

# National Testing Agency

<b>Question Paper Name :</b>	Dairy Chemistry 23rd Sep 2020 Shift 2 Set 2
<b>Subject Name :</b>	Dairy Chemistry
<b>Creation Date :</b>	2020-09-23 19:33:39
<b>Duration :</b>	120
<b>Total Marks :</b>	480
<b>Display Marks:</b>	Yes
<b>Share Answer Key With Delivery Engine :</b>	Yes
<b>Actual Answer Key :</b>	Yes

## Dairy Chemistry

<b>Group Number :</b>	1
<b>Group Id :</b>	71087036
<b>Group Maximum Duration :</b>	0
<b>Group Minimum Duration :</b>	120
<b>Show Attended Group? :</b>	No
<b>Edit Attended Group? :</b>	No
<b>Break time :</b>	0
<b>Group Marks :</b>	480
<b>Is this Group for Examiner? :</b>	No

## Part A General Knowledge

<b>Section Id :</b>	710870106
<b>Section Number :</b>	1
<b>Section type :</b>	Online
<b>Mandatory or Optional :</b>	Mandatory
<b>Number of Questions :</b>	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 :** 710870106  
**Question Shuffling Allowed :** Yes

**Question Number : 1 Question Id : 7108704261 Question Type : MCQ Option 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 :**

- 71087017041. 1
- 71087017042. 2
- 71087017043. 3
- 71087017044. 4

**Question Number : 2 Question Id : 7108704262 Question Type : MCQ Option 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 :**

- 71087017045. 1
- 71087017046. 2
- 71087017047. 3
- 71087017048. 4

**Question Number : 3 Question Id : 7108704263 Question Type : MCQ Option 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 :**

- 71087017049. 1

71087017050. 2

71087017051. 3

71087017052. 4

**Question Number : 4 Question Id : 7108704264 Question Type : MCQ Option 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 :**

71087017053. 1

71087017054. 2

71087017055. 3

71087017056. 4

**Question Number : 5 Question Id : 7108704265 Question Type : MCQ Option 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 :**

71087017057. 1

71087017058. 2

71087017059. 3

71087017060. 4

**Question Number : 6 Question Id : 7108704266 Question Type : MCQ Option 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 :**

- 71087017061. 1
- 71087017062. 2
- 71087017063. 3
- 71087017064. 4

**Question Number : 7 Question Id : 7108704267 Question Type : MCQ Option 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 :**

- 71087017065. 1
- 71087017066. 2
- 71087017067. 3
- 71087017068. 4

**Question Number : 8 Question Id : 7108704268 Question Type : MCQ Option 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 :**

- 71087017069. 1
- 71087017070. 2
- 71087017071. 3
- 71087017072. 4

**Question Number : 9 Question Id : 7108704269 Question Type : MCQ Option 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 :**

- 71087017073. 1
- 71087017074. 2
- 71087017075. 3
- 71087017076. 4

**Question Number : 10 Question Id : 7108704270 Question Type : MCQ Option 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 :**

- 71087017077. 1

71087017078. 2

71087017079. 3

71087017080. 4

**Question Number : 11 Question Id : 7108704271 Question Type : MCQ Option 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 :**

71087017081. 1

71087017082. 2

71087017083. 3

71087017084. 4

**Question Number : 12 Question Id : 7108704272 Question Type : MCQ Option 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 :**



- 71087017085. 1
- 71087017086. 2
- 71087017087. 3
- 71087017088. 4

**Question Number : 13 Question Id : 7108704273 Question Type : MCQ Option 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 34<sup>th</sup> Surajkund International Crafts Fair held in Haryana?

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

**Options :**

- 71087017089. 1
- 71087017090. 2
- 71087017091. 3
- 71087017092. 4

**Question Number : 14 Question Id : 7108704274 Question Type : MCQ Option 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 :**

- 71087017093. 1
- 71087017094. 2
- 71087017095. 3
- 71087017096. 4

**Question Number : 15 Question Id : 7108704275 Question Type : MCQ Option 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 :**

- 71087017097. 1
- 71087017098. 2
- 71087017099. 3
- 71087017100. 4

**Question Number : 16 Question Id : 7108704276 Question Type : MCQ Option 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 :**

- 71087017101. 1
- 71087017102. 2
- 71087017103. 3
- 71087017104. 4

**Question Number : 17 Question Id : 7108704277 Question Type : MCQ Option 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 :**

- 71087017105. 1
- 71087017106. 2
- 71087017107. 3
- 71087017108. 4

**Question Number : 18 Question Id : 7108704278 Question Type : MCQ Option 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 :**

- 71087017109. 1
- 71087017110. 2
- 71087017111. 3
- 71087017112. 4

**Question Number : 19 Question Id : 7108704279 Question Type : MCQ Option 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 :**

- 71087017113. 1
- 71087017114. 2
- 71087017115. 3
- 71087017116. 4

**Question Number : 20 Question Id : 7108704280 Question Type : MCQ Option 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 :**

- 71087017117. 1

71087017118.2  
71087017119.3  
71087017120.4

## Part B Core Dairy Science Dairy Technology and Food Technology

<b>Section Id :</b>	710870107
<b>Section Number :</b>	2
<b>Section type :</b>	Online
<b>Mandatory or Optional :</b>	Mandatory
<b>Number of Questions :</b>	50
<b>Number of Questions to be attempted :</b>	50
<b>Section Marks :</b>	200
<b>Display Number Panel :</b>	Yes
<b>Group All Questions :</b>	Yes
<b>Mark As Answered Required? :</b>	Yes
<b>Sub-Section Number :</b>	1
<b>Sub-Section Id :</b>	710870107
<b>Question Shuffling Allowed :</b>	Yes

**Question Number : 21 Question Id : 7108704281 Question Type : MCQ Option 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 variable constituent in milk is

1. Chloride
2. Protein
3. Lactose
4. Fat

**Options :**

71087017121.1  
71087017122.2

71087017123. 3

71087017124. 4

**Question Number : 22 Question Id : 7108704282 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

A1 and A2 types of milk refer to which one of the following casein fractions?

1.  $\alpha$ 1- casein
2.  $\alpha$ 2- casein
3.  $\kappa$ -casein
4.  $\beta$ -casein

**Options :**

71087017125. 1

71087017126. 2

71087017127. 3

71087017128. 4

**Question Number : 23 Question Id : 7108704283 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Milk serum is free from which of the following constituents?

- A. Fat
- B. Caseins
- C. Whey proteins
- D. Lactose

Choose the correct answer from the options given below:

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

**Options :**

- 71087017129. 1
- 71087017130. 2
- 71087017131. 3
- 71087017132. 4

**Question Number : 24 Question Id : 7108704284 Question Type : MCQ Option 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 unsaturated fatty acids is present at the highest level in milk fat?

- 1. Linoleic acid
- 2. Linolenic acid
- 3. Oleic acid
- 4. Arachidonic acid

**Options :**

- 71087017133. 1
- 71087017134. 2
- 71087017135. 3
- 71087017136. 4

**Question Number : 25 Question Id : 7108704285 Question Type : MCQ Option 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 molecular formula of cholesterol is :

1.  $C_{27}H_{45}OH$
2.  $C_{30}H_{50}OH$
3.  $C_{28}H_{56}OH$
4.  $C_{27}H_{48}OH$

**Options :**

71087017137. 1

71087017138. 2

71087017139. 3

71087017140. 4

**Question Number : 26 Question Id : 7108704286 Question Type : MCQ Option 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 forms of lactose is/are mainly present in dried milk?

- A.  $\alpha$ -lactose hydrate
- B.  $\beta$ -lactose anhydride
- C. Lactose glass
- D.  $\beta$ -lactose hydrate

Choose the correct answer from the options given below:

1. A only
2. B only
3. C only
4. A and D both



**Options :**

- 71087017141. 1
- 71087017142. 2
- 71087017143. 3
- 71087017144. 4

**Question Number : 27 Question Id : 7108704287 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Rennet acts at 105-106 peptide bond of  $\kappa$ -casein. What are the amino acids at these positions?

- 1. Methionine & Phenylalanine
- 2. Alanine & Methionine
- 3. Phenylalanine & Methionine
- 4. Methionine & Glycine

**Options :**

- 71087017145. 1
- 71087017146. 2
- 71087017147. 3
- 71087017148. 4

**Question Number : 28 Question Id : 7108704288 Question Type : MCQ Option 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 changes occur in cheddar cheese during ripening?

- A. Proteolysis
- B. Lipolysis
- C. Fermentation

Choose the correct answer from the options given below:

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

**Options :**

- 71087017149. 1
- 71087017150. 2
- 71087017151. 3
- 71087017152. 4

**Question Number : 29 Question Id : 7108704289 Question Type : MCQ Option 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 role of stabilizers in ice-cream?

- 1. Reduction of size of ice crystals
- 2. Reduction of size of lactose crystals
- 3. Increase overrun
- 4. Improve flavour

**Options :**

- 71087017153. 1
- 71087017154. 2
- 71087017155. 3
- 71087017156. 4

**Question Number : 30 Question Id : 7108704290 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

ISO means

1. International Standards Organization
2. Indian Standards Organization
3. International Organizations for Standardization
4. International Specifications Organisation

**Options :**

- 71087017157. 1
- 71087017158. 2
- 71087017159. 3
- 71087017160. 4

**Question Number : 31 Question Id : 7108704291 Question Type : MCQ Option 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 an agent, which is present in gram-positive bacteria and is also called pyrogenic?

1. Lipid-A
2. Teichoic acid
3. Peptidoglycan
4. Integrated membrane protein

**Options :**

- 71087017161. 1
- 71087017162. 2
- 71087017163. 3
- 71087017164. 4

**Question Number : 32 Question Id : 7108704292 Question Type : MCQ Option 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 common activity test for starter cultures are:

- A. Horrell-Elliker test
- B. Creatine test
- C. Rennet coagulation time test
- D. Resazurin reduction time test
- E. Titratable acidity

Choose the correct answer from the options given below:

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

**Options :**

71087017165. 1

71087017166. 2

71087017167. 3

71087017168. 4

**Question Number : 33 Question Id : 7108704293 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is**

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

**Correct Marks : 4 Wrong Marks : 1**

Type strain is used for referring to

- 1. Species
- 2. Genus
- 3. Family
- 4. Division

**Options :**

71087017169. 1

71087017170. 2

71087017171. 3

71087017172. 4

**Question Number : 34 Question Id : 7108704294 Question Type : MCQ Option 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 'very little animalcules' was coined by

1. Louis Pasteur
2. Robert Hooke
3. Anton van Leeuwenhoek
4. Robert Koch

**Options :**

71087017173. 1

71087017174. 2

71087017175. 3

71087017176. 4

**Question Number : 35 Question Id : 7108704295 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Transforming principle was given by

1. Watson and Crick
2. Holley, Nirenberg and Khorana
3. F. Griffith
4. Hershey and Chase

**Options :**

71087017177. 1

71087017178. 2

71087017179. 3

71087017180. 4

**Question Number : 36 Question Id : 7108704296 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Bacterial inactivation by Pulse Electric Field (PEF) technology is due to

1. Pore formation in cell membrane
2. DNA damage
3. Protein denaturation
4. Cellular oxidation

**Options :**

71087017181. 1

71087017182. 2

71087017183. 3

71087017184. 4

**Question Number : 37 Question Id : 7108704297 Question Type : MCQ Option 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 lantibiotic bacteriocin?

1. Pediocin
2. Helveticus
3. Gassericin
4. Nisin

**Options :**

71087017185. 1

71087017186. 2

71087017187. 3

71087017188. 4

**Question Number : 38 Question Id : 7108704298 Question Type : MCQ Option 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 outermost layer in certain bacterial cell, also known as 'K', is

1. Flagella
2. Capsule
3. Cell wall
4. Pili

**Options :**

- 71087017189. 1
- 71087017190. 2
- 71087017191. 3
- 71087017192. 4

**Question Number : 39 Question Id : 7108704299 Question Type : MCQ Option 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 the causative agent for Q Fever?

1. *Salmonella*
2. *E. coli*
3. *Listeria*
4. *Coxiella burnetii*

**Options :**

- 71087017193. 1
- 71087017194. 2
- 71087017195. 3
- 71087017196. 4

**Question Number : 40 Question Id : 7108704300 Question Type : MCQ Option 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 systematic approach to the identification, evaluation and control of food safety hazards?

1. Microbial analysis
2. FSSAI
3. HACCP
4. PFA

**Options :**

71087017197. 1  
71087017198. 2  
71087017199. 3  
71087017200. 4

**Question Number : 41 Question Id : 7108704301 Question Type : MCQ Option 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 be the yield of butter (80% fat) from 850 kg cream having 40% fat, assuming the fat losses to be 0.6% of total fat?

1. 425 kg
2. 270.5 kg
3. 422.5 kg
4. 272 kg

**Options :**

71087017201. 1  
71087017202. 2  
71087017203. 3  
71087017204. 4

**Question Number : 42 Question Id : 7108704302 Question Type : MCQ Option 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:** Ageing time of ice cream containing sodium alginate is about 3 hours

**Statement II:** Ageing time of ice cream containing gelatin is about 10 hours

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 and Statement II is incorrect
4. Statement I is incorrect and Statement II is correct

**Options :**

71087017205. 1

71087017206. 2

71087017207. 3

71087017208. 4

**Question Number : 43 Question Id : 7108704303 Question Type : MCQ Option 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:** Ghee prepared using ripened cream has an intense nutty flavour

**Statement II:** Ghee prepared using pre-stratified butter has an intense nutty flavour

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 and Statement II is incorrect
4. Statement I is incorrect and Statement II is correct

**Options :**

71087017209. 1

71087017210. 2

71087017211. 3

71087017212. 4

**Question Number : 44 Question Id : 7108704304 Question Type : MCQ Option 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:** High-fat content and higher homogenizing pressure alter the surface layer of fat globules. The consequence is - heat stability decreases

**Statement II:** High-fat content and higher homogenizing pressure alter the surface layer of fat globules. The consequence is – rheological properties of fermented milk products are different from those of unhomogenized milk

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 and Statement II is incorrect
4. Statement I is incorrect and Statement II is correct

**Options :**

- 71087017213. 1
- 71087017214. 2
- 71087017215. 3
- 71087017216. 4

**Question Number : 45 Question Id : 7108704305 Question Type : MCQ Option 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 to increase volume by whipping air into the ice cream mix is called

1. Homogenization
2. Ageing
3. Over run
4. Hardening

**Options :**

- 71087017217. 1
- 71087017218. 2
- 71087017219. 3
- 71087017220. 4

**Question Number : 46 Question Id : 7108704306 Question Type : MCQ Option 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 marker enzyme for cream pasteurization is

- 1. Plasmin
- 2. Phosphatase
- 3. Catalase
- 4. Peroxidase

**Options :**

- 71087017221. 1
- 71087017222. 2
- 71087017223. 3
- 71087017224. 4

**Question Number : 47 Question Id : 7108704307 Question Type : MCQ Option 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 second stage of homogenization is done to

- 1. Reduce the fat globule size to <2 mm
- 2. Disintegrate the agglomerates of fat globules
- 3. Remove whey
- 4. Increase the temperature of milk

**Options :**

- 71087017225. 1
- 71087017226. 2

71087017227. 3

71087017228. 4

**Question Number : 48 Question Id : 7108704308 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Milk powders are classified into low-, medium- and high- heat treated powders, on the basis of

1. Extent of insolubility
2. Reconstitutability
3. Whey protein nitrogen index
4. Feathering index

**Options :**

71087017229. 1

71087017230. 2

71087017231. 3

71087017232. 4

**Question Number : 49 Question Id : 7108704309 Question Type : MCQ Option 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 true with respect to the major causes of deterioration of whole milk powder?

1. Oxidation of fat, Maillard browning and lactose crystallization
2. Bacterial growth, hydrolysis of fat and developed acidity
3. Caramelization, carbon dioxide production and lactic acid production
4. Denaturation of proteins, conversion of lactose crystals to amorphous form and fat crystallization

**Options :**

71087017233. 1

71087017234. 2

71087017235. 3

71087017236. 4

**Question Number : 50 Question Id : 7108704310 Question Type : MCQ Option 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 NOT true with respect to the physico-chemical changes occurring in khoa during preparation?

1. Colour change, homogenization of milk fat and heat coagulation of proteins
2. Free fat formation, super saturation of lactose and partial precipitation of milk salts
3. Reduction in moisture content, increase in solid contents and increase in acidity
4. Increase in bacterial count, increase in pH and decrease in acidity

**Options :**

71087017237. 1

71087017238. 2

71087017239. 3

71087017240. 4

**Question Number : 51 Question Id : 7108704311 Question Type : MCQ Option 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. Elastic	I. Water
B. Viscous	II. Dough
C. Plastic	III. Steel
D. Generalized Maxwell body	IV. Butter

Choose the correct answer from the options given below:

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

**Options :**

71087017241. 1

71087017242. 2

71087017243. 3

71087017244. 4

**Question Number : 52 Question Id : 7108704312 Question Type : MCQ Option 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 advantages of falling film evaporators are

- A. Less residence time
- B. More overall heat transfer coefficient
- C. Less fouling problem
- D. Low vacuum is possible

Choose the correct answer from the options given below

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

**Options :**

- 71087017245. 1
- 71087017246. 2
- 71087017247. 3
- 71087017248. 4

**Question Number : 53 Question Id : 7108704313 Question Type : MCQ Option 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 statement is NOT correct?

- 1. Mechanical vibrators enhance efficiency of FBD
- 2. Doctors blades are used in FBD
- 3. Mechanical sweepers are used in spray dryers
- 4. Space between the rollers determines thickness of feed layer

**Options :**

- 71087017249. 1
- 71087017250. 2
- 71087017251. 3
- 71087017252. 4



**Question Number : 54 Question Id : 7108704314 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

Instruments that measure the process variables and put out a corresponding proportional signal are

1. Controllers
2. Transmitters
3. Conveyors
4. Regulators

**Options :**

- 71087017253. 1
- 71087017254. 2
- 71087017255. 3
- 71087017256. 4

**Question Number : 55 Question Id : 7108704315 Question Type : MCQ Option 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 has least value of thermal conductivity?

1. Air
2. Water
3. Copper
4. Glass

**Options :**

- 71087017257. 1
- 71087017258. 2
- 71087017259. 3
- 71087017260. 4

**Question Number : 56 Question Id : 7108704316 Question Type : MCQ Option 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 vacuum pump that does NOT use moving parts is

1. Steam trap
2. Condenser
3. Jet ejector
4. Nozzle

**Options :**

- 71087017261. 1
- 71087017262. 2
- 71087017263. 3
- 71087017264. 4

**Question Number : 57 Question Id : 7108704317 Question Type : MCQ Option 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 approximate capacity of a domestic window type air conditioner?

1. 0.1 TR
2. 1.0 TR
3. 100 TR
4. 10 TR

**Options :**

- 71087017265. 1
- 71087017266. 2
- 71087017267. 3
- 71087017268. 4

**Question Number : 58 Question Id : 7108704318 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

Absolute pressure means fluid pressure at

- A. Absolute zero
- B. Perfect vacuum
- C. Gauge pressure
- D. Atmospheric pressure

Choose the correct answer from the options given below:

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

**Options :**

- 71087017269. 1
- 71087017270. 2
- 71087017271. 3
- 71087017272. 4

**Question Number : 59 Question Id : 7108704319 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is**

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

**Correct Marks : 4 Wrong Marks : 1**

Torr is a unit of measurement of

- 1. Vacuum
- 2. Positive pressure
- 3. Humidity
- 4. Centrifugal force

**Options :**

- 71087017273. 1

71087017274. 2

71087017275. 3

71087017276. 4

**Question Number : 60 Question Id : 7108704320 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

Controller is a device that continuously compares the measured value with

1. Reference value
2. Corrected signal
3. Differential value
4. Absolute value

**Options :**

71087017277. 1

71087017278. 2

71087017279. 3

71087017280. 4

**Question Number : 61 Question Id : 7108704321 Question Type : MCQ Option 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 anti-nutritional factors suppresses the function of the thyroid gland?

1. Goitrogens
2. Saponins
3. Protease –inhibitors
4. Cyanogenic glycosides

**Options :**

71087017281. 1

71087017282. 2

71087017283. 3

71087017284. 4

**Question Number : 62 Question Id : 7108704322 Question Type : MCQ Option 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 flavour of clove used in food is due to

1. Lycopene
2. Capsacin
3. Eugenol
4. Garcinol

**Options :**

71087017285. 1

71087017286. 2

71087017287. 3

71087017288. 4

**Question Number : 63 Question Id : 7108704323 Question Type : MCQ Option 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 combinations of enzymes could be used in enzyme-based oxygen scavengers of packed foods?

1. Glucose oxidase and Catalase
2. Glucose isomerase and Polyphenol oxidase
3. Catalase and Peroxidase
4. Pectin methyl esterase and Glucose isomerase

**Options :**

71087017289. 1

71087017290. 2

71087017291. 3

71087017292. 4

**Question Number : 64 Question Id : 7108704324 Question Type : MCQ Option 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 correct in reference to thermally processed foods?

1. *Clostridium botulinum* spores do not germinate below pH 4.6
2. 12-D concept refers to the process lethality requirement in case of canned foods
3. Flat sour defect in canned food is caused by *Bacillus polymyxa*
4. Microbial inactivation during thermal processing usually follows a logarithmic order

**Options :**

71087017293. 1

71087017294. 2

71087017295. 3

71087017296. 4

**Question Number : 65 Question Id : 7108704325 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Hydrogenation of vegetable oil is used for two purposes:

1. To improve colour, flavor and to reduce melting point
2. To improve oxidative stability and convert liquid oil to plastic /hard fats
3. To remove waxes and saturated triglycerides
4. Neutralization and deodorization of oil

**Options :**

71087017297. 1

71087017298. 2

71087017299. 3

71087017300. 4

**Question Number : 66 Question Id : 7108704326 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

Adulteration of ghee with vanaspati can be detected by

1. Beiber test
2. Becchi test
3. Baudouin test
4. Halphen test

**Options :**

71087017301. 1  
71087017302. 2  
71087017303. 3  
71087017304. 4

**Question Number : 67 Question Id : 7108704327 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

Microbial rennet is NOT produced by

1. *Endothia parasitica*
2. *Mucor miehei*
3. *Aspergillus niger*
4. *Bacillus polymyxa*

**Options :**

71087017305. 1  
71087017306. 2  
71087017307. 3  
71087017308. 4

**Question Number : 68 Question Id : 7108704328 Question Type : MCQ Option 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 the correct sequence of operation during canning of food products?

- A. Syruping or Brining
- B. Double seaming
- C. Exhausting
- D. Thermal processing
- E. Clinching

Choose the correct answer from the options given below:

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

**Options :**

- 71087017309. 1
- 71087017310. 2
- 71087017311. 3
- 71087017312. 4

**Question Number : 69 Question Id : 7108704329 Question Type : MCQ Option 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 leavening agents is essentially used for producing crackers (salt biscuits)?

- A. Sodium bicarbonate
- B. Sodium carbonate
- C. Yeast
- D. Ammonium bicarbonate

Choose the correct answer from the options given below:

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

**Options :**

- 71087017313. 1
- 71087017314. 2
- 71087017315. 3
- 71087017316. 4

**Question Number : 70 Question Id : 7108704330 Question Type : MCQ Option 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 MOST suitable hydrocolloid for reduced oil absorption in fried food?

- 1. Hydroxy propoxy methyl cellulose
- 2. Carboxy methyl Cellulose
- 3. Starch
- 4. Microcrystalline cellulose

**Options :**

- 71087017317. 1
- 71087017318. 2
- 71087017319. 3

71087017320.4

## Part C Dairy Chemistry

<b>Section Id :</b>	710870108
<b>Section Number :</b>	3
<b>Section type :</b>	Online
<b>Mandatory or Optional :</b>	Mandatory
<b>Number of Questions :</b>	50
<b>Number of Questions to be attempted :</b>	50
<b>Section Marks :</b>	200
<b>Display Number Panel :</b>	Yes
<b>Group All Questions :</b>	Yes
<b>Mark As Answered Required? :</b>	Yes
<b>Sub-Section Number :</b>	1
<b>Sub-Section Id :</b>	710870108
<b>Question Shuffling Allowed :</b>	Yes

**Question Number : 71 Question Id : 7108704331 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

Late lactation milk has high amount of

1. Fat
2. Chloride
3. Fat and chloride
4. Lactose

**Options :**

71087017321. 1  
71087017322. 2  
71087017323. 3  
71087017324. 4

**Question Number : 72 Question Id : 7108704332 Question Type : MCQ Option 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 correct with respect to pH?

1.  $\text{pH} = \text{pKa} + \log\left[\frac{[\text{A}^-]}{[\text{HA}]}\right]$
2.  $\text{pH} = \log \text{pKa} + [\text{A}^-]/[\text{HA}]$
3.  $\text{pH} = \text{pKa} + \log\left[\frac{[\text{HA}^-]}{[\text{A}^-]}\right]$
4.  $\text{pH} = \log[\text{H}^+][\text{A}^-]/[\text{HA}]$

**Options :**

71087017325. 1  
71087017326. 2  
71087017327. 3  
71087017328. 4

**Question Number : 73 Question Id : 7108704333 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Colostrum of cow has

- A. High level of immunoglobulin
- B. High level of solids
- C. Low level of lactose
- D. High level of chlorides
- E. Low level of proteins

Choose the correct answer from the options given below:

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

**Options :**

- 71087017329. 1
- 71087017330. 2
- 71087017331. 3
- 71087017332. 4

**Question Number : 74 Question Id : 7108704334 Question Type : MCQ Option 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 constituents mainly contribute to the viscosity of milk?

- 1. Fat and casein
- 2. Whey proteins and lactose
- 3. Calcium, phosphate and lactose
- 4. All the soluble constituents of milk

**Options :**

- 71087017333. 1
- 71087017334. 2
- 71087017335. 3
- 71087017336. 4

**Question Number : 75 Question Id : 7108704335 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Maillard browning in heat-treated milk is due to the interaction between

- 1. Lactose and amino groups of lysine
- 2. Lactose and fat
- 3. Lactose and colloidal calcium phosphate
- 4. Protein and Fat

**Options :**

- 71087017337. 1

71087017338. 2

71087017339. 3

71087017340. 4

**Question Number : 76 Question Id : 7108704336 Question Type : MCQ Option 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. Viscosity	I. $0.005 \text{ Ohm}^{-1}\text{Cm}^{-1}$
B. Electrical conductivity	II. 2.0 cP
C. Freezing point depression	III. 1.3440
D. Refractive index	IV. Mares milk- $0.522^{\circ}\text{C}$

Choose the correct answer from the options given below:

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

**Options :**

71087017341. 1

71087017342. 2

71087017343. 3

71087017344. 4

**Question Number : 77 Question Id : 7108704337 Question Type : MCQ Option 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 QC laboratory of a dairy plant rejected a lot of samples of milk, based on the determination of physical properties. Which of the following properties are considered abnormal?

- A. Freezing point higher than  $-0.524^{\circ}\text{C}$
- B. Viscosity less than 1.4 cP
- C. Density : 1.032g/cc at  $27^{\circ}\text{C}$
- D. pH: Higher than 7.0

Choose the correct answer from the options given below:

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

**Options :**

- 71087017345. 1
- 71087017346. 2
- 71087017347. 3
- 71087017348. 4

**Question Number : 78 Question Id : 7108704338 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

HCT of given milk is influenced by several factors:

- A. Ionic calcium
- B. Calcium chelators
- C. Salt balance
- D. Ionic chloride
- E. Viscosity

Choose the correct answer from the options given below:

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

**Options :**

71087017349. 1

71087017350. 2

71087017351. 3

71087017352. 4

**Question Number : 79 Question Id : 7108704339 Question Type : MCQ Option 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 constituents present in milk are

- A. Fat
- B. Casein
- C. Whey protein
- D. Ionic calcium
- E. Calcium phosphate

Choose the correct answer from the options given below:

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

**Options :**

- 71087017353. 1
- 71087017354. 2
- 71087017355. 3
- 71087017356. 4

**Question Number : 80 Question Id : 7108704340 Question Type : MCQ Option 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 whey proteins takes part in the lactose synthesis?

- 1. Beta lactoglobulin
- 2. Alpha-lactalbumin
- 3. Bovine serum albumin
- 4. Immunoglobulin

**Options :**

- 71087017357. 1
- 71087017358. 2
- 71087017359. 3



71087017360.4

**Question Number : 81 Question Id : 7108704341 Question Type : MCQ Option 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 constituents is considered as a red protein?

1. Alpha-lactalbumin
2. Beta lactoglobulin
3. Immunoglobulin
4. Lactoferrin

**Options :**

71087017361.1

71087017362.2

71087017363.3

71087017364.4

**Question Number : 82 Question Id : 7108704342 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

Match the List I with List II

List I	List II
A. Alfa S <sub>2</sub> -Casein	I. 18363 Da and 162 residues
B. Alfa-lactalbumin	II. 25230 Da and 207 residues
C. Beta-lactoglobulin	III. 1900 Da and 169 residues
D. Kappa Casein	IV. 14176 Da and 123 residues

Choose the correct answer from the options given below:

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

**Options :**

71087017365. 1

71087017366. 2

71087017367. 3

71087017368. 4

**Question Number : 83 Question Id : 7108704343 Question Type : MCQ Option 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 statements are true with reference to milk proteins?

- A. Casein is synthesized in the mammary gland and is found nowhere else in nature
- B. Casein is very heat stable and whey proteins are relatively heat-labile
- C. Casein and whey proteins undergo coagulation by chymosin
- D. Phosphates in casein are esterified to the hydroxyl group of serine
- E. Whey protein is rich in sulphur-containing amino acids and responsible for cooked flavour

Choose the correct answer from the options given below:

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

**Options :**

71087017369. 1

71087017370. 2

71087017371. 3

71087017372. 4

**Question Number : 84 Question Id : 7108704344 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

Identify the correct statements regarding genetic polymorphs of milk protein

- A. Show variation with respect to one or more amino acid residues
- B. Some of them have differential charges
- C. Some of them are breed-specific
- D. Only caseins show genetic polymorphs
- E. A1 and A2 are usually referred to as beta-casein polymorphs

Choose the correct answer from the options given below:

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

**Options :**

71087017373. 1

71087017374. 2

71087017375. 3

71087017376. 4

**Question Number : 85 Question Id : 7108704345 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Feeding of roughages to the lactating cow results in the synthesis of short and medium-chain fatty acids in the udder. Which of the following precursors produced in the rumen are used for the synthesis of fatty acids?

- 1. Propionate and Formate
- 2. Acetate and Beta-hydroxy butyrate
- 3. Carbonate and Acetate
- 4. Pyruvate and Acetate

**Options :**

71087017377. 1

71087017378. 2

71087017379. 3

71087017380. 4

**Question Number : 86 Question Id : 7108704346 Question Type : MCQ Option 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 analytical characteristics are useful for ghee analysis?

- A. Polenske value
- B. Peroxide value
- C. BR reading
- D. TBA value
- E. Iodine value

Choose the correct answer from the options given below:

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

**Options :**

71087017381. 1

71087017382. 2

71087017383. 3

71087017384. 4

**Question Number : 87 Question Id : 7108704347 Question Type : MCQ Option 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 fatty acids 4:0, 6:0 and 8:0 of milk are not found in human blood after ingestion of milk fat.  
This is due to

- A. Presence of true fatty acids at the Sn-3 location
- B. Their hydrolysis from the triglycerides by pancreatic lipase
- C. Their transport to the liver via the portal vein
- D. Their degradation in the intestine by epithelial lipase
- E. Their metabolism by colon bacteria

Choose the correct answer from the options given below:

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

**Options :**

- 71087017385. 1
- 71087017386. 2
- 71087017387. 3
- 71087017388. 4

**Question Number : 88 Question Id : 7108704348 Question Type : MCQ Option 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 'spontaneous' when applied to raw milk refers to:

- 1. Poor heat stability
- 2. High heat stability
- 3. Low susceptibility to rancidity
- 4. High susceptibility to rancidity

**Options :**

- 71087017389. 1

71087017390. 2

71087017391. 3

71087017392. 4

**Question Number : 89 Question Id : 7108704349 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

Match the List I with List II

List I	List II
A. Heavy metal	I. HPLC
B. Aflatoxin M1	II. GLC-ECD
C. Organo-chloro pesticide residues	III. Charm test
D. Antibiotic residues	IV. AAS

Choose the correct answer from the options given below:

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

**Options :**

71087017393. 1

71087017394. 2

71087017395. 3

71087017396. 4

**Question Number : 90 Question Id : 7108704350 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

During the digestion step of Kjeldahl method of protein estimation, the purpose of the reagent used is:

- A. Sulphuric acid is used for the digestion of organic matter
- B. Potassium sulphate for the conversion of organic nitrogen to inorganic nitrogen
- C. Copper sulphate for the conversion of organic nitrogen to inorganic nitrogen
- D. Potassium sulphate for elevation of boiling point
- E. Copper sulphate for the catalyzing the digestion

Choose the correct answer from the options given below:

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

**Options :**

- 71087017397. 1
- 71087017398. 2
- 71087017399. 3
- 71087017400. 4

**Question Number : 91 Question Id : 7108704351 Question Type : MCQ Option 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 milk samples shall be rejected due to the suspicion of adulteration?

- A. Freezing point depression of 0.45°C
- B. Urea content of 600 ppm
- C. Appearance of rose-red colour after the addition of alcoholic rosolic acid
- D. Chlorine level of 150 mg/100ml
- E. Appearance of dark blue colour upon addition of para-phenylene diamine hydrochloride

Choose the correct answer from the options given below:

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

**Options :**

- 71087017401. 1
- 71087017402. 2
- 71087017403. 3
- 71087017404. 4

**Question Number : 92 Question Id : 7108704352 Question Type : MCQ Option 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 mixed indicator used at the stage of titration for estimation of milk proteins by Kjeldahl method is

- 1. Phenolphthalein and Methyl orange
- 2. Methyl orange and Methylene blue
- 3. Methyl red and Methylene blue
- 4. Methyl red and Phenolphthalein

**Options :**

- 71087017405. 1

71087017406. 2

71087017407. 3

71087017408. 4

**Question Number : 93 Question Id : 7108704353 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

Match the List I with List II

<b>List I</b>	<b>List II</b>
A. Milk fat	I. Dyebinding
B. Milk protein	II. Polarimeter
C. Lactose	III. Muffle furnace
D. Ash	IV. Milkotester

Choose the correct answer from the options given below:

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

**Options :**

71087017409. 1

71087017410. 2

71087017411. 3

71087017412. 4

**Question Number : 94 Question Id : 7108704354 Question Type : MCQ Option 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:** As per FSSR(2011), the antioxidant permitted in ghee is BHA @0.02%

**Statement II:** AG Mark ghee graded with 'standard grade' shall have the same standard as those of FSSR (2011).

In the 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 :**

71087017413. 1

71087017414. 2

71087017415. 3

71087017416. 4

**Question Number : 95 Question Id : 7108704355 Question Type : MCQ Option 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 sample of ghee adulterated with hydrogenated vegetable oil tested negative with Baudouin test. Which of the following tests would confirm adulteration?

- A. Determination of oxidative stability by Rancimat
- B. Determination of Beta-Carotene
- C. Trans fatty acid estimation
- D. Determination of melting point of stearyl acetates
- E. Determination of free fatty acid content

Choose the correct answer from the options given below:

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

**Options :**

- 71087017417. 1
- 71087017418. 2
- 71087017419. 3
- 71087017420. 4

**Question Number : 96 Question Id : 7108704356 Question Type : MCQ Option 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 the estimation of Reichert-Meissel and Polenske values of ghee, certain reagents are added to the sample before distillation to convert fatty acids to

- A. Methyl esters of fatty acids
- B. Sodium salts of fatty acids
- C. Free form of fatty acids
- D. Glycerol esters of fatty acids

Choose the correct answer from the options given below:

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

**Options :**

- 71087017421. 1
- 71087017422. 2
- 71087017423. 3
- 71087017424. 4

**Question Number : 97 Question Id : 7108704357 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

Match the List I with List II

List I	List II
A. Skim milk powder	I. Moisture: 4.5 Maximum % (m/m)
B. Dairy whitener	II. Moisture: 4.0 Maximum % (m/m)
C. Infant milk food	III. Moisture: 5.0 Maximum % (m/m)
D. Milk protein concentrate	IV. Moisture: 6.0 Maximum % (m/m)

Choose the correct answer from the options given below:

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

**Options :**

71087017425. 1  
 71087017426. 2  
 71087017427. 3  
 71087017428. 4

**Question Number : 98 Question Id : 7108704358 Question Type : MCQ Option 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 biopeptides produced from milk proteins is a potent ACE inhibitor?

1. His-Arg-Leu
2. Iso-Pro-Pro
3. Ala-Phe-Met
4. Met-Phy-Tyr

**Options :**

71087017429. 1  
 71087017430. 2  
 71087017431. 3

71087017432. 4

**Question Number : 99 Question Id : 7108704359 Question Type : MCQ Option 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 chemical parameters influence(s) the heat stability of milk?

- A. Fat
- B. Lactose
- C. Salt balance
- D. Acidity
- E. Proteins

Choose the correct answer from the options given below:

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

**Options :**

- 71087017433. 1
- 71087017434. 2
- 71087017435. 3
- 71087017436. 4

**Question Number : 100 Question Id : 7108704360 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

Extent of Maillard reaction in milk products is principally determined by measurement of

1. Furfureldehyde
2. Furosine
3. Lactulose
4. Melanoidin

**Options :**

- 71087017437. 1
- 71087017438. 2
- 71087017439. 3
- 71087017440. 4

**Question Number : 101 Question Id : 7108704361 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Rind rot defect in cheese is due to

1. Excessive acidity and moisture before curing
2. Insufficient fat in the product
3. Low coagulating agent
4. Contamination with yeast

**Options :**

- 71087017441. 1
- 71087017442. 2
- 71087017443. 3
- 71087017444. 4

**Question Number : 102 Question Id : 7108704362 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**



Rennet coagulation can be measured by

- A. Hot wire test
- B. Formograph
- C. Thermograph
- D. SDS-PAGE
- E. RP-HPLC

Choose the correct answer from the options given below:

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

**Options :**

71087017445. 1

71087017446. 2

71087017447. 3

71087017448. 4

**Question Number : 103 Question Id : 7108704363 Question Type : MCQ Option 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 approaches promote accelerated cheese ripening?

- A. Elevated ripening temperature
- B. Exogenous enzyme
- C. Freeze-shocked bacteria
- D. Non-adjunct starter culture
- E. Pre-heated milk

Choose the correct answer from the options given below:

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

**Options :**

71087017449. 1

71087017450. 2

71087017451. 3

71087017452. 4

**Question Number : 104 Question Id : 7108704364 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

Identify the changes during fermentation of curd

- A. Specific gravity of curd decreases
- B. Total solids of curd increase
- C. Curd prepared from skim milk has higher lactose and water than the whole milk curd
- D. Calcium in curd changes to colloidal form from ionic form
- E. Enhanced digestibility of product than milk

Choose the correct answer from the options given below:

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

**Options :**

- 71087017453. 1
- 71087017454. 2
- 71087017455. 3
- 71087017456. 4

**Question Number : 105 Question Id : 7108704365 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

An ice cream mix is prepared using sodium alginate, then its aging time will be

- 1. 4 h and above
- 2. 3 to 4 hour
- 3. 30 min
- 4. No ageing is required

**Options :**

- 71087017457. 1
- 71087017458. 2
- 71087017459. 3

71087017460. 4

**Question Number : 106 Question Id : 7108704366 Question Type : MCQ Option 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 ice cream processing:

- A. Aging of ice cream mix permits hydration of milk protein and stabilizer
- B. Surface tension of ice cream mix may range from 48-53 dyne/cm<sup>2</sup>
- C. Soft ice cream usually is drawn from freezer at -18 to -20°C
- D. Excessive over run may lead to foamy meltdown defect
- E. Too much air will produce a soggy product

Choose the correct answer from the options given below:

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

**Options :**

- 71087017461. 1
- 71087017462. 2
- 71087017463. 3
- 71087017464. 4

**Question Number : 107 Question Id : 7108704367 Question Type : MCQ Option 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 dairy products having AGMARK standards are:

1. Table butter and Ghee
2. Paneer and Khoa
3. Milk powder and Dahi
4. All indigenous dairy products

**Options :**

71087017465. 1

71087017466. 2

71087017467. 3

71087017468. 4

**Question Number : 108 Question Id : 7108704368 Question Type : MCQ Option 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 differences with respect to specifications, between AGMARK and FSSA for special ghee are

- A. Moisture content
- B. Free fatty acid content
- C. Polenske value
- D. Baudouin test
- E. Fatty acid content

Choose the correct answer from the options given below:

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

**Options :**

71087017469. 1

71087017470. 2

71087017471. 3

71087017472. 4

**Question Number : 109 Question Id : 7108704369 Question Type : MCQ Option 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:** As per the Food Safety and Standards Regulations, packages containing milk and milk powder need to have brown dots as they are animal derived products

**Statement II:** For moisture estimation in ghee, the sample received in the laboratory shall be completely melted to a homogenous liquid phase, before weighing.

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 are incorrect
4. Statement I is incorrect but Statement II are correct

**Options :**

71087017473. 1

71087017474. 2

71087017475. 3

71087017476. 4

**Question Number : 110 Question Id : 7108704370 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

Match the List I with List II

List I	List II
A. FSSAI	I. Ministry of Commerce and Industry
B. BIS	II. Ministry of Agriculture & Farmers Welfare
C. AGMARK	III. Ministry of Health & Family Welfare
D. APEDA	IV. Ministry of Consumer Affairs & Public Distribution

Choose the correct answer from the options given below:

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

**Options :**

71087017477. 1  
 71087017478. 2  
 71087017479. 3  
 71087017480. 4

**Question Number : 111 Question Id : 7108704371 Question Type : MCQ Option 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 analytical characteristics vary for cotton tract ghee from normal ghee as per AGMARK?

1. RM value, Polenske value & BR reading
2. Free fatty acid content, Baudouin test and Phytosterol test
3. Moisture, BR reading & Polenske value
4. RM value, Moisture and Phytosterol test

**Options :**

- 71087017481. 1
- 71087017482. 2
- 71087017483. 3
- 71087017484. 4

**Question Number : 112 Question Id : 7108704372 Question Type : MCQ Option 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 fortificants permitted by FSSAI in milk are:

- 1. Vitamin A and D
- 2. Vitamin B12 and Vitamin C
- 3. Vitamin B2 and Niacin
- 4. Iron and Calcium

**Options :**

- 71087017485. 1
- 71087017486. 2
- 71087017487. 3
- 71087017488. 4

**Question Number : 113 Question Id : 7108704373 Question Type : MCQ Option 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 which of the following dairy products, BIS standards are NOT statutory as per FSSAI?

- 1. Condensed milks
- 2. Dried milks
- 3. Infant milk formulae
- 4. Ice cream

**Options :**

- 71087017489. 1



71087017490. 2

71087017491. 3

71087017492. 4

**Question Number : 114 Question Id : 7108704374 Question Type : MCQ Option 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 type of chromatography if the stationary phase is liquid?

1. Adsorption chromatography
2. Partition chromatography
3. Separation chromatography
4. Distribution chromatography

**Options :**

71087017493. 1

71087017494. 2

71087017495. 3

71087017496. 4

**Question Number : 115 Question Id : 7108704375 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Instrument used to record the energy changes in a sample on heating at constant rate, giving direct measure of apparent specific heat as a function of temperature is

1. DSC
2. ICP-AES
3. AAS
4. XRD

**Options :**

71087017497. 1

71087017498. 2

71087017499. 3

71087017500. 4

**Question Number : 116 Question Id : 7108704376 Question Type : MCQ Option 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 normal phase liquid chromatography:

- A. The most popular stationary phase is alkyl-amine bonded to silica
- B. The order of elution of analyte is most polar is eluted first and the least polar at last
- C. The order of elution of analyte is least polar is eluted first and most polar last
- D. Used to separate analyte that are more water soluble
- E. Used to separate analytes that have low water solubility

Choose the correct answer from the options given below:

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

**Options :**

71087017501. 1

71087017502. 2

71087017503. 3

71087017504. 4

**Question Number : 117 Question Id : 7108704377 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

Match the List I with List II

List I	List II
A. FID is selective for	I. P and S containing analyte
B. NPD is selective for	II. Organic compounds
C. ECD is selective for	III. Halogen containing compounds
D. FPD is selective for	IV. Nitrogen and phosphorus analyte

Choose the correct answer from the options given below:

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

**Options :**

71087017505. 1  
 71087017506. 2  
 71087017507. 3  
 71087017508. 4

**Question Number : 118 Question Id : 7108704378 Question Type : MCQ Option 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 lateral flow assay, test line and control lines are placed at

1. Nitrocellulose membrane
2. Absorbant pad
3. Conjugate pad
4. Sampling pad

**Options :**

71087017509. 1  
 71087017510. 2  
 71087017511. 3

71087017512. 4

**Question Number : 119 Question Id : 7108704379 Question Type : MCQ Option 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 class of pesticide residue is most persistent?

1. Organochlorine
2. Organophosphorous
3. Pyrethroids
4. Carbamates

**Options :**

- 71087017513. 1
- 71087017514. 2
- 71087017515. 3
- 71087017516. 4

**Question Number : 120 Question Id : 7108704380 Question Type : MCQ Option 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 gel filtration,  $V_t = V_o + V_i + V_p$ , where  $V_p$  represents

1. Total bed volume
2. Polymer volume
3. Void volume
4. Internal volume

**Options :**

- 71087017517. 1
- 71087017518. 2
- 71087017519. 3
- 71087017520. 4