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

Options:

71087033269. 1

71087033270. 2

71087033271.3

71087033272.4

Question Number: 99 Question Id: 7108708319 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Contour bunds are used to prevent

- A. Ravine formation
- B. Sheet erosion
- C. Slip erosion
- D. Gully erosion

Choose the correct answer from the options given below

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

Options:

71087033273. 1

71087033274. 2

71087033275.3

71087033276.4

Question Number: 100 Question Id: 7108708320 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Sequence the stages of gully development in the proper order of their occurrence

- A. Development stage
- B. Initiation stage
- C. Stabilization stage
- D. Healing stage

Choose the correct answer from the options given below

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

Options:

71087033277. 1

71087033278. 2

71087033279.3

71087033280.4

Question Number: 101 Question Id: 7108708321 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

In which method of strip cropping, strips of grasses or legume crops are laid in between contour strips of crops in regular rotation?

- 1. Contour strip cropping
- 2. Buffer strip cropping
- 3. Field strip cropping
- 4. Wind strip cropping

Options:

71087033281. 1 71087033282. 2

71087033283.3

71087033284.4

Question Number: 102 Question Id: 7108708322 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

A semi-circular hoop is a

1. Flood water harvesting method

- 2. Roof top rainwater harvesting method
- 3. Short-term rainwater harvesting method
- 4. Long-term rainwater harvesting method

Options:

71087033285. 1

71087033286. 2

71087033287. 3

71087033288.4

Question Number: 103 Question Id: 7108708323 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

Statement I: S-hydrograph is used to derive a unit hydrograph of shorter duration from a longer duration or a longer duration hydrograph from a shorter duration hydrograph

Statement II: S hydrograph cannot be used to derive a unit hydrograph

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

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

Options:

71087033289.1

71087033290. 2

71087033291.3

71087033292.4

Question Number: 104 Question Id: 7108708324 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

Rational method of runoff estimation gives peak runoff, Q in m³/s for an area of A, ha by the following formula (C is the runoff coefficient)

Q = CIA/360, then I in the formula is defined as

- 1. Average rainfall intensity for the duration of rainfall
- 2. Average rainfall intensity for the duration of runoff
- 3. Maximum average rainfall intensity during any one hour of the rainfall
- 4. Average rainfall intensity for the duration equal to the time of concentration

Options:

71087033293. 1

71087033294. 2

71087033295.3

71087033296.4

Question Number: 105 Question Id: 7108708325 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

Given below are two statements

Statement I: National Watershed Development Program in Rainfed Areas (NWDPRA) was initiated by the Ministry of Rural Development

Statement II: Watershed development program under the Desert Development Programme (DDP) was initiated by the Ministry of Agriculture

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

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

Options:

71087033297. 1

71087033298. 2

71087033299.3

71087033300.4

Question Number: 106 Question Id: 7108708326 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Rate of evaporation from a water surface increases if

- A. Temperature increases
- B. Wind speed decreases
- C. The difference in vapour pressure between the water surface and air increases
- D. Concentration of soluble salts in water decreases

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

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

Options:

71087033301.1

71087033302. 2

71087033303.3

71087033304.4

Question Number: 107 Question Id: 7108708327 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: Sulphuric acid is used as an amendment to reclaim calcareous alkali soil

Reason R: Sulphuric acid reacts with calcium carbonate present in the calcareous soil to produce gypsum that helps to reclaim the alkali soils

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

Options:

71087033305. 1

71087033306. 2

71087033307.3

71087033308.4

Question Number: 108 Question Id: 7108708328 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Sequence the operations as per the order in which these are implemented in an alkali land reclamation program

- A. Application of chemical amendment
- B. Land levelling
- C. Leaching to leach exchanged products and soluble salts
- D. Cultivation of salt-tolerant crops

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

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

Options:

71087033309. 1

71087033310. 2

71087033311.3

71087033312.4

Question Number: 109 Question Id: 7108708329 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Laboratory analysis of a water sample gave the concentration of various ions such as Na = 14.8, Mg = 3.2, Ca = 2.6, CO_3 = 0.6, HCO_3 = 8.5, CI = 5.8 and SO_4 = 5.7 in water in meq/L. Residual sodium carbonate is

1. 0.6 meg/L

2. 8.3 meq/L

3. 3.3 meq/L

4. 8.2 meq/L

Options:

71087033313.1

71087033314. 2

71087033315.3

71087033316.4

Question Number: 110 Question Id: 7108708330 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

Match List I with List II

List I	List II
A. ppm/equivalent weight	I. dS/m (EC)
B. (meq/L)/10	II. Osmotic pressure
C. 0.36 x EC (dS/m)Karnataka	III. ppm
D. mg/L	IV. meq/L

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

Options:

71087033317. 1 71087033318. 2 71087033319. 3 71087033320. 4

Question Number: 111 Question Id: 7108708331 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

Cationic concentration of irrigation water is Na = 20 meq/L, Ca = 5.8 meq/L and Mg = 2.2 meq/L. The sodium adsorption ratio of water is

1.7.07

2.10.0

3.8.3

4, 11,18

Options:

71087033321.1

71087033322. 2

71087033323.3

71087033324.4

Question Number: 112 Question Id: 7108708332 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: Bubbler irrigation is a modified version of drip irrigation

Reason R: Bubblers are similar to the point source external emitters in shape and apply water on a per plant basis

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

Options:

71087033325. 1

71087033326. 2

71087033327.3

71087033328.4

Question Number: 113 Question Id: 7108708333 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

16 sprinklers spaced at 12 m intervals are used on a lateral. The laterals are spaced at 18 m. If the water application rate is 1.67 cm.hr, what is the required discharge of the sprinkler nozzle?

1. 1.0 L/s

2. 0.1 L/s

3. 11.0 L/s

4. 1.1 L/s

Options:

71087033329. 1

71087033330. 2

71087033331. 3 71087033332. 4

Question Number: 114 Question Id: 7108708334 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

The following statements are made with respect to the characteristic curves of a centrifugal pump. Which one of the following statements is **incorrect**?

- 1. Head decreases with increasing discharge
- 2. The head at zero discharge is the shut-off head
- 3. Brake horse power increases with increasing discharge
- 4. Efficiency of the pump increases with increasing discharge throughout its range

Options:

71087033333.1

71087033334. 2

71087033335.3

71087033336.4

Question Number: 115 Question Id: 7108708335 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: Priming is required in centrifugal pumps

Reason R: Centrifugal pumps have limited capacity to compress air. Therefore, these pumps have to be filled with water to the top of the pump to initiate pumping

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

Options:

71087033337. 1

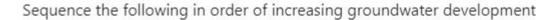
71087033338. 2

71087033339.3

71087033340.4

Question Number: 116 Question Id: 7108708336 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical



- A. White region
- B. Overexploited region
- C. Grey region
- D. Dark region

Choose the correct answer from the options given below

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

Options:

71087033341. 1

71087033342. 2

71087033343.3

71087033344.4

Question Number: 117 Question Id: 7108708337 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Match List I with List II

List I	List II	
A. Unconfined aquifer	I. An aquifer confined between impermeable layers above and below it	
B. Confined aquifer	II. A special case of an unconfined aquifer	
C. Semi-confined aquifer	III. An aquifer where the upper boundary is formed by a free water table	
D. Perched water table	IV. An aquifer bounded above by a semi-permeable and below by an impervious or semi-pervious layer	

Choose the correct answer from the options given below:

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

Options:

71087033345. 1

71087033346. 2

71087033347. 3

71087033348.4

Question Number: 118 Question Id: 7108708338 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

 ${\bf Question\ Mandatory: No\ Single\ Line\ Question\ Option: No\ Option\ Orientation: Vertical}$

Identify the practices that will NOT help in management of rising water table

- 1. Incentives for use of groundwater for irrigation
- 2. Artificial groundwater recharge
- 3. Installation of augmentation/drainage wells
- 4. Lining of canal network

Options:

71087033349.1

71087033350.2

71087033351.3

71087033352.4

Question Number: 119 Question Id: 7108708339 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

The unit of transmissivity is

- 1. m²/day
- 2. m/day
- 3. m³/day
- 4. 1/day

Options:

71087033353.1

71087033354. 2

71087033355.3

71087033356.4

Question Number: 120 Question Id: 7108708340 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

Statement I: The drive efficiency of a direct-driven pump is 100%

Statement II: Kilowatt input to the electrical motor is given as - Horsepower input to electrical motor x 0.746

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

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

Options:

71087033357. 1

71087033358. 2

71087033359.3

71087033360.4