

# DU MSc Food and Nutrition

Topic:- DU\_J19\_MSC\_FN

**1) Enzymes that catalyse the same reaction with different kinetic properties are known as [Question ID = 216]**

1. Allosteric enzymes [Option ID = 862]
2. Isozymes [Option ID = 861]
3. Holoenzymes [Option ID = 864]
4. Coenzymes [Option ID = 863]

**Correct Answer :-**

- Isozymes [Option ID = 861]

**2) The integrator between urea and TCA cycle is [Question ID = 240]**

1. Citrate [Option ID = 960]
2. Malate [Option ID = 958]
3. Pyruvate [Option ID = 959]
4. Fumarate [Option ID = 957]

**Correct Answer :-**

- Fumarate [Option ID = 957]

**3) Which of the following microorganism is associated with the processing of canning:**

**[Question ID = 276]**

1. *Listeria monocytogenes* [Option ID = 1102]
2. *Clostridium botulinum* [Option ID = 1104]
3. *Salmonella typhi* [Option ID = 1101]
4. *Escherichia coli* [Option ID = 1103]

**Correct Answer :-**

- *Clostridium botulinum* [Option ID = 1104]

**4) Which of the following is NOT the part of the package services provided by ICDS**

**[Question ID = 227]**

1. Medical referral services [Option ID = 908]
2. Periodic health check-ups [Option ID = 907]
3. Formal education [Option ID = 906]
4. Supplementary nutrition [Option ID = 905]

**Correct Answer :-**

- Formal education [Option ID = 906]

**5) Which of the following is NOT an eating disorder**

**[Question ID = 226]**

1. Anorexia nervosa [Option ID = 902]
2. Anxiety disorder [Option ID = 903]
3. Bulimia Nervosa [Option ID = 901]
4. Binge eating disorder [Option ID = 904]

**Correct Answer :-**

- Anxiety disorder [Option ID = 903]

**6) Which of the following pair of hormones help in synthesis and ejection of milk after delivery?**

**[Question ID = 210]**

1. Prolactin and oxytocin [Option ID = 840]
2. Oxytocin and FSH [Option ID = 837]
3. Progesterone and prolactin [Option ID = 839]
4. LH and FSH [Option ID = 838]

**Correct Answer :-**

- Prolactin and oxytocin [Option ID = 840]

**7) Which of the following disease associated with elderly causes trembling of arms, face, legs and poor muscle coordination**

**[Question ID = 252]**

1. Parkinson's Disease [Option ID = 1007]
2. Alzheimer's Disease [Option ID = 1005]
3. Cachexia [Option ID = 1006]
4. Osteoporosis [Option ID = 1008]

**Correct Answer :-**

- Parkinson's Disease [Option ID = 1007]

**8) Which of the following is substitute of crystal violet in Gram's staining**

**[Question ID = 287]**

1. Bromocresol blue [Option ID = 1147]
2. Safranin [Option ID = 1148]
3. Lactophenol cotton blue [Option ID = 1146]
4. Methylene blue [Option ID = 1145]

**Correct Answer :-**

- Methylene blue [Option ID = 1145]

**9) Foam is a colloidal dispersion of [Question ID = 281]**

1. Solid in liquid [Option ID = 1122]
2. Liquid in liquid [Option ID = 1121]
3. Liquid in solid [Option ID = 1123]
4. Gas in liquid [Option ID = 1124]

**Correct Answer :-**

- Gas in liquid [Option ID = 1124]

**10) Pasteurisation is a process by which: [Question ID = 275]**

1. Fat is broken in to small particles [Option ID = 1099]
2. Milk is sweetened [Option ID = 1098]
3. Milk is condensed [Option ID = 1097]
4. Harmful bacteria are destroyed [Option ID = 1100]

**Correct Answer :-**

- Harmful bacteria are destroyed [Option ID = 1100]

**11) The active principle present in turmeric is known as\_\_\_\_\_ [Question ID = 291]**

1. Oleoresin [Option ID = 1163]
2. None [Option ID = 1164]
3. Crocerin [Option ID = 1161]
4. Curcumin [Option ID = 1162]

**Correct Answer :-**

- Curcumin [Option ID = 1162]

**12) Ketone bodies are synthesized from fatty acid oxidation products by which of the following organ? [Question ID = 258]**

1. Intestine [Option ID = 1031]
2. Brain [Option ID = 1032]
3. Liver [Option ID = 1029]
4. Kidney [Option ID = 1030]

**Correct Answer :-**

- Liver [Option ID = 1029]

**13) Carotenoids are bioactive compounds found in [Question ID = 236]**

1. All [Option ID = 944]
2. Pumpkin [Option ID = 943]
3. Green leafy vegetables [Option ID = 941]
4. Mango [Option ID = 942]

**Correct Answer :-**

- All [Option ID = 944]

**14) Application of food irradiation include :**

**[Question ID = 278]**

1. Both sterilisation and inhibition of sprouting [Option ID = 1111]
2. Sterilisation [Option ID = 1109]
3. Inhibition of sprouting [Option ID = 1110]
4. None of the above [Option ID = 1112]

**Correct Answer :-**

- Both sterilisation and inhibition of sprouting [Option ID = 1111]

**15) Bland diets are**

- i. Free from mechanical, thermal and chemical irritants**
- ii. Low in dietary fibre**
- iii. Free from strongly flavoured vegetables and fruits**
- iv. Free from stimulants and spices**

**Select which one is true**

**[Question ID = 301]**

- 1. i [Option ID = 1201]
- 2. i , iv [Option ID = 1202]
- 3. i , ii , iii [Option ID = 1203]
- 4. i, ii, iii, iv [Option ID = 1204]

**Correct Answer :-**

- i, ii, iii, iv [Option ID = 1204]

**16) The S.N.F. of double toned milk should be as follows : [Question ID = 293]**

- 1. 9% [Option ID = 1169]
- 2. 5.20% [Option ID = 1172]
- 3. 6.50% [Option ID = 1171]
- 4. 7.20% [Option ID = 1170]

**Correct Answer :-**

- 9% [Option ID = 1169]

**17) The conditions which are controlled during storage of fruits is/are [Question ID = 266]**

- 1. Atmospheric gas [Option ID = 1063]
- 2. Humidity [Option ID = 1062]
- 3. Temperature [Option ID = 1061]
- 4. All of the above [Option ID = 1064]

**Correct Answer :-**

- All of the above [Option ID = 1064]

**18) The homogenous mixtures in which one substance (solute) is dissolved in another (solvent) is called: [Question ID = 273]**

- 1. Coarse dispersion [Option ID = 1092]
- 2. Colloidal dispersion [Option ID = 1090]
- 3. True Solution [Option ID = 1091]
- 4. Suspension [Option ID = 1089]

**Correct Answer :-**

- True Solution [Option ID = 1091]

**19) Tocopherol is an example of**

**[Question ID = 286]**

- 1. Flavoring agent [Option ID = 1143]
- 2. Antioxidant [Option ID = 1142]
- 3. Anticaking agent [Option ID = 1141]

4. None of these [Option ID = 1144]

**Correct Answer :-**

- Antioxidant [Option ID = 1142]

**20) Iron-containing oxygen storage protein is [Question ID = 234]**

1. Myoglobin [Option ID = 934]
2. Oxyhaemoglobin [Option ID = 933]
3. Haemoglobin [Option ID = 935]
4. All of the above [Option ID = 936]

**Correct Answer :-**

- Myoglobin [Option ID = 934]

**21) Polyunsaturated omega-6 fatty acid arachidonic acid can be represented as [Question ID = 245]**

1. 20:4 (6,8,11,14) [Option ID = 979]
2. 18:4 (2,4,6,18) [Option ID = 980]
3. 20:4 (5,8,11,14) [Option ID = 977]
4. 18:4 (3,4,5,6) [Option ID = 978]

**Correct Answer :-**

- 20:4 (5,8,11,14) [Option ID = 977]

**22) The process used to inactivate enzymes: [Question ID = 277]**

1. Homogenisation [Option ID = 1106]
2. All of the above [Option ID = 1108]
3. Blanching [Option ID = 1105]
4. Cellar Storage [Option ID = 1107]

**Correct Answer :-**

- Blanching [Option ID = 1105]

**23) The process of glycolysis is regulated by**

**i. Hexokinase**

**ii. Phosphofructokinase**

**iii. Pyruvate kinase**

**iv. Aldolase [Question ID = 223]**

1. Correct options are i, ii and iii [Option ID = 891]
2. None of the above [Option ID = 892]
3. Correct options are i and ii [Option ID = 889]
4. Correct options are ii, iii and iv [Option ID = 890]

**Correct Answer :-**

- Correct options are i, ii and iii [Option ID = 891]

**24) MCT's are added in diet of [Question ID = 302]**

1. Obesity [Option ID = 1205]
2. Hypertension [Option ID = 1207]
3. Malabsorption syndrome [Option ID = 1206]
4. Renal diseases [Option ID = 1208]

**Correct Answer :-**

- Malabsorption syndrome [Option ID = 1206]

**25) Ornithine transcarbamoylase reaction of urea cycle occurs in the [Question ID = 242]**

1. Mitochondrial Matrix [Option ID = 966]
2. None of the above [Option ID = 968]
3. Nucleus [Option ID = 967]
4. Cytosol [Option ID = 965]

**Correct Answer :-**

- Mitochondrial Matrix [Option ID = 966]

**26) Forms of Discussion method include:**

**i. Forum**

**ii. Buzz session**

**iii. Demonstration**

**iv. Role play [Question ID = 207]**

1. i and ii are correct [Option ID = 825]
2. i and iii are correct [Option ID = 827]
3. ii and iii are correct [Option ID = 826]
4. i, ii, iii and iv are correct [Option ID = 828]

**Correct Answer :-**

- i and ii are correct [Option ID = 825]

**27) A diet rich in saturated fats, can be linked to which of the following? [Question ID = 205]**

1. kidney failure [Option ID = 817]
2. cardiovascular disease [Option ID = 820]
3. anorexia [Option ID = 819]
4. bulimia [Option ID = 818]

**Correct Answer :-**

- cardiovascular disease [Option ID = 820]

**28) Examples of insulin antagonist hormones are**

**i. Glucagon**

**ii. Epinephrine**

**iii. Oestrogen [Question ID = 222]**

1. Correct options are i, ii and iii [Option ID = 887]
2. None of the above [Option ID = 888]
3. Correct options are i and ii [Option ID = 885]
4. Correct options are ii and iii [Option ID = 886]

**Correct Answer :-**

- Correct options are i and ii [Option ID = 885]

**29) Aromatic foods include [Question ID = 269]**

1. Herbs [Option ID = 1074]
2. Spices [Option ID = 1073]
3. Seasoning [Option ID = 1075]
4. All of the above [Option ID = 1076]

**Correct Answer :-**

- All of the above [Option ID = 1076]

**30) A metal ion or an organic compound that is covalently attached to a protein [Question ID = 215]**

1. Apoprotein [Option ID = 859]
2. Vitamin [Option ID = 860]
3. Prosthetic group [Option ID = 858]
4. Cofactor [Option ID = 857]

**Correct Answer :-**

- Prosthetic group [Option ID = 858]

**31) The fifth basic taste is called as: [Question ID = 289]**

1. astringency [Option ID = 1153]
2. volatile [Option ID = 1156]
3. bitter [Option ID = 1155]
4. umami [Option ID = 1154]

**Correct Answer :-**

- umami [Option ID = 1154]

**32) Vitamin D deficiency may lead to**  
**i. Increase activity of phagocytes**  
**ii. Increases risk of diarrhoea**  
**iii. Reduces integrity of epithelium**  
**iv. Increases the incidence of respiratory tract infection**  
**Which one is incorrect [Question ID = 303]**

1. i [Option ID = 1211]
2. iv [Option ID = 1209]
3. ii [Option ID = 1210]
4. All [Option ID = 1212]

**Correct Answer :-**

- All [Option ID = 1212]

**33) Conversion of pyruvic acid to acetyl CoA takes place in the [Question ID = 217]**

1. Ribosomes [Option ID = 867]
2. Mitochondria [Option ID = 865]
3. Nucleus [Option ID = 868]
4. Cytosol [Option ID = 866]

**Correct Answer :-**

- Mitochondria [Option ID = 865]

**34) Peyer's patches are [Question ID = 248]**

1. Lymphatic tissues present in the stomach [Option ID = 989]
2. Lymphoid nodules present in the ileum [Option ID = 990]
3. Bleeding ulcers present in the colon [Option ID = 991]
4. Bleeding lymph nodes present in the duodenum [Option ID = 992]

**Correct Answer :-**

- Lymphoid nodules present in the ileum [Option ID = 990]

**35) The enzyme responsible for curdling of milk is [Question ID = 283]**

1. Tannin [Option ID = 1129]
2. Lipase [Option ID = 1131]
3. Amylase [Option ID = 1132]
4. Rennin [Option ID = 1130]

**Correct Answer :-**

- Rennin [Option ID = 1130]

**36) The following does not have phosphorous [Question ID = 255]**

1. NAD<sup>+</sup> [Option ID = 1018]
2. TPP [Option ID = 1019]
3. Riboflavin [Option ID = 1017]
4. CoASH [Option ID = 1020]

**Correct Answer :-**

- Riboflavin [Option ID = 1017]

**37) The carbon atom source while producing urea in the urea cycle is [Question ID = 238]**

1. Aspartic acid [Option ID = 951]
2. Glucose [Option ID = 950]
3. CO<sub>2</sub> [Option ID = 949]
4. Arginine [Option ID = 952]

**Correct Answer :-**

- CO<sub>2</sub> [Option ID = 949]

**38) Spongy bleeding gums is caused by which nutrient deficiency?**

**[Question ID = 246]**

1. Iron [Option ID = 981]
2. Vitamin C [Option ID = 982]
3. Vitamin D [Option ID = 984]
4. Vitamin B-12 [Option ID = 983]

**Correct Answer :-**

- Vitamin C [Option ID = 982]

**39) Lard is [Question ID = 294]**

1. an animal fat from cow [Option ID = 1173]
2. a plant fat from groundnut [Option ID = 1176]
3. an animal fat from hogs [Option ID = 1174]
4. a plant fat from soyabean [Option ID = 1175]

**Correct Answer :-**

- an animal fat from hogs [Option ID = 1174]



**40) What is the main function of the carnitine shuttle system? [Question ID = 260]**

1. To transport newly synthesized sphingolipids to the blood [Option ID = 1039]
2. To transport fatty acids into the mitochondrion [Option ID = 1040]
3. To carry cholesterol from its site of synthesis in the endoplasmic reticulum to the plasma membrane. [Option ID = 1038]
4. To aid in the assembly of chylomicrons [Option ID = 1037]

**Correct Answer :-**

- To transport fatty acids into the mitochondrion [Option ID = 1040]

**41) Normal osmolarity of body fluids is: [Question ID = 231]**

1. 600 mOsm/L [Option ID = 922]
2. 300 mOsm/L [Option ID = 921]
3. 150 mOsm/L [Option ID = 924]
4. 1000 mOsm/L [Option ID = 923]

**Correct Answer :-**

- 300 mOsm/L [Option ID = 921]

**42) HACCP stands for [Question ID = 270]**

1. High Analysis Critical Control Pressure [Option ID = 1080]
2. High Analysis Critical Control Parameter [Option ID = 1078]
3. Hazard Analysis Critical Control Parameter [Option ID = 1079]
4. Hazard Analysis Critical Control Point [Option ID = 1077]

**Correct Answer :-**

- Hazard Analysis Critical Control Point [Option ID = 1077]

**43) ISO 14000 is a family of standards related to : [Question ID = 290]**

1. Marketing management [Option ID = 1159]
2. Manufacturing management [Option ID = 1158]
3. Environment management [Option ID = 1157]
4. All of the above [Option ID = 1160]

**Correct Answer :-**

- Environment management [Option ID = 1157]

**44) If body temperature due to infection rises to 39°C, then the BMR will rise by: [Question ID = 247]**

1. 28% [Option ID = 987]
2. 7% [Option ID = 985]
3. 56% [Option ID = 988]
4. 14% [Option ID = 986]

**Correct Answer :-**

- 28% [Option ID = 987]

**45) Cardiac beri-beri occurs due to**  
**[Question ID = 232]**

1. Stunting [Option ID = 928]
2. Thiamine deficiency [Option ID = 926]
3. Goitre [Option ID = 927]
4. Marasmus [Option ID = 925]

**Correct Answer :-**

- Thiamine deficiency [Option ID = 926]

**46) The Vitamin D has an important functions to play : [Question ID = 211]**

1. In the Bone [Option ID = 842]
2. In the Intestine [Option ID = 843]
3. In the Kidney [Option ID = 841]
4. All of the above [Option ID = 844]

**Correct Answer :-**

- All of the above [Option ID = 844]

**47) Ascorbic acid requirement of lactating mother is**

**[Question ID = 235]**

1. 80 mg/day [Option ID = 940]
2. 60 mg/day [Option ID = 937]
3. 25 mg/day [Option ID = 939]
4. 40 mg/day [Option ID = 938]

**Correct Answer :-**

- 80 mg/day [Option ID = 940]

**48) During starvation, the first reserve nutrient to be depleted is [Question ID = 243]**

1. Glycogen [Option ID = 969]
2. Triglycerides [Option ID = 970]
3. Cholesterol [Option ID = 972]
4. Proteins [Option ID = 971]

**Correct Answer :-**

- Glycogen [Option ID = 969]

**49) A natural colour used in food is**

**[Question ID = 282]**

1. Annatto [Option ID = 1125]
2. Indigo carmine [Option ID = 1127]
3. Tartrazine [Option ID = 1126]
4. Metanil yellow [Option ID = 1128]

**Correct Answer :-**

- Annatto [Option ID = 1125]

**50) Assertion: Hemoglobin is a protein having quaternary structure**

**Reason: Hemoglobin transports oxygen in blood [Question ID = 220]**

1. Assertion is correct but reason is incorrect [Option ID = 877]
2. Assertion and reason both are correct [Option ID = 878]
3. Assertion and reason both are incorrect [Option ID = 880]
4. Assertion is incorrect and reason is correct [Option ID = 879]

**Correct Answer :-**

- Assertion is correct but reason is incorrect [Option ID = 877]

**51) Assertion : Egg yolk is used for making mayonnaise.**

**Reason: Egg yolk serves as an emulsifying agent in preparation of mayonnaise. [Question ID = 284]**

1. Both Assertion and Reason are true [Option ID = 1134]
2. Assertion is true but Reason is false [Option ID = 1135]
3. Assertion is false but Reason is true [Option ID = 1136]
4. Both Assertion and Reason are false [Option ID = 1133]

**Correct Answer :-**

- Both Assertion and Reason are true [Option ID = 1134]

**52) Assertion: Proline is an imino acid**

**Reason: Proline has a secondary amine group [Question ID = 244]**

1. Assertion is correct but reason is incorrect [Option ID = 973]
2. Assertion and reason both are correct [Option ID = 974]
3. Assertion and reason both are incorrect [Option ID = 976]
4. Assertion is incorrect and reason is correct [Option ID = 975]

**Correct Answer :-**

- Assertion and reason both are correct [Option ID = 974]

**53) Assertion: Enzymes are biocatalysts that accelerate rate of reaction**

**Reason: Enzymes lower the activation energy of a reaction [Question ID = 219]**

1. Assertion and reason both are correct [Option ID = 874]
2. Assertion is correct but reason is incorrect [Option ID = 873]
3. Assertion and reason both are incorrect [Option ID = 876]
4. Assertion is incorrect and reason is correct [Option ID = 875]

**Correct Answer :-**

- Assertion and reason both are correct [Option ID = 874]

**54) Assertion: Glycolysis is an energy yielding process**

**Reason: Glycolysis of one molecule glucose yields 2 molecules of pyruvate, ATP and NADH each [Question ID = 221]**

1. Assertion and reason both are incorrect [Option ID = 884]
2. Assertion is correct but reason is incorrect [Option ID = 881]
3. Assertion and reason both are correct [Option ID = 882]
4. Assertion is incorrect and reason is correct [Option ID = 883]

**Correct Answer :-**

- Assertion and reason both are correct [Option ID = 882]

**55) Upon exposure to light rhodopsin forms [Question ID = 257]**

1. All trans-retinal [Option ID = 1025]
2. Retinol [Option ID = 1027]
3. Retinoic acid [Option ID = 1028]
4. Cis-retinal [Option ID = 1026]

**Correct Answer :-**

- All trans-retinal [Option ID = 1025]

**56) The carbon atom which becomes asymmetric when the straight chain form of monosaccharide changes into ring form is known as [Question ID = 264]**

1. None of these [Option ID = 1056]
2. Neoisomeric carbon atom [Option ID = 1055]
3. Epimeric carbon atom [Option ID = 1054]
4. Anomeric carbon atom [Option ID = 1053]

**Correct Answer :-**

- Anomeric carbon atom [Option ID = 1053]

**57) Dysphagia is a symptom that means [Question ID = 253]**

1. Loss of appetite [Option ID = 1009]
2. Difficulty in swallowing [Option ID = 1012]
3. Fatty diarrhoea [Option ID = 1011]
4. Excessive leanness [Option ID = 1010]

**Correct Answer :-**

- Difficulty in swallowing [Option ID = 1012]

**58) The function of chalaza in egg white is [Question ID = 267]**

1. None of the above [Option ID = 1068]
2. Fertilization of egg [Option ID = 1067]
3. Thinning of albumen [Option ID = 1066]
4. Keep yolk in position [Option ID = 1065]

**Correct Answer :-**

- Keep yolk in position [Option ID = 1065]

**59) Rigor mortis is**

**[Question ID = 268]**

1. Lot of physical activity [Option ID = 1069]
2. Cell chemical reaction [Option ID = 1070]
3. Stiffening of carcass [Option ID = 1071]
4. None of these [Option ID = 1072]

**Correct Answer :-**

- Stiffening of carcass [Option ID = 1071]

**60) Which of the following is NOT the function of vitamin C [Question ID = 212]**

1. Immune function [Option ID = 847]
2. Energy metabolism [Option ID = 846]
3. Antioxidant activity [Option ID = 848]

4. Collagen synthesis [Option ID = 845]

**Correct Answer :-**

- Energy metabolism [Option ID = 846]

**61) An amino acid that destabilizes an alpha-helix is [Question ID = 224]**

1. Proline [Option ID = 893]
2. Threonine [Option ID = 896]
3. Alanine [Option ID = 894]
4. Asparagine [Option ID = 895]

**Correct Answer :-**

- Proline [Option ID = 893]

**62) Vitamin required by transaminases is [Question ID = 239]**

1. Pyridoxine [Option ID = 953]
2. Thiamine [Option ID = 955]
3. Ascorbic acid [Option ID = 954]
4. Riboflavin [Option ID = 956]

**Correct Answer :-**

- Pyridoxine [Option ID = 953]

**63) Assertion: Supplementation of dietary folate is necessary during pregnancy  
Reason: Neural tube defects in the foetus is caused due to deficiency of folic acid.**

**[Question ID = 296]**

1. Assertion correct reason incorrect [Option ID = 1181]
2. Assertion incorrect reason correct [Option ID = 1183]
3. Assertion and reason both correct [Option ID = 1182]
4. Assertion and reason both incorrect [Option ID = 1184]

**Correct Answer :-**

- Assertion and reason both correct [Option ID = 1182]

**64) Assertion: Essential fatty acids Linoleic acid and Linolenic acid help in reduction of CVDs  
Reason: Essential fatty acids are synthesized within the body and are not necessary to be taken in the diet**

**[Question ID = 297]**

1. Assertion correct reason incorrect [Option ID = 1185]
2. Assertion incorrect reason correct [Option ID = 1187]
3. Assertion and reason both correct [Option ID = 1186]
4. Assertion and reason both incorrect [Option ID = 1188]

**Correct Answer :-**

- Assertion correct reason incorrect [Option ID = 1185]

**65) The red colour present in tomato is due to: [Question ID = 280]**

1. Lycopenes [Option ID = 1117]

2. Anthoxanthins [Option ID = 1118]
3. Carotenoid [Option ID = 1120]
4. Anthocyanins [Option ID = 1119]

**Correct Answer :-**

- Lycopenes [Option ID = 1117]

**66) Zinc is an important micronutrient that helps in the reduction of the severity of the following illness [Question ID = 249]**

1. Diarrhoea [Option ID = 994]
2. All of the above [Option ID = 996]
3. Typhoid [Option ID = 995]
4. Common cold [Option ID = 993]

**Correct Answer :-**

- Diarrhoea [Option ID = 994]

**67) Match the following:**

**Enteral feed      Special characteristic**

- |                                |                                                             |
|--------------------------------|-------------------------------------------------------------|
| <b>i. Oligomeric formulas</b>  | <b>a. One kind of nutrient predominates</b>                 |
| <b>ii. Polymeric formulas</b>  | <b>b. MCTs, n-3PUFA, &amp; beta-carotene are added</b>      |
| <b>iii. Modular formulas</b>   | <b>c. Provide nitrogen as whole protein</b>                 |
| <b>iv. Opportunistic feeds</b> | <b>d. May provide nitrogen from crystalline amino acids</b> |

**[Question ID = 298]**

1. i-b; ii-c; iii-d; iv-a [Option ID = 1189]
2. i-d ; ii-c; iii-a ; iv-b [Option ID = 1191]
3. i-d; ii-a; iii- c ; iv-b [Option ID = 1192]
4. i-b ; ii-a; iii-c; iv-d [Option ID = 1190]

**Correct Answer :-**

- i-d ; ii-c; iii-a ; iv-b [Option ID = 1191]

**68) Calcitriol is [Question ID = 256]**

1. 25-hydroxy cholecalciferol [Option ID = 1022]
2. 1-hydroxy cholecalciferol [Option ID = 1021]
3. 1, 25-dihydroxy cholecalciferol [Option ID = 1024]
4. 24, 25-dihydroxy cholecalciferol [Option ID = 1023]

**Correct Answer :-**

- 1, 25-dihydroxy cholecalciferol [Option ID = 1024]

**69) A heteropolysaccharide among the following is:**

**[Question ID = 261]**

1. Hyaluronic acid [Option ID = 1042]
2. Inulin [Option ID = 1044]
3. Glycogen [Option ID = 1043]
4. Cellulose [Option ID = 1041]

**Correct Answer :-**

- Hyaluronic acid [Option ID = 1042]

**70) Propionyl CoA formed oxidation of fatty acids having an odd number of carbon atoms is converted into [Question ID = 259]**

1. Butyryl CoA [Option ID = 1034]
2. D-methylmalonyl CoA [Option ID = 1035]
3. Acetyl CoA [Option ID = 1033]
4. Acetoacetyl CoA [Option ID = 1036]

**Correct Answer :-**

- D-methylmalonyl CoA [Option ID = 1035]

**71) Starter cultures used for yoghurt manufacture are**

**[Question ID = 285]**

1. *Streptococcus thermophilus* and *Leuconostoc mesenteroides* [Option ID = 1140]
2. *Streptococcus thermophilus* and *Lactococcus lactis* [Option ID = 1138]
3. *Streptococcus thermophilus* and *Lactobacillus bulgarius* [Option ID = 1137]
4. *Lactococcus lactis* and *Leuconostoc mesenteroides* [Option ID = 1139]

**Correct Answer :-**

- *Streptococcus thermophilus* and *Lactobacillus bulgarius* [Option ID = 1137]

**72) Iatrogenic malnutrition is also termed as [Question ID = 300]**

1. Hospital malnutrition [Option ID = 1200]
2. Wasting syndrome [Option ID = 1198]
3. PEM [Option ID = 1197]
4. Protein energy wasting [Option ID = 1199]

**Correct Answer :-**

- Hospital malnutrition [Option ID = 1200]

**73) 1-hydroxylation of 25-hydroxy Vitamin D3 takes place in [Question ID = 254]**

1. Intestine [Option ID = 1016]
2. Kidney [Option ID = 1014]
3. Pancreas [Option ID = 1015]
4. Liver [Option ID = 1013]

**Correct Answer :-**

- Kidney [Option ID = 1014]

**74) Cereals are deficient in**

**[Question ID = 288]**

1. Valine [Option ID = 1152]
2. Leucine [Option ID = 1150]
3. Lysine [Option ID = 1149]
4. Methionine [Option ID = 1151]

**Correct Answer :-**

- Lysine [Option ID = 1149]

**75) What is the requirement of calcium during pregnancy as per ICMR, 2010**

**[Question ID = 228]**

1. 1800 mg/day [Option ID = 909]
2. 1200 mg/day [Option ID = 910]
3. 1500 mg/day [Option ID = 911]
4. 1000 mg/day [Option ID = 912]

**Correct Answer :-**

- 1200 mg/day [Option ID = 910]

**76) The following are fundamental elements of food and nutrition security**

**i. food availability**

**ii. food access**

**iii. food pigments**

**iv. food utilisation [Question ID = 299]**

1. i ,iii, ii [Option ID = 1193]
2. iii ,iv, i [Option ID = 1196]
3. i ,ii, iv [Option ID = 1194]
4. ii ,iii, i [Option ID = 1195]

**Correct Answer :-**

- i ,ii, iv [Option ID = 1194]

**77) The following gas is used to speed up the ripening process in fruits [Question ID = 292]**

1. methane gas [Option ID = 1166]
2. Ethylene gas [Option ID = 1165]
3. Hydrogen gas [Option ID = 1168]
4. carbon dioxide gas [Option ID = 1167]

**Correct Answer :-**

- Ethylene gas [Option ID = 1165]

**78) Which of the followings are problems encountered in pregnancy?**

**i. Nausea and vomiting**

**ii. Constipation**

**iii. Toxaemia**

**iv. Fluorosis [Question ID = 206]**

1. i, ii, iv [Option ID = 823]
2. ii, iii, iv [Option ID = 822]
3. i, iii, iv [Option ID = 824]
4. i, ii, iii [Option ID = 821]

**Correct Answer :-**

- i, ii, iii [Option ID = 821]

**79) Which of the following is one of the principles of fortification [Question ID = 233]**

1. Supplementation [Option ID = 932]
2. Immunization [Option ID = 929]



3. Restoration [Option ID = 930]
4. Diversification [Option ID = 931]

**Correct Answer :-**

- Restoration [Option ID = 930]

**80) Which of the following statement is correct for Diabetes mellitus [Question ID = 229]**

1. Diabetes is a disease that can be cured [Option ID = 916]
2. Diabetes is an endocrine disorder [Option ID = 915]
3. Type 2 is prone to ketosis [Option ID = 914]
4. Type 1 is not prone to ketosis [Option ID = 913]

**Correct Answer :-**

- Diabetes is an endocrine disorder [Option ID = 915]

**81) Which of the following statement is not true for antioxidants [Question ID = 250]**

1. Vitamin A, C and E are examples of natural antioxidants [Option ID = 1000]
2. Antioxidants cause oxidation enhancing reactive oxygen species [Option ID = 998]
3. Antioxidants are free radicals that causes cell damage [Option ID = 999]
4. Antioxidants are found in colored fruits and vegetables [Option ID = 997]

**Correct Answer :-**

- Antioxidants cause oxidation enhancing reactive oxygen species [Option ID = 998]
- Antioxidants are free radicals that causes cell damage [Option ID = 999]

**82) Which of the following statements regarding TCA cycle is true? [Question ID = 262]**

1. It is amphibolic in nature [Option ID = 1047]
2. It occurs in cytosol [Option ID = 1046]
3. It contains no intermediate for Gluconeogenesis [Option ID = 1048]
4. It is an anaerobic process [Option ID = 1045]

**Correct Answer :-**

- It is amphibolic in nature [Option ID = 1047]

**83) Match the given enzymes to their substrate**

**Enzyme      Substrate**

**i. Saliva – $\alpha$ -amylase      a)  $\alpha$ -dextrin**

**ii. Maltase      b) Triacylglycerol**

**iii. Lingual lipase      c) Starch**

**iv. Endopeptidase d) Polypeptides**

**[Question ID = 214]**

1. i-c, ii-d, iii-a, iv-b [Option ID = 856]
2. i-c, ii-a, iii-b, iv-d [Option ID = 855]
3. i-a, ii-c, iii-d, iv-b [Option ID = 854]
4. i-c, ii-a, iii-d, iv-b [Option ID = 853]

**Correct Answer :-**

- i-c, ii-a, iii-b, iv-d [Option ID = 855]

**84) Match the following vitamins to their coenzymes**

**Vitamins      Coenzymes**

i. Vitamin B3(Niacin)    a) PLP  
ii. Folic acid    b) Methyl cobalamin  
iii. Pyridoxine    c) NAD and NADP  
iv. Vitamin B12    d) THFA  
[Question ID = 213]

1. i-a, ii-c, iii-d, iv-b [Option ID = 850]
2. i-c, ii-d, iii-a, iv-b [Option ID = 852]
3. i-c, ii-a, iii-d, iv-b [Option ID = 849]
4. i-c, ii-a, iii-b, iv-d [Option ID = 851]

**Correct Answer :-**

- i-c, ii-d, iii-a, iv-b [Option ID = 852]

**85) Biomolecules which are amino acids but are not used as building blocks for proteins are**

i. Citrulline  
ii. Ornithine  
iii. Arginine  
iv. Alanine  
[Question ID = 241]

1. Correct options are i and ii [Option ID = 961]
2. None of the above [Option ID = 964]
3. Correct options are ii, iii and iv [Option ID = 962]
4. Correct options are i, ii and iii [Option ID = 963]

**Correct Answer :-**

- Correct options are i and ii [Option ID = 961]

**86) Mechanical device used for drying food is**

[Question ID = 272]

1. Extruder [Option ID = 1088]
2. Lyophilizer [Option ID = 1086]
3. Tray Dryer [Option ID = 1087]
4. Evaporator [Option ID = 1085]

**Correct Answer :-**

- Tray Dryer [Option ID = 1087]

**87) Match the correct sources of Vital statistics:**

**Sources      Specifications**

i. Census      a. Primarily data are collected through nation-wide household surveys on various socio-economic subjects, Annual Survey of Industries (ASI), etc.  
ii. Population Register      b. Provide data on mortality and morbidity for selected specific diseases.  
iii. National sample survey      c. To obtain such demographic information as current population size, internal migration, data on vital events etc.  
iv. Disease Register      d. This is the only source of primary data at village, town and ward level. It is normally carried out once in ten years.

[Question ID = 209]

1. i-d, ii-c, iii-a, iv-b [Option ID = 836]
2. i-c, ii-a, iii-d, iv-b [Option ID = 833]

3. i-a, ii-d, iii-c, iv-b [Option ID = 834]
4. i-d, ii-b, iii-a, iv-c [Option ID = 835]

**Correct Answer :-**

- i-d, ii-c, iii-a, iv-b [Option ID = 836]

**88) Pyruvate formed in glycolysis has three catabolic fates [Question ID = 218]**

1. All of the above [Option ID = 872]
2. Conversion to Ethanol [Option ID = 871]
3. Reduction to lactate [Option ID = 870]
4. Oxidation to acetyl CoA [Option ID = 869]

**Correct Answer :-**

- All of the above [Option ID = 872]

**89) A multienzyme complex of citric acid cycle is [Question ID = 237]**

1. Pyruvate dehydrogenase [Option ID = 946]
2. Alpha-ketoglutarate dehydrogenase [Option ID = 948]
3. Aconitase [Option ID = 947]
4. Succinate dehydrogenase [Option ID = 945]

**Correct Answer :-**

- Alpha-ketoglutarate dehydrogenase [Option ID = 948]

**90) Emulsifiers are amphiphilic molecules and have the ability to reduce: [Question ID = 274]**

1. All of the above [Option ID = 1096]
2. Viscosity [Option ID = 1094]
3. Surface tension [Option ID = 1093]
4. Temperature [Option ID = 1095]

**Correct Answer :-**

- Surface tension [Option ID = 1093]

**91) Pernicious anaemia is caused due to the deficiency of which nutrient?**

**[Question ID = 304]**

1. Vitamin C [Option ID = 1213]
2. Vitamin B12 [Option ID = 1215]
3. Folic acid [Option ID = 1216]
4. Iron [Option ID = 1214]

**Correct Answer :-**

- Vitamin B12 [Option ID = 1215]

**92) The temperature in deep freezer is [Question ID = 271]**

1. None [Option ID = 1084]
2. 0 °C [Option ID = 1081]
3. -18 °C [Option ID = 1083]
4. 7 °C [Option ID = 1082]

**Correct Answer :-**

- -18 °C [Option ID = 1083]

**93) Ketosis occurs due to**

**[Question ID = 295]**

1. Increased lipolysis [Option ID = 1178]
2. Increased proteolysis [Option ID = 1177]
3. Decreased proteolysis [Option ID = 1179]
4. Decreased lipolysis [Option ID = 1180]

**Correct Answer :-**

- Increased lipolysis [Option ID = 1178]

**94) The component of energy expenditure include**

**[Question ID = 225]**

1. Dietary induced thermogenesis [Option ID = 898]
2. All of the above [Option ID = 900]
3. Physical activity [Option ID = 899]
4. Basal metabolic rate [Option ID = 897]

**Correct Answer :-**

- All of the above [Option ID = 900]

**95) The bran, the germ and the endosperm are the three parts of**

**[Question ID = 265]**

1. Kernel of the cereal grain [Option ID = 1058]
2. Fruits [Option ID = 1059]
3. Vegetable [Option ID = 1057]
4. None of these [Option ID = 1060]

**Correct Answer :-**

- Kernel of the cereal grain [Option ID = 1058]

**96) The role of the teaching aids include:**

**i. Observation**

**ii. Exploration**

**iii. Understanding**

**iv. Application**

**[Question ID = 208]**

1. i, ii, iii [Option ID = 830]
2. ii, iii, iv [Option ID = 831]
3. i, ii, iv [Option ID = 829]
4. All of the above [Option ID = 832]

**Correct Answer :-**

- All of the above [Option ID = 832]

**97) The management of microcytic hypochromic anaemia involves supplementation of**  
**i. Ferrous sulphate, GLVs and Vitamin C**  
**ii. Iodine, Vitamin B12 and Vitamin B6**  
**iii. Folic acid and vitamin B12**  
**iv. Folic acid, Iodine, Iron and vitamin B12**

**[Question ID = 251]**

1. Correct options are i and iii [Option ID = 1003]
2. Correct options are ii and iii [Option ID = 1002]
3. Correct options are i and iv [Option ID = 1001]
4. All of the above [Option ID = 1004]

**Correct Answer :-**

- Correct options are i and iii [Option ID = 1003]

**98) Candling is a method used to assess the quality of: [Question ID = 279]**

1. Fish [Option ID = 1115]
2. Milk [Option ID = 1113]
3. Meat [Option ID = 1114]
4. Egg [Option ID = 1116]

**Correct Answer :-**

- Egg [Option ID = 1116]

**99) Tissues form lactate from glucose. This process is termed as [Question ID = 263]**

1. Anaerobic glycolysis [Option ID = 1050]
2. Aerobic glycolysis [Option ID = 1049]
3. Oxidative phosphorylation [Option ID = 1051]
4. Oxidation [Option ID = 1052]

**Correct Answer :-**

- Anaerobic glycolysis [Option ID = 1050]

**100) Diet of the patient is modified according to [Question ID = 230]**

1. Disease and its severity [Option ID = 917]
2. Nutritional status of the patient [Option ID = 918]
3. Metabolic changes [Option ID = 919]
4. All of the above [Option ID = 920]

**Correct Answer :-**

- All of the above [Option ID = 920]