

# National Testing Agency

<b>Question Paper Name :</b>	Food Engineering and Technology 17th March 2026 Shift 2
<b>Subject Name :</b>	Food Engineering and Technology
<b>Creation Date :</b>	2026-03-17 19:13:58
<b>Duration :</b>	90
<b>Total Marks :</b>	300
<b>Display Marks:</b>	Yes

## Food Engineering and Technology

<b>Group Number :</b>	1
<b>Group Id :</b>	432449163
<b>Group Maximum Duration :</b>	0
<b>Group Minimum Duration :</b>	90
<b>Show Attended Group? :</b>	No
<b>Edit Attended Group? :</b>	No
<b>Break time :</b>	0
<b>Group Marks :</b>	300

## Food Engineering and Technology

<b>Section Id :</b>	432449257
<b>Section Number :</b>	1
<b>Section type :</b>	Online
<b>Mandatory or Optional :</b>	Mandatory
<b>Number of Questions :</b>	75
<b>Number of Questions to be attempted :</b>	75
<b>Section Marks :</b>	300
<b>Maximum Instruction Time :</b>	0
<b>Sub-Section Number :</b>	1
<b>Sub-Section Id :</b>	432449630
<b>Question Shuffling Allowed :</b>	Yes

**Question Number : 1 Question Id : 43244919449 Question Type : MCQ Option Shuffling : No  
Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No  
Option Orientation : Vertical**

Polymorphism of fats refers to :

- (1) Lipid oxidation
- (2) Presence of trans fats
- (3) Ability to exist in different crystalline forms
- (4) Emulsification behaviour

**Options :**

- 43244976301. 1
- 43244976302. 2
- 43244976303. 3
- 43244976304. 4

**Question Number : 2 Question Id : 43244919450 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

Postmortem tenderization of meat occurs primarily due to :

- (1) Lipid oxidation
- (2) Proteolysis of muscle proteins
- (3) Glycolysis
- (4) Myoglobin denaturation

**Options :**

- 43244976305. 1
- 43244976306. 2
- 43244976307. 3
- 43244976308. 4

**Question Number : 3 Question Id : 43244919451 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

Starch retrogradation is mainly associated with :

- (1) Amylopectin branching
- (2) Recrystallization of amylose
- (3) Hydrolysis of starch
- (4) Enzymatic browning

**Options :**

- 43244976309. 1
- 43244976310. 2
- 43244976311. 3

43244976312. 4

**Question Number : 4 Question Id : 43244919452 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

Chlorophyll structurally is a porphyrin ring containing \_\_\_\_\_ at the center of a ring of four pyrrole groups.

- (1) Copper
- (2) Magnesium
- (3) Zinc
- (4) Sodium bicarbonate

**Options :**

43244976313. 1  
43244976314. 2  
43244976315. 3  
43244976316. 4

**Question Number : 5 Question Id : 43244919453 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

Polyphenol oxidase is responsible for :

- (1) Maillard browning
- (2) Enzymatic browning
- (3) Caramelization
- (4) Lipid oxidation

**Options :**

43244976317. 1  
43244976318. 2  
43244976319. 3  
43244976320. 4

**Question Number : 6 Question Id : 43244919454 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

Which Vitamin is fat-soluble ?

- (1) Biotin
- (2) Vitamin B<sub>1</sub>
- (3) Vitamin D
- (4) Vitamin B<sub>12</sub>

**Options :**

43244976321. 1  
43244976322. 2  
43244976323. 3  
43244976324. 4

**Question Number : 7 Question Id : 43244919455 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

Fermentation of idli and dosa batter involves :

- (1) Alcoholic fermentation only
- (2) Lactic acid fermentation only
- (3) Mixed lactic acid and alcoholic fermentation
- (4) Acetic acid fermentation only

**Options :**

43244976325. 1  
43244976326. 2  
43244976327. 3  
43244976328. 4

**Question Number : 8 Question Id : 43244919456 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

Which microorganism is primarily responsible for spoilage of refrigerated milk ?

- (1) *Bacillus subtilis*
- (2) *Pseudomonas* spp.
- (3) *Aspergillus niger*
- (4) *Saccharomyces cerevisiae*

**Options :**

43244976329. 1  
43244976330. 2  
43244976331. 3

43244976332. 4

**Question Number : 9 Question Id : 43244919457 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

Gram-negative bacteria are characterized by :

- (1) Thick peptidoglycan layer
- (2) Outer lipopolysaccharide membrane
- (3) Retention of crystal violet stain
- (4) Absence of cytoplasmic membrane

**Options :**

43244976333. 1

43244976334. 2

43244976335. 3

43244976336. 4

**Question Number : 10 Question Id : 43244919458 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

The ratio of the vapour pressure on the aqueous solution to that of pure water at the same temperature is known as :

- (1) Moisture content
- (2) Rehydration
- (3) Unbound water
- (4) Water activity

**Options :**

43244976337. 1

43244976338. 2

43244976339. 3

43244976340. 4

**Question Number : 11 Question Id : 43244919459 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

The process of mechanically pressing liquid (oil) out of liquid (oil) containing solids is known as :

- (1) Extraction
- (2) Filtration
- (3) Expression
- (4) Evaporation

**Options :**

43244976341. 1  
43244976342. 2  
43244976343. 3  
43244976344. 4

**Question Number : 12 Question Id : 43244919460 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

The permeability of packaging films to water vapour is usually expressed as :

- (1) Oxygen Gas Transmission Rate
- (2) Water Vapour Transmission Rate
- (3) Permeability coefficient
- (4) Volumetric flux

**Options :**

43244976345. 1  
43244976346. 2  
43244976347. 3  
43244976348. 4

**Question Number : 13 Question Id : 43244919461 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

\_\_\_\_\_ is the primary protein of milk, comprising approximately 80% of the milk protein.

- (1) Lactose
- (2) Serum
- (3) Protease
- (4) Casein

**Options :**

43244976349. 1  
43244976350. 2  
43244976351. 3

43244976352. 4

**Question Number : 14 Question Id : 43244919462 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

The air cell, also known as air pocket, is the empty space formed at the large end of the egg. It holds

- \_\_\_\_\_.
- (1) Oxygen
  - (2) Water
  - (3) Yolk
  - (4) Chalazae

**Options :**

43244976353. 1  
43244976354. 2  
43244976355. 3  
43244976356. 4

**Question Number : 15 Question Id : 43244919463 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

Oil is extracted from rice bran by solvent extraction method. In this method, usually, n-hexane is used. The boiling point of n-hexane is :

- (1) 60 °C - 64 °C
- (2) 65 °C - 70 °C
- (3) 71 °C - 75 °C
- (4) 76 °C - 80 °C

**Options :**

43244976357. 1  
43244976358. 2  
43244976359. 3  
43244976360. 4

**Question Number : 16 Question Id : 43244919464 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

Which one is NOT a continuous flow dryer for food grains ?

- (1) LSU dryer
- (2) Rotary dryer
- (3) Baffle dryer
- (4) Deep bed dryer

**Options :**

43244976361. 1

43244976362. 2

43244976363. 3

43244976364. 4

**Question Number : 17 Question Id : 43244919465 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

If " $T_m$ " is the average absolute temperature, " $R$ " is the universal gas constant, then the quantitative relationship between activation Energy, " $E$ " and  $Z$  - value is :

(1)  $E = \frac{2.3RT_m}{Z}$

(2)  $E = \frac{2.3RT_m^2}{Z}$

(3)  $E = \frac{2.3RZ}{T_m}$

(4)  $E = \frac{2.3RZ}{T_m^2}$

**Options :**

43244976365. 1

43244976366. 2

43244976367. 3

43244976368. 4

**Question Number : 18 Question Id : 43244919466 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

One hundred kg of paddy grains are taken for hulling process. After hulling, an amount of 20 kg unhulled grain is obtained. The coefficient of hulling is :

- (1) 0.20
- (2) 0.25
- (3) 0.50
- (4) 0.80

**Options :**

- 43244976369. 1
- 43244976370. 2
- 43244976371. 3
- 43244976372. 4

**Question Number : 19 Question Id : 43244919467 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

Which one is NOT a principle of the HACPP system ?

- (1) Conduct a hazard analysis
- (2) Establish critical limit(s)
- (3) Establish a system between government and Food Industry
- (4) Establish a system to monitor control of the critical control points

**Options :**

- 43244976373. 1
- 43244976374. 2
- 43244976375. 3
- 43244976376. 4

**Question Number : 20 Question Id : 43244919468 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

The refractometer method used by fruit processing industries for jam making is done to shows

- \_\_\_\_\_.
- (1) % TSS
  - (2) °Brix
  - (3) °C
  - (4) %RH

**Options :**

- 43244976377. 1

43244976378. 2

43244976379. 3

43244976380. 4

**Question Number : 21 Question Id : 43244919469 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

Humidification involves :

- (1) Removal of moisture from air
- (2) Addition of moisture to air
- (3) Heating of dry solids
- (4) Cooling of liquids

**Options :**

43244976381. 1

43244976382. 2

43244976383. 3

43244976384. 4

**Question Number : 22 Question Id : 43244919470 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

Moist air at 24°C dry bulb temperature and 45 per cent relative humidity is heated to 75°C. The humidity is 0.009 kg/kg and Enthalpy is 11.5 kcal/kg. Calculate the humid heat (kcal/kg/°C).

- (1) 244.05
- (2) 24.405
- (3) 2.4405
- (4) 0.24405

**Options :**

43244976385. 1

43244976386. 2

43244976387. 3

43244976388. 4

**Question Number : 23 Question Id : 43244919471 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

The average particle size,  $D_p$  (in mm) represented in terms of fineness modulus (FM) can be estimated by the equation \_\_\_\_\_.

- (1)  $D_p = 0.135 (FM)^{1.366}$
- (2)  $D_p = 0.135 (1.366)^{FM}$
- (3)  $D_p = 1.366 (FM)^{0.135}$
- (4)  $D_p = 1.366 (0.135)^{FM}$

**Options :**

43244976389. 1  
43244976390. 2  
43244976391. 3  
43244976392. 4

**Question Number : 24 Question Id : 43244919472 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

The term specific heat of food refers to :

- (1) Heat required to melt food
- (2) Heat required to raise 1 kg food by  $1^\circ\text{C}$
- (3) Heat lost during drying
- (4) Heat transferred per unit area

**Options :**

43244976393. 1  
43244976394. 2  
43244976395. 3  
43244976396. 4

**Question Number : 25 Question Id : 43244919473 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

Fick's law describes :

- (1) Heat flow in solids
- (2) Fluid flow in pipes
- (3) Molecular diffusion
- (4) Radiation exchange

**Options :**

43244976397. 1

43244976398. 2

43244976399. 3

43244976400. 4

**Question Number : 26 Question Id : 43244919474 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

If 100 kg of water is to be cooled from 80°C to 30°C, then how much heat is removed ? (Assumed specific heat of water is 4.18 kJ/kg °C)

- (1) 20900 kJ
- (2) 21000 kJ
- (3) 2090 kJ
- (4) 4180 kJ

**Options :**

43244976401. 1

43244976402. 2

43244976403. 3

43244976404. 4

**Question Number : 27 Question Id : 43244919475 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

Which one is a common equipment used for size reduction of food grains ?

- (1) Centrifuge
- (2) Filter press
- (3) Hammer mill
- (4) Plate heat exchanger

**Options :**

43244976405. 1

43244976406. 2

43244976407. 3

43244976408. 4

**Question Number : 28 Question Id : 43244919476 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

In multiple-effect evaporation, the major advantage is :

- (1) Larger equipment size
- (2) Faster drying
- (3) Lower final solids
- (4) Reduced energy consumption

**Options :**

- 43244976409. 1
- 43244976410. 2
- 43244976411. 3
- 43244976412. 4

**Question Number : 29 Question Id : 43244919477 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

Doubling the thickness of a slab (same material) will make conductive heat transfer rate :

- (1) Double
- (2) Half
- (3) Four times
- (4) Zero

**Options :**

- 43244976413. 1
- 43244976414. 2
- 43244976415. 3
- 43244976416. 4

**Question Number : 30 Question Id : 43244919478 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

One hundred kg of wet food contains 60 per cent moisture content on wet basis is to be dried to 20 per cent moisture content on wet basis. What is the weight of water evaporated ?

- (1) 25 kg
- (2) 50 kg
- (3) 75 kg
- (4) 100 kg

**Options :**

- 43244976417. 1
- 43244976418. 2

43244976419. 3

43244976420. 4

**Question Number : 31 Question Id : 43244919479 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

Given below are two statements : one is labelled as **Assertion (A)** and the other is labelled as **Reason (R)**.

**Assertion (A)** : Caramelization requires the presence of amino acids.

**Reason (R)** : Caramelization involves thermal degradation of sugars alone.

In the 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 :**

43244976421. 1

43244976422. 2

43244976423. 3

43244976424. 4

**Question Number : 32 Question Id : 43244919480 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

Given below are two statements : one is labelled as **Assertion (A)** and the other is labelled as **Reason (R)**.

**Assertion (A)** : Chlorophyll turns olive green during cooking of vegetables.

**Reason (R)** : Acidic conditions convert chlorophyll to pheophytin.

In the 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 :**

43244976425. 1

43244976426. 2

43244976427. 3

43244976428. 4

**Question Number : 33 Question Id : 43244919481 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

Given below are two statements : one is labelled as **Assertion (A)** and the other is labelled as **Reason (R)**.

**Assertion (A)** : Lactic acid bacteria contribute to food preservation.

**Reason (R)** : They produce organic acids that lower pH and inhibits spoilage organisms.

In the 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 :**

43244976429. 1

43244976430. 2

43244976431. 3

43244976432. 4

**Question Number : 34 Question Id : 43244919482 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

Given below are two statements : one is labelled as **Assertion (A)** and the other is labelled as **Reason (R)**.

**Assertion (A)** : Retort processing of canned foods follows first-order kinetics for microbial destruction.

**Reason (R)** : The rate of microbial death is proportional to the number of surviving microorganisms.

In the 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 :**

43244976433. 1

43244976434. 2

43244976435. 3

43244976436. 4

**Question Number : 35 Question Id : 43244919483 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

Given below are two statements : one is labelled as **Assertion (A)** and the other is labelled as **Reason (R)**.

**Assertion (A)** : Freeze drying results in higher nutrient loss compared to hot air drying.

**Reason (R)** : Freeze drying operations at low temperature under vacuum.

In the 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 :**

43244976437. 1

43244976438. 2

43244976439. 3

43244976440. 4

**Question Number : 36 Question Id : 43244919484 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

Given below are two statements : one is labelled as **Assertion (A)** and the other is labelled as **Reason (R)**.

**Assertion (A)** : Pasteurization does not destroy all microorganisms present in milk.

**Reason (R)** : Pasteurization is designed to eliminate pathogenic microorganisms and reduce spoilage organisms, not to achieve commercial sterility.

In the 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 :**

43244976441. 1

43244976442. 2

43244976443. 3

43244976444. 4

**Question Number : 37 Question Id : 43244919485 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

Given below are two statements : one is labelled as **Assertion (A)** and the other is labelled as **Reason (R)**.

**Assertion (A) :** During constant-rate drying period, surface moisture is completely removed.

**Reason (R) :** The rate of drying is controlled by internal diffusion of moisture.

In the 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 :**

43244976445. 1

43244976446. 2

43244976447. 3

43244976448. 4

**Question Number : 38 Question Id : 43244919486 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

Given below are two statements : one is labelled as **Assertion (A)** and the other is labelled as **Reason (R)**.

**Assertion (A) :** The Reynolds number is used to characterize the type of fluid flow.

**Reason (R) :** It represents the ratio of inertial forces to viscous forces.

In the 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 :**

43244976449. 1

43244976450. 2

43244976451. 3

43244976452. 4

**Question Number : 39 Question Id : 43244919487 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

Given below are two statements : one is labelled as **Assertion (A)** and the other is labelled as **Reason (R)**.

**Assertion (A) :** Thermal conductivity of foods generally increases with increase in moisture content.

**Reason (R) :** Water has higher thermal conductivity compared to air and fat.

In the 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 :**

43244976453. 1

43244976454. 2

43244976455. 3

43244976456. 4

**Question Number : 40 Question Id : 43244919488 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

Consider the following statements about proteins :

- A. Proteins contain only Carbon, Hydrogen and Oxygen
- B. Proteins are polymers of amino acids
- C. Peptide bonds link amino acids
- D. Primary structure determines protein function
- E. Protein denaturation affect functional properties

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

- (1) A, B, C, D
- (2) B, C, D, E
- (3) C, D, E, A
- (4) D, E, A, B

**Options :**

- 43244976457. 1
- 43244976458. 2
- 43244976459. 3
- 43244976460. 4

**Question Number : 41 Question Id : 43244919489 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

Consider the following statements regarding starch :

- A. Starch is composed of amylose and amylopectin
- B. Amylose is a linear polymer of  $\alpha$ -D-glucose
- C. Amylopectin contains  $\alpha$ -1,6 glycosidic linkages
- D. Starch is completely soluble in cold water
- E. Starch is a major energy source in human diet

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

- (1) A, B, C, D, E
- (2) A, B, C, D
- (3) A, B, C, E
- (4) A, B, D, E

**Options :**

- 43244976461. 1
- 43244976462. 2
- 43244976463. 3
- 43244976464. 4

**Question Number : 42 Question Id : 43244919490 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

Arrange the phases of bacterial growth in **correct** order :

- A. Stationary phase
- B. Lag phase
- C. Log (exponential) phase
- D. Death phase
- E. Inoculation into fresh medium

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

- (1) A, E, C, B, D
- (2) A, C, E, B, D
- (3) E, B, A, D, C
- (4) E, B, C, A, D

**Options :**

43244976465. 1

43244976466. 2

43244976467. 3

43244976468. 4

**Question Number : 43 Question Id : 43244919491 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

Answer the **correct** sequence for manufacture, packaging and storage of pasteurized milk :

- A. Heating (63-72 °C)
- B. Cooling
- C. Grading, sampling of milk
- D. Clarification
- E. Standardization

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

- (1) A, B, C, D, E
- (2) B, C, D, E, A
- (3) C, D, B, E, A
- (4) D, E, A, B, C

**Options :**

43244976469. 1

43244976470. 2

43244976471. 3

43244976472. 4

**Question Number : 44 Question Id : 43244919492 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

The sequences of rice processing in a modern rice mill is :

- A. Whitening
- B. Cleaning
- C. Husking
- D. Polishing
- E. Bagging / Storage

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

- (1) B, D, A, C, E
- (2) B, A, D, C, E
- (3) B, C, A, D, E
- (4) B, C, D, A, E

**Options :**

43244976473. 1

43244976474. 2

43244976475. 3

43244976476. 4

**Question Number : 45 Question Id : 43244919493 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

The **correct** sequence on the edible oil refining process is :

- A. Dewaxing and degumming
- B. Washing by water
- C. Neutralisation
- D. Bleaching
- E. Deodourisation

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

- (1) A, B, C, D, E
- (2) A, C, B, D, E
- (3) A, C, D, B, E
- (4) A, C, D, E, B

**Options :**

43244976477. 1

43244976478. 2

43244976479. 3

43244976480. 4

**Question Number : 46 Question Id : 43244919494 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

Arrange the following steps in **correct** sequence during commercial canning of foods :

- A. Exhausting
- B. Filling
- C. Sealing
- D. Thermal processing
- E. Cooling

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

- (1) B, A, C, D, E
- (2) B, A, D, C, E
- (3) B, A, C, E, D
- (4) B, A, E, C, D

**Options :**

43244976481. 1

43244976482. 2

43244976483. 3

43244976484. 4

**Question Number : 47 Question Id : 43244919495 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

Arrange the following concepts in the **correct** sequence for determining the flow regime and pressure drop of Newtonian fluids flowing through a pipe :

- A. Calculate the Reynolds number to classify flow as laminar or turbulent.
- B. Use the Hagen-Poiseuille equation for laminar flow or friction factor charts for turbulent flow to find pressure drop.
- C. Measure or estimate fluid properties (density, viscosity), pipe diameter, and average velocity.
- D. Determine flow rate from velocity and cross-sectional area, relating to pressure drop via momentum balance.
- E. Identify critical Reynolds number transitions ( $Re < 2100$  Laminar;  $Re > 4000$  turbulent)

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

- (1) A, E, C, B, D
- (2) C, D, A, E, B
- (3) C, A, E, B, D
- (4) C, B, A, D, E

**Options :**

- 43244976485. 1
- 43244976486. 2
- 43244976487. 3
- 43244976488. 4

**Question Number : 48 Question Id : 43244919496 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

The sequence for crushing grains (size reduction) into flour :

- A. Feed the grains into crusher or mill
- B. Clean the grains
- C. Sieve to get fine flour
- D. Pack the flour
- E. Blades or rollers break grains

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

- (1) A, B, C, D, E
- (2) B, A, C, D, E
- (3) B, A, D, C, E
- (4) B, A, E, C, D

**Options :**

- 43244976489. 1
- 43244976490. 2

43244976491. 3

43244976492. 4

**Question Number : 49 Question Id : 43244919497 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

The sequence of multiple-effect evaporation for concentrating liquid foods :

- A. Feed enters first effect at boiling temperature
- B. Vapour from the first effect heats second effect
- C. Concentrated product exits last effect
- D. Vacuum applied increasingly in later effects
- E. Steam supplied to first effect only

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

- (1) A, E, B, D, C
- (2) A, E, B, C, D
- (3) E, A, B, D, C
- (4) E, D, C, B, A

**Options :**

43244976493. 1

43244976494. 2

43244976495. 3

43244976496. 4

**Question Number : 50 Question Id : 43244919498 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

Which statement(s) is/are **correct** regarding vitamin deficiency ?

- A. Vitamin-A deficiency causes night blindness
- B. Vitamin-C deficiency causes scurvy
- C. Vitamin-E deficiency causes neurological problems
- D. Vitamin-D deficiency causes osteomalacia
- E. Vitamin-B<sub>1</sub> deficiency causes anaemia

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

- (1) A, B, C only
- (2) A, B, D only
- (3) A, C, E only
- (4) A, D, E only

**Options :**

- 43244976497. 1
- 43244976498. 2
- 43244976499. 3
- 43244976500. 4

**Question Number : 51 Question Id : 43244919499 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

Which of the following statement(s) is/are correct ?

- A. Oxidative rancidity involves oxygen
- B. Hydrolytic rancidity involves lipase
- C. Rancidity affects flavour negatively
- D. Saturated fats are more susceptible to rancidity
- E. Antioxidants does not delay rancidity

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

- (1) A, B, C only
- (2) B, C, D only
- (3) C, D, E only
- (4) A, D, E only

**Options :**

- 43244976501. 1
- 43244976502. 2
- 43244976503. 3
- 43244976504. 4

**Question Number : 52 Question Id : 43244919500 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

Consider the following statements on spoilage of foods and identify the correct statements :

- A. Pseudomonas spp. spoil refrigerated milk
- B. Proteolytic bacteria spoil fish by producing ammonia odour
- C. Bacillus subtilis causes rope spoilage in bread
- D. Aspergillus spp. cause mold on cereals
- E. Lactobacillus spp. spoil fresh meat at refrigerated temperature

Choose the correct answer from the options given below :

- (1) A, B, C, D only
- (2) A, C, D, E only
- (3) C, D, E only
- (4) A, D, E only

**Options :**

- 43244976505. 1
- 43244976506. 2
- 43244976507. 3
- 43244976508. 4

**Question Number : 53 Question Id : 43244919501 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

Identify the correct statements about concentrated juice :

- A. Vacuum evaporation reduces thermal damage of fruit juice concentration
- B. Aroma compounds may be lost during juice concentration
- C. Fruit juice concentration increases microbial load
- D. Reconstitution of concentrated juice restores original juice quality completely
- E. Concentrated juices have lower storage volume

Choose the correct answer from the options given below :

- (1) A, B, C, D only
- (2) A, B, C only
- (3) A, B, D only
- (4) A, B, E only

**Options :**

- 43244976509. 1
- 43244976510. 2
- 43244976511. 3
- 43244976512. 4

**Question Number : 54 Question Id : 43244919502 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

Identify the **correct** statements about oil processing :

- A. Oil expelling is a mechanical method
- B. Solvent extraction improves oil yield
- C. Hydrogenation increases unsaturation in oil
- D. Refining removes impurities in oil processing
- E. Hydrogeneration does not improves shelf life of oil

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

- (1) A, B, C only
- (2) A, B, D only
- (3) A, B, E only
- (4) A, B, C, D only

**Options :**

43244976513. 1

43244976514. 2

43244976515. 3

43244976516. 4

**Question Number : 55 Question Id : 43244919503 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

Identify the **correct** statements about parboiling of paddy :

- A. Parboiling of paddy improves milling yield
- B. Parboiling of paddy reduces grain breakage
- C. Parboiling of paddy destroys vitamins
- D. Parboiling of paddy hardens the endosperm
- E. Parboiling of paddy improves nutritional quality

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

- (1) A, B, C, D only
- (2) A, B, D, E only
- (3) A, C, D, E only
- (4) A, B, C, E only

**Options :**

43244976517. 1

43244976518. 2

43244976519. 3

43244976520. 4

**Question Number : 56 Question Id : 43244919504 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

Identify the **correct** statements about food standard or quality maintenance :

- A. FPO regulates fruit products
- B. AGMARK ensures quality of agricultural products
- C. HACCP is a reactive quality control system
- D. CIP ensures cleaning of raw samples
- E. ISI standards ensure product safety

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

- (1) A, B, C only
- (2) A, B, D only
- (3) A, B, E only
- (4) A, B, D, E only

**Options :**

43244976521. 1

43244976522. 2

43244976523. 3

43244976524. 4

**Question Number : 57 Question Id : 43244919505 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

Consider the following statements related to Newtonian fluids :

- A. Shear stress is proportional to shear rate
- B. Viscosity remains constant at a given temperature
- C. Milk behaves as a perfect Newtonian fluid
- D. Apparent viscosity changes with shear rate indicates Newtonian fluid
- E. Water is a Newtonian fluid

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

- (1) A, B, C only
- (2) A, B, D only
- (3) A, B, E only
- (4) A, B, C, E only

**Options :**

- 43244976525. 1
- 43244976526. 2
- 43244976527. 3
- 43244976528. 4

**Question Number : 58 Question Id : 43244919506 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

Consider the following statements about Psychrometry :

- A. Dry bulb temperature indicates sensible heat
- B. Wet bulb temperature reflects evaporative cooling
- C. Relative humidity is independent of temperature
- D. Humidity ratio is mass of vapour per mass of dry air
- E. Dehumidification aids drying

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

- (1) A, B, C, D only
- (2) A, C, D, E only
- (3) A, B, D, E only
- (4) A, B, C, D, E

**Options :**

- 43244976529. 1
- 43244976530. 2
- 43244976531. 3
- 43244976532. 4

**Question Number : 59 Question Id : 43244919507 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

Consider the following statements and identify the **correct** statements on freezing of foods :

- A. Rapid freezing forms small ice crystals
- B. Slow freezing damages cell structure
- C. Freezing stops enzymatic activity completely
- D. Latent heat is removed during freezing
- E. Freezing improves microbial growth

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

- (1) A, B, C only
- (2) A, B, C, D only
- (3) A, B, D only
- (4) A, B, D, E only

**Options :**

43244976533. 1

43244976534. 2

43244976535. 3

43244976536. 4

**Question Number : 60 Question Id : 43244919508 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

Consider the following statements about size reduction of solids :

- A. Energy requirement increases with hardness
- B. Rittinger's law applies to fine grinding
- C. Kick's law applies to coarse crushing
- D. Size reduction always improves food quality
- E. Hammer mills operate mainly by impact

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

- (1) B, C, D, E only
- (2) B, D, E only
- (3) A, B, C, E only
- (4) C, D, E only

**Options :**

43244976537. 1

43244976538. 2

43244976539. 3

43244976540. 4

**Question Number : 61 Question Id : 43244919509 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

Consider the following statements regarding diffusion :

- A. Diffusion occurs due to concentration gradient
- B. Diffusion coefficient increases with temperature
- C. Diffusion is faster in solids than gases
- D. Fick's law applies to steady-state diffusion
- E. Diffusion requires bulk motion

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

- (1) A, B, C only
- (2) A, B, D only
- (3) A, B, E only
- (4) A, B, C, D only

**Options :**

43244976541. 1

43244976542. 2

43244976543. 3

43244976544. 4

**Question Number : 62 Question Id : 43244919510 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

Match List - I with List - II.

- | List - I       | List - II                    |
|----------------|------------------------------|
| A. Chlorophyll | I. Red (Tomato/Beetroot)     |
| B. Carotene    | II. Green (leafy vegetables) |
| C. Anthocyanin | III. Orange (Carrots)        |
| D. Xanthophyll | IV. Yellow (Corn / Egg yolk) |

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

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

**Options :**

43244976545. 1

43244976546. 2

43244976547. 3

43244976548. 4

**Question Number : 63 Question Id : 43244919511 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Match List - I with List - II.**

**List - I**

**List - II**

- |                |                                 |
|----------------|---------------------------------|
| A. Lactose     | I. Fruits and honey             |
| B. Maltose     | II. Milk                        |
| C. Fructose    | III. Malted cereals             |
| D. Amylopectin | IV. Starchy foods (rice, wheat) |

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

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

**Options :**

43244976549. 1

43244976550. 2

43244976551. 3

43244976552. 4

**Question Number : 64 Question Id : 43244919512 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Match List - I with List - II.**

**List - I**

**List - II**

- |               |                                    |
|---------------|------------------------------------|
| A. Albumin    | I. Structural (Muscle)             |
| B. Collagen   | II. Transport and binding          |
| C. Myosin     | III. Blood plasma protein          |
| D. Hemoglobin | IV. Structural (connective tissue) |

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-I, D-II
- (4) A-IV, B-I, C-II, D-III

**Options :**

- 43244976553. 1
- 43244976554. 2
- 43244976555. 3
- 43244976556. 4

**Question Number : 65 Question Id : 43244919513 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

Match List - I with List - II.

**List - I**

- A. Rancidity
- B. Putrefaction
- C. Fermentation
- D. Enzymatic browning

**List - II**

- I. Proteins oxidation
- II. Lipids oxidation
- III. Phenolic compounds oxidized
- IV. Carbohydrates breakdown

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

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

**Options :**

- 43244976557. 1
- 43244976558. 2
- 43244976559. 3
- 43244976560. 4

**Question Number : 66 Question Id : 43244919514 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

Match List - I with List - II.

**List - I**

- A. Lactice acid bacteria
- B. Clostridium spp.
- C. Pseudomonas spp.
- D. Enterobacteriaceae

**List - II**

- I. Obligate aerobes
- II. Facultative anaerobes
- III. Obligate anaerobes
- IV. Aerotolerant anaerobes

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

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

**Options :**

- 43244976561. 1
- 43244976562. 2
- 43244976563. 3
- 43244976564. 4

**Question Number : 67 Question Id : 43244919515 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

Match List - I with List - II.

**List - I**

- A. Biogas production
- B. Composting
- C. Effluent treatment
- D. CIP (Clean-In-Place)

**List - II**

- I. Removal of chemical and biological waste
- II. Recovery of energy from waste
- III. Cleaning of Food processing equipment
- IV. Microbial degradation into fertilizer

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

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

**Options :**

- 43244976565. 1
- 43244976566. 2
- 43244976567. 3
- 43244976568. 4

**Question Number : 68 Question Id : 43244919516 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

Match List - I with List - II.

List - I	List - II
A. UHT milk	I. Coagulation of casein
B. Yogurt	II. High temperature short time
C. Paneer	III. Low-temperature, long time heating
D. Cheese	IV. Acidification and fermentation

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

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

**Options :**

43244976569. 1

43244976570. 2

43244976571. 3

43244976572. 4

**Question Number : 69 Question Id : 43244919517 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

Match List - I with List - II.

List - I	List - II
A. Vacuum packaging	I. Carbonated beverages
B. Aseptic packaging	II. Perishable vegetables and meat
C. Tin cans	III. Long shelf-life, shelf-stable liquids
D. PET bottles	IV. Beverages under pressure

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

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

**Options :**

43244976573. 1

43244976574. 2

43244976575. 3

43244976576. 4

**Question Number : 70 Question Id : 43244919518 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

Match List - I with List - II.

**List - I**

**List - II**

- |                          |                                  |
|--------------------------|----------------------------------|
| A. White rice            | I. Milling of endosperm          |
| B. Maida (refined flour) | II. Extrusion or flaking         |
| C. Parboiled rice        | III. Steaming followed by drying |
| D. Breakfast cereal      | IV. Milling and polishing        |

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-I, C-IV, D-II
- (4) A-IV, B-I, C-III, D-II

**Options :**

43244976577. 1

43244976578. 2

43244976579. 3

43244976580. 4

**Question Number : 71 Question Id : 43244919519 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

Match List - I with List - II.

**List - I**

**List - II**

- |                     |                               |
|---------------------|-------------------------------|
| A. Canned pineapple | I. Hot filling+sealing        |
| B. Frozen peas      | II. Blanching+freezing        |
| C. Fruit jam        | III. Cooking+sugar            |
| D. Fruit juice      | IV. Extraction+pasteurization |

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

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

**Options :**

43244976581. 1

43244976582. 2

43244976583. 3

43244976584. 4

**Question Number : 72 Question Id : 43244919520 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

Match List - I with List - II.

**List - I**

- A. Hammer mill
- B. Centrifuge
- C. Sieve
- D. Ribbon blender

**List - II**

- I. Particle size classification
- II. Mixing of powders and solids
- III. Size reduction of solids
- IV. Separation of solids and liquids

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-IV, B-III, C-I, D-II
- (4) A-II, B-III, C-I, D-IV

**Options :**

43244976585. 1

43244976586. 2

43244976587. 3

43244976588. 4

**Question Number : 73 Question Id : 43244919521 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

Match List - I with List - II.

**List - I**

- A. Shell and tube heat exchanger
- B. Plate heat exchanger
- C. Scraped surface heat exchanger
- D. Spiral heat exchanger

**List - II**

- I. Plate surfaces transfer of heat
- II. Fluid flows inside tubes in shell
- III. Product scraped from wall for viscous heat transfer
- IV. Product flows in spiral channel

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

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

**Options :**

- 43244976589. 1
- 43244976590. 2
- 43244976591. 3
- 43244976592. 4

**Question Number : 74 Question Id : 43244919522 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

Match List - I with List - II.

**List - I**

- A. Conduction
- B. Convection
- C. Radiation
- D. Evaporation

**List - II**

- I. Heat transfer by bulk fluid movement
- II. Heat transfer through a medium without mass flow
- III. Heat transfer by electromagnetic waves
- IV. Heat removal by phase change

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

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

**Options :**

- 43244976593. 1
- 43244976594. 2
- 43244976595. 3
- 43244976596. 4

Question Number : 75 Question Id : 43244919523 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Match List - I with List - II.

List - I	List - II
A. Humid heat	I. kcal/kg
B. Humid volume	II. kg/kg
C. Humidity	III. m <sup>3</sup> /kg
D. Enthalpy	IV. kcal/kg/°C

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-IV, B-III, C-II, D-I

**Options :**

- 43244976597. 1
- 43244976598. 2
- 43244976599. 3
- 43244976600. 4