

National Testing Agency

Question Paper Name :	Food Preservation Technology 26th March 2021 Shift2
Subject Name :	Food Preservation Technology
Creation Date :	2021-03-26 20:01:32
Duration :	180
Number of Questions :	92
Total Marks :	100
Display Marks:	Yes

Food Preservation Technology

Group Number :	1
Group Id :	512452205
Group Maximum Duration :	0
Group Minimum Duration :	120
Show Attended Group? :	No
Edit Attended Group? :	No
Break time :	0
Group Marks :	100
Is this Group for Examiner? :	No

Food Preservation Technology-1

Section Id :	512452881
Section Number :	1
Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	92
Number of Questions to be attempted :	92

Section Marks : 100
Mark As Answered Required? : Yes
Sub-Section Number : 1
Sub-Section Id : 5124521024
Question Shuffling Allowed : Yes

Question Number : 1 Question Id : 51245217401 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Cold smoking is used most often with

1. Sweets
2. Sour products
3. Salted products
4. None of the above

Options :

- 51245256369. 1
- 51245256370. 2
- 51245256371. 3
- 51245256372. 4

Question Number : 2 Question Id : 51245217402 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Preservation of food means, the process

1. To slow down food spoilage
2. To prevent foodborne illness
3. To maintain nutritional value, texture and flavour of food
4. All of the above

Options :

- 51245256373. 1

51245256374. 2

51245256375. 3

51245256376. 4

Question Number : 3 Question Id : 51245217403 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Freezing, heat treatment, use of preservatives, fermentation are all physical methods of food Preservation

1. True
2. False
3. May be
4. Not sure

Options :

51245256377. 1

51245256378. 2

51245256379. 3

51245256380. 4

Question Number : 4 Question Id : 51245217404 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

.....of sugar can be used in food preservation

1. 10%
2. 65% or above
3. 5%
4. None of the above

Options :

51245256381. 1

51245256382. 2

51245256383. 3

51245256384. 4

Question Number : 5 Question Id : 51245217405 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Brining is a method of food preservation using mainly

1. Salt
2. Sugar
3. Both 1 and 2
4. None of the above

Options :

51245256385. 1

51245256386. 2

51245256387. 3

51245256388. 4

Question Number : 6 Question Id : 51245217406 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Chemical preservatives should be used within the prescribed limits as any excess usage may result in

1. Reduced preservation
2. Microbial spoilage
3. Poisoning
4. None of the above

Options :

51245256389. 1

51245256390. 2

51245256391. 3

51245256392. 4

Question Number : 7 Question Id : 51245217407 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

. is a process of dipping the whole food material in boiling water or steam for a short period of time.

1. Cooking
2. Freezing
3. Blanching
4. Steaming

Options :

- 51245256393. 1
- 51245256394. 2
- 51245256395. 3
- 51245256396. 4

Question Number : 8 Question Id : 51245217408 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Frozen food should be stored at or below°C

1. 0
2. -18
3. -122
4. 4

Options :

- 51245256397. 1
- 51245256398. 2
- 51245256399. 3
- 51245256400. 4

Question Number : 9 Question Id : 51245217409 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

The ingredients used in curing and pickling of meat are

1. Sodium nitrate and Sodium nitrite
2. Sodium chloride
3. Sugar and Citric acid
4. All of the above

Options :

- 51245256401. 1
- 51245256402. 2
- 51245256403. 3
- 51245256404. 4

Question Number : 10 Question Id : 51245217410 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Potassium sorbate is used to inhibitin many foods

1. Moulds
2. Yeasts
3. Both 1 and 2
4. None of the above

Options :

- 51245256405. 1
- 51245256406. 2
- 51245256407. 3
- 51245256408. 4

Question Number : 11 Question Id : 51245217411 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

The minimum doses of irradiation required for food preservation

1. 0.01 and 0.1 kGy
2. 0.2 and 0.7 kGy
3. 0.5 and 1.0 kGy
4. None of the above

Options :

- 51245256409. 1
- 51245256410. 2
- 51245256411. 3
- 51245256412. 4

Question Number : 12 Question Id : 51245217412 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

The chemical preservatives permitted under FPO-1955 in India are

- A. Sulphur dioxide and Benzoic acid
- B. Sodium and Potassium salts of Sulphur dioxide
- C. Salts of Benzoic acid

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

1. All - A, B, C
2. Only A & B
3. Only A & C
4. Only A

Options :

- 51245256413. 1
- 51245256414. 2

51245256415. 3

51245256416. 4

Question Number : 13 Question Id : 51245217413 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Definition of MAP is

1. The replacement of air in a packed food by a different mixture of gases
2. The removal of air in a packed food
3. Filling extra air in a packed food
4. None of the above

Options :

51245256417. 1

51245256418. 2

51245256419. 3

51245256420. 4

Question Number : 14 Question Id : 51245217414 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Disadvantage of hydrostatic pressure processing is

1. Denatures proteins and polysaccharides
2. Lead to food texturisation
3. Change the taste and texture of food
4. All of the above

Options :

51245256421. 1

51245256422. 2

51245256423. 3

51245256424. 4

Question Number : 15 Question Id : 51245217415 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Match **List I** with **List II**

List I	List II
A. <i>Yersinia enterocolitica</i>	I. Poultry and eggs
B. <i>Salmonella</i>	II. Infection in infants
C. <i>Campylobacter</i>	III. Toxin
D. <i>Staphylococcus</i>	IV. Unpasteurized milk

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

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

Options :

- 51245256425. 1
- 51245256426. 2
- 51245256427. 3
- 51245256428. 4

Question Number : 16 Question Id : 51245217416 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which of the following toxin produced by fungi is carcinogenic?

1. Botulinum toxin
2. Shiga toxin
3. Aflatoxin
4. Bacteriocin

Options :

- 51245256429. 1
- 51245256430. 2
- 51245256431. 3
- 51245256432. 4

Question Number : 17 Question Id : 51245217417 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Fish discolouration is caused by

1. *Pseudomonas*
2. *Salmonella*
3. *E. coli*
4. *Shigella*

Options :

- 51245256433. 1
- 51245256434. 2
- 51245256435. 3
- 51245256436. 4

Question Number : 18 Question Id : 51245217418 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Geotrichum is referred both as "dairy mold" and as "machinery mold"

1. May be
2. Not sure
3. True
4. False

Options :

- 51245256437. 1
- 51245256438. 2
- 51245256439. 3
- 51245256440. 4

Question Number : 19 Question Id : 51245217419 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

The main storage material in fungi is

1. Glycogen
2. Starch
3. Chitin
4. Glucose

Options :

- 51245256441. 1
- 51245256442. 2
- 51245256443. 3
- 51245256444. 4

Question Number : 20 Question Id : 51245217420 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Match **List I** with **List II**

List I	List II
A. <i>Lactobacillus</i>	I. Mycotoxin
B. <i>L. monocytogenes</i>	II. Fermentation
C. <i>Aspergillus</i>	III. Viral disease
D. <i>Norwalk</i>	IV. Pathogen

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

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

Options :

- 51245256445. 1
- 51245256446. 2
- 51245256447. 3
- 51245256448. 4

Question Number : 21 Question Id : 51245217421 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

The stages of preprocessing of food preservation

1. Proper packaging
2. Quick and effective transportation
3. Providing good storage facilities
4. All of the above

Options :

51245256449. 1

51245256450. 2

51245256451. 3

51245256452. 4

Question Number : 22 Question Id : 51245217422 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

In filtration the filters used are made of

1. Asbestos pads
2. Unglazed porcelain
3. Both 1 and 2
4. None of the above

Options :

51245256453. 1

51245256454. 2

51245256455. 3

51245256456. 4

Question Number : 23 Question Id : 51245217423 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Species of *Salmonella* that infects the intestinal tract

1. *Salmonella bongori*
2. *Salmonella enterica*
3. Both 1 and 2
4. None of the above

Options :

51245256457. 1

51245256458. 2

51245256459. 3

51245256460. 4

Question Number : 24 Question Id : 51245217424 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

The gas gangrene is caused by

1. *Clostridium perfringens*
2. *Claviceps purpurea*
3. *Salmonella typhi*
4. *Aspergillus niger*

Options :

51245256461. 1

51245256462. 2

51245256463. 3

51245256464. 4

Question Number : 25 Question Id : 51245217425 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

There are types of botulism toxin

1. 6
2. 7
3. 2
4. 10

Options :

51245256465. 1

51245256466. 2

51245256467. 3

51245256468. 4

Question Number : 26 Question Id : 51245217426 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Controlled proteolysis in cheese helps in improving

1. Hardness
2. Meltability
3. Spreadability
4. Brittleness

Options :

- 51245256469. 1
- 51245256470. 2
- 51245256471. 3
- 51245256472. 4

Question Number : 27 Question Id : 51245217427 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Nicholas Appert was a

1. French Candy maker
2. Botanist
3. Chemist
4. All of the above

Options :

- 51245256473. 1
- 51245256474. 2
- 51245256475. 3
- 51245256476. 4

Question Number : 28 Question Id : 51245217428 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Food additives may be used to.....

1. Destroy nutrients
2. Deceive customers
3. Disguise faulty products
4. Enhance appearance

Options :

- 51245256477. 1
- 51245256478. 2
- 51245256479. 3
- 51245256480. 4

Question Number : 29 Question Id : 51245217429 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Antioxidant will help us to prevent cancer and other diseases

1. May be
2. Not sure
3. True
4. False

Options :

- 51245256481. 1
- 51245256482. 2
- 51245256483. 3
- 51245256484. 4

Question Number : 30 Question Id : 51245217430 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Match **List I** with **List II**

List I	List II
A. Vitamin C	I. Peach
B. Vitamin A	II. Banana
C. Riboflavin	III. Orange
D. Thiamin	IV. Papaya

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

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

Options :

51245256485. 1

51245256486. 2

51245256487. 3

51245256488. 4

Question Number : 31 Question Id : 51245217431 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Steps in the dehydration of apple are in the order of:

- A. Dicing
- B. Drying
- C. Washing
- D. Sulphination

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

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

Options :

- 51245256489. 1
- 51245256490. 2
- 51245256491. 3
- 51245256492. 4

Sub-Section Number : 2
Sub-Section Id : 5124521025
Question Shuffling Allowed : Yes

Question Id : 51245217432 Question Type : COMPREHENSION Sub Question Shuffling Allowed : Yes Group Comprehension Questions : No
Question Numbers : (32 to 36)
Question Label : Comprehension

Minerals in fruit and vegetables

Mineral substances are present as salts of organic or inorganic acids or as complex organic combinations; chlorophyll, pectin, etc., they are in many cases dissolved in cellular juice. Vegetables are richer in mineral substances as compared with fruits. The mineral substance content is normally between 0.60 and 1.8% and more than 60 elements are present; the major elements are: K, Na, Ca, Mg, Fe, Mn, Al, P, Cl, S. The vegetables which are especially rich in mineral substances are: spinach, carrots, cabbage and tomatoes. Mineral rich fruit includes: strawberries, cherries, peaches and rasp-berries. Important quantities of potassium (K) and absence of sodium chloride (NaCl) give a high dietetic value to fruit and to their processed products. Phosphorus is supplied mainly by vegetables. Vegetables usually contain more calcium than fruit; green beans, cabbage, onions and beans contain more than 0.1% calcium. The calcium/phosphorus ratio is essential for calcium fixation in the human body; this value is considered normal at 0.7 for adults and at 1.0 for children. Some fruit are important for their Ca/P ratio above 1.0: for example in pears, lemons, oranges and some mountain fruits and wild berries. Even if its content in the human body is very low, iron (Fe) has an important role as a constituent of hemoglobin. Main iron sources are apples and spinach. Salts from fruit have a basic reaction; for this reason fruit consumption facilitates the neutralization of noxious uric acid reactions and contributes to the acid-basic equilibrium in the blood.

Sub questions

Question Number : 32 Question Id : 51245217433 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Vegetables have more mineral substances than fruits

1. True
2. False
3. May be
4. Not Sure

Options :

- 51245256493. 1
- 51245256494. 2
- 51245256495. 3
- 51245256496. 4

Question Number : 33 Question Id : 51245217434 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

The major elements in vegetables are

1. Potassium
2. Sodium
3. Calcium
4. All of the above

Options :

- 51245256497. 1
- 51245256498. 2
- 51245256499. 3
- 51245256500. 4

Question Number : 34 Question Id : 51245217435 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

The mineral substance content of vegetable is normally between

1. 0.06 and 0.18%
2. 0.60 and 1.8%
3. 0.6 and 1.0%
4. 6.0 and 18%

Options :

- 51245256501. 1
- 51245256502. 2
- 51245256503. 3
- 51245256504. 4

Question Number : 35 Question Id : 51245217436 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Absence of this mineral substance gives a high dietetic value to fruit

1. KCl
2. FeCl₃
3. NaCl
4. CaCl₂

Options :

- 51245256505. 1
- 51245256506. 2
- 51245256507. 3
- 51245256508. 4

Question Number : 36 Question Id : 51245217437 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

The calcium/phosphorus ratio is essential for calcium fixation in the human body and the value that is considered as normal is

1. at 1.0 for adults and at 0.7 for children
2. at 0.7 for adults and at 1.0 for children
3. at 0.7 for both adult and children
4. at 1.0 for both adult and children

Options :

51245256509. 1

51245256510. 2

51245256511. 3

51245256512. 4

Sub-Section Number :

3

Sub-Section Id :

5124521026

Question Shuffling Allowed :

Yes

Question Number : 37 Question Id : 51245217438 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Match **List I** with **List II**

List I	List II
A. Solar Drying	I. 200°C for few seconds
B. Fluidized Bed drying	II. Open drying
C. Freeze drying	III. Heated air
D. Spray drying	IV. Sublimation

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

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

Options :

- 51245256513. 1
- 51245256514. 2
- 51245256515. 3
- 51245256516. 4

Question Number : 38 Question Id : 51245217439 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which of the following is a citrus fruit?

1. Apple
2. Amla
3. Banana
4. Kiwi

Options :

- 51245256517. 1
- 51245256518. 2

51245256519. 3

51245256520. 4

Question Number : 39 Question Id : 51245217440 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Match **List I** with **List II**

List I	List II
A. Apple pomace	I. DE < 50% pectin
B. Citrus peel	II. DE > 50% Pectin
C. HM-pectins	III. 20-30% pectin
D. LM-pectins	IV. 10-15% pectin

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

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

Options :

51245256521. 1

51245256522. 2

51245256523. 3

51245256524. 4

Question Number : 40 Question Id : 51245217441 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

α -tocopherol is the most abundant and active form of vitamin E

1. Not sure
2. False
3. True
4. May be

Options :

- 51245256525. 1
- 51245256526. 2
- 51245256527. 3
- 51245256528. 4

Question Number : 41 Question Id : 51245217442 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Jam is a thick mixture of

1. Fruit, pectin, and sugar
2. Fruit and sugar
3. Fruit and pectin
4. None of the above

Options :

- 51245256529. 1
- 51245256530. 2
- 51245256531. 3
- 51245256532. 4

Question Number : 42 Question Id : 51245217443 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Fruit juice pH should be within the range of 6.0 - 7.0 for jam making

1. May be
2. Not sure
3. True
4. False

Options :

- 51245256533. 1
- 51245256534. 2
- 51245256535. 3
- 51245256536. 4

Question Number : 43 Question Id : 51245217444 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

The following pH condition is essential for jellying

1. Below 3.5
2. Above 3.5
3. 4.0
4. 5.0

Options :

- 51245256537. 1
- 51245256538. 2
- 51245256539. 3
- 51245256540. 4

Question Number : 44 Question Id : 51245217445 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Match **List I** with **List II**

List I	List II
A. Pasteurization	I. 65°C for 30 minutes
B. Flash-pasteurization	II. 65°C for 30 seconds
	III. 71°C for 15 seconds
	IV. 71°C for 15 minutes

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

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

Options :

51245256541. 1
51245256542. 2
51245256543. 3
51245256544. 4

Question Number : 45 Question Id : 51245217446 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Reverse osmosis is the movement of solvent from an area of low solute concentration to an area of high solute concentration

1. May be
2. Not sure
3. True
4. False

Options :

51245256545. 1

51245256546. 2

51245256547. 3

51245256548. 4

Question Number : 46 Question Id : 51245217447 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Browning reactions impart

1. undesirable colour
2. off flavor
3. impaired nutritional quality
4. all of the above

Options :

51245256549. 1

51245256550. 2

51245256551. 3

51245256552. 4

Question Number : 47 Question Id : 51245217448 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Processing of tomato through cold pulping helps

1. to increase taste
2. to reduce cost
3. to increase quality
4. to avoid heat activity and to protect seeds

Options :

51245256553. 1

51245256554. 2

51245256555. 3

51245256556. 4

Question Number : 48 Question Id : 51245217449 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Steps in commercial pectin production are in the order of:

- A. Drying and grinding
- B. Hot acid extraction
- C. Alcohol precipitation
- D. Filtration
- E. Standardization

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

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

Options :

51245256557. 1

51245256558. 2

51245256559. 3

51245256560. 4

Question Number : 49 Question Id : 51245217450 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

The manufacture of processed fruits and vegetables is controlled by the

1. Food Products Order
2. Fruit products order
3. Food Produce Order
4. Fruit Produce Order

Options :

- 51245256561. 1
- 51245256562. 2
- 51245256563. 3
- 51245256564. 4

Question Number : 50 Question Id : 51245217451 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Tomato is a rich source of vitamin A, phosphorus, Lycopene and Beta-carotene

1. True
2. False
3. May be
4. Not sure

Options :

- 51245256565. 1
- 51245256566. 2
- 51245256567. 3
- 51245256568. 4

Sub-Section Number : 4
Sub-Section Id : 5124521027
Question Shuffling Allowed : Yes

Question Id : 51245217452 Question Type : COMPREHENSION Sub Question Shuffling Allowed : Yes Group Comprehension Questions : No

Question Numbers : (51 to 55)

Question Label : Comprehension

Enzymes

Industrial enzymes are proteins that work as catalysts of biochemical reactions. A catalyst increases or accelerates the rate of a chemical reaction. The catalytic efficiency of enzymes is very high, whereby one molecule of enzyme can transform as many as 10,000-1,000,000 molecules of substrate per minute. Enzymes usually exhibit maximal activity at a particular pH value, termed the pH optimum. Extremes in pH will generally inactivate enzymes. Most enzymes show maximum activities in the pH range of 4.5-8.0, Temperature also influence the functioning of enzymes. Majority of enzymes have a optimum range of 30 to 40°C. After 45°C denaturation occurs. As the temperature of an enzyme solution is decreased for 0° to about 10° below its freezing point, enzymic activity can either increase or decrease, depending upon the enzyme and the system. A further decline in temperature almost always results in decreased activity. Pectin is a complex carbohydrate polymer which serves a structural role in plants. The major building blocks of pectin are units of galacturonic acid linked by β -1, 4-glycosidic bonds. Approximately two-thirds of the carboxylic acid groups are esterified with methanol. These are used in clarification of fruit juice before membrane filtration by adding them to bulk juice. Food grade pectic enzymes contain mixture of enzymes including pectinase, polygalacturonase, pectin esterase, pectin lyase. Enzymes that hydrolyze starch are termed as amylases. α - amylases are endo enzymes which hydrolyse α 1-4 glucan linkage. They result in rapid decrease of viscosity. β – amylases are exo-enzymes, they attack only the end units of starch chains. It results in increase of sweetness i.e saccharifying enzyme. Amylases are important in fruit ripening, potato processing and Corn syrup manufacturing, etc.

Sub questions

Question Number : 51 Question Id : 51245217453 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Usually enzymes show their optimum activity in the pH range of

1. 8.0 – 9.0
2. 9.0 – 10.25
3. 4.5 - 8.0
4. 2.0 - 4.0

Options :

- 51245256569. 1
- 51245256570. 2
- 51245256571. 3
- 51245256572. 4

Question Number : 52 Question Id : 51245217454 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Usually enzymes show their optimum activity in the temperature range of

1. 20 – 30°C
2. 30 – 40°C
3. 40 – 50°C
4. None of the above

Options :

- 51245256573. 1
- 51245256574. 2
- 51245256575. 3
- 51245256576. 4

Question Number : 53 Question Id : 51245217455 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Enzymes used in industries are

1. Carbohydrates
2. Lipids
3. Proteins
4. None of the above

Options :

- 51245256577. 1
- 51245256578. 2
- 51245256579. 3
- 51245256580. 4

Question Number : 54 Question Id : 51245217456 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Food grade pectic enzymes contain mixture of enzymes including

1. Polygalacturonase
2. Pectin esterase
3. Pectin lyase
4. All of the above

Options :

- 51245256581. 1
- 51245256582. 2
- 51245256583. 3
- 51245256584. 4

Question Number : 55 Question Id : 51245217457 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Amylase enzyme which is called as saccharifying enzyme is

1. α - amylase
2. γ - amylase
3. μ - amylase
4. β - amylase

Options :

51245256585. 1

51245256586. 2

51245256587. 3

51245256588. 4

Sub-Section Number :

5

Sub-Section Id :

5124521028

Question Shuffling Allowed :

Yes

Question Number : 56 Question Id : 51245217458 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Match **List I** with **List II**

List I	List II
A. Tomato pulp	I. 9% total solids
B. Tomato Juice	II. 5.81% total solids
C. Tomato Puree	III. 25% total solids
D. Tomato Ketchup	IV. 5% total solids

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

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

Options :

- 51245256589. 1
- 51245256590. 2
- 51245256591. 3
- 51245256592. 4

Question Number : 57 Question Id : 51245217459 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

High acid foods have pH 4.0 or less and contain enough acid, so that the *Clostridium botulinum* spores can grow and produce their deadly toxin.

1. True
2. False
3. May be
4. Not sure

Options :

51245256593. 1
51245256594. 2
51245256595. 3
51245256596. 4

Question Number : 58 Question Id : 51245217460 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

The modern freezing industry began in 1928 with the development of double-belt contact freezers by a technologist named

1. Louis Pasteur
2. Alexander Fleming
3. Edward Jenner
4. Clarence Birdseye

Options :

51245256597. 1
51245256598. 2
51245256599. 3
51245256600. 4

Question Number : 59 Question Id : 51245217461 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Freezing preserves the food stuff by

1. Promoting the growth of microorganism
2. Retarding the growth of microorganisms
3. Killing all the microorganisms present
4. None of the above

Options :

51245256601. 1
51245256602. 2

51245256603. 3

51245256604. 4

Question Number : 60 Question Id : 51245217462 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

The steps in freezing process are

- A. Crystal formation
- B. Nucleation
- C. Crystal growth
- D. Cooling down

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

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

Options :

51245256605. 1

51245256606. 2

51245256607. 3

51245256608. 4

Question Number : 61 Question Id : 51245217463 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

COP means

1. Coefficient of pressure
2. Conduction of pressure
3. Conduction of performance
4. Coefficient of performance

Options :

- 51245256609. 1
- 51245256610. 2
- 51245256611. 3
- 51245256612. 4

Question Number : 62 Question Id : 51245217464 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Most of the refrigerants form.....with water

1. Bases
2. Acids
3. Salts
4. Neutral solutions

Options :

- 51245256613. 1
- 51245256614. 2
- 51245256615. 3
- 51245256616. 4

Question Number : 63 Question Id : 51245217465 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

In a refrigerator, refrigeration cycle begins, continues and ends in the following order

- A. Refrigerant
- B. Condenser
- C. Compressor
- D. Evaporator
- E. Expansion valve

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

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

Options :

- 51245256617. 1
- 51245256618. 2
- 51245256619. 3
- 51245256620. 4

Question Number : 64 Question Id : 51245217466 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Chilling injury is caused by prolonged exposure of the fruits and vegetables to subfreezing temperatures

1. May be
2. Not sure
3. True
4. False

Options :

- 51245256621. 1
- 51245256622. 2
- 51245256623. 3
- 51245256624. 4

Question Number : 65 Question Id : 51245217467 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Evaporation results in a liquid concentrate, whereas in drying the residue is often a dry solid

1. True
2. False
3. May be
4. Not sure

Options :

- 51245256625. 1
- 51245256626. 2
- 51245256627. 3
- 51245256628. 4

Question Number : 66 Question Id : 51245217468 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Match **List I** with **List II**

List I	List II
A. Air-blast freezing	I. Solid carbon dioxide
B. Contact freezing	II. Low temperature brine
C. Immersion freezing	III. Cold metal plates
D. Cryogenic freezing	IV. High-velocity air

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

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

Options :

- 51245256629. 1
- 51245256630. 2
- 51245256631. 3
- 51245256632. 4

Question Number : 67 Question Id : 51245217469 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Animal bones are sold for further processing into collagen, gelatin and calcium phosphate

1. True
2. False
3. May be
4. Not sure

Options :

- 51245256633. 1

51245256634. 2

51245256635. 3

51245256636. 4

Question Number : 68 Question Id : 51245217470 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

The annual poultry meat production in India is

1. 4.0 million tons
2. 3.5 million tons
3. 3.0 million tons
4. 2.4 million tons

Options :

51245256637. 1

51245256638. 2

51245256639. 3

51245256640. 4

Question Number : 69 Question Id : 51245217471 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Canning is a process which involves temperatures of

1. Over 100°C and sealing in sterile airtight containers
2. 37°C and sealing in sterile airtight containers
3. 0°C and sealing in sterile airtight containers
4. None of the above

Options :

51245256641. 1

51245256642. 2

51245256643. 3

51245256644. 4

Question Number : 70 Question Id : 51245217472 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Cooling by ice for long time causes

1. Emission of odour from meat
2. Change in taste of meat
3. Discoloration of meat
4. None of the above

Options :

- 51245256645. 1
- 51245256646. 2
- 51245256647. 3
- 51245256648. 4

Question Number : 71 Question Id : 51245217473 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Growth of psychrotrophs can be better controlled by lowering the temperature of packed meat to

1. 4-8 °C
2. 4 °C
3. 0 °C
4. -1.5 °C

Options :

- 51245256649. 1
- 51245256650. 2
- 51245256651. 3
- 51245256652. 4

Question Number : 72 Question Id : 51245217474 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

The most common cause of failure in making any gelled product is

1. Low sugar content
2. High sugar content
3. Medium sugar content
4. None of the above

Options :

- 51245256653. 1
- 51245256654. 2
- 51245256655. 3
- 51245256656. 4

Question Number : 73 Question Id : 51245217475 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Thawing of meat is

1. Freezing the meat
2. Gradually rising the temperature of meat to room temperature
3. Quickly rising the temperature of the meat
4. Blanching the meat

Options :

- 51245256657. 1
- 51245256658. 2
- 51245256659. 3
- 51245256660. 4

Question Number : 74 Question Id : 51245217476 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Irradiation changes the digestibility, biological value, net protein utilization and amino acid composition of meat

1. True
2. False
3. May be
4. Not sure

Options :

- 51245256661. 1
- 51245256662. 2
- 51245256663. 3
- 51245256664. 4

Question Number : 75 Question Id : 51245217477 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Addition of ascorbic acid to meat product during radiation process protects

1. Albumin
2. Keratin
3. Carotene
4. Myoglobin

Options :

- 51245256665. 1
- 51245256666. 2
- 51245256667. 3
- 51245256668. 4

Question Number : 76 Question Id : 51245217478 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Time required to kill the heat resistant bacteria is expressed in

1. F – value
2. T - value
3. Z – value
4. L - value

Options :

- 51245256669. 1
- 51245256670. 2
- 51245256671. 3
- 51245256672. 4

Question Number : 77 Question Id : 51245217479 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Round cans are also known as

1. Open top tins
2. Open top sanitary
3. Open top cans
4. Easy open end

Options :

- 51245256673. 1
- 51245256674. 2
- 51245256675. 3
- 51245256676. 4

Question Number : 78 Question Id : 51245217480 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Development of rancid odour and flavour during the storage of fish is due to

1. Denaturation of Proteins
2. Oxidation of Fats
3. Proteolytic Enzymes activity
4. Water activity

Options :

51245256677. 1

51245256678. 2

51245256679. 3

51245256680. 4

Question Number : 79 Question Id : 51245217481 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Bitter, unpleasant taste and change in colour is caused during storage due to

1. Degradation of carbohydrates
2. Oxidation of Fats
3. Proteolytic activity
4. Water activity

Options :

51245256681. 1

51245256682. 2

51245256683. 3

51245256684. 4

Question Number : 80 Question Id : 51245217482 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which percentage ratio of moisture to salt content in fish has highest shelf life

1. 15% moisture: 5-20% salt content
2. 20 % moisture: 10-20% salt content
3. 25% moisture: 5-20% salt content
4. 40% moisture: 5-15% salt content

Options :

- 51245256685. 1
- 51245256686. 2
- 51245256687. 3
- 51245256688. 4

Question Number : 81 Question Id : 51245217483 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Internal temperature range required in the smoking of fish is

1. 200-225 °C
2. 200-250 °C
3. 200-300 °C
4. 200-400 °C

Options :

- 51245256689. 1
- 51245256690. 2
- 51245256691. 3
- 51245256692. 4

Question Number : 82 Question Id : 51245217484 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Spore-forming bacteria are usually associated with spoilage of

1. Salt treated foods
2. Smoked foods
3. Heat-treated foods
4. Cold treated foods

Options :

- 51245256693. 1
- 51245256694. 2
- 51245256695. 3
- 51245256696. 4

Question Number : 83 Question Id : 51245217485 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Clostridium botulinum that causes the deadly botulism poisoning, only grow in oxygen free environments

1. True
2. False
3. Not sure
4. May be

Options :

- 51245256697. 1
- 51245256698. 2
- 51245256699. 3
- 51245256700. 4

Question Number : 84 Question Id : 51245217486 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

0.75 a_w allows the growth of

1. Psychrophiles and Psychrotrophs
2. Mesophilic bacteria and fungi
3. Halophilic bacteria and moulds
4. Only moulds

Options :

51245256701. 1

51245256702. 2

51245256703. 3

51245256704. 4

Question Number : 85 Question Id : 51245217487 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Green and pink rots of egg is caused by

1. *Proteus and Aerobacter*
2. *Serratia*
3. *Psuedomonas*
4. *Salmonella typhimurium*

Options :

51245256705. 1

51245256706. 2

51245256707. 3

51245256708. 4

Question Number : 86 Question Id : 51245217488 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Aeromonas hydrophila is the microorganism involved in the spoilage of

1. Vegetables
2. Fruits
3. Fish
4. None of the above

Options :

- 51245256709. 1
- 51245256710. 2
- 51245256711. 3
- 51245256712. 4

Question Number : 87 Question Id : 51245217489 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Thermal Arrest Time (TAT) or Critical Temperature Zone is which stage of freezing?

1. Stage1
2. Stage2
3. Stage 3
4. Stage 4

Options :

- 51245256713. 1
- 51245256714. 2
- 51245256715. 3
- 51245256716. 4

Question Number : 88 Question Id : 51245217490 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Specific substrate utilization rate 'U' per day is represented by the equation

1. $U = Q (S_0 - S) / VX$
2. $U = V / Q$
3. $U c = VX / Q_w X_s$
4. None of the above

Options :

51245256717. 1
51245256718. 2
51245256719. 3
51245256720. 4

Question Number : 89 Question Id : 51245217491 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Match **List I** with **List II**

List I	List II
A. Blue rot	I. <i>Aspergillus</i>
B. Downy mildews	II. <i>Geotrichum</i>
C. Black rot	III. <i>Penicillium</i>
D. Sour rot	IV. <i>Phytophthora</i>

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

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

Options :

51245256721. 1
51245256722. 2

51245256723. 3

51245256724. 4

Question Number : 90 Question Id : 51245217492 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

A. Watery soft rot is caused by

1. *Sclerotinia sclerotiorum*
2. *Penicillium digitatum*
3. *Alternaria alternata*
4. *Rhizopus stolonifer*

Options :

51245256725. 1

51245256726. 2

51245256727. 3

51245256728. 4

Question Number : 91 Question Id : 51245217493 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Time required to sterilize using hot air at 190°C is

1. 45 minutes
2. 30 minutes
3. 20 minutes
4. 12 minutes

Options :

51245256729. 1

51245256730. 2

51245256731. 3

51245256732. 4

Question Number : 92 Question Id : 51245217494 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Vegetables which do not favour bacterial growth are spoilt mainly by

1. Insects
2. Protozoa
3. Moulds
4. Viruses

Options :

- 51245256733. 1
- 51245256734. 2
- 51245256735. 3
- 51245256736. 4

Question Number : 93 Question Id : 51245217495 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Bacteria prefer high acidic, low-moisture environments for growth

1. May be
2. Not sure
3. True
4. False

Options :

- 51245256737. 1
- 51245256738. 2
- 51245256739. 3
- 51245256740. 4

Question Number : 94 Question Id : 51245217496 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Penicillium expansum is an example of pathogen

1. Pre harvest
2. Post harvest
3. Handling
4. None of the above

Options :

- 51245256741. 1
- 51245256742. 2
- 51245256743. 3
- 51245256744. 4

Question Number : 95 Question Id : 51245217497 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Duration required for Ultra High Temperature (UHT) sterilization is

1. Hours
2. Minutes
3. Seconds
4. Milliseconds

Options :

- 51245256745. 1
- 51245256746. 2
- 51245256747. 3
- 51245256748. 4

Question Number : 96 Question Id : 51245217498 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Double-cone Heat Exchangers is an example of

1. Dry heat Sterilization
2. Moist heat Sterilization
3. Ultra High heat sterilization
4. Membrane filter sterilization

Options :

51245256749. 1

51245256750. 2

51245256751. 3

51245256752. 4

Question Number : 97 Question Id : 51245217499 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Curled floor mats or torn stair treads is common

1. Physical hazards
2. Trip hazards
3. Biological Hazards
4. Chemical hazards

Options :

51245256753. 1

51245256754. 2

51245256755. 3

51245256756. 4

Question Number : 98 Question Id : 51245217500 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

The expansion of HACCP is Hazard Analysis and Critical Control Program

1. May be
2. Not sure
3. True
4. False

Options :

- 51245256757. 1
- 51245256758. 2
- 51245256759. 3
- 51245256760. 4

Question Number : 99 Question Id : 51245217501 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

International year of sanitation was the year

1. 2006
2. 2007
3. 2008
4. 2009

Options :

- 51245256761. 1
- 51245256762. 2
- 51245256763. 3
- 51245256764. 4

Question Number : 100 Question Id : 51245217502 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Bactericide is an agent that prevents the growth of bacteria but does not necessarily kill them

1. True
2. False
3. May be
4. Not sure

Options :

- 51245256765. 1
- 51245256766. 2
- 51245256767. 3
- 51245256768. 4