

National Testing Agency

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| Question Paper Name : | Agricultural Processing and Food Engineering 23rd Sep 2020 Shift 2 Set 2 |
| Subject Name : | Agricultural Processing and Food Engineering |
| Creation Date : | 2020-09-23 19:33:41 |
| Duration : | 120 |
| Total Marks : | 480 |
| Display Marks: | Yes |
| Share Answer Key With Delivery Engine : | Yes |
| Actual Answer Key : | Yes |

Agricultural Processing and Food Engineering

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|--------------------------------------|----------|
| Group Number : | 1 |
| Group Id : | 71087044 |
| 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 : | 710870130 |
| 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 : | 710870130 |
| Question Shuffling Allowed : | Yes |

Question Number : 1 Question Id : 7108705221 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 :

71087020881. 1
71087020882. 2
71087020883. 3
71087020884. 4

Question Number : 2 Question Id : 7108705222 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 :

- 71087020885. 1
- 71087020886. 2
- 71087020887. 3
- 71087020888. 4

Question Number : 3 Question Id : 7108705223 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 :

- 71087020889. 1

71087020890. 2

71087020891. 3

71087020892. 4

Question Number : 4 Question Id : 7108705224 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 :

71087020893. 1

71087020894. 2

71087020895. 3

71087020896. 4

Question Number : 5 Question Id : 7108705225 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 :

71087020897. 1

71087020898. 2

71087020899. 3

71087020900. 4

Question Number : 6 Question Id : 7108705226 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 :

- 71087020901. 1
- 71087020902. 2
- 71087020903. 3
- 71087020904. 4

Question Number : 7 Question Id : 7108705227 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 :

- 71087020905. 1
- 71087020906. 2
- 71087020907. 3
- 71087020908. 4

Question Number : 8 Question Id : 7108705228 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. Uttar 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 :

71087020909. 1
71087020910. 2
71087020911. 3
71087020912. 4

Question Number : 9 Question Id : 7108705229 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 :

71087020913. 1
71087020914. 2
71087020915. 3
71087020916. 4

Question Number : 10 Question Id : 7108705230 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 :

71087020917. 1

71087020918. 2

71087020919. 3

71087020920. 4

Question Number : 11 Question Id : 7108705231 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 :

71087020921. 1

71087020922. 2

71087020923. 3

71087020924. 4

Question Number : 12 Question Id : 7108705232 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 :

71087020925. 1
71087020926. 2
71087020927. 3
71087020928. 4

Question Number : 13 Question Id : 7108705233 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 :

71087020929. 1
71087020930. 2
71087020931. 3
71087020932. 4

Question Number : 14 Question Id : 7108705234 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 :

- 71087020933. 1
- 71087020934. 2
- 71087020935. 3
- 71087020936. 4

Question Number : 15 Question Id : 7108705235 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 :

- 71087020937. 1
- 71087020938. 2
- 71087020939. 3
- 71087020940. 4

Question Number : 16 Question Id : 7108705236 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 :

- 71087020941. 1
- 71087020942. 2
- 71087020943. 3
- 71087020944. 4

Question Number : 17 Question Id : 7108705237 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 :

- 71087020945. 1
- 71087020946. 2
- 71087020947. 3
- 71087020948. 4

Question Number : 18 Question Id : 7108705238 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 :

- 71087020949. 1
- 71087020950. 2
- 71087020951. 3
- 71087020952. 4

Question Number : 19 Question Id : 7108705239 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 :

- 71087020953. 1
- 71087020954. 2
- 71087020955. 3
- 71087020956. 4

Question Number : 20 Question Id : 7108705240 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 :

- 71087020957. 1

71087020958. 2
71087020959. 3
71087020960. 4

Part B Core Agricultural Engineering and Technology

| | |
|---------------------------------------|-----------|
| Section Id : | 710870131 |
| 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 : | 710870131 |
| Question Shuffling Allowed : | Yes |

**Question Number : 21 Question Id : 7108705241 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**

Major constituents of gunmetal are

1. Copper and Tin
2. Copper and Phosphorous
3. Phosphorous and Manganese
4. Copper and Cobalt

Options :

71087020961. 1
71087020962. 2

71087020963. 3

71087020964. 4

Question Number : 22 Question Id : 7108705242 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 bevel angle of an agricultural disc is measured using a

1. Micrometer
2. Compass
3. Vernier Caliper
4. Combination set

Options :

71087020965. 1

71087020966. 2

71087020967. 3

71087020968. 4

Question Number : 23 Question Id : 7108705243 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 biogas requirement per person per day for cooking is about

1. 50 l
2. 100 l
3. 225 l
4. 500 l

Options :

71087020969. 1

71087020970. 2

71087020971. 3

71087020972. 4

Question Number : 24 Question Id : 7108705244 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 dimension of angular acceleration is

1. LT^{-2}
2. T^{-2}
3. LT^{-1}
4. L^2T^{-2}

Options :

71087020973. 1
71087020974. 2
71087020975. 3
71087020976. 4

Question Number : 25 Question Id : 7108705245 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 direct-acting pressure relief valve is used in the circuit operating at

1. High Volume Flow Rate
2. Low Pressure
3. High Pressure and High Volume
4. Low Volume Low Flow Rate

Options :

71087020977. 1
71087020978. 2
71087020979. 3
71087020980. 4

Question Number : 26 Question Id : 7108705246 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 commonly used seed metering system on a maize planter is

1. Fluted roller
2. Internal double run
3. Inclined plate with cells
4. Cup feed mechanism

Options :

71087020981. 1

71087020982. 2

71087020983. 3

71087020984. 4

Question Number : 27 Question Id : 7108705247 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 agricultural operation, UAV is most suitable for

1. Seeding
2. Mechanical weeding
3. Spaying
4. Land Levelling

Options :

71087020985. 1

71087020986. 2

71087020987. 3

71087020988. 4

Question Number : 28 Question Id : 7108705248 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

Feed capacity of a 3 bottom 35cm mould board plough operating at a speed of 3km per hour with a field efficiency of 70% is

1. 1.05 ha/hr
2. 0.22 ha/hr
3. 0.10 ha/hr
4. 0.70 ha/hr

Options :

71087020989. 1
71087020990. 2
71087020991. 3
71087020992. 4

Question Number : 29 Question Id : 7108705249 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

Disc angle in a standard disc plough is

1. 12-15 degrees
2. 15-22 degrees
3. 32-40 degrees
4. 42-45 degrees

Options :

71087020993. 1
71087020994. 2
71087020995. 3
71087020996. 4

Question Number : 30 Question Id : 7108705250 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

Safe noise level (dB) for an agricultural worker is

1. 80
2. 100
3. 120
4. 140

Options :

71087020997. 1
71087020998. 2
71087020999. 3
71087021000. 4

Question Number : 31 Question Id : 7108705251 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 statements is true with respect to sieve analysis of soil samples?

1. $D_{60} < D_{10}$
2. $D_{60} > D_{10}$
3. $D_{60} = D_{10}$
4. None of the above

Options :

71087021001. 1
71087021002. 2
71087021003. 3
71087021004. 4

Question Number : 32 Question Id : 7108705252 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 a specific energy diagram, two depths of flow for a particular specific energy are known as

1. Normal depth
2. Critical depth
3. Alternate depths
4. Variable depths

Options :

71087021005. 1
71087021006. 2
71087021007. 3
71087021008. 4

Question Number : 33 Question Id : 7108705253 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 a rectangular channel, 'd' is the depth and 'B' is the base width. The channel section will be the most hydraulically efficient when

1. $B = 4d$
2. $B = 2d$
3. $B = d$
4. $2B = d$

Options :

71087021009. 1
71087021010. 2
71087021011. 3
71087021012. 4

Question Number : 34 Question Id : 7108705254 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 formulae is used to estimate the peak rate of runoff from an area?

1. William's formula
2. Manning's formula
3. Chézy's formula
4. Rational formula

Options :

71087021013. 1
71087021014. 2
71087021015. 3
71087021016. 4

Question Number : 35 Question Id : 7108705255 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 could be measured with lysimeters?

1. Interception losses
2. Flow velocity in a stream
3. Flow rate in pipes
4. Evapotranspiration

Options :

71087021017. 1
71087021018. 2
71087021019. 3
71087021020. 4

Question Number : 36 Question Id : 7108705256 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 of concentration in an area is determined by using the relationship proposed by

1. Wischmeier and Smith
2. Blaney and Criddle
3. Darcy and Weisbach
4. Kirpitch

Options :

71087021021. 1
71087021022. 2
71087021023. 3
71087021024. 4

Question Number : 37 Question Id : 7108705257 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

Contour bunds are recommended for areas where

1. Rainfall is low and soil is light
2. Rainfall is high and soil is light
3. Rainfall is light and soil is heavy
4. None of the above

Options :

71087021025. 1
71087021026. 2
71087021027. 3
71087021028. 4

Question Number : 38 Question Id : 7108705258 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 taxonomy deals with which one of the following?

1. Principles of Soil Classification
2. Principles of Agricultural Taxation
3. Principles of Soil degradation
4. Principles of Soil Conservation

Options :

71087021029. 1
71087021030. 2
71087021031. 3
71087021032. 4

Question Number : 39 Question Id : 7108705259 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 type of storage in dams?

1. Regular storage
2. Temporary storage
3. Dead storage
4. Live storage

Options :

71087021033. 1
71087021034. 2
71087021035. 3
71087021036. 4

Question Number : 40 Question Id : 7108705260 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 the most efficient method of irrigation?

1. Drip irrigation
2. Furrow irrigation
3. Check basin irrigation
4. Sprinkler Irrigation

Options :

71087021037. 1
71087021038. 2
71087021039. 3
71087021040. 4

Question Number : 41 Question Id : 7108705261 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 sphericity of a grain having length, breadth, thickness (8mm, 4mm, 2mm respectively) is

1. 0.4
2. 0.5
3. 0.6
4. 0.7

Options :

71087021041. 1
71087021042. 2
71087021043. 3
71087021044. 4

Question Number : 42 Question Id : 7108705262 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 important factor which affects the shelf-life of food products is

1. Moisture content
2. Water activity
3. Fat content
4. Protein content

Options :

71087021045. 1
71087021046. 2
71087021047. 3
71087021048. 4

Question Number : 43 Question Id : 7108705263 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 quantities of pineapple juice (having 15% sugar content) and sugar syrup (having 40% sugar content) are needed to produce 50 kg of fruit squash containing 20% sugar?

1. 40 kg pineapple juice and 10 kg sugar syrup
2. 30 kg pineapple juice and 20 kg sugar syrup
3. 25 kg pineapple juice and 25 kg sugar syrup
4. 20 kg pineapple juice and 30 kg sugar syrup

Options :

71087021049. 1
71087021050. 2
71087021051. 3
71087021052. 4

Question Number : 44 Question Id : 7108705264 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 separators are used for separation of materials based on their relative length?

1. Disk separator and Indented cylinder separator
2. Spiral and Disk separator
3. Disk and Cyclone separator
4. Spiral and Specific gravity separator

Options :

71087021053. 1
71087021054. 2
71087021055. 3
71087021056. 4

Question Number : 45 Question Id : 7108705265 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 stainless steel 316 (18/10), the 18/10 represents

1. 18% Ni and 10% Cr
2. 18% Cr and 10% Cu
3. 18% Cu and 10% Al
4. 18% Cr and 10% Ni

Options :

71087021057. 1
71087021058. 2
71087021059. 3
71087021060. 4

Question Number : 46 Question Id : 7108705266 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

Index organism for commercial processing of canned products is

1. *Campylobacter jejuni*
2. *Clostridium perfringens*
3. *Clostridium botulinum*
4. *Staphylococcus aureus*

Options :

71087021061. 1
71087021062. 2
71087021063. 3
71087021064. 4

Question Number : 47 Question Id : 7108705267 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 cold regions, where could the deposition of water occur in metal storage containers?

1. Bottom
2. Top
3. Centre
4. Throughout the container

Options :

71087021065. 1
71087021066. 2
71087021067. 3
71087021068. 4

Question Number : 48 Question Id : 7108705268 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 the most important objective of process control?

1. To reduce variability in final product
2. To utilize resources effectively
3. To maximize production
4. To reduce contamination

Options :

71087021069. 1

71087021070. 2

71087021071. 3

71087021072. 4

Question Number : 49 Question Id : 7108705269 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

Inverse transducer converts

1. Solar energy to any form of energy
2. Electrical to any form of energy
3. Mechanical energy to electrical energy
4. Mechanical energy to light

Options :

71087021073. 1

71087021074. 2

71087021075. 3

71087021076. 4

Question Number : 50 Question Id : 7108705270 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 India, which of the following sets the permissible limits of additives in fruit beverages?

A. FSSAI

B. Fruit Products Order

C. BIS

Select the most appropriate answer from the options given below?

1. A and B

2. B only

3. A only

4. C only

Options :

71087021077. 1

71087021078. 2

71087021079. 3

71087021080. 4

Question Number : 51 Question Id : 7108705271 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: Biogas can be utilized effectively for cooking, lighting, operating engines and power generation applications.

Statement II: Bio digestion process can be done only on wet fermentation.

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 :

71087021081. 1

71087021082. 2

71087021083. 3

71087021084. 4

Question Number : 52 Question Id : 7108705272 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: Fluidized bed gasification system can handle a wide range of high moisture feedstocks.

Statement II: Fluidization is the key concept to high throughput and low turndown ratio (TDR).

In light of the above statements, choose the **most appropriate** answer from the 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 :

71087021085. 1

71087021086. 2

71087021087. 3

71087021088. 4

Question Number : 53 Question Id : 7108705273 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: Temperature of carbonization plays an important role in deciding the quality of charcoal.

Statement II: The calorific value of producer gas can be affected by the chemical composition of the feedstock, air velocity, thickness of bed and particle size of the feed.

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 :

71087021089. 1

71087021090. 2

71087021091. 3

71087021092. 4

Question Number : 54 Question Id : 7108705274 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

Arrange in sequence the steps involved in designing a solar PV powered water pumping system.

- A. Determine the size and number of PV modules required.
- B. Determine the solar radiation available at the given location.
- C. Determine the total dynamic head.
- D. Determine the amount of water required per day.
- E. Determine the hydraulic energy required per day to pump the required amount of water.

Choose the correct answer from the options given below:

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

Options :

- 71087021093. 1
- 71087021094. 2
- 71087021095. 3
- 71087021096. 4

Question Number : 55 Question Id : 7108705275 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. Efficiency of flat plate collector | I. 6-10% |
| B. Optical efficiency of concentrating collector | II. 15-25% |
| C. Collection efficiency of solar pond | III. 40% |
| D. Efficiency of CdTe Solar cell | IV. 65% |

Choose the correct answer from the options given below:

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

Options :

71087021097. 1
71087021098. 2
71087021099. 3
71087021100. 4

Question Number : 56 Question Id : 7108705276 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 maximum theoretical power co-efficient in a wind rotor is

1. 0.593
2. 0.953
3. 27/16
4. 0.35

Options :

71087021101. 1
71087021102. 2
71087021103. 3

71087021104. 4

Question Number : 57 Question Id : 7108705277 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: Enzymes are usually protein substances which act as biocatalysts.

Reason R: Enzymes lower the activation energy of the reaction.

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 :

71087021105. 1

71087021106. 2

71087021107. 3

71087021108. 4

Question Number : 58 Question Id : 7108705278 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 primary batteries, the chemical reactions are non-reversible.

Statement II: For vehicle propulsion, lead-acid batteries are preferred due to their higher specific energy.

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 :

71087021109. 1

71087021110. 2

71087021111. 3

71087021112. 4

Question Number : 59 Question Id : 7108705279 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. Stroboscope | I. Flue gas analysis |
| B. Psychrometer | II. Light |
| C. Fyrite | III. R.P.M. |
| D. Luxmeter | IV. Humidity |

Choose the correct answer from the options given below:

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

Options :

71087021113. 1
71087021114. 2
71087021115. 3
71087021116. 4

Question Number : 60 Question Id : 7108705280 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

Arrange the steps involved in the Critical Path Method in sequence

- A. Determine the sequence of activities
- B. Specify the individual activities
- C. Estimate activity completion time
- D. Draw the network diagram
- E. Identify the critical path

Choose the correct answer from the options given below:

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

Options :

- 71087021117. 1
- 71087021118. 2
- 71087021119. 3
- 71087021120. 4

Question Number : 61 Question Id : 7108705281 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

Tensiometers installed are used for measuring

- 1. Wilting point
- 2. Capillary potential
- 3. Osmatic potential
- 4. Diffusivity

Options :

- 71087021121. 1
- 71087021122. 2
- 71087021123. 3
- 71087021124. 4

Question Number : 62 Question Id : 7108705282 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

Arrange the following crops in increasing order of effective root zone depth

- A. Sugarcane
- B. Rice
- C. Maize
- D. Wheat

Choose the correct answer from the options given below:

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

Options :

- 71087021125. 1
- 71087021126. 2
- 71087021127. 3
- 71087021128. 4

Question Number : 63 Question Id : 7108705283 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 open channel flow, if the depth of flow is the same at every section of the channel, then the flow is known as

1. Unsteady flow
2. Uniform flow
3. Varied flow
4. Gradually varied flow

Options :

71087021129. 1
71087021130. 2
71087021131. 3
71087021132. 4

Question Number : 64 Question Id : 7108705284 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: After 1978, irrigation projects in India are classified on the basis of culturable command area

Reason R: Major Irrigation projects have a culturable command area greater than 5000 ha.

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 :

71087021133. 1
71087021134. 2

71087021135. 3

71087021136. 4

Question Number : 65 Question Id : 7108705285 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 transmissibility (litres per day per meter) for an irrigation well must be equal to or greater than

1. 200
2. 20
3. 2000
4. 20,000

Options :

71087021137. 1

71087021138. 2

71087021139. 3

71087021140. 4

Question Number : 66 Question Id : 7108705286 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 flow in a border strip is a case of spatially varied

1. steady open channel flow with decreasing discharge.
2. unsteady open channel flow with decreasing discharge.
3. steady open channel flow with increasing discharge.
4. unsteady open channel flow with increasing discharge.

Options :

71087021141. 1

71087021142. 2

71087021143. 3

71087021144. 4

Question Number : 67 Question Id : 7108705287 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 common cladding/covering material used for a poly house is:

1. 100 micron PVC film.
2. 200 micron UV stabilized polyfilm.
3. 200 micron HDPE film.
4. 100 micron HDPE film.

Options :

71087021145. 1
71087021146. 2
71087021147. 3
71087021148. 4

Question Number : 68 Question Id : 7108705288 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

Secondary salinization occurs in:

1. Irrigated Command in Arid region only.
2. Irrigated Command in Semi-Arid Region only.
3. Both Irrigated command in Arid and Semi-arid Regions.
4. Irrigated Command in Humid region only.

Options :

71087021149. 1
71087021150. 2
71087021151. 3
71087021152. 4

Question Number : 69 Question Id : 7108705289 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. Mass curve | I. Always a falling curve |
| B. Thiessen method | II. Relationship between accumulated rainfall and time |
| C. DAD curve | III. Average rainfall depth over an area |
| D. Hyetograph | IV. Graph between rainfall intensity and time |

Choose the correct answer from the options below:

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

Options :

71087021153. 1

71087021154. 2

71087021155. 3

71087021156. 4

Question Number : 70 Question Id : 7108705290 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

Triangular Irrigation Network (TIN) is a

1. Raster data
2. Vector data
3. Transportation data
4. None of the above

Options :

71087021157. 1

71087021158. 2

71087021159. 3

71087021160. 4

Part C Agricultural Processing and Food Engineering

| | |
|--|-----------|
| Section Id : | 710870132 |
| 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 : | 710870132 |
| Question Shuffling Allowed : | Yes |

Question Number : 71 Question Id : 7108705291 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 fruit falls from a height of 2.5 m. If the coefficient of restitution is 0.2, the rebound height is

1. 0.1 m
2. 0.2 m
3. 0.3 m
4. 0.5 m

Options :

71087021161. 1
71087021162. 2
71087021163. 3
71087021164. 4

Question Number : 72 Question Id : 7108705292 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

Maximum peeling losses occur in which method

1. Mechanical peeling
2. Hot water peeling
3. Steam peeling
4. Lye peeling

Options :

71087021165. 1
71087021166. 2
71087021167. 3
71087021168. 4

Question Number : 73 Question Id : 7108705293 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 usual temperature of water in hot water blanching is

1. 40 to 50 °C
2. 50 to 60 °C
3. 80 to 95 °C
4. 110 to 120 °C

Options :

71087021169. 1
71087021170. 2
71087021171. 3
71087021172. 4

Question Number : 74 Question Id : 7108705294 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 a shredding equipment, the vegetables are subjected to

1. Shearing and impact
2. Shearing and cutting
3. Compression and cutting
4. Crushing and shearing

Options :

71087021173. 1
71087021174. 2
71087021175. 3
71087021176. 4

Question Number : 75 Question Id : 7108705295 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

How much will be the processing time for reduction of viable microbial cells from 10^{15} to 10^1 , if the typical D value for the particular microorganism is 0.6 min?

1. 5 min
2. 9 min
3. 18 min
4. 32.5 min

Options :

71087021177. 1
71087021178. 2
71087021179. 3
71087021180. 4

Question Number : 76 Question Id : 7108705296 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

Ammonia water system falls under which of the following types of refrigeration system?

1. Vapor absorption
2. Vapor compression
3. Thermo electric
4. None of these

Options :

71087021181. 1
71087021182. 2
71087021183. 3
71087021184. 4

Question Number : 77 Question Id : 7108705297 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

Inclined draper belt works on the principle of separation of a mixture of grains based on which material property?

1. Length and thickness
2. Shape and surface texture
3. Roundness
4. Specific gravity

Options :

- 71087021185. 1
- 71087021186. 2
- 71087021187. 3
- 71087021188. 4

Question Number : 78 Question Id : 7108705298 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 coefficient of performance of heat pump is

1. < 1
2. > 1
3. always equal to 1
4. either less than or more than 1, depending upon the operating conditions

Options :

- 71087021189. 1
- 71087021190. 2
- 71087021191. 3
- 71087021192. 4

Question Number : 79 Question Id : 7108705299 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 drying air temperature at dryer exit is more than atmospheric temperature, then heat utilization factor is

1. < 1
2. > 1
3. Equal to 1
4. Equal to or more than 1

Options :

71087021193. 1
71087021194. 2
71087021195. 3
71087021196. 4

Question Number : 80 Question Id : 7108705300 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 pairs of dryers are used for liquid food drying?

1. LSU and freeze dryer
2. Spray and drum dryer
3. Drum and flat bed dryer
4. Fluidized and LSU dryer

Options :

71087021197. 1
71087021198. 2
71087021199. 3
71087021200. 4

Question Number : 81 Question Id : 7108705301 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

According to the time estimate made by PERT planning, the maximum time required to complete an activity is called

1. Most likely time estimate
2. Optimistic time estimate
3. Pessimistic time estimate
4. Expected time estimate

Options :

71087021201. 1
71087021202. 2
71087021203. 3
71087021204. 4

Question Number : 82 Question Id : 7108705302 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

Multiple paddle agitators using slow speed vertical shaft impellers are used for mixing of

1. Dry powders
2. Low viscosity liquids
3. Medium viscosity liquids
4. High viscosity paste

Options :

71087021205. 1
71087021206. 2
71087021207. 3
71087021208. 4

Question Number : 83 Question Id : 7108705303 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 order of membrane processes based on reducing operating pressure is

1. RO, UF, MF
2. UF, RO, MF
3. MF, UF, RO
4. UF, MF, RO

Options :

71087021209. 1
71087021210. 2
71087021211. 3
71087021212. 4

Question Number : 84 Question Id : 7108705304 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 terms of which one of the following properties, metals are better than ceramics?

1. Hardness
2. Ductility
3. Toughness
4. Yield strength

Options :

71087021213. 1
71087021214. 2
71087021215. 3
71087021216. 4

Question Number : 85 Question Id : 7108705305 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 higher D Value referred to as the decimal reduction time for particular microorganisms, indicates

1. Greater heat resistance
2. Lesser heat resistance
3. Equal heat resistance
4. No change in heat resistance

Options :

- 71087021217. 1
- 71087021218. 2
- 71087021219. 3
- 71087021220. 4

Question Number : 86 Question Id : 7108705306 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 NOT true in case of extrusion cooking?

1. High-temperature and cooking for short-time
2. Size enlargement process
3. Used in plastic industry
4. Can handle high fat and high fibre ingredients

Options :

- 71087021221. 1
- 71087021222. 2
- 71087021223. 3
- 71087021224. 4

Question Number : 87 Question Id : 7108705307 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 true in case of tunnel drying?

1. Higher energy efficiency
2. Reduced labour cost
3. Better product quality with complete drying
4. Drying of larger quantity in relatively shorter time

Options :

71087021225. 1

71087021226. 2

71087021227. 3

71087021228. 4

Question Number : 88 Question Id : 7108705308 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 NOT a part of a microwave oven?

1. Magnetron
2. Wave guide
3. Turn table
4. Defrost switch

Options :

71087021229. 1

71087021230. 2

71087021231. 3

71087021232. 4

Question Number : 89 Question Id : 7108705309 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 designing MAP, the tolerance limits considered are

1. Minimum O₂ only
2. Minimum CO₂ only
3. Maximum O₂ and Minimum CO₂ level
4. Minimum O₂ and Maximum CO₂ level

Options :

- 71087021233. 1
- 71087021234. 2
- 71087021235. 3
- 71087021236. 4

Question Number : 90 Question Id : 7108705310 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 hydraulic radius of a pipe having 12 cm diameter is

1. 3 cm
2. 4 cm
3. 6 cm
4. 12 cm

Options :

- 71087021237. 1
- 71087021238. 2
- 71087021239. 3
- 71087021240. 4

Question Number : 91 Question Id : 7108705311 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 pulse milling, if the dehusking efficiency is 98% and the coefficient of wholeness of the kernel is 0.92, then overall milling efficiency is

1. 100 %
2. 94.18 %
3. 90.16 %
4. 95.12 %

Options :

71087021241. 1
71087021242. 2
71087021243. 3
71087021244. 4

Question Number : 92 Question Id : 7108705312 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

Minimization in investment in inventory is called

1. Product control
2. Point of maximum profit
3. Inventory control
4. Economic order

Options :

71087021245. 1
71087021246. 2
71087021247. 3
71087021248. 4

Question Number : 93 Question Id : 7108705313 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 depreciation of the plant building and machinery is considered as

1. Fixed cost
2. Variable cost
3. Hiring cost
4. Carrying cost

Options :

71087021249. 1
71087021250. 2
71087021251. 3
71087021252. 4

Question Number : 94 Question Id : 7108705314 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 Total Soluble Solid is measured by

1. Penetrometer
2. Tensiometer
3. Thermometer
4. Refractometer

Options :

71087021253. 1
71087021254. 2
71087021255. 3
71087021256. 4

Question Number : 95 Question Id : 7108705315 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

Surface area of leaf can be measured by

1. Wrapping method
2. Peeling method
3. Coating method
4. Planimeter

Options :

71087021257. 1
71087021258. 2
71087021259. 3
71087021260. 4

Question Number : 96 Question Id : 7108705316 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: Thermal conductivity of a particular single grain is lower than its bulk.

Reason R: The air space present within the granular bulk material reduces the thermal conductivity

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

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

Options :

71087021261. 1

71087021262. 2

71087021263. 3

71087021264. 4

Question Number : 97 Question Id : 7108705317 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: Vegetarian food contains a mark of the solid green circle inside a green square boundary on the outer surface of its package.

Reason R: A specific group of people consume vegetarian food only

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

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

Options :

71087021265. 1

71087021266. 2

71087021267. 3

71087021268. 4

Question Number : 98 Question Id : 7108705318 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: Thawing is a slower process than freezing

Reason R: Thermal conductivity of ice is higher than 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 :

71087021269. 1

71087021270. 2

71087021271. 3

71087021272. 4

Question Number : 99 Question Id : 7108705319 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: The head rice recovery of parboiled paddy is higher than raw paddy

Reason R: Gelatinization of starch and subsequent retrogradation is the main factor for higher recovery

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 :

71087021273. 1

71087021274. 2

71087021275. 3

71087021276. 4

Question Number : 100 Question Id : 7108705320 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: Pulsed-electric field processing of liquid food causes electroporation in microorganisms

Reason R: Due to rupture in the cell wall, there is leakage of cytoplasmic material and subsequent death of the microorganisms

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 :

71087021277. 1

71087021278. 2

71087021279. 3

71087021280. 4

Question Number : 101 Question Id : 7108705321 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

Arrange the steps comprising the Critical Path Method in sequence

- A. Draw the network diagram
- B. Establish activity sequence
- C. Specify each activity
- D. Identify critical path
- E. Estimate activity completion time

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

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

Options :

- 71087021281. 1
- 71087021282. 2
- 71087021283. 3
- 71087021284. 4

Question Number : 102 Question Id : 7108705322 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

Arrange the steps in the process of fibre extraction from jute in sequence

- A. Defoliation of leaves
- B. Steeping of stems in water
- C. Bundling of stem
- D. Washing and drying of fibre
- E. Retting and manual extraction of fibre

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

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

Options :

- 71087021285. 1
- 71087021286. 2
- 71087021287. 3
- 71087021288. 4

Question Number : 103 Question Id : 7108705323 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

Arrange the steps in preparation of aonla jelly in sequence

- A. Washing and shredding
- B. Heating and mixing of pectin
- C. Juice extraction
- D. Heating up to the endpoint
- E. Packing

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

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

Options :

- 71087021289. 1
- 71087021290. 2
- 71087021291. 3
- 71087021292. 4

Question Number : 104 Question Id : 7108705324 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

Arrange the steps in waxing and marketing of Kinnow in sequence

- A. Washing
- B. Sorting and grading
- C. Waxing
- D. Weighing and packing
- E. Marketing

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

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

Options :

- 71087021293. 1
- 71087021294. 2
- 71087021295. 3
- 71087021296. 4

Question Number : 105 Question Id : 7108705325 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

Arrange the steps of the canning process in sequence

- A. Sorting and washing
- B. Peeling and cutting
- C. Blanching and filling (syrup and brine)
- D. Clinching and exhausting
- E. Sealing and cooling

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

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

Options :

- 71087021297. 1
- 71087021298. 2
- 71087021299. 3
- 71087021300. 4

Question Number : 106 Question Id : 7108705326 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: RFID stands for Radio Frequency Identification Device

Statement II: ASTM stands for American Society for Testing Materials

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 :

71087021301. 1

71087021302. 2

71087021303. 3

71087021304. 4

Question Number : 107 Question Id : 7108705327 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: LLDPE stands for Laminar Low-Density Poly Ethylene

Statement II: BOPP stands for Biaxially Oriented Poly Propylene

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 :

71087021305. 1

71087021306. 2

71087021307. 3

71087021308. 4

Question Number : 108 Question Id : 7108705328 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: Osmotic dehydration is the process through which only partial drying is possible

Statement II: Foam-mat drying is carried out for the pulp with high acid

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 :

71087021309. 1

71087021310. 2

71087021311. 3

71087021312. 4

Question Number : 109 Question Id : 7108705329 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: Separation of liquid from solids by the application of pressure is known as expression

Statement II: Mechanical expression gives higher oil recovery than solvent extraction method

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 :

71087021313. 1

71087021314. 2

71087021315. 3

71087021316. 4

Question Number : 110 Question Id : 7108705330 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: Generally methanol is used in pycnometer for determination of specific gravity of grains

Statement II: Animal and vegetative proteins can be recovered using dewatering centrifuge

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 :

71087021317. 1

71087021318. 2

71087021319. 3

71087021320. 4

Question Number : 111 Question Id : 7108705331 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

Some facts about the angle of repose and the angle of friction are given below. Which of these are true?

- A. The angle of repose and angle of internal friction are the same
- B. The angle of repose can be calculated if the angle of internal friction is known
- C. The angle of repose and angle of internal friction are totally different
- D. The angle of repose is generally higher than the angle of the internal friction
- E. The angle of repose is generally lower than the angle of the internal friction

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

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

Options :

- 71087021321. 1
- 71087021322. 2
- 71087021323. 3
- 71087021324. 4

Question Number : 112 Question Id : 7108705332 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

Some facts about thermal conductivity are given below. Which of the following are true?

- A. Thermal conductivity of food materials is lower than that of the metals
- B. Lower thermal conductivity of food materials is mainly caused by its moisture content
- C. Good electrical conductors are bad thermal conductors
- D. Glass is a bad thermal insulator
- E. Thermal conductivity of ice is higher than that of water

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

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

Options :

71087021325. 1

71087021326. 2

71087021327. 3

71087021328. 4

Question Number : 113 Question Id : 7108705333 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 Thermal Death Time (TDT) curve of a bacteria, the 'Z' value indicates

- A. Temperature change ($^{\circ}\text{F}$) required to change TDT by a factor of 10.
- B. The slope of the TDT curve is used to characterize the dependence of the reaction rate constant on temperature
- C. It indicates the temperature change required to reduce the microbial population by 90%.
- D. It is the temperature required to kill all the microorganism in a given time
- E. Temperature change ($^{\circ}\text{F}$) required to change D value by a factor of 2

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

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

Options :

71087021329. 1

71087021330. 2

71087021331. 3

71087021332. 4

Question Number : 114 Question Id : 7108705334 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 statements are correct about extrusion processing?

- A. Extrusion is a size enlargement process
- B. The pressure inside the extruder is higher than outside
- C. Extrusion is always a high-temperature short-time process
- D. In extrusion cooking, the nutrient losses are higher
- E. Extrusion is also used for shape formation of food material

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

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

Options :

71087021333. 1

71087021334. 2

71087021335. 3

71087021336. 4

Question Number : 115 Question Id : 7108705335 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

It is considered that refrigerant in a refrigeration system plays a vital role. Which of the following statements are true?

- A. In refrigeration, heat is extracted at a lower temperature and released at a higher temperature
- B. The temperature of the refrigerant in the compressor is higher than its temperature at which it contacts the stored product
- C. Refrigeration load decreases with increase in refrigeration temperature
- D. The variation in latent heat of refrigerants does not affect the cooling efficiency
- E. The refrigeration effect is the difference in enthalpy between the inlet and outlet of the evaporator

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

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

Options :

71087021337. 1

71087021338. 2

71087021339. 3

71087021340. 4

Question Number : 116 Question Id : 7108705336 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. Roller mill | I. Shear and impact |
| B. Cane polisher | II. Impact |
| C. Hammer mill | III. Abrasion |
| D. Ball mill | IV. Compression and shear |

Choose the correct answer from the options given below

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

Options :

71087021341. 1
71087021342. 2
71087021343. 3
71087021344. 4

Question Number : 117 Question Id : 7108705337 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. Expression | I. Maize |
| B. Degerming | II. Groundnut |
| C. Pitting | III. Paddy |
| D. Parboiling | IV. Greengram |

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

Options :

71087021345. 1

71087021346. 2

71087021347. 3

71087021348. 4

Question Number : 118 Question Id : 7108705338 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. Secondary packaging | I. Silica |
| B. Glass | II. Corrugated boxes |
| C. Tin plating | III. Stretch packaging |
| D. Cling film | IV. Immersion |

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

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

Options :

71087021349. 1

71087021350. 2

71087021351. 3

71087021352. 4

Question Number : 119 Question Id : 7108705339 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. Groundnut cake | I. Lactic acid |
| B. Rice husk | II. Protein |
| C. Rice bran | III. Silicon |
| D. Molasses | IV. Edible oil |

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

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

Options :

71087021353. 1

71087021354. 2

71087021355. 3

71087021356. 4

Question Number : 120 Question Id : 7108705340 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. Split | I. Cleavage without complete separation of parts |
| B. Crack | II. Chilling injury |
| C. Puncture | III. Division of parts |
| D. Scald | IV. Small holes made by pointed objects |

Choose the correct answer from the options given below

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

Options :

71087021357. 1

71087021358. 2

71087021359. 3

71087021360. 4