Examination: M.Sc Food Science and Nutrition

SECTION 1 - SECTION 1

Question No.1

Which of the following is the general formula for carbohydrates?

- \bigcirc C_m(H₂O)_n
- C_{m+1}(H₂O)_n
- \bigcirc C_m(H₂O)_{n+1}
- $\bigcirc C_{m-1}(H_2O)_n$

Question No.2

HFCS is made from:

- Potato starch
- Wheat starch
- Maize starch
- Tapioca starch

Question No.3

Concept of traceability used in FSMS involves :

- Final product inspection
- Tracing the history of food
- Recalling of the history of the food product or process
- Quantification of trace elements as food contaminants

Question No.4

The white portions of meat muscle refers to

- Vitamins
- Carbohydrates
- Minerals
- Fat

Question No.5

The ability of starches to form gels is dependent on the presence of

- Pectin
- Dextrin
- Amylose

"Bureau of Indian Standards Act, 1986" comes under

- Directorate of Marketing and Inspection
- Department of Consumer Affairs, Govt. of India
- Department of Legal Metrology
- Department of Agriculture & Cooperation

Question No.7

Which of the following are the correct types of dispersed systems?

- Suspension, Emulsifier, Foam
- Suspension, Solution, Emulsifier
- Solution, Emulsifier, Foam
- Suspension, Solution, Foam

Question No.8

Cleaning of cereals by aspiration is based on

- Thermal properties
- Magnetic properties
- Hydrodynamic properties
- Aerodynamic properties

Question No.9

The MSNF means :

- Milk Solid Not Fat
- Milk Standardized Natural Fat
- Milk Solid Natural Fat
- Milk Solid Non Fat

Question No.10

Which of the following is correct?

- Lactose is made up of galactose and fructose
- Lactose is made up of glucose and fructose
- Sucrose is made up of glucose and fructose
- Sucrose is made of galactose and glucose

Sucrose upon hydrolysis in the presence of mild acids or the enzyme invertase, results in

- Lactose
- Invert sugar
- Maltose
- Raffinose

Question No.12

Removal of air from the head space of filled container either by heat treatment or mechanical method is called:

- Retorting
- Heating
- Exhausting
- Canning

Question No.13

Lack of control on ______in the food processing system can result in a safety risk for the consumer.

- Processing aids
- Hazards
- Contamination
- Oritical Control Points

Question No.14

Which naturally occurring component causes enzymatic browning in fruits and vegetables?

- Tyrosine
- Taurine
- Tannin
- Thiamine

Question No.15

The best sources of vitamin K are:

- Meat products
- Dairy products
- Green leafy vegetables

A dietary deficiency of the following factor can lead to Wernicke-Korsakoff syndrome

Riboflavin

Niacin

Biotin

Thiamine

Question No.17

The pigment responsible for the red colour of tomatoes is

- Carotene
- Lycopene
- Ourcumin
- Limonene

Question No.18

The natural enzyme "Pectin methyl esterase" present in fruits is deactivated at

- 80 °C
- 10 °C
- 30 °C
- 50 °C

Question No.19

ISO 9000:2005 Quality management systems deals with

- Customer satisfaction
- Fundamentals and vocabulary
- Requirements
- Guidelines for performance improvements

Question No.20

The gas used for flushing the processed and packaged food is

- Oxygen
- Hydrogen
- Carbon dioxide

The condensation products of sugar with non-sugars are known as

- Glycosides
- Amino sugars
- Glyceritol
- Deoxy sugars

Question No.22

The chemical name of table sugar is

- Lactose
- Fructose
- Sucrose
- Glucose

Question No.23

Corn syrup is a mixture of :

- Galactose and maltose
- Dextrose and galactose
- Glucose and galactose
- Dextrose and maltose

Question No.24

HACCP stands for:

- Hazard Analysis and Critical Control Point
- Hazard And Critical Cooking Point
- Hazard And Critical Control Program
- Health And Critical Command Point

Question No.25

The hotness of chillies is due to the presence of

- Quercetin
- Allicin
- Oitrinin
- Capsaicin

The bubbles seen in soda and champagne are due to

- Sulphur dioxide
- Hydrogen peroxide
- Nitrogen per oxide
- Carbon dioxide

Question No.27

Vanaspathi and margarine contain:

- Trans -fatty acids
- Alpha fatty acids
- Cis fatty acids
- Beta fatty acids

Question No.28

Winterization is

- Removing long chain fatty acids
- Plasticizing solid fats
- Ageing meat
- Ripening cheese

Question No.29

The time required to reduce the viable microbial population by a factor of 90% is

- D value
- Z value
- M value
- F value

Question No.30

The liquid fraction obtained during mashing in beer making is called as:

- Hops
- Wort
- Mash
- Brew

What is an emulsion?

- A mixture of two miscible liquids
- A mixture of two solutions
- A mixture of two immiscible liquids
- A mixture of two gases

Question No.32

Freeze burn is a defect which generally occurs in frozen foods due to

- Rehydration
- Osmosis
- Thermal conductivity
- Dehydration

Question No.33

Colour due to anthocyanins are highly sensitive to

- Water
- Heat
- 🔵 Oil
- _ pH

Question No.34

HACCP is a management tool used in food processing operations to control one of the following:

- Food plant sanitation issues
- Food quality issues
- Food safety issues
- Food analysis issues

Question No.35

Brewer's yeast contain approximately% of proteins on dry-weight basis

- 0 40
- 20
- 30
- 50

What has been banned for tea bag products by FSSAI from 2018?

Thread for dipping

- Herbal tea leaves
- Use of stapler pins
- Cloth bag containing the tea leaves

Question No.37

The Maillard reaction is nutritionally significant largely because of its effect on which amino acid?

- Asparagine
- Leucine
- Lysine
- Alanine

Question No.38

What is the full form of P-D-C-A :

- Plan-Do-Check-Act
- Proceed-Do-Check-Act
- Proceed-Do-Correct-Act
- Plan-Do-Correct-Act

Question No.39

Which of the following is not an antioxidant?

- Vitamin A
- Beta Carotene
- Vitamin C
- Vitamin E

Question No.40

Sugars that possess free aldehyde or ketone groups are known as

- Cellulose
- Non-reducing sugars
- Reducing sugars
- Sucrose

Food Safety and Standards Act, 2006 was notified on:

23rd June 2006

- 23rd November 2006
- 23rd July 2006
- 23rd August 2006

Question No.42

Why is the Maillard reaction faster in potato chips rather than boiled potatoes?

- Lower temperature
- Lower Oil
- Higher temperature
- Higher Oil

Question No.43

The word biscuit has been derived from Latin word means "baked twice" is

- Danis discoctus
- Danis biscoctus
- Danis biscuit
- Danis bisuitoe

Question No.44

The D Value for Staphylococcus aureus would be higher in:

- Whole milk
- Whey
- Skim milk
- Cream

Question No.45

The food processing operation which uses a retort is:

- Irradiating
- Canning
- Dehydrating
- Homogenising

Question No.46

Water activity of a food product can be reduced by adding

- Humectant
- Preservatives like SO₂
- Antioxidant
- Desiccant

Question No.47

Sugar alcohols are used as sweeteners because they are:

- Antipyrogenic
- Anticariogenic
- Antidiabetic
- Anticarcinogenic

Question No.48

Deficiency of Vitamin D leads to

- Xerophthalmia
- Beriberi
- Osteomalacia
- Nyctalopia

Question No.49

Algal proteins contain all essential amino acids but low in

- Arginine
- Valine
- Methionine
- Tyrosine

Question No.50

Sequestrants are also known as

- Stabilizers
- Chelating Agents
- Anticaking agents
- Emulsifiers

Question No.51

For milling soft wheat is tempered to moisture level of

0 13-15%

- 0 12-14%
- 0 15-15.5%
- 0 14-14.5%

Question No.52

Systematic, independent and documented process for obtaining evidence and evaluation is known as :

Audit

Recall

Accreditation

Verification

Question No.53

Calcium pectates are

- Water insoluble
- Fat insoluble
- Water soluble
- Fat Insoluble

Question No.54

The recommended daily allowance of vitamin E (α -tocopherol equivalents) for infants is

- \odot 3-4 mg α -TE
- \odot 15 mg α -TE
- 10 mg α-TE
- 7-13 mg α-TE

Question No.55

Which best explains why olive oil remains liquid and coconut oil is solid at refrigerated temperatures?

- Olive oil contains saturated fats
- Coconut oil contains unsaturated fats
- Coconut oil contains trans fats
- Olive oil contains unsaturated fats

Pectins are polymer of

- Carbohydrates and protein
- Protein and fat
- Carbohydrate and fat
- Sugar and acid derivatives

Question No.57

Low methoxy pectins gel in the presence of:

- Potassium ions
- Sodium ions
- Calcium ions
- Chloride ions

Question No.58

Which antioxidant is used to minimize the rancidity during packaging of meat

- Ascorbic acid
- BHA
- ─ TBA
- Chlorine

Question No.59

The common name for sodium bicarbonate used in cooking is

- Baking powder
- Baking soda
- Cream of tartar
- Alum

Question No.60

During dough formation following results

- Concentration of dislphide becomes more
- Dislphide bond cleave to sulphydryl bond
- Sulphydryl bond (-SH) cleave to disulphide bond (S-S)
- Concentration of sulphydryl becomes less

Question No.61

A 3000-kcal diet for a young sportsman should contain 12% % of energy from protein. This amounts to ----- grams of protein.

\bigcirc	75
	80
	90
	85

In deep freezers, the walls absorb heat from food materials by _____ and keep them cool.

Radiation

Conduction

- Adsorption
- Convection

Question No.63

Purplish red colour of meat is due to

- Myglobin (Fe²⁺)
- Nitric oxide myglobin (Fe²⁺)
- Metmyoglobin (Fe³⁺)
- Oxymyglobin (Fe²⁺)

Question No.64

Which of the following is classified as an antioxidant?

- Acetic acid
- Ascorbic acid
- Benzoic acid
- Butyric acid

Question No.65

Why is sodium nitrite added to cured meats such as bacon?

- To preserve the flavour
- To preserve the taste
- To preserve the texture
- To preserve the colour

Question No.66

The flavour components of the cabbage and cauliflower are due to

Question No.67		
 Hesperidin 		
 Thioglucosides 		
 Naringin 		

Which of the following is non-enzymatic browning that occurs during a complex series of reactions between amino acids and carbohydrates?

Dextrinisation

Caramelisation

Tyndall Reaction

Maillard Reaction

Question No.68

The stimulant present in beverages such as coffee, tea and cola are

- Casein
- Caffeine
- Theobromine
- Theophylline

Question No.69

Cellulose is not digested in the human gastro- intestinal tract because the of absence of:

Amylase

Cellulase

- Xylanase
- Hemicellulase

Question No.70

The water content in milk is approximately:

00%

- 76%
- 0 87%
- 080%

Question No.71

With respect to the definition of an allied industry, which is an allied industry with

the food industry?

- Jute Industry
- Pesticide Industry
- Paper Industry
- Packaging Industry

Question No.72

The most common flavonoid in the peels of oranges and lemons is :

- Hesperidin
- Allicin
- Terpene limonin
- Naringin

Question No.73

Recommended antibiotics in meat preservation

- Nisin
- Chloramphenicol
- Chlortetracycline and oxytetracycline
- All of these

Question No.74

The deficiency of ______ causes pernicious anaemia.

- Vitamin B 12
- Vitamin B 6
- Vitamin B1
- Vitamin B2

Question No.75

To have a fluid like consistency, the membranes of the psychrophiles will have higher levels of ______ fatty acids than the membranes of the mesophiles.

- Ois unsaturated
- Trans unsaturated
- Branched
- Saturated

Question No.76

Alcoholic beverages such as beer, wine and toddy contain

- Methanol
- Isopropanol
- Propanol
- Ethanol

Question No.77

Eyes burn and water when you chop onions because of the acid released, which one?

- Acetic acid
- Hydrochloric acid
- Sulphuric acid
- Nitric acid

Question No.78

Food that exhibits the best Newtonian flow behaviour is

- Milk
- Fruit puree
- Protein concentrate
- Diary cream

Question No.79

Major factors used to evaluate the meat quality

- Myoglobin and Haeme
- Fat and fibre
- Saturated fatty acids and protein
- Maturity and marbling

Question No.80

Heat conduction in glass is due to

- Elastic impact of molecules
- Motion of electrons
- Mixing motion of different layers of gas
- Electromagnetic waves

Question No.81

The principle protein of rice is

Zein

Lysine

Oryzenin

Glutenin

Question No.82

Oats is an excellent source of:

- Beta mannan
- Alpha xylan
- Beta glucan
- Alpha glucan

Question No.83

One gram of alcohol gives:

- 4 kcal
- 9 kcal
- 7 kcal
- 12 kcal

Question No.84

ISO 9001:2015 specifies requirements for:

Customer satisfaction

- Conformity to applicable statutory and regulatory requirements
- Quality Management System
- Products and services

Question No.85

A process wherein the protein completely unfolds and assumes a random coil structure is:

- Gelatinization
- Denaturation
- Polymerization
- Hydrogenization

Question No.86

An example of a non-nutritive natural sweetener is:

- Aspartame
- Saccharin
- Stevioside

Which of the following are not killed by heat alone?

- O Prions
- Bacteria
- Viruses
- Parasites

Question No.88

Durum wheat is best for preparing

- Bread
- Biscuits
- Pasta Products
- Cakes

Question No.89

Amylose is comparatively resistant to digestion due to the ------ structure.

- Helical
- Planar
- Linear
- Branched

Question No.90 Out of these quality standards which are mandatory standards Legal standards Industry standards Grade standards Company standards

Question No.91			
Standardized milk contains 4.5, 8.5	% MF and	% MSNF	

0 3.5-4.0, 8.5

- 5.0-6.0, 9.0
- 0 3.0-3.5, 9.0

Question No.92

What is the primary starter of oxidative rancidity in foods?

- Nitrogen
- Oxygen
- Water
- Light

Question No.93

Ketoses are reducing sugars because in their non-cyclic form they contain:

- Carbonyl groups
- Hydroxyl groups
- Carboxyl groups
- Hydrperoxy groups

Question No.94

Which Schedule deals with the General Hygienic and Sanitary practices to be followed by Food Business operators under the Food Safety and Standards Regulations ,2011?

43

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Question No.95

Atisoelectric pH, the amino acid exists as:

- Zwitterions
- Globule
- Cation
- Anion

Question No.96

If Jagan's daily intake is 2500 kcal and he consumes an energy drink of 300 kcal, what percent of energy is given by the juice?

0 14%

0 11%

010%

0 12%

Question No.97

Staling of bread is reduced by adding

- Potassium Bromate
- Glycerol Monostearate
- Benzoyl Peroxide
- Ammonium Chloride

Question No.98

Cellulose is composed of long chains of glucose residues with

- Alpha (1-6) linkages
- Beta (1-6) linkages
- Beta (1-4) linkages
- Alpha (1-4) linkages

Question No.99

Aflatoxins M1 and M2 are found largely in:

- Poultry products
- Vegetable
- Dairy products
- Cereal products

Question No.100

Which portion of wheat is rich in starch:

- Endosperm
- Germplasm
- Bran
- Germ