

PROVISIONAL ANSWER KEY

Question 108/2023/OL

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Department Food Safety

Question1:-In caramelization process, caramelan formation occurs due to:

A:-Isosachrosan heating at 155 C for 30 min

B:-Levolusan heating at 135 C for 55 min

C:-Glucose heating at 135 C for 55 min

D:-Fructose heating at 135 C for 30 min

Correct Answer:- Option-B

Question2:-Debittering enzymes used in fruit processing industries includes

A:-Naringinase

B:-Pullulanase

C:-Pectinase

D:-Cellulase

Correct Answer:- Option-A

Question3:-Following enzyme is used in immobilized state for prevention of acrylamide formation during frying

A:-Acrylamide synthase

B:-Asparaginase

C:-Lipase

D:-Glucoisomeare

Correct Answer:- Option-B

Question4:-The following detectors are used in monosaccharide analysis by HPLC (High Pressure Liquid Chromatography)

A:-UV-vis

B:-TCD

C:-RI

D:-PID

Correct Answer:- Option-C

Question5:-Non enzymic browning involves reaction of reducing sugar with following class of amino acids

A:-Lysine, Arginine, Ornithine

B:-Aspartic acid, Glutamic acid, Cysteine

C:-Cysteine, Methionine, Aspartic acid

D:-Valine, Leucine and Tryptophan

Correct Answer:- Option-A

Question6:-Which of the following is simplest sugar?

A:-Glucose

B:-Fructose

C:-Maltose

D:-Lactose

Correct Answer:- Option-A

Question7:-Acid value test is done for estimation of

A:-Blanching

B:-Rancidity

C:-Pasteurization

D:-All of the above

Correct Answer:- Option-B

Question8:-Monosodium Glutamate (MSG) provides following flavor

A:-Sweet

B:-Salt

C:-Umami

D:-Sour

Correct Answer:- Option-C

Question9:-BIS stands for

A:-Basic Institution Standards

B:-Bureau of Indian Standards

C:-Bureau of International Standards

D:-Basic International Standards

Correct Answer:- Option-B

Question10:-In which year FSSAI was established

A:-2005

B:-2006

C:-2007

D:-2008

Correct Answer:- Option-D

Question11:-An example for enriched medium

A:-Selenite F broth

B:-Blood agar

C:-Nutrient agar

D:-Mac Conkey agar

Correct Answer:- Option-B

Question12:-The maximum magnification obtainable by bright field microscopy using oil immersion objective

A:-100X

B:-1000X

C:-400X

D:-10000X

Correct Answer:- Option-B

Question13:-Schaeffer Fulton's staining method is for demonstration of

A:-Bacterial capsule

B:-Bacterial flagella

C:-Bacterial endospore

D:-Slime layer

Correct Answer:- Option-C

Question14:-The following statements are correct regarding botulism

i. Causative agent is *Clostridium Botulinum*

ii. Pre-formed toxins cause the disease

iii. The toxins are neurotoxins

A:-Both i and ii

B:-Both i and iii

C:-Both ii and iii

D:-All the statements are correct

Correct Answer:- Option-D

Question15:-Bacterial growth curve consists of the following phases in the order

A:-Log phase, lag phase, decline phase, stationary phase

B:-Lag phase, log phase, stationary phase, decline phase

C:-Lag phase, log phase, decline phase, stationary phase

D:-Lag phase, stationary phase, log phase, decline phase

Correct Answer:- Option-B

Question16:-Secondary stain used in acid fast staining

A:-Saffranin

B:-Crystal violet

C:-Concentrated carbol fuchsin

D:-Loeffler's alkaline methylene blue

Correct Answer:- Option-D

Question17:-Widal test

- i. Detects *Salmonella enterica* serovar typhi infection
- ii. Measures the capacity of antibodies against LPS and flagella in the serum
- iii. Is a precipitation test
- iv. Is a tube agglutination test

A:-Only i

B:-Both i and ii

C:-Both i and iii

D:-i, ii and iv

Correct Answer:- Option-D

Question18:-The method for cultivation of anaerobic bacteria

A:-Robertson cooked meat medium

B:-McIntosh and Filde's jar

C:-Gas-pak system

D:-All of the above

Correct Answer:- Option-D

Question19:-Yeast is used to produce

A:-Penicillin

B:-Acetic acid

C:-Ethyl alcohol

D:-Butanol

Correct Answer:- Option-C

Question20:-Most important microorganism involved in the production of Yogurt

A:-*Penicillium notatum*

B:-*Saccharomyces cerevisiae*

C:-*Lactobacillus bulgaricus*

D:-*Acetobacter aceti*

Correct Answer:- Option-C

Question21:-Pure sodium benzoate which is used as chemical preservative in preservation of fruit juice beverages is practically

A:-Tasteless

B:-Odourless

C:-Both Tasteless and Odourless

D:-None of these

Correct Answer:- Option-C

Question22:-To make a good jelly _____ is most essential constituent.

A:-Sugar

B:-Pectin

C:-Water

D:-Acid

Correct Answer:- Option-B

Question23:-In Food Preservation, irradiation is used for

A:-Sprout inhibition

B:-Insect disinfestations

C:-Both 1 and 2

D:-None of these

Correct Answer:- Option-D

Question24:-In high pressure processing, food products are packed in

A:-Aseptic packages

B:-Flexible or semi rigid package

C:-Both 1 and 2

D:-None of these

Correct Answer:- Option-C

Question25:-The storage properties of oils are improved by addition of

A:-Antioxidants

B:-Colour

C:-Stabilizers

D:-Flavour

Correct Answer:- Option-A

Question26:-In Squash preparation, the juice content should be

A:-Less than 25 percent

B:-More than 25 percent

C:-25 percent

D:-Both 2 and 3

Correct Answer:- Option-D

Question27:-Which of the following do not consist the pulse processing?

A:-Soaking

B:-Peeling

C:-Chemical application

D:-Oil application

Correct Answer:- Option-B

Question28:-Nets are used to pack the

A:-Garlic

B:-Onions

C:-Both 1 and 2

D:-Strawberry

Correct Answer:- Option-C

Question29:-In Puff dying process, small piece of product is exposed to _____ for short time.

A:-High temperature

B:-High pressure

C:-Both 1 and 2

D:-Low temperature

Correct Answer:- Option-C

Question30:-Resistance of butter oil to oxidation can be improved by the addition of

A:-Ethyl gallate

B:-Hydroquinone

C:-Nor Dihydroguaiaretic acid

D:-All of these

Correct Answer:- Option-D

Question31:-In mixing operation, the most commonly used design of mixing vessel is

A:-Vertical cylindrical tank

B:-Horizontal cylindrical tank

C:-Vertical cylindrical tank with dished bottom

D:-None of these

Correct Answer:- Option-C

Question32:-_____ force is generally used for course, medium and fine grinding of a variety of food materials.

A:-Compressive

B:-Impact

C:-Shear

D:-None of these

Correct Answer:- Option-B

Question33:-_____ pressure filter has found very wide applications in food industries.

A:-Horizontal plate

B:-Shell and tube

C:-Edge

D:-Vertical plate

Correct Answer:- Option-D

Question34:-Liquids likely to result in severe scaling are best processed in _____ evaporators.

A:-Open pan

B:-Natural circulation

C:-Forced circulation

D:-None of these

Correct Answer:- Option-C

Question35:-In dairy industry, for the separation of cream from milk, _____ centrifugal separator have been applied widely.

A:-Tubular bowl

B:-Disc bowl

C:-Conveyor bowl

D:-Cylindrical bowl

Correct Answer:- Option-B

Question36:-Grading of food material is based on

A:-Maturity

B:-Size and shape

C:-Texture and colour

D:-All of these

Correct Answer:- Option-D

Question37:-In food processing, the heat is transferred by

A:-Conduction mode

B:-Convection mode

C:-Both 1 and 2

D:-None of these

Correct Answer:- Option-C

Question38:-Heat transfer rate in fluids by natural convection which depends on _____ of fluids.

A:-Density

B:-Thermal conductivity

C:-Both 1 and 2

D:-None of these

Correct Answer:- Option-C

Question39:-The mass transfer occurring in presence of bulk fluid motion is called as _____ mass transfer.

A:-Conductive

B:-Convective

C:-Both 1 and 2

D:-None of these

Correct Answer:- Option-B

Question40:-Liquid - solid mass transfer is important in

A:-Filtration

B:-Sedimentation

C:-Crystallization

D:-Both 2 and 3

Correct Answer:- Option-D

Question41:-Who are main in-charge of food safety of every state of India?

A:-Food Safety Officer

B:-CEO of FSSAI

C:-State Minister

D:-Commissioner of Food Safety

Correct Answer:- Option-D

Question42:-What is the full form of FosTaC?

A:-Food Safety Training and Commission

B:-Food Safety Training and Certification

C:-Food Safety Trading and Certification

D:-Food Safety Trading and Commission

Correct Answer:- Option-B

Question43:-To promote food safety and healthy food, FSSAI has been launched a training programme under which scheme

A:-Swachh Bharat

B:-Jaago Grahak Jaago

C:-Ayushman Bharat

D:-Satvik Khaana

Correct Answer:- Option-C

Question44:-Regulation on food safety and standards for labeling established labeling requirement of packed food, excluding

A:-Percent contribution to RDA

B:-Nutritional labeling

C:-Labeling of heavy metal

D:-Labeling of genetically modified food

Correct Answer:- Option-C

Question45:-The basic purpose of food safety standards are

1. To promote unfair trade in food.
2. To prevent deceptive product.
3. Protection of public health and risk.
4. To improve the quality of food.

A:-Option 3 and 4 are true

B:-Option 2 and 3 are true

C:-Only option 1 is false

D:-Only option 3 is true

Correct Answer:- Option-B

Question46:-The food authority shall contain how many members from food industry

A:-1

B:-2

C:-3

D:-5

Correct Answer:- Option-B

Question47:-FSSAI has issued a set of guidelines regarding recall of which products from market place

A:-Unsafe food product

B:-Unsafe drinking water

C:-Unsafe labeling

D:-Unsafe packaging

Correct Answer:- Option-A

Question48:-What has been banned by FSSAI for tea bag?

A:-Herbal tea leaves

B:-Use of stapler pins

C:-Thread for dipping

D:-Cloth bag

Correct Answer:- Option-B

Question49:-FSSAI has launched which logo for fortified foods?

A:-Circle with an F and + sign with a ring

B:-Square with an F and + sign with a ring

C:-Rectangle with an F and + sign with a ring

D:-None of the above

Correct Answer:- Option-B

Question50:-Which of the following food are fortified in India?

A:-milk and oil

B:-salt

C:-wheat flour and rice

D:-all of these

Correct Answer:- Option-A

Question51:-Which of the following is best source of Vitamin A?

A:-Cauliflower

B:-Carrot

C:-Bean

D:-All of the above

Correct Answer:- Option-B

Question52:-Percentage of acetic acid in commercially available vinegar is

A:-5%

B:-4%

C:-10%

D:-40%

Correct Answer:- Option-B

Question53:-One gram of alcohol give how many calories

A:-20 Kcal

B:-7 Kcal

C:-4 Kcal

D:-9 Kcal

Correct Answer:- Option-B

Question54:-The DART book is used to detect

A:-Quality

B:-Contamination

C:-Adulteration

D:-Hazard

Correct Answer:- Option-C

Question55:-What is food toxicity?

A:-adverse reaction to food due to the presence of naturally occurring toxins in food

B:-adverse reaction to food due to the presence of adulterants in food

C:-adverse reaction to food due to the presence of contaminants in food

D:-all of the above

Correct Answer:- Option-A

Question56:-Which act related to food repealed in FSSAI, 2006?

A:-PFA Act 1954

B:-FPO Act 1955

C:-Both 1 and 2

D:-None of the above

Correct Answer:- Option-C

Question57:-The functional food and nutraceutical food are explained in which section

A:-Section 60

B:-Section 71

C:-Section 22

D:-Section 32

Correct Answer:- Option-C

Question58:-The main purpose of FSMS

A:-to ensure the manufacture

B:-storage

C:-distribution and sell of safe food

D:-all of the above

Correct Answer:- Option-D

Question59:-Which section of FSSAI, 2006 deals with duties and functions of food authority?

A:-Section 16

B:-Section 14

C:-Section 13

D:-Section 18

Correct Answer:- Option-A

Question60:-Section 25 of FSSAI deals with

A:-emergency prohibition notice and order

B:-liability of food safety officer in certain cases

C:-food recall procedure

D:-all import of articles of food to be subject to this act

Correct Answer:- Option-D

Question61:-Any person who manufactures for sale or distribute any article of substandard food for consumption is liable to extend of

A:-2.5 lakh rupees and 6 month imprisonment

B:-2.5 lakhs rupees only

C:-5 lakh rupees and 6 month imprisonment

D:-5 lakh rupees only

Correct Answer:- Option-D

Question62:-The food safety authority comprises of 22 members of which women shall make up to

A:-one third

B:-three forth

C:-two third

D:-half

Correct Answer:- Option-A

Question63:-The provision of single window system for applying for import clearance is

A:-IEC

B:-FSMS

C:-SWIFT

D:-FosTaC

Correct Answer:- Option-C

Question64:-The food analyst should cause to be analyzed the sample shall send copies of result to

A:-Food safety officer

B:-Assistant Commissioner

C:-Designated Officer

D:-Commissioner

Correct Answer:- Option-C

Question65:-The head quarter of FSSAI is located at

A:-Mumbai

B:-Chennai

C:-New Delhi

D:-Faridabad

Correct Answer:- Option-C

Question66:-HACCP is

A:-Compulsory

B:-Essential and non voluntary

C:-Non essential and compulsory

D:-Voluntary

Correct Answer:- Option-B

Question67:-In which year CODEX was setup?

A:-1970

B:-1830

C:-1953

D:-1963

Correct Answer:- Option-D

Question68:-Full form of FFRC is

A:-Food Firm Registration Certificate

B:-Food Fortification Resource Centre

C:-Food Fermentation Resource Centre

D:-None of the above

Correct Answer:- Option-B

Question69:-Which test is used to determine adulteration in ghee?

A:-Hausner ratio

B:-Boudin test

C:-Adulteration

D:-All of the above

Correct Answer:- Option-B

Question70:-Which of following initiatives has been launched by World Health Organization?

A:-Eat Right India

B:-Five Key to Safer Food

C:-Clean Street Food Hub

D:-All of the above

Correct Answer:- Option-B

Question71:-Which standards specifies requirement for prerequisite programme to assist in controlling food safety risk within the manufacturing process of international food supply chain?

A:-ISO - 22000

B:-Public available specification (220)

C:-FSMS

D:-CODEX

Correct Answer:- Option-B

Question72:-The international body which involved in harmonizing food standards worldwide is

A:-ISO

B:-WHO

C:-CODEX

D:-IUFS

Correct Answer:- Option-C

Question73:-Who provide the list of banned products in India?

A:-FSSAI

B:-DGFT

C:-EIC

D:-APEDA

Correct Answer:- Option-B

Question74:-FSSAI established how many central food analysis laboratories

A:-10

B:-24

C:-4

D:-12

Correct Answer:- Option-C

Question75:-ISO standard for laboratory requirement

A:-18000

B:-17025

C:-17700

D:-17252

Correct Answer:- Option-B

Question76:-Atomic absorption spectrophotometer is used to determine

A:-Calcium

B:-Iron

C:-Zinc

D:-Both iron and zinc

Correct Answer:- Option-D

Question77:-The adulteration of maida with stone and sand can be inferred by

A:-Gluten content

B:-Total ash

C:-Acid insoluble ash

D:-Dietary fiber

Correct Answer:- Option-C

Question78:-Cold test of fat is used to measure

A:-resistance of oil to crystallization

B:-freezing point of oil

C:-total saturated fat

D:-viscosity of oil

Correct Answer:- Option-A

Question79:-As per FSSAI limit for individual pesticide residue in packaged drinking water

A:-1 PPM

B:-0.1 PPB

C:-0.1 PPM

D:-1 PPB

Correct Answer:- Option-B

Question80:-The region for electromagnetic spectrum for nuclear magnetic resonance is

A:-Radio frequency

B:-Microwave

C:-Infrared

D:-UV rays

Correct Answer:- Option-A

Question81:-Which of the following can not show vibrational absorption spectrum?

A:-OCS

B:- H_2O

C:- CO_2

D:- $CH_2=CH_2$

Correct Answer:- Option-D

Question82:-Which of the following is not a component of emission system in flame photometer?

A:-Burner

B:-Atomizer

C:-Fuel gases

D:-Chopper

Correct Answer:- Option-D

Question83:-Chromatography is a physical method that is used to separate and analyze

A:-Complex mixture

B:-Simple mixture

C:-Viscous mixture

D:-Metal ions

Correct Answer:- Option-A

Question84:-Which of the following cannot be used as an adsorbent in Column adsorption chromatography?

- A:-Magnesium oxide
- B:-Silica gel
- C:-Potassium permanganate
- D:-Activated alumina

Correct Answer:- Option-C

Question85:-Which of the following is not true about High Pressure liquid chromatography (HPLC)?

- A:-It requires high pressure for the separation of the specious
- B:-There is no need to vaporise the samples
- C:-It is performed in columns
- D:-It has high sensitivity

Correct Answer:- Option-B

Question86:-Blood is a

- A:-Newtonian fluid, false
- B:-Rheopectic True
- C:-Pseudo plastic, false
- D:-Casson plastic, true

Correct Answer:- Option-D

Question87:-The PCR technique was developed by

- A:-Kohler
- B:-Altman
- C:-Milstein
- D:-Kary Mullis

Correct Answer:- Option-D

Question88:-Which of the following is the basic requirement of PCR reaction?

- A:-Two oligo nucleotide primers
- B:-DNA segment to be amplified
- C:-A heat stable DNA polymerase
- D:-All of the above

Correct Answer:- Option-D

Question89:-Which among the following radioactive isotopes is commonly used in radioimmunoassay?

- A:-Iodine-125
- B:-Sulpher-35
- C:-Phosphorous-32

D:-Nitrogen-14

Correct Answer:- Option-A

Question90:-Western blotting is used for detection of

A:-Special glycolipid in sample

B:-Specific protein in sample

C:-Specific DNA in sample

D:-Specific RNA in sample

Correct Answer:- Option-B

Question91:-Which constitutional amendment makes no reservation for scheduled caste people in Panchayaths in Arunachal Pradesh?

A:-83rd

B:-95th

C:-85th

D:-77th

Correct Answer:- Option-A

Question92:-Article 350(A) of the Indian Constitution deals with

A:-Facilities for instruction in mother tongue at primary stage

B:-Special officer for linguistic minorities

C:-Directive for development of Hindi language

D:-Language for redressal of grievances

Correct Answer:- Option-A

Question93:-If a new state in India needs to be created, reorganised or altered which schedule of the Indian Constitution must be amended?

A:-Schedule 6

B:-Schedule 2

C:-Schedule 3

D:-Schedule 1

Correct Answer:- Option-D

Question94:-Article 249 of the Indian Constitution deals with

A:-Power of Parliament to Legislate with respect to any matter in the State list if a proclamation of emergency is in operation

B:-Residuary power of legislation

C:-Power of Parliament to Legislate with respect to a matter in state list in the National interest

D:-Legislation for giving effect to international agreements

Correct Answer:- Option-C

Question95:-Which of the following items are included in the Union list of India?

- I. Foreign Affairs
- II. Foreign loans
- III. Taxes on Income other than Agricultural Income
- IV. Adulteration of food stuffs and other goods

A:-I, II, IV

B:-I, II, III

C:-I and II only

D:-All of the above

Correct Answer:- Option-B

Question96:-If any question arises as to whether a member of either house of parliament has become subject to any disqualification the question shall be referred for the final decision of?

A:-Speaker

B:-Prime Minister

C:-The President of India

D:-Supreme Court

Correct Answer:- Option-C

Question97:-Article 40 belongs to which part of the Indian Constitution?

A:-Part - IV

B:-Part - III

C:-Part - II

D:-Part - V

Correct Answer:- Option-A

Question98:-The power of the Supreme Court of India to decide the dispute between the Centre and States comes under which jurisdiction

A:-Appellate Jurisdiction

B:-Original Jurisdiction

C:-Special leave to appeal

D:-Executive Jurisdiction

Correct Answer:- Option-B

Question99:-The Right to Information Act 2005 was passed during the Presidentship of?

A:-K.R. Narayanan

B:-Pratibha Patil

C:-Pranab Mukherjee

D:-A.P.J. Abdul Kalam

Correct Answer:- Option-D

Question100:-Which of the following statements are correct regarding the POCSO Act 2012?

- I. Children according to the POCSO Act are those aged below 18 years
- II. The POCSO Act is gender neutral
- III. The Act provides for the establishment of special courts for the trial of such offences
- IV. The Power to make rules lies with the Central Government

A:-I, III, IV

B:-I, IV

C:-I, II, III

D:-All of the above

Correct Answer:- Option-D