

Q.1 Among the following amino acids, the one that has a disulphide linkage is

- A) (-)-proline B) (-)-cystine C) (-)-cysteine D) (-)-histidine

Q.2 The method of packaging of food under sterile environment, after independently sterilizing the food and packaging material is termed as

- A) Active packaging B) Vacuum packaging C) Flexible packaging D) Aseptic packaging

Q.3 Mild heat treatment of food to inactivate enzyme that would otherwise cause its deterioration during frozen storage is termed as

- A) Stewing B) Blanching C) Boiling D) Pasteurization

Q.4 The most suitable evaporator for concentration of fruit juice is

- A) Agitated film evaporator B) Falling film evaporator
C) Long tube evaporator D) Short tube evaporator

Q.5 Souring of milk is primarily due to the conversion of lactose to

- A) Lactobionic acid B) Lactic acid C) Lactol D) Lactonic acid

Q.6 The selective media used for isolating Escherichia coli is

- A) Blood agar B) Mannitol salt agar
C) Eosin methylene blue agar D) Rose Bengal malt extract agar

Q.7 A method in which continuous electric current is passed through food to heat it rapidly while maintaining quality is called

- A) Microwave cooking B) Irradiation C) Ohmic heating D) Sonication

Q.8 A cyclone separator is used for the separation of

- A) Particle from liquid B) Liquid droplets from gas
C) Fine particles from gas D) Fine particles from solids

Q.9 Match the following

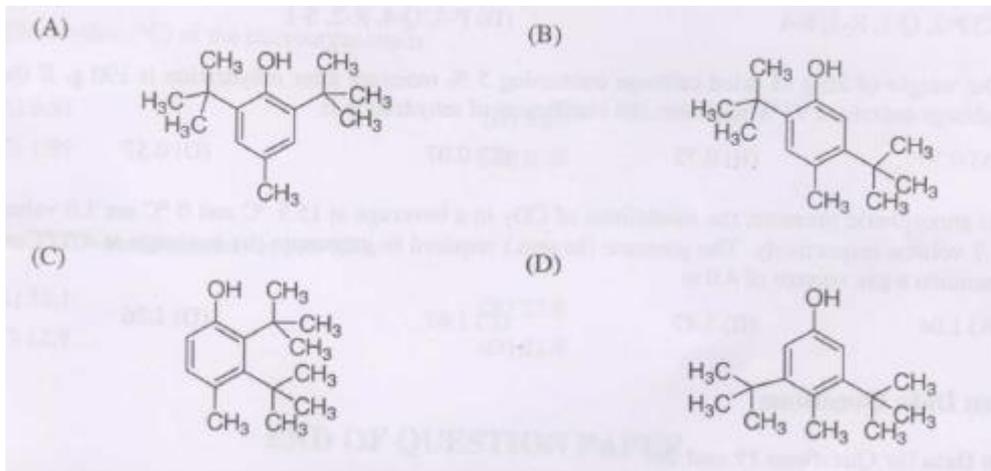
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|---------------|-------------------|
| Group 1 | Group 11 |
| P) Tocopherol | 1) Oxygen binding |
| Q) Myoglobin | 2) Yellow pigment |
| R) Crocetin | 3) Antioxidant |
| S) Catechin | 4) Green pigment |
| | 5) Tanning agent |

- A) P-3,Q-1,R-2,S-5 B) P-1,Q-3,R-4,S-5 C) P-3,Q-1,R-5,S-2 D) P-1,Q-3,R-5,S-4

Q.10 Two key reactions involved in enzymatic browning of food are

- A) Hydroxylation of phenol to p-dihydroxybenzene followed by its oxidation to p-quinone
- B) Oxidation of phenol to p-quinone followed by its reduction to p-dihydroxybenzene
- C) Oxidation of phenol to o-quinone followed by its reduction to o-dihydroxybenzene
- D) Hydroxylation of phenol to o-dihydroxybenzene followed by its oxidation to o-quinone

Q.11 The correct structure of synthetic antioxidant BHT is



Q.12 Wet grain was dried from initial moisture content of 50% to a final moisture content of 20% (wb). The amount of moisture removed to get 1000 kg of the final product is

- A) 800kg
- B) 200kg
- C) 300kg
- D) 600kg

Q.13 The correct pair of food borne disease and its causative microorganism is

- A) Hemorrhagic inflammation of intestinal wall-Campylobacter jejuni
- B) Paratyphoid fever- Staphylococcus aureus
- C) Typhoid fever- Salmonella typhimurium
- D) Listerellosis- Leptospira biflexa

Q.14 Fermentation process of vinegar production involves

- A) Ethanolic fermentation followed by reduction of ethanol
- B) Direct acetic acid production without ethanolic fermentation
- C) Anaerobic fermentation of acetone
- D) Ethanolic fermentation followed by oxidation of ethanol

Q.15 In a double pipe heat exchanger the outer diameter of the inner pipe is d_1 and the inner diameter of the outer pipe is d_2 . The equivalent diameter of the annulus for heat transfer is

- A) $(d_1+d_2)/2$
- B) $(d_1^2-d_2^2)/d_1$
- C) (d_2-d_1)
- D) $(d_1^2-d_2^2)/d_1 d_2$

Q.16 Match the following

Group 1

P) Lag phase

Q) Exponential phase

R) Stationary phase

S) Decline phase

Group 11

1) Number of visible cells decreases

2) Growth ceases and population remains constant

3) Preparatory phase for cell division

4) Cells divide steadily at constant rate

5) Cell aggregate

A) P-4, Q-3, R-2, S-1 B) P-5, Q-4, R-1, S-2 C) P-2, Q-1, R-3, S-4 D) P-3, Q-4, R-2, S-1

Q.17 The weight of 20 g of dried cabbage containing 5% moisture after rehydration is 190g. If the fresh cabbage contained 93% moisture, the coefficient of rehydration is

A) 0.70

B) 0.75

C) 0.07

D) 0.57

Q.18 At atmospheric pressure, the solubilities of CO₂ in a beverage at 15.5 °C and 0°C are 1.0 volume and 1.7 volume respectively. The pressure (in atm) required to carbonate the beverage at 4.5°C so as to maintain a gas volume of 4.0 is

A) 1.04

B) 1.47

C) 1.67

D) 1.76

Q.19&20 The partial pressure and vapour pressure of water vapour in air at 27°C and 1 atm are 0.028 and 0.035 atm respectively. (Molecular weight of air is 29)

A) The humidity of air(kg water/kg air) is

1)0.496

2)0.082

3) 0.018

4)0.046

B) The percentage relative humidity of air is

1)46

2)80

3)20

4)35

Q.21&22 In an ice-cream manufacturing plant, 1450 litres of ice-cream was obtained from 1000 litres of ice-cream mix. The composition of ice-cream mix was as follows:

Fat:12.0%, Sugar:15.0%, MSNF:11.0% , Stabilizer & emulsifier:0.3%

A) Specific gravity of ice-cream mix at 16°C is

1) 1.096

2) 0.196

3) 1.906

4) 0.916

B) Percent over run in the ice-cream was

1)35

2)50

3)40

4)45

Q.23&24 In an experiment, the thermal death time (TDT) values for a microorganism were obtained as 2.78 minutes and 9.98 minutes at 121.1 °C and 115.5 °C, respectively

A) The Z-value (°C)of the microorganism is

1)9.91

2)9.19

3)1.99

4)0.19

B) The TDT value (min) at 110 °C is

1)35.1

2)25.8

3)12.9

4)21.9