

National Testing Agency

Question Paper Name :	Agricultural Physics 23rd Sep 2020 Shift 2
Subject Name :	Agricultural Physics
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Share Answer Key With Delivery Engine :	Yes
Actual Answer Key :	Yes

Agricultural Physics

Group Number :	1
Group Id :	71087065
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

Part A General Knowledge

Section Id :	710870193
Section Number :	1
Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	20

Number of Questions to be attempted :	20
Section Marks :	80
Display Number Panel :	Yes
Group All Questions :	Yes
Mark As Answered Required? :	Yes
Sub-Section Number :	1
Sub-Section Id :	710870193
Question Shuffling Allowed :	Yes

Question Number : 1 Question Id : 7108707741 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 :

- 71087030961. 1
- 71087030962. 2
- 71087030963. 3
- 71087030964. 4

Question Number : 2 Question Id : 7108707742 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 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 :

- 71087030965. 1
- 71087030966. 2
- 71087030967. 3
- 71087030968. 4

Question Number : 3 Question Id : 7108707743 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

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 :

- 71087030969. 1

71087030970. 2

71087030971. 3

71087030972. 4

Question Number : 4 Question Id : 7108707744 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 :

71087030973. 1

71087030974. 2

71087030975. 3

71087030976. 4

Question Number : 5 Question Id : 7108707745 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 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 :

- 71087030977. 1
- 71087030978. 2
- 71087030979. 3
- 71087030980. 4

Question Number : 6 Question Id : 7108707746 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

Options :

- 71087030981. 1
- 71087030982. 2
- 71087030983. 3
- 71087030984. 4

Question Number : 7 Question Id : 7108707747 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 :

- 71087030985. 1
- 71087030986. 2
- 71087030987. 3
- 71087030988. 4

Question Number : 8 Question Id : 7108707748 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 :

71087030989. 1
71087030990. 2
71087030991. 3
71087030992. 4

Question Number : 9 Question Id : 7108707749 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 :

71087030993. 1
71087030994. 2
71087030995. 3
71087030996. 4

Question Number : 10 Question Id : 7108707750 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 :

71087030997. 1

71087030998. 2

71087030999. 3

71087031000. 4

Question Number : 11 Question Id : 7108707751 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 :

71087031001. 1

71087031002. 2

71087031003. 3

71087031004. 4

Question Number : 12 Question Id : 7108707752 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 :

71087031005. 1
71087031006. 2
71087031007. 3
71087031008. 4

Question Number : 13 Question Id : 7108707753 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 :

71087031009. 1
71087031010. 2
71087031011. 3
71087031012. 4

Question Number : 14 Question Id : 7108707754 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

Options :

- 71087031013. 1
- 71087031014. 2
- 71087031015. 3
- 71087031016. 4

Question Number : 15 Question Id : 7108707755 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 :

- 71087031017. 1
- 71087031018. 2
- 71087031019. 3
- 71087031020. 4

Question Number : 16 Question Id : 7108707756 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

Options :

- 71087031021. 1
- 71087031022. 2
- 71087031023. 3
- 71087031024. 4

Question Number : 17 Question Id : 7108707757 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 Aiyar

Options :

- 71087031025. 1
- 71087031026. 2
- 71087031027. 3
- 71087031028. 4

Question Number : 18 Question Id : 7108707758 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

Options :

- 71087031029. 1
- 71087031030. 2
- 71087031031. 3
- 71087031032. 4

Question Number : 19 Question Id : 7108707759 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 :

- 71087031033. 1
- 71087031034. 2
- 71087031035. 3
- 71087031036. 4

Question Number : 20 Question Id : 7108707760 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 :

- 71087031037. 1

71087031038. 2

71087031039. 3

71087031040. 4

Part B Core Natural Resource Management I

Section Id :	710870194
Section Number :	2
Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	50
Number of Questions to be attempted :	50
Section Marks :	200
Display Number Panel :	Yes
Group All Questions :	Yes
Mark As Answered Required? :	Yes
Sub-Section Number :	1
Sub-Section Id :	710870194
Question Shuffling Allowed :	Yes

Question Number : 21 Question Id : 7108707761 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 host plant of *Striga* is

1. Tomato
2. Tobacco
3. Cotton
4. Sugarcane

Options :

71087031041. 1

71087031042. 2

71087031043. 3

71087031044. 4

Question Number : 22 Question Id : 7108707762 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 suitable mechanical measure in areas having mildly sloping land with high rainfall (> 800 mm) and relatively impermeable clayey soils is

1. Contour bunding
2. Ridge tying
3. Graded bunding
4. Bench terracing

Options :

71087031045. 1

71087031046. 2

71087031047. 3

71087031048. 4

Question Number : 23 Question Id : 7108707763 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 researcher wants to layout an experiment with four irrigation levels and three fertilizer dose levels. Which one of the following will be a suitable field plot design with main plot treatments?

1. RCBD; either irrigation or fertilizer levels as main plot
2. LSD; irrigation as main plot
3. Factorial experiment; fertilizer as main plot
4. Split plot; irrigation levels as main plot

Options :

71087031049. 1
71087031050. 2
71087031051. 3
71087031052. 4

Question Number : 24 Question Id : 7108707764 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

Capillary water is held by the forces of

1. Adhesion
2. Surface tension
3. Gravitational
4. Viscosity

Options :

71087031053. 1
71087031054. 2
71087031055. 3
71087031056. 4

Question Number : 25 Question Id : 7108707765 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 phenomenon of heat evolution when dry soil is placed in water is known as

1. Thixotrophy
2. Heat of wetting
3. Surface tension
4. Plasticity

Options :

71087031057. 1
71087031058. 2

71087031059. 3

71087031060. 4

Question Number : 26 Question Id : 7108707766 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

Most destructive form of precipitation is

1. Rain
2. Rime
3. Snow
4. Hail

Options :

71087031061. 1

71087031062. 2

71087031063. 3

71087031064. 4

Question Number : 27 Question Id : 7108707767 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 case of fog, visibility is reduced to

1. 7 km
2. 2-5 km
3. 1-2 km
4. < 1 km

Options :

71087031065. 1

71087031066. 2

71087031067. 3

71087031068. 4

Question Number : 28 Question Id : 7108707768 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 greenhouse gas exclusively of industrial origin is

1. CFC
2. N₂O
3. CO₂
4. NH₄

Options :

71087031069. 1
71087031070. 2
71087031071. 3
71087031072. 4

Question Number : 29 Question Id : 7108707769 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 spacing of crop is 50 x 20 cm, then per hectare plant population will be

1. 8000
2. 10000
3. 11000
4. 12000

Options :

71087031073. 1
71087031074. 2
71087031075. 3
71087031076. 4

Question Number : 30 Question Id : 7108707770 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

IST is calculated based on longitude of

1. Delhi
2. Patna
3. Allahabad
4. Mumbai

Options :

71087031077. 1
71087031078. 2
71087031079. 3
71087031080. 4

Question Number : 31 Question Id : 7108707771 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

Average annual precipitation of earth is

1. 300 mm
2. 850 mm
3. 1050 mm
4. 1150 mm

Options :

71087031081. 1
71087031082. 2
71087031083. 3
71087031084. 4

Question Number : 32 Question Id : 7108707772 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 mineral deficiency is likely to affect older leaves than younger leaves of a plant if

1. The mineral is a micronutrient
2. The mineral is mobile in plants
3. The element is part of chlorophyll
4. The element is a macronutrient

Options :

- 71087031085. 1
- 71087031086. 2
- 71087031087. 3
- 71087031088. 4

Question Number : 33 Question Id : 7108707773 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

Adjustment of individuals to their environment by means of a special structure or function is called

1. Mutation
2. Variation
3. Heredity
4. Adaptation

Options :

- 71087031089. 1
- 71087031090. 2
- 71087031091. 3
- 71087031092. 4

Question Number : 34 Question Id : 7108707774 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 chromosomal abnormality where a homologous pair of chromosomes are lacking from the normal diploid is called

1. Nullisomy
2. Monosomy
3. Trisomy
4. Tetrasomy

Options :

71087031093. 1
71087031094. 2
71087031095. 3
71087031096. 4

Question Number : 35 Question Id : 7108707775 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 an irrigated field, crops lose water through

1. Evaporation
2. Evapotranspiration
3. Leaching
4. Erosion

Options :

71087031097. 1
71087031098. 2
71087031099. 3
71087031100. 4

Question Number : 36 Question Id : 7108707776 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 wind which affects the weather but NOT climate is called

1. Variable wind
2. Local wind
3. Periodical wind
4. Trade wind

Options :

71087031101. 1
71087031102. 2
71087031103. 3
71087031104. 4

Question Number : 37 Question Id : 7108707777 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 superiority of F1 over the better parent is known as

1. Mid parent heterosis
2. Average heterosis
3. Commercial heterosis
4. Heterobeltosis

Options :

71087031105. 1
71087031106. 2
71087031107. 3
71087031108. 4

Question Number : 38 Question Id : 7108707778 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

Soil acidity develops by

1. Rainfall and chemical weathering of parent material
2. Temperature and humidity
3. Physical weathering and wind blow
4. Sunshine hours

Options :

- 71087031109. 1
- 71087031110. 2
- 71087031111. 3
- 71087031112. 4

Question Number : 39 Question Id : 7108707779 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 latest nutrient added to the list of essential elements is

1. Mo
2. B
3. Cl
4. Ni

Options :

- 71087031113. 1
- 71087031114. 2
- 71087031115. 3
- 71087031116. 4

Question Number : 40 Question Id : 7108707780 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

Differences among the experimental units treated alike are known as

1. Mean sum of squares
2. Experimental error
3. Treatment sum of square
4. Critical difference

Options :

- 71087031117. 1
- 71087031118. 2
- 71087031119. 3
- 71087031120. 4

Question Number : 41 Question Id : 7108707781 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 organic carbon content of a soil is less than 0.5%, organic carbon status in the soil is

1. High
2. Optimum
3. Medium
4. Low

Options :

- 71087031121. 1
- 71087031122. 2
- 71087031123. 3
- 71087031124. 4

Question Number : 42 Question Id : 7108707782 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 soil structures has the highest hydraulic conductivity?

1. Platy
2. Prismatic
3. Crumby
4. Blocky

Options :

- 71087031125. 1
- 71087031126. 2
- 71087031127. 3
- 71087031128. 4

Question Number : 43 Question Id : 7108707783 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

At saturation capacity, the movement of water is

1. Sluggish
2. Free
3. Unsaturated
4. Vapour

Options :

- 71087031129. 1
- 71087031130. 2
- 71087031131. 3
- 71087031132. 4

Question Number : 44 Question Id : 7108707784 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

Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) focuses on

1. Intensive type of irrigation
2. Critical stage irrigation
3. Alternate furrow irrigation
4. Per drop more crop

Options :

- 71087031133. 1
- 71087031134. 2
- 71087031135. 3
- 71087031136. 4

Question Number : 45 Question Id : 7108707785 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

Colchicine is generally used for

1. Chromosome doubling
2. Mutation
3. Selfing
4. Hybridisation

Options :

- 71087031137. 1
- 71087031138. 2
- 71087031139. 3
- 71087031140. 4

Question Number : 46 Question Id : 7108707786 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 seed pretreatment recommended to break physiological dormancy in many forest seeds is to treat seeds with

1. NAA
2. ABA
3. GA
4. IAA

Options :

71087031141. 1
71087031142. 2
71087031143. 3
71087031144. 4

Question Number : 47 Question Id : 7108707787 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 true of an ecosystem?

1. Primary consumers are least dependent on producers
2. Primary consumers outnumber producers
3. Producers are more than primary consumers
4. Secondary consumers are the largest and most powerful

Options :

71087031145. 1
71087031146. 2
71087031147. 3
71087031148. 4

Question Number : 48 Question Id : 7108707788 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

When is the wildlife week celebrated in India?

1. First week of June
2. First week of November
3. First week of October
4. First week of December

Options :

- 71087031149. 1
- 71087031150. 2
- 71087031151. 3
- 71087031152. 4

Question Number : 49 Question Id : 7108707789 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

FACE experiments are concerned with

1. Analysing carbon trade scenarios
2. Global biodiversity protection
3. Ecosystem process and elevated CO₂ evaluation
4. Climate change coupled with an atmosphere-ocean general circulation model

Options :

- 71087031153. 1
- 71087031154. 2
- 71087031155. 3
- 71087031156. 4

Question Number : 50 Question Id : 7108707790 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

Inbreeding in self and cross pollinated plants leads to

1. Homozygosity
2. Heterozygosity
3. Hybrid vigour
4. Sterility

Options :

- 71087031157. 1
- 71087031158. 2
- 71087031159. 3
- 71087031160. 4

Question Number : 51 Question Id : 7108707791 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 among the following is a resource conservation technique in terms of agricultural sustainability?

1. Low land paddy
2. Leaf colour chart
3. Monocropping
4. Flatbed method of planting

Options :

- 71087031161. 1
- 71087031162. 2
- 71087031163. 3
- 71087031164. 4

Question Number : 52 Question Id : 7108707792 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 concept of bio-drainage involves growing of certain plants that

1. Conserve water
2. Discharge water along the trunk
3. Discharge excess water out of the field
4. Draw much water than is necessary for normal growth

Options :

- 71087031165. 1
- 71087031166. 2
- 71087031167. 3
- 71087031168. 4

Question Number : 53 Question Id : 7108707793 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 soils has maximum capillarity?

1. Sandy clay
2. Clay
3. Clay loam
4. Sand

Options :

- 71087031169. 1
- 71087031170. 2
- 71087031171. 3
- 71087031172. 4

Question Number : 54 Question Id : 7108707794 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

One cusec discharge of water is

1. 0.028 lps
2. 28.32 lps
3. 0.28 lps
4. 283.2 lps

Options :

- 71087031173. 1
- 71087031174. 2
- 71087031175. 3
- 71087031176. 4

Question Number : 55 Question Id : 7108707795 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 particles suspended in air are called

1. Mist
2. Aerosol
3. Fog
4. Smoke

Options :

- 71087031177. 1
- 71087031178. 2
- 71087031179. 3
- 71087031180. 4

Question Number : 56 Question Id : 7108707796 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 repetitive growing of the same crop on the same land is called

1. Relay cropping
2. Mono cropping
3. Ratoon cropping
4. Rotation cropping

Options :

- 71087031181. 1
- 71087031182. 2
- 71087031183. 3
- 71087031184. 4

Question Number : 57 Question Id : 7108707797 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 time between the start of organic management and certification of crop is known as

1. Conversion period
2. Certification period
3. Diversification period
4. Conservation period

Options :

- 71087031185. 1
- 71087031186. 2
- 71087031187. 3
- 71087031188. 4

Question Number : 58 Question Id : 7108707798 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 value of R^2 in regression analysis will be between

1. $-\infty$ to $+\infty$
2. 1 to $+\infty$
3. -1 to +1
4. 0 to +1

Options :

71087031189. 1
71087031190. 2
71087031191. 3
71087031192. 4

Question Number : 59 Question Id : 7108707799 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

Smaze is

1. Smoke + Fog
2. Fog + Haze
3. Smoke + Haze
4. Smoke + Fog + Haze

Options :

71087031193. 1
71087031194. 2
71087031195. 3
71087031196. 4

Question Number : 60 Question Id : 7108707800 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

Barometer was invented in

1. 1642
2. 1643
3. 1699
4. 1600

Options :

71087031197. 1
71087031198. 2
71087031199. 3
71087031200. 4

Question Number : 61 Question Id : 7108707801 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

Earth day falls on

1. 22 April
2. 23 April
3. 1 April
4. 2 March

Options :

71087031201. 1
71087031202. 2
71087031203. 3
71087031204. 4

Question Number : 62 Question Id : 7108707802 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

Line joining points of equal precipitation in a given period on a map is

1. Isoline
2. Isohyet
3. Isotherm
4. Isobar

Options :

- 71087031205. 1
- 71087031206. 2
- 71087031207. 3
- 71087031208. 4

Question Number : 63 Question Id : 7108707803 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

Doldrums are the zone of

1. Intertropical convergence
2. Intertropical divergence
3. Fronts
4. Jet stream

Options :

- 71087031209. 1
- 71087031210. 2
- 71087031211. 3
- 71087031212. 4

Question Number : 64 Question Id : 7108707804 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

Annual temperature range at equator is

1. 2 °C
2. 14 °C
3. 16 °C
4. 8 °C

Options :

- 71087031213. 1
- 71087031214. 2
- 71087031215. 3
- 71087031216. 4

Question Number : 65 Question Id : 7108707805 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

Lines joining points of equal temperature on a map are called

1. Isohyet
2. Isotherm
3. Isobar
4. Isopleth

Options :

- 71087031217. 1
- 71087031218. 2
- 71087031219. 3
- 71087031220. 4

Question Number : 66 Question Id : 7108707806 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

Wind velocity is measured by

1. Anemometer
2. Wind vane
3. Rain gauge
4. Pan evaporimeter

Options :

- 71087031221. 1
- 71087031222. 2
- 71087031223. 3
- 71087031224. 4

Question Number : 67 Question Id : 7108707807 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 soil with pH 3.2 is

1. Neutral
2. Alkaline
3. Saline
4. Acidic

Options :

- 71087031225. 1
- 71087031226. 2
- 71087031227. 3
- 71087031228. 4

Question Number : 68 Question Id : 7108707808 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 major constituent of biogas is

1. Ethane
2. Propane
3. Methane
4. Butane

Options :

71087031229. 1
71087031230. 2
71087031231. 3
71087031232. 4

Question Number : 69 Question Id : 7108707809 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 study of periodic events of life cycle of a plant is called

1. Biology
2. Physiography
3. Concology
4. Phenology

Options :

71087031233. 1
71087031234. 2
71087031235. 3
71087031236. 4

Question Number : 70 Question Id : 7108707810 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 areas in India is classified as a biodiversity hotspot?

1. Sundarbans
2. Western ghats
3. Eastern ghats
4. Gangetic plain

Options :

71087031237. 1
71087031238. 2
71087031239. 3
71087031240. 4

Part C Agricultural Physics

Section Id :	710870195
Section Number :	3
Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	50
Number of Questions to be attempted :	50
Section Marks :	200
Display Number Panel :	Yes
Group All Questions :	Yes
Mark As Answered Required? :	Yes
Sub-Section Number :	1
Sub-Section Id :	710870195
Question Shuffling Allowed :	Yes

Question Number : 71 Question Id : 7108707811 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
Scientist	Phenomena
A. Hess	I. Radioactivity
B. Roentgen	II. Alpha particle scattering
C. Rutherford	III. Cosmic rays
D. Henri Becquerel	IV. X-rays

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

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

Options :

- 71087031241. 1
- 71087031242. 2
- 71087031243. 3
- 71087031244. 4

Question Number : 72 Question Id : 7108707812 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 happens in a thermodynamically reversible process?

1. Loss of heat
2. Gain of heat
3. Heat remains the same
4. Heat first increases and then decreases

Options :

- 71087031245. 1

71087031246. 2

71087031247. 3

71087031248. 4

Question Number : 73 Question Id : 7108707813 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 average life of a radioactive element whose half life is 20 days?

1. 22.5 days

2. 28.6 days

3. 30.2 days

4. 32.4 days

Options :

71087031249. 1

71087031250. 2

71087031251. 3

71087031252. 4

Question Number : 74 Question Id : 7108707814 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 : Passage of a ray of light going from one medium to another is reversible

Reason R : The ratio of sine of incident angle to the sine of refractive angle is constant

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

1. Both **A** and **R** are true
2. Both **A** and **R** are false
3. **A** is true but **R** is false
4. **A** is false but **R** is true

Options :

- 71087031253. 1
- 71087031254. 2
- 71087031255. 3
- 71087031256. 4

Question Number : 75 Question Id : 7108707815 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

When an external force is applied on a body for a small-time interval, the change in momentum of body during that time interval is called

1. Acceleration
2. Impulse
3. Energy
4. Angular momentum

Options :

- 71087031257. 1
- 71087031258. 2
- 71087031259. 3

71087031260. 4

Question Number : 76 Question Id : 7108707816 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

Soil scientists who study properties of soil as a natural body, properties of soil horizons and relationships among soils within a landscape are called as

1. Edaphologist
2. Geologist
3. Pedologist
4. Minerologist

Options :

- 71087031261. 1
- 71087031262. 2
- 71087031263. 3
- 71087031264. 4

Question Number : 77 Question Id : 7108707817 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 critical limit of air-filled porosity of soil for normal plant growth?

1. 50 %
2. 20 %
3. 10 %
4. 5 %

Options :

- 71087031265. 1
- 71087031266. 2
- 71087031267. 3
- 71087031268. 4

Question Number : 78 Question Id : 7108707818 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 100 cm³ of soil sample weights to 135 g upon oven-drying. What would be the aeration porosity at field capacity, if the soil has 35% field capacity water content by volume (Assume particle density of the soil as 2.7 g cm⁻³).

1. 5 %
2. 10 %
3. 15 %
4. 20 %

Options :

71087031269. 1
71087031270. 2
71087031271. 3
71087031272. 4

Question Number : 79 Question Id : 7108707819 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 will the volumetric moisture content of a 0-15 cm soil layer, if it has gravimetric moisture content of 30% and bulk density of 1.5 Mg m⁻³ ?

1. 0.35 cm³ cm⁻³
2. 0.45 cm³ cm⁻³
3. 0.55 cm³ cm⁻³
4. 0.65 cm³ cm⁻³

Options :

71087031273. 1
71087031274. 2
71087031275. 3

71087031276. 4

Question Number : 80 Question Id : 7108707820 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 maximum limit of matric potential of soil which can be measured by Mercury Tensiometer?

1. -80 kPa
2. -10 kPa
3. -0.33 MPa
4. -0.10 MPa

Options :

- 71087031277. 1
- 71087031278. 2
- 71087031279. 3
- 71087031280. 4

Question Number : 81 Question Id : 7108707821 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 scientist gave equation / method to estimate soil hydraulic diffusivity?

1. Darcy (1856)
2. Green and Ampt (1911)
3. Phillip (1954)
4. Bruce and Klute (1956)

Options :

- 71087031281. 1
- 71087031282. 2
- 71087031283. 3
- 71087031284. 4

Question Number : 82 Question Id : 7108707822 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 convective flux of air in porous medium is proportional to its

1. Total pressure gradient
2. Mass gradient
3. Volume gradient
4. Partial pressure gradient

Options :

71087031285. 1

71087031286. 2

71087031287. 3

71087031288. 4

Question Number : 83 Question Id : 7108707823 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 decrease in soil infiltration rate from an initial high value is primarily attributed to

1. Formation of dense surface crust
2. Detachment and migration of pore-blocking particles
3. Entrapment of air bubbles
4. Decrease in the matric suction gradient

Options :

71087031289. 1

71087031290. 2

71087031291. 3

71087031292. 4

Question Number : 84 Question Id : 7108707824 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 hydraulic conductivity of an unsaturated soil at a given wetness is $10^{-4} \text{ cm s}^{-1}$ and the hydraulic diffusivity is $10^2 \text{ cm}^2 \text{ s}^{-1}$, what is its specific water capacity?

1. 10^{-2} cm^{-1}
2. 10^{-4} cm^{-1}
3. 10^{-6} cm^{-1}
4. 10^{-8} cm^{-1}

Options :

71087031293. 1

71087031294. 2

71087031295. 3

71087031296. 4

Question Number : 85 Question Id : 7108707825 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
Phenomena	Explained by Scientist
A. Water transport through soil	I. Phillip
B. Heat conduction through soil	II. Darcy
C. Gas diffusion through soil	III. Fourier
D. Water infiltration into soil	IV. Fick

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

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

Options :

- 71087031297. 1
- 71087031298. 2
- 71087031299. 3
- 71087031300. 4

Question Number : 86 Question Id : 7108707826 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

Emission of electromagnetic radiation from a black body is a function of:

1. Wavelength of the radiation
2. Temperature of the black body
3. Both wavelength and temperature
4. Neither wavelength nor temperature

Options :

- 71087031301. 1

71087031302. 2
71087031303. 3
71087031304. 4

Question Number : 87 Question Id : 7108707827 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
Law	Statement
A. Kirchhoff's Law	I. with the increase in temperature of a body, its emitted peak radiation shifts to shorter wavelength
B. Planck's Law	II. the radiant exitance from a body is proportional to the fourth power of its absolute temperature
C. Stefan Boltzmann's Law	III. spectral radiance of an object at a given temperature is a function of frequency or wavelength of radiation
D. Wien's Displacement Law	IV. at a given temperature the coefficient of absorption of a body is equal to its coefficient of emission

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

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

Options :

71087031305. 1
71087031306. 2
71087031307. 3
71087031308. 4

Question Number : 88 Question Id : 7108707828 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

Sedimentation of particles through a medium mainly depends on

1. Charge on the particles
2. Relative mass of particles
3. Density of solvent
4. Relative densities of particle and medium

Options :

- 71087031309. 1
- 71087031310. 2
- 71087031311. 3
- 71087031312. 4

Question Number : 89 Question Id : 7108707829 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

Ultracentrifuges are equipped with vacuum systems for achieving

1. Variable temperature
2. Constant temperature
3. Variable pressure
4. Constant pressure

Options :

- 71087031313. 1
- 71087031314. 2
- 71087031315. 3
- 71087031316. 4

Question Number : 90 Question Id : 7108707830 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 light absorbing molecule can return from excited state to ground state via release of photons. This phenomenon is known as:

1. Relaxation
2. Fluorescence
3. Excitation
4. Photoconduction

Options :

- 71087031317. 1
- 71087031318. 2
- 71087031319. 3
- 71087031320. 4

Question Number : 91 Question Id : 7108707831 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 a zero dimensional nanomaterial?

1. Nanorods
2. Nanotubes
3. Nanoparticles
4. Nanoribbons

Options :

- 71087031321. 1
- 71087031322. 2
- 71087031323. 3
- 71087031324. 4

Question Number : 92 Question Id : 7108707832 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

On which law the working of infrared thermometer is based?

1. Kirchhoff's Law
2. Newton's Law of cooling
3. Stefan-Boltzman's Law
4. Wien's Displacement Law

Options :

- 71087031325. 1
- 71087031326. 2
- 71087031327. 3
- 71087031328. 4

Question Number : 93 Question Id : 7108707833 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 refers to the spatial arrangement of visibly discernible objects in an image?

1. Tone
2. Pattern
3. Texture
4. Structure

Options :

- 71087031329. 1
- 71087031330. 2
- 71087031331. 3
- 71087031332. 4

Question Number : 94 Question Id : 7108707834 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 resolution of a sensor refers to its ability to detect the smallest change in incoming signal?

1. Spatial
2. Spectral
3. Temporal
4. Radiometric

Options :

- 71087031333. 1
- 71087031334. 2
- 71087031335. 3
- 71087031336. 4

Question Number : 95 Question Id : 7108707835 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 is the correct sequence of the factors affecting spectral signature of vegetation in Visible, NIR and SWIR range of electromagnetic spectrum, respectively?

1. Pigments, Cell structure and Water content
2. Cell structure, Water content and Pigments
3. Water content, Pigments and Cell structure
4. Pigments, Water content and Cell structure

Options :

- 71087031337. 1
- 71087031338. 2
- 71087031339. 3
- 71087031340. 4

Question Number : 96 Question Id : 7108707836 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 is the most sensitive wavelength to detect active forest fires and crop residue fires from satellite sensors?

1. 0.7 – 1.1 μm
2. 3.0 – 5.0 μm
3. 8.0 – 12.0 μm
4. 13.0 – 15.0 μm

Options :

71087031341. 1
71087031342. 2
71087031343. 3
71087031344. 4

Question Number : 97 Question Id : 7108707837 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
Sensor	Characterstics
A. RISAT	I. Space borne Hyperspectral Sensor
B. NISAR	II. Air borne hyperspectral sensor
C. AVIRIS NG	III. C-band SAR
D. HySIS	IV. L and S band Radars

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

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

Options :

- 71087031345. 1
- 71087031346. 2
- 71087031347. 3
- 71087031348. 4

Question Number : 98 Question Id : 7108707838 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 : Dwell time of an along track scanner is higher than that of an across track scanner.

Reason R : Higher dwell time of a scanner allows it to have higher spatial and spectral resolution

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

- 1. Both **A** and **R** are true
- 2. Both **A** and **R** are false
- 3. **A** is true but **R** is false
- 4. **A** is false but **R** is true

Options :

- 71087031349. 1
- 71087031350. 2
- 71087031351. 3
- 71087031352. 4

Question Number : 99 Question Id : 7108707839 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
Sensor	Satellite
A. LISS-III	I. EO-1
B. Hyperion	II. Resourcesat
C. WiFS	III. RISAT
D. SAR	IV. IRS-1D

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

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

Options :

- 71087031353. 1
- 71087031354. 2
- 71087031355. 3
- 71087031356. 4

Question Number : 100 Question Id : 7108707840 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 indigenous system provides locational information in Indian subcontinent?

1. Indian National Satellite System
2. Indian Remote Sensing Satellite System
3. The National Intelligence Grid System
4. Indian Regional Navigation Satellite System

Options :

- 71087031357. 1

71087031358. 2

71087031359. 3

71087031360. 4

Question Number : 101 Question Id : 7108707841 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 process of connecting a raster image to known locations using map coordinates is known as

1. Digitizing
2. Rasterization
3. Georeferencing
4. Projection

Options :

71087031361. 1

71087031362. 2

71087031363. 3

71087031364. 4

Question Number : 102 Question Id : 7108707842 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 used to represent spatial features of a raster map?

1. Points and lines
2. Points, lines and polygons
3. Pixels
4. Topology

Options :

71087031365. 1

71087031366. 2

71087031367. 3

71087031368. 4

Question Number : 103 Question Id : 7108707843 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 option refers to the mathematical transformation to represent earth surface on a plane surface?

1. Map unit
2. Map projection
3. Map scale
4. Map accuracy

Options :

71087031369. 1

71087031370. 2

71087031371. 3

71087031372. 4

Question Number : 104 Question Id : 7108707844 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 interpolation technique considers both the direction and the degree of variations among the sampled data points over a surface?

1. Inverse distance weighted
2. Spline
3. Nearest neighbour
4. Kriging

Options :

71087031373. 1

71087031374. 2

71087031375. 3

71087031376. 4

Question Number : 105 Question Id : 7108707845 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
Projection	Property
A. Cylindrical	I. Area is preserved
B. Azimuthal	II. Shortest route is preserved
C. Equivalent	III. Shape is preserved
D. Gnomonic	IV. Direction is preserved

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

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

Options :

71087031377. 1

71087031378. 2

71087031379. 3

71087031380. 4

Question Number : 106 Question Id : 7108707846 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 average albedo of Cumulonimbus cloud ?

1. 0.30
2. 0.50
3. 0.60
4. 0.90

Options :

- 71087031381. 1
- 71087031382. 2
- 71087031383. 3
- 71087031384. 4

Question Number : 107 Question Id : 7108707847 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 probability distribution is followed by standardized precipitation index (SPI) which is an indicator of meteorological drought?

1. Normal
2. Binomial
3. General extreme value
4. Gamma

Options :

- 71087031385. 1
- 71087031386. 2
- 71087031387. 3
- 71087031388. 4

Question Number : 108 Question Id : 7108707848 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

Positive radiative forcing of the earth is mainly caused by

1. Incoming shortwave radiation
2. Outgoing longwave radiation
3. Counter radiation
4. All of the above

Options :

- 71087031389. 1
- 71087031390. 2
- 71087031391. 3
- 71087031392. 4

Question Number : 109 Question Id : 7108707849 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 case of a turbulent flow which of the following is applicable?

1. Viscous force dominate over inertial force
2. Inertial force dominate over viscous force
3. Inertial force dominates over buoyant force
4. Buoyant force dominates over inertial force

Options :

- 71087031393. 1
- 71087031394. 2
- 71087031395. 3
- 71087031396. 4

Question Number : 110 Question Id : 7108707850 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 : Eddy covariance technique is used for measurement of vertical fluxes of gases between the atmosphere and underlying surface.

Reason R : The covariance is calculated between the fluctuating component of the vertical wind and the fluctuating component of gas concentration.

In light of the above statements, choose the **correct** 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 and **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 :

- 71087031397. 1
- 71087031398. 2
- 71087031399. 3
- 71087031400. 4

Question Number : 111 Question Id : 7108707851 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 true regarding the value of crop coefficient?

1. Always less than one
2. Always greater than one
3. Can be greater than one
4. Can be less than zero

Options :

- 71087031401. 1
- 71087031402. 2

71087031403. 3

71087031404. 4

Question Number : 112 Question Id : 7108707852 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 is the coldest region of the atmosphere?

1. Troposphere
2. Stratosphere
3. Mesosphere
4. Ionosphere

Options :

71087031405. 1

71087031406. 2

71087031407. 3

71087031408. 4

Question Number : 113 Question Id : 7108707853 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 green house gas (per unit quantity) among the following has highest global warming potential?

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

Options :

71087031409. 1

71087031410. 2

71087031411. 3

71087031412. 4

Question Number : 114 Question Id : 7108707854 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 value of dry adiabatic lapse rate in the atmosphere?

1. $9.8\text{ }^{\circ}\text{C km}^{-1}$
2. $6.5\text{ }^{\circ}\text{C km}^{-1}$
3. $4.2\text{ }^{\circ}\text{C km}^{-1}$
4. $3.5\text{ }^{\circ}\text{C km}^{-1}$

Options :

- 71087031413. 1
- 71087031414. 2
- 71087031415. 3
- 71087031416. 4

Question Number : 115 Question Id : 7108707855 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
Instrument	Measures
A. Pyrheliometer	I. Photosynthetically Active Radiation
B. Quantum sensor	II. Global solar radiation
C. Pyranometer	III. Long wave radiation
D. Pyrgeometer	IV. Direct solar radiation

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

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

Options :

- 71087031417. 1
- 71087031418. 2
- 71087031419. 3
- 71087031420. 4

Question Number : 116 Question Id : 7108707856 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 derivative of a^x ?

1. $ax \ln(a)$
2. $a^x e^x$
3. $a^x \ln(a)$
4. $e^x \ln(a)$

Options :

- 71087031421. 1

71087031422. 2

71087031423. 3

71087031424. 4

Question Number : 117 Question Id : 7108707857 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 matrix is obtained by interchanging rows and columns?

1. Rectangular matrix
2. Transpose matrix
3. Symmetric matrix
4. Identity matrix

Options :

71087031425. 1

71087031426. 2

71087031427. 3

71087031428. 4

Question Number : 118 Question Id : 7108707858 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 case of a semi-variogram, what is the value called at which a model first flattens out?

1. Nugget
2. Range
3. Sill
4. Base

Options :

71087031429. 1

71087031430. 2

71087031431. 3

71087031432. 4

Question Number : 119 Question Id : 7108707859 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 crop simulation model developed in India?

1. DSSAT
2. InfoCrop
3. CropSyst
4. EPIC

Options :

- 71087031433. 1
- 71087031434. 2
- 71087031435. 3
- 71087031436. 4

Question Number : 120 Question Id : 7108707860 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 standard sequence of steps followed in using a crop simulation model?

- A. Validation
- B. Application
- C. Calibration
- D. Sensitivity analysis

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

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

Options :

- 71087031437. 1
- 71087031438. 2
- 71087031439. 3
- 71087031440. 4