

# PROVISIONAL ANSWER KEY

Question Paper Code:	75/2017/OL
Category Code:	355/2013
Exam:	Microbiologist
Medium of Question:	English
Date of Test	14-09-2017
Department	Food Safety
Alphacode	A

Question1:-The Radcliffe line is the international border between

- A:-India and China
  - B:-India and Pakistan
  - C:-India and Sri Lanka
  - D:-India and Maldives
- Correct Answer:- Option-B

Question2:-The oldest fold mountain in India?

- A:-Nilgiri Mountain
  - B:-Kanchenjunga
  - C:-Vindhya hills
  - D:-Aravalli Range
- Correct Answer:- Option-D

Question3:-Which of the following rivers originates from the Western Ghats near Mahabaleswar Peak?

- A:-Krishna
  - B:-Kaveri
  - C:-Godavari
  - D:-Sabarmati
- Correct Answer:- Option-A

Question4:-The battle of Plassey was fought between

- A:-Mir Qasim and East India Company
  - B:-Shahalam and Robert Clive
  - C:-Mirjafar and Robert Clive
  - D:-Sirajuddaula and Robert Clive
- Correct Answer:- Option-D

Question5:-Who is known as "The Father of Indian Renaissance"?

- A:-Rabindranath Tagore
  - B:-Swami Vivekananda
  - C:-Raja Ram Mohan Roy
  - D:-Jawaharlal Nehru
- Correct Answer:- Option-C

Question6:-Poora Swaraj day was observed on

- A:-8th August 1942
  - B:-26th January 1930
  - C:-22nd March 1940
  - D:-21st December 1928
- Correct Answer:- Option-B

Question7:-Who was the second President of Indian National Congress?

- A:-Dadabhai Naoroji
  - B:-Mrs. Annie Besant
  - C:-George Yule
  - D:-Badrudin Tayyabji
- Correct Answer:- Option-A

Question8:-The 14 major Indian banks were nationalised during which five year plan?

- A:-Fifth plan
  - B:-Ninth plan
  - C:-Fourth plan
  - D:-Second plan
- Correct Answer:- Option-C

Question9:-The second longest river in Kerala

A:-Bharatha Puzha

B:-Periyar

C:-Pamba

D:-Chalakkudi

Correct Answer:- Option-A

Question10:-Who was the founder of Trissur City?

A:-Kerala Varma

B:-Achutha Menon

C:-Raja Rama Varma

D:-Panampilly Govinda Menon

Correct Answer:- Option-C

Question11:-The First book in Malayalam literature questioning the cast system and untouch ability?

A:-Jathi Nirnayam

B:-Adukkalayil ninnu arangathekku

C:-Untouchables

D:-Jathikummi

Correct Answer:- Option-D

Question12:-The founder of the newspaper Swadeshabhimani?

A:-Rama Krishna Pillai

B:-Vakkom Moulavi

C:-Sayyid Ahmed Khan

D:-Madhavan Nair

Correct Answer:- Option-B

Question13:-Ezhava Memorial was submitted to

A:-Karthika Tirunal

B:-Babrama Varma

C:-Swathi Tirunal

D:-Sree Moolam Tirunal

Correct Answer:- Option-D

Question14:-Who was the founder of Athmavidya Sangam?

A:-Vagbhatananda

B:-Sree Narayana Guru

C:-Chattampi Swami

D:-Ayyankali

Correct Answer:- Option-A

Question15:-Who was the founder of Samathwa Samajam?

A:-Thycaud Ayya

B:-Pandit Karuppan

C:-Vaikunda Swami

D:-Brahmananda Sivayogi

Correct Answer:- Option-C

Question16:-The Brand Ambassador of Harithakeralam project

A:-Manju Warrier

B:-K.J. Yesudas

C:-Mammooty

D:-Mohanlal

Correct Answer:- Option-B

Question17:-The Secretary General of SAARC

A:-Arjun Bahadur Thapa

B:-Ahmed Saleem

C:-Sheel Sharma

D:-Amjad Hussain B. Sial

Correct Answer:- Option-D

Question18:-Which team wins the Ranji Trophy Final 2017?

A:-Mumbai

B:-Gujarat

C:-Karnataka

D:-Maharashtra

Correct Answer:- Option-B

Question19:-Which launching vehicle of ISRO got the reward of 104 space craft in their desired orbits?

A:-PSLV C : 34

B:-PSLV C : 35

C:-PSLV C : 37

D:-PSLV C : 36

Correct Answer:- Option-C

Question20:-Who is the latest recipient of Jnanpith Award?

A:-Shankhe Ghosh

B:-Raghuveer Chaudhari

C:-Balachandra Nemade

D:-Kedarnath Singh

Correct Answer:- Option-A

Question21:-Which among the following organisms causes food borne intoxication as a cause of food poisoning?

A:-Staphylococcus aureus

B:-Gonyaulax Catenella

C:-Yersinia Enterocolitica

D:-Clavices Purpurea

Correct Answer:- Option-A

Question22:-What is the optimum temperature for the growth of most of the psychrotrophs?

A:-15° C

B:-20° C

C:-1° C

D:-10° C

Correct Answer:- Option-B

Question23:-Still birth in cattle and human beings is caused by the action of food poisoning that involves the presence of which of the bacteria?

A:-Vibrio Cholerae

B:-Listeria Monocytogenes

C:-Campylobacter jejuni

D:-Clostridium botulinum

Correct Answer:- Option-B

Question24:-Name the anti microbial ingredient present in clove

A:-Cinnamaldehyde

B:-Cineole

C:-Thujone

D:-Eugenol

Correct Answer:- Option-D

Question25:-Select the Eh value limit, below which an environment is considered to be anaerobic in nature

A:-200 mV

B:-500 mV

C:-200 mV

D:-501 mV

Correct Answer:- Option-C

Question26:-Name a mold like yeast among the following

A:-Amylomyces

B:-Endomycopsis

C:-Candida

D:-Pichia

Correct Answer:- Option-B

Question27:-The maximum amount of alcohol content permissible in the case of table wines

A:-10%

B:-12%

C:-20%

D:-14%

Correct Answer:- Option-D

Question28:-Name the fermented product from the juice of the cactus plant Agave

A:-Pulque

B:-Kemph

C:-Sake

D:-Kummis

Correct Answer:- Option-A

Question29:-The flavouring compound with antibacterial activity that is present in the flower petals of the plant Hops that is used in the beer industry

A:-Cadaverine and Putrescene

B:-Flavons and Flavanones

C:-Humulone and Lupulone

D:-Thujone and cineole

Correct Answer:- Option-C

Question30:-How the personal hygiene in HACCP system in a meat processing plant is monitored?

A:-Visual inspection

B:-Hand swabs

C:-Both (1) and (2)

D:-None of the above

Correct Answer:- Option-B

Question31:-Which is the human organ that is affected by Venous-Occlusive disease?

A:-Heart

B:-Intestine

C:-Liver

D:-Kidneys

Correct Answer:- Option-C

Question32:-Deoxynevalenol is grouped under the broad category of chemicals referred to as

A:-Trichothecenes

B:-Lectins

C:-Terpenoids

D:-Flavanoids

Correct Answer:- Option-A

Question33:-Select the microaerophilic bacteria that causes food poisoning

A:-Vibrio parahaemolyticus

B:-Campylobacter jejuni

C:-Bacillus cereus

D:-Clostridium sp

Correct Answer:- Option-B

Question34:-Mention the name of the scientist who first proposed the use of steel cans for the canning process

A:-Francois Appert

B:-Lazzaro Spallanzani

C:-Peter Durand

D:-Harry Russell

Correct Answer:- Option-C

Question35:-Which of the following sequence accurately represent the Aw requirement in the decreasing order of demand for growth in food stuffs?

A:-Spoilage bacteria > Spoilage yeast > Spoilage mold > Halophilic bacteria > Osmophilic yeast

B:-Halophilic bacteria > Spoilage bacteria > Spoilage yeast > Spoilage mold > Osmophilic yeast

C:-Spoilage bacteria > Spoilage yeast > Spoilage mold > Osmophilic yeast > Halophilic bacteria

D:-Spoilage yeast > Spoilage bacteria > Spoilage mold > Halophilic bacteria > Osmophilic yeast

Correct Answer:- Option-A

Question36:-Which among the following is not a Class I preservative?

A:-Propionic acid

B:-Dextrose

C:-Honey

D:-Sodium chloride

Correct Answer:- Option-A

Question37:-Itai-Itai disease in Japan is caused by the toxicity of which of the following?

A:-Arsenic

B:-Copper

C:-Mercury

D:-Cadmium

Correct Answer:- Option-D

Question38:-Name the toxic alkaloid present in Argemone mexicana which is a major adulterant in mustard

- A:-Thiocyanate
- B:-Dioxine
- C:-Sanguinarine
- D:-Trimethyl amine

Correct Answer:- Option-C

Question39:-During the production of beer making, in which of the following step the non soluble unfermentable carbohydrates from the cereals are hydrolyzed into soluble fermentable materials?

- A:-Mashing
- B:-Malting
- C:-Hop addition
- D:-Wort processing

Correct Answer:- Option-A

Question40:-What is milk plasma?

- A:-Milk without lactose
- B:-Milk without casein
- C:-Milk without fat globules
- D:-Milk without whey

Correct Answer:- Option-C

Question41:-Name the psychotrophic bacteria belonging to enterobacteriaceae that causes enteric infection

- A:-Shigella Flexneri
- B:-Yersinia enterocolitica
- C:-Enterobacter fecalis
- D:-Escherichia Coli

Correct Answer:- Option-B

Question42:-Which is the toxic protein present in "Killer yeast" that has adverse effect on beneficial yeast?

- A:-Mycocide
- B:-Bactocide
- C:-Zymocide
- D:-Saccharocide

Correct Answer:- Option-C

Question43:-Which is the new taxonomical name given to the bottom fermenting yeast "Saccharomyces carlsbergensis"?

- A:-Saccharomyces uvarum
- B:-Saccharomyces pastorianus
- C:-Saccharomyces udum
- D:-Saccharomyces lactis

Correct Answer:- Option-B

Question44:-The scientist who first developed pure culture of yeast for the production of beer

- A:-Brefeld
- B:-Joseph Lister
- C:-Emil Hansen
- D:-Louis Pasteur

Correct Answer:- Option-C

Question45:-Select the sequence of downstream processing involved in most of the production process of antibiotics

- A:-Filtration - Solvent Extraction - Crystallization - Drying
- B:-Solvent Extraction - Filtration - Crystallization - Drying
- C:-Filtration - Crystallization - Solvent Extraction - Drying
- D:-Crystallization - Solvent Extraction - Filtration - Drying

Correct Answer:- Option-A

Question46:-Indonesian Tempeh is a processed food derived from

- A:-Rice
- B:-Soybean
- C:-Groundnut
- D:-Wheat

Correct Answer:- Option-B

Question47:-Name the bacterial species with the presence of an active pyruvate carboxylase enzyme

- A:-Pseudomonas aeruginosa
- B:-Lactobacillus brevis
- C:-Streptococcus lactis
- D:-Zymomonas mobilis

Correct Answer:- Option-D

Question48:-The enzyme responsible for the conversion of starch into fermentable sugars in the beer making process is

- A:-cellulase
- B:-amylase
- C:-glucanase
- D:-maltase

Correct Answer:- Option-B

Question49:-The most important anaerobic bacterial species that causes meat putrefication is

- A:-Bacillus cereus
- B:-Clostridium perfringens
- C:-Clostridium tetani
- D:-Clostridium botulinum

Correct Answer:- Option-B

Question50:-Name the neurotoxin that is involved in lathyrism

- A:-Trimethyl amine
- B:-Trimethyl amine oxide
- C:-Beta oxalyl amino alanine
- D:-Sanguinarine

Correct Answer:- Option-C

Question51:-Select the temperature that can be tolerated by the emetic toxin of Bacillus cereus

- A:-112°C
- B:-85°C
- C:-152°C
- D:-126°C

Correct Answer:- Option-D

Question52:-Which among the following is the causative agent for shell fish poisoning?

- A:-Gonyaulax Catenella
- B:-Vibrio Parahaemolyticus
- C:-Giardia lamblia
- D:-Salmonella typhimurium

Correct Answer:- Option-A

Question53:-Select the critical limit of temperature as the CCP in the process steps of pasteurization in an HACCP plant for liquid milk

- A:- $138 \pm 2^\circ\text{C}$
- B:- $55 \pm 2^\circ\text{C}$
- C:- $77 \pm 2^\circ\text{C}$
- D:-None of the above

Correct Answer:- Option-C

Question54:-VOD is caused by the toxin present in the seeds of which adulterant plant?

- A:-Crotalaria nanaburn
- B:-Panicum maximum
- C:-Argemone Mexicana
- D:-Arabidopsis Thaliana

Correct Answer:- Option-A

Question55:-Which of the following condition the disease "Hyperkeratosis" is associated with?

- A:-Acute arsenic exposure
- B:-Chronic fluoride exposure
- C:-Acute fluoride exposure
- D:-Chronic arsenic exposure

Correct Answer:- Option-D

Question56:-Pink colour formation in oysters is due to the infestation with which of the following organism?

- A:-Rhodotorula
- B:-Rhodospirillum
- C:-Halobacterium
- D:-Serratia

Correct Answer:- Option-C

Question57:-What do you mean by the term "fugu"?

- A:-Algal poisoning
- B:-Shell fish poisoning

- C:-Algal blooming
- D:-Puffer fish poisoning
- Correct Answer:- Option-D

Question58:-Film forming yeast that causes the spoilage of wine is

- A:-Candida
- B:-Hansenula
- C:-Schizosaccharomyces
- D:-Albugo
- Correct Answer:- Option-B

Question59:-Which among the following is a heterofermentative lactic acid bacteria?

- A:-Lactococcus
- B:-Streptococcus
- C:-Leuconostoc
- D:-Pediococcus
- Correct Answer:- Option-C

Question60:-Select the factors that favour the growth of molds compared to bacteria in fruits

- A:-Low carbohydrate content and low pH
- B:-High carbohydrate content and low pH
- C:-High carbohydrate content and high pH
- D:-Low carbohydrate content and high pH
- Correct Answer:- Option-B

Question61:-Bacteriocins are used as a food preservative against which of the following?

- A:-Gram positive bacteria
- B:-Gram negative bacteria
- C:-Yeasts
- D:-Fungi
- Correct Answer:- Option-B

Question62:-Reuterin, an anti microbial substance produced by Lactobacillus reuteri, that is used as a food preservative requires which of the following substance as a substrate for its synthesis?

- A:-Catechol
- B:-Tryptophan
- C:-Glycerol
- D:-Glucose
- Correct Answer:- Option-C

Question63:-Which among the following private enterprise contributed to the development of HACCP?

- A:-Nestle
- B:-Parle
- C:-Pillsbury
- D:-Cadbury
- Correct Answer:- Option-C

Question64:-Dye reduction test is used for assessing the quality of

- A:-Meat
- B:-Beer
- C:-Wine
- D:-Milk
- Correct Answer:- Option-D

Question65:-The destructive effect of ozone on bacteria was first noticed by

- A:-Kurkowitsch
- B:-Metchnikoff
- C:-Beijerinck
- D:-Paul Ehrlich
- Correct Answer:- Option-A

Question66:-Which is the step that helps in determining the critical control points in an HACCP system?

- A:-Development of a flow chart
- B:-Development of a decision tree
- C:-Development of a flow diagram
- D:-Listing out of potential hazards
- Correct Answer:- Option-B

Question67:-Which is the mobile phase in gas chromatography?

A:-Liquid

B:-Solid

C:-Gas

D:-None of the above

Correct Answer:- Option-C

Question68:-"Eyes" in Swiss cheese are formed as a result of

A:-Entrapment of oxygen

B:-By the action of rennin

C:-Degradation of casein

D:-Entrapment of  $\text{CO}_2$

Correct Answer:- Option-D

Question69:-Which among the following is a fungal bioagent used for commercial production of  $\alpha$  amylase?

A:-Trichoderma viridae

B:-Rhodotorula sp

C:-Aspergillus oryzae

D:-Aspergillus niger

Correct Answer:- Option-C

Question70:-Which among the following is the actinobacteria used for the production of SCP?

A:-Rhodococcus sp

B:-Cellulomonas sp

C:-Micrococcus sp

D:-Corynebacterium sp

Correct Answer:- Option-B

Question71:-In a continuous culture system which is the term that denotes the substrate concentration at which the specific growth rate is equal to half of the maximum specific growth rate?

A:-Critical dilution constant

B:-Specific consumption constant

C:-Pasteur specific rate constant

D:-Monod saturation constant

Correct Answer:- Option-D

Question72:-Which of the following statement is not true with respect to HACCP?

1. It is an end product test
2. It is a preventive approach
3. It is a continuous approach
4. Corrective actions are taken at every stage

A:-Statement 1

B:-Statement 1 and 4

C:-Statement 3

D:-Statement 1 and 3

Correct Answer:- Option-A

Question73:-To which of the following group Giardia lamblia belongs to

A:-Fungus

B:-Bacteria

C:-Protozoa

D:-Alga

Correct Answer:- Option-C

Question74:-Select the pasteurization temperature used for ice cream mix

A:-71.1°C for 10 sec

B:-82.2°C for 20 sec

C:-65°C for 30 min

D:-71.1°C for 10 min

Correct Answer:- Option-B

Question75:-In which of the following food stuff nitrates are used as chemical preservatives?

A:-Meat

B:-Egg

C:-Vegetables



D:-Milk

Correct Answer:- Option-A

Question76:-A common mold that could be present in insufficiently canned fruit product is

A:-Aspergillus niger

B:-Byssoschlamys fulva

C:-Penicillium notatum

D:-Phytophthora carotovora

Correct Answer:- Option-B

Question77:-To which of the category the toxin Linamarin belongs to

A:-Pyrrolizidine alkaloid

B:-Carboxylic acid

C:-Hydrated polyamine

D:-Cyanogenic glycoside

Correct Answer:- Option-D

Question78:-The first step in any HACCP programme is

A:-To document the procedures

B:-To conduct a hazard analysis

C:-To establish critical limits

D:-To determine critical control points

Correct Answer:- Option-B

Question79:-Which is the most common detector in HPLC?

A:-ECD

B:-FID

C:-UV/Vis

D:-FTD

Correct Answer:- Option-C

Question80:-Which is the starting substrate used for the production of white wine?

A:-White grapes

B:-De-skinned red/black grapes

C:-Only (1)

D:-Both (1) and (2)

Correct Answer:- Option-D

Question81:-Mention the factor responsible for affecting the digestibility of dietary protein in food

A:-Pyruvate carboxylase

B:-Oxalates

C:-Trypsin inhibitor

D:-Goiterogens

Correct Answer:- Option-C

Question82:-Select the hard cheese among the following

A:-Cheddar

B:-Camembert

C:-Roquefort

D:-Parmesan

Correct Answer:- Option-D

Question83:-Choose the enzymes that are not present in obligate anaerobic organisms

A:-SOD

B:-Catalase

C:-SOD and catalase

D:-Catalase and peroxidase

Correct Answer:- Option-C

Question84:-Select the pH range at which the preservative action of sodium benzoate is the maximum

A:-5.6-7.0

B:-7.5-8.0

C:-2.5-4.0

D:-6.5-7.5

Correct Answer:- Option-C

Question85:-Which is the symptom of spoilage caused by Cladosporium herbarum in meat?

A:-Green patches

B:-White spot

C:-Whiskers

D:-Black spot

Correct Answer:- Option-D

Question86:-Which is the anaerobic bacterial species that produces a neurotoxin that is found associated with insufficient canning processes?

A:-Bacillus cereus

B:-Clostridium botulinum

C:-Desulfovibrio sp

D:-Desulfatocaulum sp

Correct Answer:- Option-B

Question87:-Which among the following is the spoilage symptom caused by Erwinia Carotovora in vegetables?

A:-Soft rot

B:-Grey spot

C:-Angular spot

D:-Ropiness

Correct Answer:- Option-A

Question88:-Detection of which of the compound in fish would reveal the spoilage occurrence?

A:-TMAO

B:-TMA

C:-PUFA

D:-TTX

Correct Answer:- Option-B

Question89:-Paralytic shellfish poisoning is caused by

A:-Saxitoxin by Gonyaulax catenella

B:-Neurotoxin by dinoflagellates

C:-Seroxin by diatoms

D:-None of the above

Correct Answer:- Option-A

Question90:-Which is the chromatographic system that is used for analyzing samples with volatile activity?

A:-TLC

B:-Paper chromatography

C:-GLC

D:-Ion exchange chromatography

Correct Answer:- Option-C

Question91:-Which is the most probable food poisoning organism that is associated with the complications arising out of the consumption of the Japanese food "sushi"?

A:-Campylobacter jejuni

B:-Vibrio Cholerae

C:-Pseudomonas aeruginosa

D:-Vibrio parahaemolyticus

Correct Answer:- Option-D

Question92:-In a chemostat what is the dilution rate, if the flow rate is 50 ml per hr and the volume of the vessel is 500 ml?

A:-0.1 per hr

B:-10.0 per hr

C:-0.01 per hr

D:-25000 per hr

Correct Answer:- Option-A

Question93:-Which of the fungus causes ergotism?

A:-Claviceps purpurea

B:-Rhizopus stolonifer

C:-Aspergillus flavus

D:-Fusarium oxysporum

Correct Answer:- Option-A

Question94:-The starting material for the production of "Rum" is

A:-Wheat

B:-Barley

C:-Grapes

D:-Molasses

Correct Answer:- Option-D

Question95:-Name the process of irradiation process in which viable, non-spore forming, pathogenic bacteria are eliminated from the food

- A:-Radicidation
- B:-Radurization
- C:-Radappertization
- D:-None of the above

Correct Answer:- Option-A

Question96:-Name the amino acid that is usually deficient in the single cell protein of microbial origin

- A:-L-tryptophan
- B:-L-methionine
- C:-L-arginine
- D:-L-cystine

Correct Answer:- Option-B

Question97:-Which is the test that is used for assessing the efficiency of pasteurization of milk?

- A:-Hydrogenase test
- B:-Chemiluminescence test
- C:-Phosphatase test
- D:-Azide reduction test

Correct Answer:- Option-C

Question98:-The number of days to lapse before the pesticide residue get dissipated is designated as

- A:-Dissipation period
- B:-Waiting period
- C:-Harvest duration
- D:-Lag period

Correct Answer:- Option-B

Question99:-One gray in the radiation measurement is

- A:-1000 rads
- B:-100 erg
- C:-100 rads
- D:-1000 erg

Correct Answer:- Option-C

Question100:-The causative agent for aflotoxicosis is

- A:-Fusarium oxysporum
- B:-Aspergillus flavus
- C:-Claviceps fusiformis
- D:-Rhizopus stolanifer

Correct Answer:- Option-B