

DU MSc Food and Nutrition

Topic:- FN MSC

1) Select the set of amino acids having only nonpolar, aliphatic R groups[Question ID = 1822]

1. Leucine, Methionine, Valine [Option ID = 7285]
2. Valine, Serine, Glutamic acid [Option ID = 7286]
3. Proline, Aspartic acid, Serine [Option ID = 7287]
4. Cysteine, Glutamine, Tyrosine [Option ID = 7288]

2) Which of the following initiates a guanine nucleotide amplification cascade during visual cycle?[Question ID = 1823]

1. Lumirhodopsin [Option ID = 7289]
2. Metarhodopsin I [Option ID = 7290]
3. Metarhodopsin II [Option ID = 7291]
4. Metarhodopsin III [Option ID = 7292]

3) Which of the following factors is not responsible for the denaturation of proteins?[Question ID = 1824]

1. Heat [Option ID = 7293]
2. Charge of the protein [Option ID = 7294]
3. pH change [Option ID = 7295]
4. Organic solvents [Option ID = 7296]

4) Which of the following statements regarding peptide bond is true?[Question ID = 1825]

1. Peptide bond is more stable in cis configuration than in trans configuration [Option ID = 7297]
2. The carbonyl oxygen of the peptide bond has a partial negative charge. [Option ID = 7298]
3. The amide nitrogen of the peptide bond has a partial negative charge. [Option ID = 7299]
4. The carbonyl oxygen of the peptide bond has a partial positive charge [Option ID = 7300]

5) Which of following is an anomeric pair?

[Question ID = 1826]

1. D-glucose and L-glucose
[Option ID = 7301]
2. α -D-glucose and β -L-glucose
[Option ID = 7302]
3. D-glucose and D-fructose
[Option ID = 7303]
4. α -D-glucose and β -D-glucose
[Option ID = 7304]

6) The molecular formulae of Erythrose and Ribose are and respectively.[Question ID = 1827]

1. $C_4H_{10}O_4$, $C_5H_{12}O_5$ [Option ID = 7305]
2. $C_5H_{10}O_5$, $C_4H_8O_4$ [Option ID = 7306]
3. $C_4H_8O_4$, $C_5H_{10}O_5$ [Option ID = 7307]
4. $C_3H_6O_6$, $C_5H_{10}O_5$ [Option ID = 7308]

7) Which set of fatty acids shows arrangement order from lowest melting point to highest?

[Question ID = 1828]

1. arachidonic acid < linolenic acid < oleic acid < myristic acid < stearic acid
[Option ID = 7309]
2. linolenic acid < arachidonic acid < oleic acid < myristic acid < stearic acid
[Option ID = 7310]
3. linolenic acid < arachidonic acid < oleic acid < stearic acid < myristic acid
[Option ID = 7311]
4. arachidonic acid < linolenic acid < oleic acid < stearic acid < myristic acid
[Option ID = 7312]

8) All allosteric enzymes have[Question ID = 1829]

1. Active site only [Option ID = 7313]
2. Allosteric site only [Option ID = 7314]
3. Both active site and allosteric site [Option ID = 7315]
4. Neither active site nor allosteric site [Option ID = 7316]

9) Phosphorylation-dephosphorylation covalent modification of enzymes plays important role in glycogenolysis. All of the following leads to enzyme activation in this except[Question ID = 1830]

1. Phosphorylation of protein kinase A [Option ID = 7317]
2. Phosphorylation of glycogen phosphorylase [Option ID = 7318]
3. Dephosphorylation of glycogen synthase [Option ID = 7319]
4. Phosphorylation of phosphorylase kinase [Option ID = 7320]

10) Which of the following enzyme steps from glycolysis is performed by a different enzyme in gluconeogenesis?[Question ID = 1831]

1. Phosphohexose isomerase [Option ID = 7321]
2. Phosphofructokinase [Option ID = 7322]
3. Glyceraldehyde-3-phosphate dehydrogenase [Option ID = 7323]
4. Enolase [Option ID = 7324]

11) Which of the following is true about secondary protein structure?

- A. Secondary structure is the local spatial arrangement of the main-chain atoms in a selected segment of polypeptide chain.
- B. All polypeptides can form stable α -helix.
- C. The proline residue introduces a stabilizing kink in the α -helix.
- D. The steric influence of amino acid residues is important to secondary structure.

Choose the correct answer from the options given below

[Question ID = 1832]

1. A and C
[Option ID = 7325]
2. B and C
[Option ID = 7326]
3. A and D
[Option ID = 7327]
4. A, B and D
[Option ID = 7328]

12) Which of the following occurs during glycolysis?

- A. Conversion of fructose-1,6-bisphosphate to fructose-6-phosphate
- B. An aldolase-ketose isomerization step
- C. Pyruvate, NADH and ATP are produced
- D. Two net molecules of ATP are produced through substrate-level phosphorylation

Choose the correct answer from the options given below

[Question ID = 1833]

1. A and B
[Option ID = 7329]
2. B and C
[Option ID = 7330]
3. C and D
[Option ID = 7331]
4. B, C and D
[Option ID = 7332]

13) Given below are two statements, one is labelled as Assertion A and the other is labelled as Reason R

Assertion A : Glycolysis in erythrocytes always terminates with the formation of lactate.

Reason R : This is because the subsequent reactions of pyruvate oxidation are mitochondrial and erythrocytes have few mitochondria.

In light of the above statements, choose the correct answer from the options given below

[Question ID = 1834]

1. Both A and R are true and R is the correct explanation of A
[Option ID = 7333]
2. Both A and R are true but R is NOT the correct explanation of A
[Option ID = 7334]
3. A is true but R is false
[Option ID = 7335]
4. A is false but R is true
[Option ID = 7336]

14) Isomerization of citrate to isocitrate by the enzyme aconitase involves two steps:[Question ID = 1835]

1. Dehydration of cis-aconitate and rehydration to isocitrate [Option ID = 7337]
2. Rehydration of cis-aconitate and dehydration to isocitrate [Option ID = 7338]
3. Isomerization to cis-aconitate and rehydration to isocitrate [Option ID = 7339]
4. Condensation and hydration [Option ID = 7340]

15) During aerobic oxidation of one molecule of glucose, 32 molecules of ATP are produced, out of which[Question ID = 1836]

1. Two are produced outside mitochondria and thirty are produced inside mitochondria [Option ID = 7341]
2. Four are produced outside mitochondria and twenty eight are produced inside mitochondria [Option ID = 7342]
3. Four are produced inside mitochondria and twenty eight are produced outside mitochondria [Option ID = 7343]
4. All are produced inside mitochondria [Option ID = 7344]

16) Which of the following vitamin is necessary for the TCA cycle?[Question ID = 1837]

1. Thiamine [Option ID = 7345]
2. Biotin [Option ID = 7346]
3. Vitamin E [Option ID = 7347]
4. Vitamin A [Option ID = 7348]

17) Given below are two statements, one is labelled as Assertion A and the other is labelled as Reason R

Assertion A : The Krebs cycle provides substrates for gluconeogenesis and transamination.

Reason R : This is because during oxidation of acetyl-CoA through Krebs cycle coenzymes are reduced and subsequently reoxidized in the respiratory chain.

In light of the above statements, choose the correct answer from the options given below

[Question ID = 1838]

1. Both A and R are true and R is the correct explanation of A
[Option ID = 7349]
2. Both A and R are true but R is NOT the correct explanation of A
[Option ID = 7350]
3. A is true but R is false
[Option ID = 7351]
4. A is false but R is true
[Option ID = 7352]

18) Which of the following enzyme does not take part in the TCA cycle?[Question ID = 1839]

1. Citrate synthase [Option ID = 7353]
2. Iso-citrate dehydrogenase [Option ID = 7354]
3. Pyruvate dehydrogenase complex [Option ID = 7355]
4. Malate dehydrogenase [Option ID = 7356]

19) Starting with Ornithine transcarbamoylase reaction, the order in which intermediates in the urea cycle would be occur[Question ID = 1840]

1. citrulline, argininosuccinate, arginine, ornithine [Option ID = 7357]
2. argininosuccinate, citrulline, arginine, ornithine [Option ID = 7358]
3. argininosuccinate, arginine, citrulline, ornithine [Option ID = 7359]
4. citrulline, arginine, argininosuccinate, ornithine [Option ID = 7360]

20) A second amino group is transferred to citrulline from.....[Question ID = 1841]

1. Glutamate [Option ID = 7361]
2. Alanine [Option ID = 7362]
3. Tyrosine [Option ID = 7363]
4. Aspartate [Option ID = 7364]

21) The enzyme just preceding thiolase in β -oxidation of fatty acids is[Question ID = 1842]

1. Acyl-CoA dehydrogenase [Option ID = 7365]
2. 3-ketoacyl-CoA dehydrogenase [Option ID = 7366]
3. Enoyl-CoA hydratase [Option ID = 7367]
4. 3-hydroxyacyl-CoA dehydrogenase [Option ID = 7368]

22) Overproduction of ketone bodies is often seen during starvation due to

- A. Overproduction of acetyl CoA
- B. Increased rate of fatty acid oxidation
- C. Increased synthesis of fatty acid
- D. Increased rate of glycolysis

Choose the correct answer from the options given below:

[Question ID = 1843]

1. A and B only

[Option ID = 7369]

2. B and D only

[Option ID = 7370]

3. A and C only

[Option ID = 7371]

4. C and D only

[Option ID = 7372]

23) The high energy cost of gluconeogenesis is majorly met by [Question ID = 1844]

1. Beta oxidation of fatty acids [Option ID = 7373]

2. Breakdown of amino acids [Option ID = 7374]

3. Degradation of glycogen [Option ID = 7375]

4. Citric acid cycle [Option ID = 7376]

24) The allosteric activator of liver glutamate dehydrogenase enzyme is [Question ID = 1845]

1. ATP [Option ID = 7377]

2. ADP [Option ID = 7378]

3. GTP [Option ID = 7379]

4. NADH [Option ID = 7380]

25) Mark the correct statements about glycogen metabolism.

A. In muscle in the fasting state, glycogen is broken down to glucose 6-phosphate, then free glucose.

B. Glucagon inhibits the synthesis of glycogen.

C. Phosphorylation activates protein kinase A during glycogen degradation

D. Insulin inhibits the synthesis of glycogen.

Choose the correct answer from the options given below:

[Question ID = 1846]

1. B only

[Option ID = 7381]

2. B and C

[Option ID = 7382]

3. A and C

[Option ID = 7383]

4. C and D

[Option ID = 7384]

26) A 45 year old woman gave her blood sample after breaking her overnight fast by eating three slices of toast and a boiled egg. Which one of the following would be at a higher concentration than if the blood sample had been taken before breakfast? [Question ID = 1847]

1. Free fatty acids [Option ID = 7385]

2. Glucose [Option ID = 7386]

3. Glucagon [Option ID = 7387]

4. Ketone Bodies [Option ID = 7388]

27) Match List I with List II

List I	List II
Hormone	Effect
A. Insulin	I. Hepatic glycogenolysis only
B. Glucagon	II. Calcium homeostasis
C. Epinephrine	III. Muscle and liver glycogenolysis
D. Parathyroid	IV. Decreased ketogenesis

Choose the correct answer from the options given below:

[Question ID = 1848]

1. A - IV, B - I, C - III, D - II [Option ID = 7389]

2. A - III, B - I, C - IV, D - II [Option ID = 7390]

3. A - I, B - IV, C - II, D - III [Option ID = 7391]

4. A - III, B - II, C - I, D - IV [Option ID = 7392]

28) Match List I with List II

List I	List II
Metabolic Pathway	Enzyme

A. Ketogenesis	I. Glycerol kinase
B. Beta-oxidation	II. Acyl-CoA dehydrogenase
C. Gluconeogenesis	III. 3-Hydroxy-3-methylglutaryl-CoA
D. Glycogen Metabolism	IV. Glucan transferase

Choose the correct answer from the options given below:

[Question ID = 1849]

1. A - IV, B - I, C - III, D - II [Option ID = 7393]
2. A - III, B - I, C - IV, D - II [Option ID = 7394]
3. A - I, B - IV, C - II, D - III [Option ID = 7395]
4. A - III, B - II, C - I, D - IV [Option ID = 7396]

29) Which of the following is not formed during synthesis of biologically active form of vitamin D?[Question ID = 1850]

1. Calcitriol [Option ID = 7397]
2. 25-hydroxycholecalciferol [Option ID = 7398]
3. 24-hydroxycholecalciferol [Option ID = 7399]
4. Cholecalciferol [Option ID = 7400]

30) Beta carotene is found in plants foods. It is cleaved in the intestine by carotene dioxygenase to produce_____.

[Question ID = 1851]

1. Retinal [Option ID = 7401]
2. Carotene [Option ID = 7402]
3. Retinol [Option ID = 7403]
4. Vitamin A [Option ID = 7404]

31) Match List I with List II

List I	List II
Enzyme	Reaction Type
A. Alpha-ketoglutarate dehydrogenase complex	I. Substrate-level-phosphorylation
B. Succinate thiokinase	II. Hydration
C. Citrate synthase	III. Oxidative decarboxylation
D. Fumarase	IV. Condensation

Choose the correct answer from the options given below:

[Question ID = 1852]

1. A - IV, B - I, C - III, D - II [Option ID = 7405]
2. A - III, B - I, C - IV, D - II [Option ID = 7406]
3. A - I, B - IV, C - II, D - III [Option ID = 7407]
4. A - III, B - II, C - I, D - IV [Option ID = 7408]

32) Which of the following reacts with opsin forming rhodopsin in visual cycle?[Question ID = 1853]

1. 11-cis-retinol [Option ID = 7409]
2. 11-cis-retinaldehyde [Option ID = 7410]
3. All-trans-retinol [Option ID = 7411]
4. All-trans-retinaldehyde [Option ID = 7412]

33) Given below are two statements, one is labelled as Assertion A and the other is labelled as Reason R

Assertion A : Transamination reactions are involved in amino acid biosynthesis and catabolism of proteins.

Reason R : This is because these reactions are readily reversible.

In light of the above statements, choose the correct answer from the options given below

[Question ID = 1854]

1. Both A and R are true and R is the correct explanation of A
[Option ID = 7413]
2. Both A and R are true but R is NOT the correct explanation of A
[Option ID = 7414]
3. A is true but R is false
[Option ID = 7415]
4. A is false but R is true
[Option ID = 7416]

34) Which of the following clinical symptom is not associated with Marasmus?[Question ID = 1855]

1. Severe muscle wasting [Option ID = 7417]
2. Loss of subcutaneous fat [Option ID = 7418]
3. Wrinkled skin [Option ID = 7419]
4. Oedema [Option ID = 7420]

35) Namit is 36 months old boy who is brought to a health facility with the complaint of swelling in both legs. His anthropometric assessment reveals his weight for height was below -3SD and MUAC less than 115 mm. What condition is he

most likely to suffer from?[Question ID = 1856]

1. Obesity [Option ID = 7421]
2. Severe acute malnutrition [Option ID = 7422]
3. Dehydration [Option ID = 7423]
4. Typhoid [Option ID = 7424]

36) As per NFHS 4, prevalence of anaemia among children aged 6-59 months in India is[Question ID = 1857]

1. 65.5 percent [Option ID = 7425]
2. 58.6 percent [Option ID = 7426]
3. 50.5 percent [Option ID = 7427]
4. 45.5 percent [Option ID = 7428]

37) Vitamin A deficiency is considered a public health problem if prevalence rate of night blindness in children between 6 months to 6 years is more than[Question ID = 1858]

1. 5.0 percent [Option ID = 7429]
2. 1 percent [Option ID = 7430]
3. 0.5 percent [Option ID = 7431]
4. 0.1 percent [Option ID = 7432]

38) Which of these diseases is not related to thyroid glands?[Question ID = 1859]

1. Myxoedematous Cretinism [Option ID = 7433]
2. Deaf mutism [Option ID = 7434]
3. Goitre [Option ID = 7435]
4. Pernicious Anaemia [Option ID = 7436]

39) Given below are two statements

Statement I: Fluorosis is caused due to excess fluoride in water

Statement II: Mottling of teeth due to fluorosis is reversible.

In light of the above statements, choose the most appropriate answer from the options given below

[Question ID = 1860]

1. Both Statement I and Statement II are correct
[Option ID = 7437]
2. Both Statement I and Statement II are incorrect
[Option ID = 7438]
3. Statement I is correct but Statement II is incorrect
[Option ID = 7439]
4. Statement I is incorrect but Statement II is correct
[Option ID = 7440]

40) Folic acid supplementation is advised preconceptionally and throughout pregnancy, for women to prevent[Question ID = 1861]

1. Cleft palate [Option ID = 7441]
2. Protein energy malnutrition [Option ID = 7442]
3. Neural tube defects [Option ID = 7443]
4. Microcytic anemia [Option ID = 7444]

41) The target reduction of low birth weight per annum under the National Nutrition Mission is[Question ID = 1862]

1. 1 percent [Option ID = 7445]
2. 2 percent [Option ID = 7446]
3. 3 percent [Option ID = 7447]
4. 5 percent [Option ID = 7448]

42) Given below are two statements, one is labeled as Assertion A and the other is labeled as Reason R

Assertion A: All children older than 6 months should be given zinc supplementation as soon as diarrhea starts

Reason R: Zinc is known to play a central role in the immune system

In light of the above statements, choose the correct answer from the options given below

[Question ID = 1863]

1. Both A and R are true and R is the correct explanation of A
[Option ID = 7449]
2. Both A and R are true but R is NOT the correct explanation of A
[Option ID = 7450]
3. A is true but R is false
[Option ID = 7451]
4. A is false but R is true
[Option ID = 7452]

43) The majority of storage of iron (ferritin) occurs in which part of the body?[Question ID = 1864]

1. Muscle [Option ID = 7453]
2. Liver [Option ID = 7454]
3. Gall bladder [Option ID = 7455]
4. Stomach [Option ID = 7456]

44) Which of the following statements are correct about the Mid-day meal scheme?

- A. In drought-affected areas, midday meals shall be supplied even during summer vacations
- B. The scheme has been initiated under the National Programme of Nutritional Support to Primary Education (NP-NSPE)
- C. Under this program, a cooked mid-day meal with 700 calories and 20 grams of protein is provided to all children enrolled in classes one to five
- D. The Midday Meal Scheme is covered by the National Food Security Act, 2013

Choose the correct answer from the options given below:

[Question ID = 1865]

1. A, B and C only
[Option ID = 7457]
2. A, B and D only
[Option ID = 7458]
3. B, C and D only
[Option ID = 7459]
4. A, C and D only
[Option ID = 7460]

45) A common anthropometric measure for infants is:[Question ID = 1866]

1. Standing height [Option ID = 7461]
2. Recumbent length [Option ID = 7462]
3. Sitting height [Option ID = 7463]
4. Laying height [Option ID = 7464]

46) Which dietary assessment method determines nutrient intake by asking how often certain foods are consumed?

[Question ID = 1867]

1. Diet History [Option ID = 7465]
2. Food frequency [Option ID = 7466]
3. 24-hour dietary recall [Option ID = 7467]
4. Food balance sheet [Option ID = 7468]

47) Which of the following is not part of the 4 P's social marketing mix?[Question ID = 1868]

1. Product [Option ID = 7469]
2. Price [Option ID = 7470]
3. Place [Option ID = 7471]
4. People [Option ID = 7472]

48) Which of the following is not a limitation of the focus group method?[Question ID = 1869]

1. The researcher has little control over how the discussion proceeds [Option ID = 7473]
2. It reveals the way social meanings are jointly constructed [Option ID = 7474]
3. It produces a large volume of data that can be difficult to analyse [Option ID = 7475]
4. People in groups tend to agree and express socially desirable views [Option ID = 7476]

49) Match List I with List II

List I	List II
A. Nutrition survey	I. Continuous monitoring of the nutritional status of a selected population group
B. Evaluation	II. Identification of malnourished individuals requiring intervention
C. Nutrition screening	III. Cross-sectional studies performed to assess the nutritional status of a selected population
D. Nutrition Surveillance	IV. Measurement of the amount of progress made for the nutrition intervention

Choose the correct answer from the options given below:

[Question ID = 1870]

1. A - I, B - II, C - III, D - IV [Option ID = 7477]
2. A - IV, B - III, C - I, D - II [Option ID = 7478]
3. A - III, B - IV, C - II, D - I [Option ID = 7479]
4. A - II, B - I, C - IV, D - III [Option ID = 7480]

50) A research study intends to access the awareness of consumers about food fortification. Which research method will be most appropriate for this study?[Question ID = 1871]

1. Descriptive method [Option ID = 7481]
2. Historical method [Option ID = 7482]
3. Ex-post facto method [Option ID = 7483]

4. Experimental method [Option ID = 7484]

51) In order to pursue the research, which of the following is priorly required?[Question ID = 1872]

1. Developing a research design [Option ID = 7485]
2. Formulating a research question [Option ID = 7486]
3. Deciding about the data analysis procedure [Option ID = 7487]
4. Formulating a research hypothesis [Option ID = 7488]

52) Which of the following does not correspond to characteristics of research?[Question ID = 1873]

1. Research is not passive [Option ID = 7489]
2. Research is systematic [Option ID = 7490]
3. Research is logical [Option ID = 7491]
4. Research is not a process [Option ID = 7492]

53) Match List I with List II

List I	List II
A. Systematic Sampling Technique	I. Sample is selected on the judgment of the researcher
B. Purposive Sampling Technique	II. Sample is selected according to specific traits or qualities.
C. Quota Sampling Technique	III. Existing study subjects refer to other subjects from among their acquaintances.
D. Snowball Sampling Technique	IV. Sample members are selected according to a random starting point but with a fixed, periodic interval.

Choose the correct answer from the options given below:

[Question ID = 1874]

1. A - II, B - III, C - IV, D - I [Option ID = 7493]
2. A - IV, B - I, C - II, D - III [Option ID = 7494]
3. A - III, B - IV, C - II, D - I [Option ID = 7495]
4. A - II, B - I, C - IV, D - III [Option ID = 7496]

54) What does the term 'reliability' indicate?[Question ID = 1875]

1. We can say that the research has being carried out to according to the research design [Option ID = 7497]
2. That the results can be statistically proved [Option ID = 7498]
3. That the researcher can be trusted. [Option ID = 7499]
4. That the tool of data collection can be regarded as measuring consistently. [Option ID = 7500]

55) Researchers use both open-ended and closed-ended questions to collect data. Which of the following statements is true?[Question ID = 1876]

1. Open-ended questions directly provide quantitative data based on the researcher's predetermined response categories [Option ID = 7501]
2. Closed-ended questions provide quantitative data in the participant's own words [Option ID = 7502]
3. Open-ended questions provide qualitative data in the participant's own words [Option ID = 7503]
4. Closed-ended questions directly provide qualitative data in the participants' own words [Option ID = 7504]

56) Winterization is associated with which processing method?[Question ID = 1877]

1. Milling of rice [Option ID = 7505]
2. Emulsion [Option ID = 7506]
3. Parboiling of rice [Option ID = 7507]
4. Refining of oil [Option ID = 7508]

57) Name the enzyme responsible for coagulation of milk in cheese manufacture [Question ID = 1878]

1. Pepsin [Option ID = 7509]
2. Lipase [Option ID = 7510]
3. Amylase [Option ID = 7511]
4. Rennin [Option ID = 7512]

58) When wheat is converted to maida, _____ is lost[Question ID = 1879]

1. Thiamin [Option ID = 7513]
2. Phosphorus [Option ID = 7514]
3. Protein [Option ID = 7515]
4. Fat [Option ID = 7516]

59) The pectin present in fruit is useful for the production of

- A. Pickles
- B. Jams
- C. Jelly
- D. Crystallised fruits

Choose the correct answer from the options given below:

[Question ID = 1880]

1. A and B only
[Option ID = 7517]
2. C and D only
[Option ID = 7518]
3. B and C only
[Option ID = 7519]
4. A and D only
[Option ID = 7520]

60) Given below are two statements, one is labelled as Assertion A and the other is labelled as Reason R

Assertion A : When starch products is subjected to dry heat carbohydrate compounds called dextrins are formed

Reason R : Extensive dextrinization increased the thickening power of starches

In light of the above statements, choose the correct answer from the options given below

[Question ID = 1881]

1. Both A and R are true and R is the correct explanation of A
[Option ID = 7521]
2. Both A and R are true but R is NOT the correct explanation of A
[Option ID = 7522]
3. A is true but R is false
[Option ID = 7523]
4. A is false but R is true
[Option ID = 7524]

61) Match List I with List II

List I	List II
A. Lemon Juice	I. Tartaric acid
B. Vinegar	II. Citric acid
C. Tamarind extract	III. Malic acid
D. Apple	IV. Acetic acid

Choose the correct answer from the options given below:

[Question ID = 1882]

1. A - II, B - IV, C - I, D -III [Option ID = 7525]
2. A - I, B - II, C -IV, D -III [Option ID = 7526]
3. A -II, B -IV, C -III, D -I [Option ID = 7527]
4. A -III, B -I, C -II, D - IV [Option ID = 7528]

62) Property of solids that enables them to hold their shape under small pressure[Question ID = 1883]

1. Rancidity [Option ID = 7529]
2. Viscosity [Option ID = 7530]
3. Plasticity [Option ID = 7531]
4. Adsorption [Option ID = 7532]

63) Process responsible for the staling of bread is[Question ID = 1884]

1. Gelatinization [Option ID = 7533]
2. Retrogradation [Option ID = 7534]
3. Hydrolysis of starch [Option ID = 7535]
4. Lipolysis [Option ID = 7536]

64) Yeast fermentation produces chemical changes in which enzymes produced by the yeast cell converts[Question ID = 1885]

1. Alcohol into Sugar [Option ID = 7537]
2. Proteins into amino acids [Option ID = 7538]
3. Fats into Fatty acids [Option ID = 7539]
4. Sugar into Alcohol [Option ID = 7540]

65) The phosphoprotein which is precipitated from raw milk at pH 4.6 is[Question ID = 1886]

1. Albumin [Option ID = 7541]
2. Lactoglobulin [Option ID = 7542]
3. Lactalbumin [Option ID = 7543]
4. Casein [Option ID = 7544]

66) A trained panel should comprise of following number of members[Question ID = 1887]

1. 10-15 [Option ID = 7545]

2. 5-10 [Option ID = 7546]
3. 15-20 [Option ID = 7547]
4. 50-100 [Option ID = 7548]

67) Iodine value measures[Question ID = 1888]

1. Degree of unsaturation [Option ID = 7549]
2. Degree of saturation [Option ID = 7550]
3. Amount of carbon present [Option ID = 7551]
4. Number of iodine present [Option ID = 7552]

68) When egg is cooked _____ gets completely destroyed[Question ID = 1889]

1. Avidin [Option ID = 7553]
2. Iron [Option ID = 7554]
3. Protein [Option ID = 7555]
4. Fat [Option ID = 7556]

69) Given below are two statements, one is labelled as Assertion A and the other is labelled as Reason R

Assertion A : Irradiation is generally termed as “cold sterilization” method of food preservation.

Reason R : Food becomes free of microorganisms without the need of high temperature.

In light of the above statements, choose the correct answer from the options given below

[Question ID = 1890]

1. Both A and R are true and R is the correct explanation of A
[Option ID = 7557]
2. Both A and R are true but R is NOT the correct explanation of A
[Option ID = 7558]
3. A is true but R is false
[Option ID = 7559]
4. A is false but R is true
[Option ID = 7560]

70) Name the SNF resource book for workplace[Question ID = 1891]

1. Pink Book [Option ID = 7561]
2. Yellow Book [Option ID = 7562]
3. Orange Book [Option ID = 7563]
4. Green Book [Option ID = 7564]

71) Match List I with List II

List I	List II
A. Milk	I. Rigor Mortis
B. Apple	II. Maillard reaction
C. Egg	III. Gelatinization
D. Meat	IV. Poaching
E. Cereal	V. Browning reaction

Choose the correct answer from the options given below:

[Question ID = 1892]

1. A - I , B - III , C -IV , D -V, E-II [Option ID = 7565]
2. A - II, B -V , C - IV, D -I, E-III [Option ID = 7566]
3. A -III , B -I , C -II , D - IV, E-V [Option ID = 7567]
4. A - IV, B - V, C -III , D - I, E-II [Option ID = 7568]

72) Which of the following is the omega-3 fatty acid[Question ID = 1893]

1. Linoleic acid [Option ID = 7569]
2. Linolenic acid [Option ID = 7570]
3. Arachadonic acid [Option ID = 7571]
4. Oleic acid [Option ID = 7572]

73) Tenderization of meat can be achieved by which enzyme[Question ID = 1894]

1. Cellulase [Option ID = 7573]
2. Amylase [Option ID = 7574]
3. Papain [Option ID = 7575]
4. Lipoxygenase [Option ID = 7576]

74) The rapid and constant rate of multiplication of an organism occurs during the[Question ID = 1895]

1. Lag phase [Option ID = 7577]

2. Exponential phase [Option ID = 7578]
3. Stationary phase [Option ID = 7579]
4. Survival phase [Option ID = 7580]

75) Which one of the following acts as a bleaching agent as well as improver for wheat flour?[Question ID = 1896]

1. Chlorine dioxide [Option ID = 7581]
2. Ascorbic acid [Option ID = 7582]
3. Benzoyl peroxide [Option ID = 7583]
4. Azodicarbonamide [Option ID = 7584]

76) Which one of the following reactions is not resulted from sugars?[Question ID = 1897]

1. Caramelization [Option ID = 7585]
2. Crystallization [Option ID = 7586]
3. Gelation [Option ID = 7587]
4. Maillard reaction [Option ID = 7588]

77) Which chemical component, produced as a result of certain acid producing micro-organism, is responsible for the delicate desirable flavor and aroma of butter?[Question ID = 1898]

1. Diacetyl [Option ID = 7589]
2. Ethanol [Option ID = 7590]
3. Acetic acid [Option ID = 7591]
4. Trimethylamine [Option ID = 7592]

78) Which enzyme is involved in browning of the cut surfaces of potatoes?[Question ID = 1899]

1. Polyphenol oxidase [Option ID = 7593]
2. Amylase [Option ID = 7594]
3. Protease [Option ID = 7595]
4. Lipase [Option ID = 7596]

79) The active principal in garlic is[Question ID = 1900]

1. Eugenol [Option ID = 7597]
2. Capsaicin [Option ID = 7598]
3. Gingerol [Option ID = 7599]
4. Allicin [Option ID = 7600]

80) Milk sugar lactose is a combination of which two mono-saccharides[Question ID = 1901]

1. Glucose and Glucose [Option ID = 7601]
2. Glucose and Fructose [Option ID = 7602]
3. Glucose and Galactose [Option ID = 7603]
4. Fructose and Galactose [Option ID = 7604]

81) Blanching of fruits and vegetables cannot be used to[Question ID = 1902]

1. Improves colour [Option ID = 7605]
2. Inactivate enzymes [Option ID = 7606]
3. Reduces surface contamination [Option ID = 7607]
4. Destroy all pathogens [Option ID = 7608]

82) Which of the following foods does not contain gluten?

- A. Wheat flour
- B. Rice flour
- C. Gram flour
- D. Corn flour

Choose the correct answer from the options given below:

[Question ID = 1903]

1. B, C and D only
[Option ID = 7609]
2. D, A and B only
[Option ID = 7610]
3. A,B and C only
[Option ID = 7611]
4. C, D and A only
[Option ID = 7612]

83) Toxic constituents of pulses that possess the property of producing lather or foam when shaken with water is[Question ID = 1904]

1. Trypsin inhibitor [Option ID = 7613]
2. Haemagglutinins [Option ID = 7614]
3. Saponins [Option ID = 7615]

4. Cyanogenic glycoside [Option ID = 7616]

84) Match List I with List II

List I	List II
A. Betalains	I. Tomatoes
B. Chlorophyll	II. Red Beet
C. Lycopene	III. Red Pepper
D. Capsanthin	IV. Spinach

Choose the correct answer from the options given below:

[Question ID = 1905]

1. A - IV, B - I, C - III, D - II [Option ID = 7617]
2. A - II, B - IV, C - I, D - III [Option ID = 7618]
3. A - I, B - III, C - II, D - IV [Option ID = 7619]
4. A - I, B - II, C - III, D - IV [Option ID = 7620]

85) The minimum MSNF of Skim milk should be as follows :[Question ID = 1906]

1. 8.7% [Option ID = 7621]
2. 7.2 % [Option ID = 7622]
3. 6.5 % [Option ID = 7623]
4. 5.2 % [Option ID = 7624]

86) Radicidation is used for:[Question ID = 1907]

1. Elimination of particular pathogen [Option ID = 7625]
2. Extension of product's shelf life [Option ID = 7626]
3. Making product shelf stable [Option ID = 7627]
4. Improvement of product flavour [Option ID = 7628]

87) Which of the following is not a preservation factor?[Question ID = 1908]

1. Restricted oxygen [Option ID = 7629]
2. Radiation [Option ID = 7630]
3. Heat [Option ID = 7631]
4. Mechanical damage [Option ID = 7632]

88) Given below are two statements, one is labelled as Assertion A and the other is labelled as Reason R

Assertion A : Ice crystal formation during freezing affects the texture of many frozen foods.

Reason R : High concentration of dissolved substances in the unfrozen liquid can induce crystallization and impart a gritty texture to the food.

In light of the above statements, choose the correct answer from the options given below

[Question ID = 1909]

1. Both A and R are true and R is the correct explanation of A
[Option ID = 7633]
2. Both A and R are true but R is NOT the correct explanation of A
[Option ID = 7634]
3. A is true but R is false
[Option ID = 7635]
4. A is false but R is true
[Option ID = 7636]

89) When a protein source deficient in certain amino acid is consumed with another protein source and makes up for the deficiency in the other is called as-[Question ID = 1910]

1. Chemical score [Option ID = 7637]
2. Mutual supplementation [Option ID = 7638]
3. Reference protein [Option ID = 7639]
4. Biological value [Option ID = 7640]

90) Conversion of beta carotene to retinol is primarily affected in the following disease condition-[Question ID = 1911]

1. HIV AIDS [Option ID = 7641]
2. Diarrhoea [Option ID = 7642]
3. Typhoid [Option ID = 7643]
4. Tuberculosis [Option ID = 7644]

91) In patients with severe diarrhoea, which types of foods are usually suggested initially?[Question ID = 1912]

1. Low fibre and low residue foods [Option ID = 7645]
2. Low fibre and high residue foods [Option ID = 7646]
3. High residue and low fibre foods [Option ID = 7647]
4. High fibre and high residue foods [Option ID = 7648]

92) Which of the following statements are incorrect?

- A. Macrocytic anemia generally is caused by either folate or vitamin B₁₂ deficient erythropoiesis.
- B. Ferritin is the storage protein that stores iron.
- C. Microcytic anemia is associated most often with folic acid deficiency.
- D. Transferrin is a globulin protein that transports calcium to the bone marrow.

Choose the correct answer from the options given below

[Question ID = 1913]

1. A and B only

[Option ID = 7649]

2. A and C only

[Option ID = 7650]

3. B and D only

[Option ID = 7651]

4. C and D only

[Option ID = 7652]

93) Which of the following statement is incorrect?[Question ID = 1914]

- 1. Thiamine pyrophosphate (TPP) participates in the carbohydrate metabolism [Option ID = 7653]
- 2. Niacin deficiency results in Casal's Necklace [Option ID = 7654]
- 3. Wernicke-Korsakoff Syndrome is also known as wet beri-beri [Option ID = 7655]
- 4. High protein diet have been found to cure and prevent pellagra [Option ID = 7656]

94) The following is the daily nutrient intake level estimated to meet the requirements of half of the healthy individuals in a particular life stage and gender group. It is used primarily to evaluate populations or groups-[Question ID = 1915]

- 1. Recommended dietary allowances (RDA) [Option ID = 7657]
- 2. Tolerable upper level (TUL) [Option ID = 7658]
- 3. Estimated average requirement (EAR) [Option ID = 7659]
- 4. Adequate intake (AI) [Option ID = 7660]

95) As per Adult Treatment Panel III (ATP III) classification the desirable level of cholesterol in the serum is

[Question ID = 1916]

1. < 240 mg/dl

[Option ID = 7661]

2. < 200 mg/dl

[Option ID = 7662]

3. < 220 mg/dl

[Option ID = 7663]

4. < 260 mg/dl

[Option ID = 7664]

96) Which of the following statement is incorrect?[Question ID = 1917]

- 1. Monomeric formulas contain free amino acids, glucose, medium chain triglycerides and/or essential fatty acids [Option ID = 7665]
- 2. Oligomeric formulas are given to patients suffering from digestion and absorption problems or pancreatic enzymatic insufficiency [Option ID = 7666]
- 3. Polymeric formulas are nutritionally complete and given to patients with non-functional gastro intestinal system [Option ID = 7667]
- 4. Polymeric formula is composed of complete protein, polysaccharides, and fat as medium-chain fatty acids [Option ID = 7668]

97) Which of the following statement is incorrect?[Question ID = 1918]

- 1. DASH diet is used for prevention of hypertension [Option ID = 7669]
- 2. DASH diet emphasizes mainly on low salt intake [Option ID = 7670]
- 3. DASH diet emphasizes on increase in low fat dairy products, fruits and vegetables consumption [Option ID = 7671]
- 4. DASH diet emphasizes on reduction in sweets and red meat consumption [Option ID = 7672]

98) A patient has been advised to follow a low saturated fat diet to help reduce the risk of heart disease. Which of the following foods would most likely be recommended as part of this meal plan?[Question ID = 1919]

- 1. Meat curry made with ghee and whole coconut milk [Option ID = 7673]
- 2. Pomfret (white) and vegetables sautéed with olive oil [Option ID = 7674]
- 3. Baked potato topped with chili and margarine [Option ID = 7675]
- 4. Organ meats and egg [Option ID = 7676]

99) Given below are two statements, one is labelled as Assertion A and the other is labelled as Reason R

Assertion A : Micronutrients especially B vitamins helps the body to utilise energy

Reason R : B vitamins functions as co-enzymes and participates in energy metabolism.

In light of the above statements, choose the correct answer from the options given below

[Question ID = 1920]

1. Both A and R are true and R is the correct explanation of A

[Option ID = 7677]

2. Both A and R are true but R is NOT the correct explanation of A

[Option ID = 7678]

3. A is true but R is false

[Option ID = 7679]

4. A is false but R is true

[Option ID = 7680]

100) Given below are two statements, one is labelled as Assertion A and the other is labelled as Reason R

Assertion A : A fibre rich diet helps in lowering post prandial blood glucose level and cholesterol levels.

Reason R : Soluble fibre acts as physical barrier between food and enzymes and also binds faecal bile acids

In light of the above statements, choose the correct answer from the options given below

[Question ID = 1921]

1. Both A and R are true and R is the correct explanation of A

[Option ID = 7681]

2. Both A and R are true but R is NOT the correct explanation of A

[Option ID = 7682]

3. A is true but R is false

[Option ID = 7683]

4. A is false but R is true

[Option ID = 7684]