Some enzymes require the presence of a non-protein substance if they are to catalyse a reaction. Which of the following terms is the best general term for such a substance?

- cofactor
- co-enzyme
- prosthetic group
- modulator

The Danger Zone for food-borne illness is the temperature range of:-

- 30 - 100 °F
- 10 - 60 °F
- 40 - 140 °F
- 20 - 90 °F

A common anthropometric measure for infants is:-

- Recumbent height
- Sitting height
- Standing height
- Laying height

A method of food preservation that does destroy microorganism and enzymes is ________.

- Drying
- Freezing
- Microwaving foods
- Pressure canning

The Acceptable Daily Intake (ADI) of a non-carcinogen is:-

- one-tenth of a no-observed effect level (NOEL)
- 1/1 000 of no-observed effect level (NOEL)
- 1/100 of a no-observed effect level (NOEL)
6 of 100
183 PU_2015_389
The apolipoprotein which forms the integral component of chylomicron is:-
- B-100
- D
- B-48
- C

7 of 100
111 PU_2015_389
Recurrent vomiting leads to loss of:-
- Bicarbonate
- Chloride
- Potassium
- All of these

8 of 100
169 PU_2015_389
Storage part of vitamin A in body:-
- Liver
- Adipose tissue
- Pancreas
- Islets of Langerhans

9 of 100
102 PU_2015_389
Which of the following is not involved in the biosynthesis of DNA?
- Enzymes
- Carbonic anhydrase
- Mononucleotides
- Energy from ATP

10 of 100
123 PU_2015_389
An example of phosphoprotein present in egg yolk is:-
- Ovovitellin
- Ovoglobulin
- Ovoalbumin
Avidin

11 of 100
154 PU_2015_389
Which is a chemical that combines with a substance and sets aside?
- Emulsifier
- Stabilizer
- Sequestratants
- Humicans

12 of 100
177 PU_2015_389
Which of the following is not a polymer of glucose?
- Inulin
- Dextrin
- Amylose
- Cellulose

13 of 100
113 PU_2015_389
Palmitate has 16 carbon atoms with:-
- 2 double bonds
- 3 double bonds
- One double bond
- None of these

14 of 100
138 PU_2015_389
Trace minerals are those needed in amounts less than ______ mg per day in our diets.
- 5
- 50
- 100
- 200

15 of 100
164 PU_2015_389
Green rot in egg is due to:-
- Pseudomonas fluorescens
- Aspergillus niger
- Serratia marcescens
16 of 100
193 PU_2015_389
_____ grams of a day's food intake should be protein.
- 65
- 45
- 35
- 55

17 of 100
197 PU_2015_389
Only Lactic acid bacteria can ferment sugars and nutrients in pickles because they:-
- Use acetic acid
- Produce lactic acid
- Are tolerant of salt levels
- Use a naturally occurring enzyme

18 of 100
139 PU_2015_389
Jack eats 1600 Kcals and 50 grams of protein per day. The percentage of total energy that comes from protein is:-
- 50%
- 12.5%
- 25%
- 3.1%

19 of 100
212 PU_2015_389
Cholesterol is a chemical that actually belongs to the ____ family.
- protein
- carbohydrate
- alcohol
- fat

20 of 100
114 PU_2015_389
All the following statements about primary gout are true except:-
- Its inheritance is X-linked recessive.
- It can be due to increased activity of PRPP synthetase.
De novo synthesis of purines is increased in it. It can be due to increased activity of hypoxanthine guanine phosphoribosyl transferase.

21 of 100
198 PU_2015_389
The following part is absent in Leeuwenhoek's microscope:-
- Focusing Screw
- Lens
- Specimen holder
- Condenser

22 of 100
214 PU_2015_389
Which of the following is not a primary function of protein?
- provides good and readily available source of energy
- production of antibodies
- growth and maintenance of cells
- tissue and nerve development

23 of 100
131 PU_2015_389
A high-protein diet increases the risk of:-
- Parkinson's disease
- Type I diabetes
- Multiple sclerosis
- Osteoporosis

24 of 100
162 PU_2015_389
DEFT is based on:-
- Conductance
- Turbidity
- Direct microbial count using microscope
- Cellular activity

25 of 100
179 PU_2015_389
The specimen for an electron microscope is always:-
- Sliced in to thin sections
- Killed
26 of 100
196 PU_2015_389
The term culture refers to the _______ growth of microorganism in media.
☐ Microscopic
☐ Rapid
☐ Macroscopic
☐ Artificial

27 of 100
184 PU_2015_389
One who approves the use of pesticide tolerance levels for pesticide levels in food in the US.
☐ NMFS
☐ EPA
☐ FDA
☐ USDA

28 of 100
166 PU_2015_389
Sunk like flavor in milk is caused by:-
☐ *Streptococcus lactis*
☐ *Callus cereus*
☐ *Aeromonas hydrophila*
☐ *Pseudomonas mephitica*

29 of 100
218 PU_2015_389
Which of the following is the intrinsic factor affecting the microbial growth?
☐ Water activity
☐ Packaging
☐ RH
☐ Preservatives

30 of 100
137 PU_2015_389
The sequence of amino acids that make up a protein molecule is specified by:-
☐ sex
☐ heredity
31 of 100
147 PU_2015_389
To which of the following does thymine form hydrogen bonds in DNA?
- thymine
- guanine
- adenine
- cytosine

32 of 100
133 PU_2015_389
The process by which yeast changes sugar into carbon dioxide is called:
- Fermentation
- Kneading
- Knocking back
- Proofing

33 of 100
176 PU_2015_389
Which one of the following statements concerning glucose metabolism is correct?
- An elevated level of insulin leads to a decreased level of fructose 2, 6-bisphosphate in hepatocyte
- The conversion of Glucose to lactate occurs only in the R.B.C
- Glucose enters most cells by a mechanism in which Na+ and glucose are co-transported
- Pyruvate kinase catalyses an irreversible reaction

34 of 100
122 PU_2015_389
Atherosclerosis can cause blood:
- Clotting
- Thinning
- Thickening
- None of these

35 of 100
192 PU_2015_389
If the legal maximum of nitrite (NO₂) is 156 ppm, how much sodium nitrite can you legally add to 1 kg. of meat?
- 31.2 oz
15.6 ounces
156 mg
78 mg

36 of 100
148 PU_2015_389
Best indicator for nutritional status for a child is:-
- Head circumference
- Mid arm circumference
- Chest circumference
- Rate of increase of height and weight

37 of 100
121 PU_2015_389
Cholesterol is the precursor of:-
- a) steroid hormones
- b) vitamin A
- c) bile salts
- d) both (a) and (c)

38 of 100
199 PU_2015_389
How many ATPs are formed during complete oxidation of palmitate?
- 35
- 131
- 96
- 129

39 of 100
194 PU_2015_389
Soy sauce is made with the use of__________.
- Bacteria
- Fungi
- Mold
- Yeast

40 of 100
163 PU_2015_389
Role of stabilizers:-
- To preserve flavour
Prevents products from separating
Provide an even texture
Allow substances to flow freely

41 of 100
168 PU_2015_389
Sonti is:-
- Rice beer
- Barley beer
- Ginger beer
- Wheat beer

42 of 100
103 PU_2015_389
Which of the following statements is not true regarding the active site of an enzyme?
- An active site is normally a hollow or cleft on the surface of an enzyme.
- An active site contains amino acids which are important to the binding process and the catalytic mechanism.
- Substrates fit into active sites and bind to functional groups within the active site.
- An active site is normally hydrophilic in nature.

43 of 100
191 PU_2015_389
Anaemia is a disease resulting from a low red blood cell count. The red blood cells are the cells that carry _______ throughout the body ~ or absorption.
- Fibre
- Vitamin B12
- Iron
- Carbon dioxide

44 of 100
152 PU_2015_389
An obligate halophile requires high:-
- pH
- Temperature
- Salt
- Pressure

45 of 100
167 PU_2015_389
Hops are:-
Not effective against bacteria
☐ Effective against gram positive bacteria
☐ Effective against gram negative as well as gram positive bacteria
☐ Effective against gram negative bacteria

46 of 100
134 PU_2015_389
Which of the following milks can form the basis of a caramel sauce?
☐ Powdered milk
☐ Buttermilk
☐ Evaporated milk
☐ Condensed milk

47 of 100
216 PU_2015_389
When a food scientist appraises a food using sight, smell, taste and possibly touch, this is often referred to as:-
☐ sensory evaluation
☐ extra sensory perception
☐ sensory perception
☐ sensory orientation

48 of 100
219 PU_2015_389
Turbidostat and chemostats are:-
☐ Types of sterilizer
☐ Types of fermenter
☐ Instrument to enumerate the microbial cells
☐ Continuous culture medium

49 of 100
153 PU_2015_389
A chemical with sporidical properties is:-
☐ Quaternary Ammonium Compound
☐ Glutaraldehyde
☐ Alcohol
☐ Phenol

50 of 100
151 PU_2015_389
Among the following which is not cell adhesion protein?

- Selectin
- Integrin
- Catherin
- Immunoglobulin

51 of 100
217 PU_2015_389
Bacteria do not thrive below 40 degrees Fahrenheit or above _____ degrees Fahrenheit.

- 13
- 12
- 14
- 11

52 of 100
165 PU_2015_389
Heating of cream at low pressure is called:-

- Pasteurization
- Vacreartion
- Thermo sterilization
- Sterilization

53 of 100
132 PU_2015_389
What percentage of weight does bread lose during baking?

- 25-33 percent
- 10-13 percent
- 0-3 percent
- 16-23 percent

54 of 100
124 PU_2015_389
The daily water loss through gastrointestinal tract in an adult is about:-

- Less than 100 ml/day
- 400 ml/day
- 300 ml/day
- 200 ml/day

55 of 100
146 PU_2015_389
During parenteral nutrition, the infusion of large amounts of dextrose increases electrolyte requirements for:­
- Potassium and phosphorus
- Sodium and phosphorus
- Sodium and potassium
- Potassium and chloride

56 of 100
178 PU_2015_389
Two factors that accelerate rancidity in food products are ________.
- Light and moisture
- Light and soluble minerals
- Light and oxygen
- Temperature and light

57 of 100
213 PU_2015_389
Which is of the following food component is primarily derived from red meat and poultry?
- carbohydrates
- minerals
- ash
- protein

58 of 100
182 PU_2015_389
The food pyramid indicates that the group is the where you should obtain the most servings each day:­
- Bread
- Fruit
- Milk
- Vegetable

59 of 100
101 PU_2015_389
The major source of NH₃ produced by the kidney is:­
- Alanine
- Leucine
- Glutamine
- Glycine

60 of 100
L-glutamic acid is subjected to oxidative deamination by:-
- L-glutamate dehydrogenase
- Glutaminase
- L-amino acid dehydrogenase
- Glutamine synthetase

Essential fatty acids serves as a precursors of:-
- Retinol
- Niacin
- Vitamin C
- Prostaglandin

When water is used as an ingredient in food formulations, it must be:-
- hard water
- soft water
- potable water
- purified water

Ergotism is due to:-
- Polypeptides
- Alkaloids
- Phenolic compounds
- None of the above

Father of canning is:-
- Peter Durand
- Alexander Fleming
- Nicholas Appert
- Louis Pasteur
The effectiveness of many chemical preservative depends primarily on the food:

- acidity
- water content
- pH
- temperature

Which lipid is Saponifiable?

- a) Simple
- b) Complex
- c) Both a & b
- d) None

With the increase in temperature the rate of browning reaction?

- Remain constant
- First decreases and then increases followed by a constant phase
- Decreases
- Increases

Citreoviridin is the mycotoxin produced by:

- Mushroom
- Penicillium
- Fusarium
- Aspergillus

Ghee is adulterated with:

- Protein
- Starch
- Lipid
- Vanaspati
252 PU_2015_389

*E. coli* O157:H7 is thought to have acquired enterohemorrhagic genes from:

- Shigella
- *Clostridium*
- *Bacillus*
- *Campylobacter*

71 of 100

223 PU_2015_389

Which one of the following uses mold to derive the final product?

- whole milk
- soysauce
- pickles
- yogurt

72 of 100

242 PU_2015_389

Which one is a constituent of coenzyme?

- Ascorbic acid
- Sucrase
- B₂
- Lipase

73 of 100

227 PU_2015_389

Iodine value measures:-

- Amount of carbon present
- Degree of saturation
- Number of iodine present
- Degree of unsaturation

74 of 100

247 PU_2015_389

Kojic acid is:-

- An acidulant used in food processing
- An acid produced during carbohydrate metabolism
- A mycotoxin
- None of the above

75 of 100
The chief spoilage organisms on smoked fish are:-
- a) Molds
- b) Bacteria
- c) both (a) and (b)
- d) Fungi

Paper chromatography is based on:-
- Size exclusion chromatography
- Adsorption chromatography
- Partition chromatography
- Ion-exchange chromatography

Aflatoxin G1 is:
- Nephrotoxin
- Carditoxin
- Neurotoxin
- All of the above

Which of the following would be a requirement or function of a commercial food container?
- gas and odor protection
- resistance to impact
- degradable
- sanitary protection

_____ means that the product contains bacteria that can make more of the product:
- active ingredients
- active culture
- active byproducts
- live bacteria
249 PU_2015_389
Which of the following acts as a bacteriostatic?
- Cumin acid
- Elaidic acid
- Cinnamic acid
- All of the above

81 of 100

299 PU_2015_389
____________ is a fructosan.
- Glycogen
- Insulin
- Cellulose
- Agar

82 of 100

277 PU_2015_389
Which of the following statements is incorrect regarding transport proteins?
- They are required to transport amino acids across cell membranes
- They are required to transport hydrophobic steroids across cell membranes
- They are present in cell membranes
- They serve to carry polar molecules across the hydrophobic cell membrane

83 of 100

274 PU_2015_389
The chief type of spoilage in sweetened condensed milk may be:-
- gas formation by sucrose fermenting yeasts
- thickening caused by micrococci
- mold colonies growing on the surface
- all of the above

84 of 100

271 PU_2015_389
Salmonellois is caused by the:-
- neurotoxin of Salmonella spp
- exotoxotoxin of Salmonella spp
- endotoxin of Salmonella spp
- enterotoxin of Salmonella spp

85 of 100
291 PU_2015_389
Why cannot fatty acids be converted into glucose in starvation?
- Fatty acids are oxidised in mitochondria and glucose is synthesised in the cytosol
- Acetyl CoA cannot be converted into pyruvate
- Fatty acids are esterified to triacylglycerols
- Fatty acids are transported on albumin which interferes with their metabolism

86 of 100
296 PU_2015_389
Which is an important function of cholesterol in cell membranes?
- It acts as a fluidity barrier in bacterial membranes
- It stabilises the structure of mammalian membranes
- It allows polar substances to pass through the membrane
- It increases the fluidity of the membrane at 37° C

87 of 100
273 PU_2015_389
Prontosil is:-
- not used as an antibacterial agent
- an effective antibacterial when used in in-vitro cultures
- an effective antibacterial both in animals as well as in in-vitro cultures
- an effective antibacterial when used in animals

88 of 100
263 PU_2015_389
The first transgenic plant to be produced:-
- Rice
- Tobacco
- Maize
- Cotton

89 of 100
276 PU_2015_389
Histidine is degraded to α-ketoglutarate and is described as a:-
- Ketogenic amino acid
- Gluco amino acid
- Glucogenic amino acid
- Keto-gluco acid

90 of 100
The first crop plant genome sequenced:-
- Tobacco
- Rice
- Maize
- Cotton

Which of the following cell types or systems is not part of an innate immune response to a pathogen?
- The inflammatory response
- Cytotoxic T-lymphocytes
- Phagocytes
- Natural killer cells

Which of the following statements about SDS polyacrylamide gel electrophoresis is correct?
- SDS polyacrylamide gel electrophoresis separates proteins on the basis of size.
- SDS polyacrylamide gel electrophoresis separates proteins on the basis of charge.
- Wanted proteins can be tested for their biological activity after separation by SDS polyacrylamide gel electrophoresis.
- Proteins are solubilized but not denatured when separated by SDS polyacrylamide gel electrophoresis.

The best source of salt tolerant gene:-
- Sea anemones
- Mangroves
- Mussels
- Fishes

Syntrophism is a type of:-
- Mutualism
- Commensalism
- Parasitism
- Synergism
Which of the following statements best describes an allosteric binding site?

- It is a description of an active site which has undergone an induced fit
- It is a binding site containing amino acids with aliphatic side chains
- It is a binding site, which is separate from the active site, and affects the activity of an enzyme when it is occupied by a ligand
- It is a binding site that can accept a wide variety of differently shaped molecules

Where do precursor T-lymphocytes develop into fully competent but not yet activated T-cells?

- The bone marrow
- The spleen
- The lymph nodes
- The thymus gland

In a normal healthy individual with a total lung capacity of 6 litres:

- The functional residual capacity would be about 2 litres
- The FEV₁ would be equivalent to about 1.5 litres
- The tidal volume at rest is about 1 litre
- The expiratory reserve volume at rest would be about 2 litres

Which of the following statements about Nicotinamide Adenine Dinucleotide (NAD⁺) is correct?

- NAD⁺ is a prosthetic group for several dehydrogenases.
- NAD⁺ is the initial electron donor in many metabolic oxidation reactions.
- NAD⁺ is the initial electron acceptor in many metabolic oxidation reactions
- NADH is the initial electron acceptor in many metabolic oxidation reactions.

___________ is a structural homopolysaccharide.

- Starch
- Chitin
- Hyaluronic acid
Esters like flavors in butter are resulted from the action of:

- Aeromonas hydrophila
- P. mephitica
- Pseudomonas synxantha
- P. fragi