

DO NOT OPEN THIS TEST BOOKLET UNTIL YOU ARE ASKED TO DO SO

Test Booklet No. :

00001

TEST BOOKLET  
Paper—III  
( NUTRITION )

Series



Time Allowed : 2 Hours

Full Marks : 100

Read the following instructions carefully before you begin to answer the questions :

1. The name of the Subject, Roll Number as mentioned in the Admission Certificate, Test Booklet No. and Series are to be written legibly and correctly in the space provided on the Answer-Sheet with Black/Blue ballpoint pen.
2. Answer-Sheet without marking Series as mentioned above in the space provided for in the Answer-Sheet shall not be evaluated.
3. All questions carry equal marks.

**The Answer-Sheet should be submitted to the Invigilator.**

*Directions for giving the answers :* Directions for answering questions have already been issued to the respective candidates in the 'Instructions for marking in the OMR Answer-Sheet' along with the Admit Card and Specimen Copy of the OMR Answer-Sheet.

*Example :*

Suppose the following question is asked :

The capital of Bangladesh is

- (A) Chennai  
(B) London  
(C) Dhaka  
(D) Dhubri

You will have four alternatives in the Answer-Sheet for your response corresponding to each question of the Test Booklet as below :



In the above illustration, if your chosen response is alternative (C), i.e., Dhaka, then the same should be marked on the Answer-Sheet by blackening the relevant circle with a Black/Blue ballpoint pen only as below :



**The example shown above is the only correct method of answering.**

4. Use of eraser, blade, chemical whitener fluid to rectify any response is prohibited.
5. Please ensure that the Test Booklet has the required number of pages (16) and 100 questions immediately after opening the Booklet. In case of any discrepancy, please report the same to the Invigilator.
6. No candidate shall be admitted to the Examination Hall/Room 20 minutes after the commencement of the examination.
7. No candidate shall leave the Examination Hall/Room without prior permission of the Supervisor/Invigilator. No candidate shall be permitted to hand over his/her Answer-Sheet and leave the Examination Hall/Room before expiry of the full time allotted for each paper.
8. No Mobile Phone, Electronic Communication Device, etc., are allowed to be carried inside the Examination Hall/Room by the candidates. Any Mobile Phone, Electronic Communication Device, etc., found in possession of the candidate inside the Examination Hall/Room, even if on off mode, shall be liable for confiscation.
9. No candidate shall have in his/her possession inside the Examination Hall/Room any book, notebook or loose paper, except his/her Admission Certificate and other connected papers permitted by the Commission.
10. Complete silence must be observed in the Examination Hall/Room. No candidate shall copy from the paper of any other candidate, or permit his/her own paper to be copied, or give, or attempt to give, or obtain, or attempt to obtain irregular assistance of any kind.
11. This Test Booklet can be carried with you after answering the questions in the prescribed Answer-Sheet.
12. Noncompliance with any of the above instructions will render a candidate liable to penalty as may be deemed fit.
13. No rough work is to be done on the OMR Answer-Sheet. You can do the rough work on the space provided in the Test Booklet.

**N.B. : There will be negative marking @ 0.25 per 1 (one) mark against each wrong answer.**

/16-A

[ No. of Questions : 100 ]

SEAL

1. Which are referred to as proximate principles of food?
  - (A) Carbohydrates, proteins, lipids
  - (B) Carbohydrates, proteins, vitamins
  - (C) Vitamins, water, proteins
  - (D) Carbohydrates, minerals, vitamins
  
2. Which one of the following is **not** a function of fats in the body?
  - (A) Energy storage
  - (B) Component of cell and tissues
  - (C) Synthesis of vitamin D
  - (D) Promotion of intestinal bacteria growth
  
3. Carbohydrates also act as reserve fuel supply in the form of
  - (A) glycogen
  - (B) starch
  - (C) glucose
  - (D) sucralose
  
4. What are the disaccharide sugars?
  - (A) Glucose, fructose, lactose
  - (B) Sucrose, lactose, maltose
  - (C) Dextrin, sucrose, lactose
  - (D) Maltose, lactose, starch
  
5. Proteins of high biological value are
  - (A) meat, fish, egg
  - (B) meat, cereal, fish
  - (C) fish, egg, pulses
  - (D) milk, fish, rajmah
  
6. Select the essential fatty acids.
  - (A) Oleic acid, linoleic acid, linolenic acid
  - (B) Linoleic acid, linolenic acid, arachidonic acid
  - (C) Linoleic acid, linolenic acid, oleic acid
  - (D) Oleic acid, linolenic acid, arachidonic acid
  
7. 1 gram of fat provides
  - (A) 4 kcal
  - (B) 7 kcal
  - (C) 9 kcal
  - (D) 12 kcal
  
8. Surplus glucose in the body is stored in
  - (A) muscles
  - (B) liver
  - (C) brain
  - (D) kidneys

9. Vitamin C serves as
- (A) coenzyme
  - (B) antagonist
  - (C) antioxidant
  - (D) None of the above
10. Recommended dietary allowance of daily calories for a moderate female worker is
- (A) 1875 kcal
  - (B) 2225 kcal
  - (C) 2130 kcal
  - (D) 2300 kcal
11. Deficiency of niacin causes
- (A) xerophthalmia
  - (B) pellagra
  - (C) beriberi
  - (D) osteomalacia
12. Select the inorganic nutrients.
- (A) Carbohydrates, proteins, fluorine
  - (B) Water, fluorine, iodine
  - (C) Silicon, vitamins, proteins
  - (D) Calcium, carbohydrates, water
13. Other names of dietary fibre are
- (A) bulk, roughage, residues
  - (B) bulk, polysaccharides, residues
  - (C) roughage, monosaccharides, bulk
  - (D) residues, bulk, disaccharides
14. Name the non-energy yielding nutrients.
- (A) Carbohydrates, proteins, fats
  - (B) Carbohydrates, fibres, fats
  - (C) Proteins, fats, fibres
  - (D) Fibres, minerals, vitamins
15. Energy requirement for an Indian sedentary lactating woman who has a 7-month old baby is
- (A) 2300 kcal
  - (B) 2420 kcal
  - (C) 2450 kcal
  - (D) 2500 kcal
16. The non-active form of vitamin A in the body is
- (A) retinol
  - (B) retinal
  - (C) retinoic acid
  - (D)  $\beta$ -carotene

17. Normal body mass index (BMI) is
- (A) 17 to 24
  - (B) 17.5 to 25
  - (C) 18 to 24
  - (D) 18.5 to 25
18. Which factors decrease BMR (Basal Metabolic Rate)?
- (A) Stress, growing age, sleep
  - (B) Fever, starvation, sleep
  - (C) Starvation, sleep, hypothyroidism
  - (D) Smoking, sleep, fever
19. Choose the protective food.
- (A) Milk
  - (B) Pulses
  - (C) Cereals
  - (D) Green leafy vegetables
20. The full form of IYCF is
- (A) Indian and Young Child Feeding
  - (B) Infant and Youth Child Feeding
  - (C) Infant and Young Child Feeding
  - (D) None of the above
21. Daily dietary fibre recommendations for an adult male is
- (A) 42 grams/day
  - (B) 48 grams/day
  - (C) 37 grams/day
  - (D) 38 grams/day
22. 100 ml of breast milk gives \_\_\_\_\_ kilocalories.
- (A) 50
  - (B) 55
  - (C) 67
  - (D) 78
23. ELISA stands for
- (A) Enzyme-life Induced Assessment
  - (B) Enzyme-linked Immunosorbent Assay
  - (C) Energy-linked Immunity Assay
  - (D) None of the above
24. Increased susceptibility to infection is a clinical impact of
- (A) neurological effects
  - (B) endocrine system
  - (C) immune system
  - (D) gastrointestinal system



25. The main purpose of the Anganwadi centers under ICDS
- (A) to provide healthcare services
  - (B) to offer vocational training
  - (C) to promote early childhood care and development
  - (D) to facilitate adult education
26. Which of the following statements is true in the context of interventions being undertaken under 'Anaemia Mukht Bharat' strategy?
- (A) It is a strategy with the target to reduce anaemia in women, children and adolescents in a life cycle approach.
  - (B) It is a flagship national nutrition mission to improve nutrition among children and pregnant women.
  - (C) It includes school meal programme.
  - (D) It is implemented as targeted interventions to address malnutrition.
27. The method of preservation that does **not** involve lowering water activity ( $a_w$ ) is
- (A) salt
  - (B) canning
  - (C) sugar
  - (D) freeze drying
28. Sensory testing designed to determine whether detectable differences exists between samples is called
- (A) discrimination testing
  - (B) descriptive analysis
  - (C) hedonic testing
  - (D) threshold testing
29. High protein diet is **not** recommended for
- (A) burns
  - (B) fever
  - (C) kidney diseases
  - (D) hyperthyroidism
30. Ideal body weight (IBW) for an Indian infant at 1 year is
- (A) 5 kg
  - (B) 6 kg
  - (C) 7 kg
  - (D) 9 kg
31. Coenzyme of riboflavin is
- (A) NAD
  - (B) NADP
  - (C) TPP
  - (D) FMN

32. The diet regimen given between soft diet and full liquid diet is

- (A) clear liquid diet
- (B) semisolid diet
- (C) normal diet
- (D) high protein diet

33. Vitamin B<sub>12</sub> rich foods are

- (A) cereals, pulses, meat
- (B) meat, poultry, dairy products
- (C) vegetables, meat, poultry
- (D) fruits, vegetables, dairy products

34. Complementary feeding starts from

- (A) 4 months
- (B) 6 months
- (C) 8 months
- (D) 1 year

35. Foods that are high in \_\_\_\_\_ help to absorb more iron.

- (A) vitamin C
- (B) vitamin E
- (C) vitamin K
- (D) vitamin A

36. Marasmus has which of the following symptoms?

- (A) Oedema, skin pigmentation, fatty liver
- (B) Oedema, muscle atrophy, moon face
- (C) Severe weight loss, no oedema, muscle atrophy
- (D) Oedema, severe weight loss, muscle atrophy

37. Assertion (A) :

Consuming excessive amounts of vitamin A can lead toxicity symptoms.

Reason (R) :

Vitamin A is fat-soluble and excess amounts are easily excreted by the body, thus posing no risk of toxicity.

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

- (A) Both (A) and (R) are true and (R) is the correct explanation of (A)
- (B) Both (A) and (R) are true and (R) is not the correct explanation of (A)
- (C) (A) is true but (R) is false
- (D) (A) is false but (R) is true

38. The POSHAN scheme comes under which ministry of the following?

- (A) Ministry of Education
- (B) Ministry of Women and Child Development
- (C) Ministry of Social Welfare
- (D) Ministry of Health

39. Saliva contains \_\_\_\_\_ enzyme.

- (A) lactase
- (B) maltase
- (C) sucrase
- (D) amylase

40. Assertion (A) :

Medical professionals advocate for initiating breastfeeding during the neonatal period as a means to foster optimal infant health and well-being.

Reason (R) :

The milk produced during the initial few days of lactation is called 'colostrums' which contain several antibodies absolutely essential to develop resistance for the newborn babies.

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

- (A) Both (A) and (R) are true and (R) is the correct explanation of (A)
- (B) Both (A) and (R) are true and (R) is not the correct explanation of (A)
- (C) (A) is true but (R) is false
- (D) (A) is false but (R) is true

41. ICDS was launched on

- (A) 2nd October, 1983
- (B) 2nd October, 1972
- (C) 2nd October, 1975
- (D) 6th October, 1975

42. 'ASHA' stands for

- (A) Accredited Social Health Advisor
- (B) Accredited Social Health Activist
- (C) Advanced Social Health Agent
- (D) Actual Social Health Advisor

43. Choose the sunshine vitamin.

- (A) Vitamin A
- (B) Vitamin D
- (C) Vitamin E
- (D) Vitamin K

44. Golden rice is an example of

- (A) mass fortification
- (B) targeted fortification
- (C) biofortification
- (D) market-driven fortification

45. The POSHAN Abhiyan was launched on which of the following days?
- (A) Children's Day
  - (B) Teachers' Day
  - (C) Mother's Day
  - (D) International Women's Day
46. The full form of SAM is
- (A) Severe Adult Malnutrition
  - (B) Several Adult Malnutrition
  - (C) Severe Acute Malnutrition
  - (D) None of the above
47. When was the Mid-day Meal Programme started in India?
- (A) 1920
  - (B) 1921
  - (C) 1924
  - (D) 1925
48. When was the Preservation of Food Adulteration Act passed in India?
- (A) 1952
  - (B) 1953
  - (C) 1954
  - (D) 1955
49. A high-fibre diet is prescribed for
- (A) diarrhoea
  - (B) gout
  - (C) fever
  - (D) constipation
50. Cretinism is caused by deficiency of
- (A) iron
  - (B) iodine
  - (C) thiamine
  - (D) riboflavin
51. Dry heat methods of cooking are
- (A) baking, poaching, steaming
  - (B) poaching, roasting, sauteing
  - (C) baking, roasting, grilling
  - (D) grilling, poaching, roasting
52. The Food Safety and Standard Authority of India (FSSAI) was established on
- (A) 2002
  - (B) 2004
  - (C) 2006
  - (D) 2008



53. Yellow Revolution includes
- (A) oilseed production
  - (B) milk production
  - (C) coffee production
  - (D) fish production
54. The micro-organism in Brewer's yeast is known as
- (A) *Salmonella*
  - (B) *Saccharomyces cerevisiae*
  - (C) *Aspergillus*
  - (D) *E. coli*
55. Illnesses such as diarrhoea or vomiting cause the loss of sodium and water and increase the risk of
- (A) dehydration
  - (B) anaemia
  - (C) food poisoning
  - (D) constipation
56. Sugar concentration of \_\_\_\_\_ and above is required to inhibit mold growth.
- (A) 25%
  - (B) 40%
  - (C) 50%
  - (D) 65%
57. Ketone bodies are produced during lipid metabolism primarily in
- (A) liver
  - (B) adipose tissue
  - (C) kidneys
  - (D) pancreas
58. The term 'xerophthalmia' is derived from Greek word meaning
- (A) dry eye
  - (B) inflamed cornea
  - (C) cloudy vision
  - (D) night blindness
59. Which laboratory parameter is typically decreased in iron deficiency anaemia?
- (A) Serum iron
  - (B) Total iron-binding capacity (TIBC)
  - (C) Serum ferritin
  - (D) Red blood cell (RBC) count
60. Which of the following hormones is appetite suppressant?
- (A) Leptin
  - (B) Ghrelin
  - (C) Adiponectin
  - (D) Orexin

61. Hairs are thin, rough and easily pluckable due to the deficiency of
- (A) zinc
  - (B) zinc and thiamine
  - (C) vitamin B complexes
  - (D) zinc and protein
62. The digestive juice that is almost neutral is
- (A) gastric juice
  - (B) bile juice
  - (C) pancreatic juice
  - (D) None of the above
63. Which of the following electrolytes are present in body fluids?
- (A) Na, K, Ca, Ph and Pb
  - (B) Na, K, Cd, Mn and Cl
  - (C) I, Ca, Mg, P, Cl and K
  - (D) Ca, Mg, Cl, K and Na
64. Fatty acids which contain no double bonds between carbon atoms are
- (A) saturated
  - (B) monounsaturated
  - (C) polyunsaturated
  - (D) triglycerides
65. Hidden hunger refers to
- (A) deficiency of micronutrients
  - (B) deficiency of macronutrients
  - (C) deficiency of sodium and nitrogen
  - (D) deficiency of glucose
66. Which of the following minerals enhances insulin activity?
- (A) Chromium
  - (B) Myoglobin
  - (C) Heme iron
  - (D) Calcium
67. The average number of years lived by people in a given society is known as
- (A) longevity
  - (B) life expectancy
  - (C) chronological age
  - (D) life span
68. Which food contains the most fat?
- (A) Graham crackers
  - (B) Brownies
  - (C) Pudding
  - (D) Angel food cake

69. The primary objective of reproductive health education is
- (A) providing accurate information about contraception and family planning
  - (B) promoting unsafe sexual practices
  - (C) encouraging early and frequent pregnancies
  - (D) limiting access to reproductive healthcare services
70. The weight range that typically defines a low birth weight (LBW) baby is
- (A) less than 1.8 kilograms
  - (B) less than 2.5 kilograms
  - (C) less than 3 kilograms
  - (D) less than 2.8 kilograms
71. What are the National Institutes working towards food and nutrition?
- (A) WHO, CARE, NIPCD
  - (B) WHO, FAO, CARE
  - (C) NIN, WHO, CFTRI
  - (D) NIN, NIPCD, CFTRI
72. \_\_\_\_\_ is the toxin found in cereals and pulses.
- (A) Mercury
  - (B) Mycotoxin
  - (C) Arsenic toxin
  - (D) Lectin
73. Potato contains \_\_\_\_\_ toxins.
- (A) arsenic
  - (B) lectin
  - (C) mycotoxin
  - (D) phytic acid
74. What is the principal cation of the extracellular fluid (mEq/L)?
- (A) Na<sup>+</sup>
  - (B) K<sup>+</sup>
  - (C) Ca<sup>++</sup>
  - (D) Mg<sup>++</sup>
75. Nuts and grains produced in warm moist climates are prone to be affected by \_\_\_\_\_ causing liver problems and cancer in many animals and human.
- (A) ergot
  - (B) arsenic
  - (C) aflatoxin
  - (D) lectin
76. Which of the following colouring additives is added to food?
- (A) Vitamin E
  - (B) Sodium bicarbonate
  - (C) Pectin
  - (D) Annatto

77. Name the traditional media of communication.
- (A) Role play/Drama
  - (B) Demonstration
  - (C) Folk music and dance
  - (D) Lectures
78. Excess of potassium in the blood is known as
- (A) hypernatraemia
  - (B) hypercalcemia
  - (C) hyperkalemia
  - (D) None of the above
79. Name a stabilizer added to food.
- (A) Nitrate
  - (B) Pectin
  - (C) Caramel
  - (D) Saccharin
80. \_\_\_\_\_ is a sulphur containing amino acid.
- (A) Methionine
  - (B) Threonine
  - (C) Histidine
  - (D) Isoleucine
81. What vitamin is absent in plant foods?
- (A) Vitamin E
  - (B) Vitamin K
  - (C) Vitamin D
  - (D) Vitamin B<sub>12</sub>
82. Anaemia caused by vitamin B<sub>12</sub> deficiency is
- (A) hemolytic anaemia
  - (B) sickle-cell anaemia
  - (C) pernicious anaemia
  - (D) aplastic anaemia
83. Which is a good cholesterol?
- (A) VLDL
  - (B) HDL
  - (C) LDL
  - (D) Chylomicron
84. Another name for vinegar is
- (A) benzoic acid
  - (B) lactic acid
  - (C) sulphur dioxide
  - (D) acetic acid



85. Lathyrism is a disease seen in India and Spain where there is a high consumption of the pulse
- (A) red dal
  - (B) black dal
  - (C) kesari dal
  - (D) masoor dal
86. Formation of curd from milk is an example of \_\_\_\_\_ produced from lactose.
- (A) lactic acid
  - (B) benzoic acid
  - (C) acetic acid
  - (D) sulphur dioxide
87. The most common form of fat circulating in the body is
- (A) saturated
  - (B) unsaturated
  - (C) cholesterol
  - (D) triglycerides
88. What does food security mean?
- (A) Having access to a variety of foods at all times
  - (B) Having enough food to meet dietary needs and preferences for an active and healthy life
  - (C) Having access to gourmet cuisine
  - (D) Having access to fast food chains
89. Which layer of cereal is rich source of thiamine?
- (A) Bran
  - (B) Germ
  - (C) Aleurone
  - (D) Endosperm
90. Which of the following is **not** a dimension of food security?
- (A) Food availability
  - (B) Food access
  - (C) Food diversity
  - (D) Food wastage
91. Most common type of dementia is
- (A) Alzheimer's disease
  - (B) vascular dementia
  - (C) Parkinson's disease
  - (D) frontotemporal dementia
92. The most suitable test for diagnosis of diabetes mellitus is
- (A) glucose tolerance test
  - (B) fasting blood sugar
  - (C) random blood sugar
  - (D) urine sugar

93. To help prevent neural tube defects, grain products are now fortified with
- (A) protein
  - (B) iron
  - (C) vitamin C
  - (D) folate
94. The sweetest of all sugars is
- (A) glucose
  - (B) sucrose
  - (C) galactose
  - (D) fructose
95. Proteins which are attached to non-protein substances or prosthetic group are
- (A) conjugated proteins
  - (B) derived proteins
  - (C) simple proteins
  - (D) complex proteins
96. Sucrose is converted to
- (A) glucose + fructose
  - (B) glucose + galactose
  - (C) glucose + glucose
  - (D) glucose + lactose
97. Which of the following diseases is characterised as the 3D's (dermatitis, diarrhoea and dementia)?
- (A) Scurvy
  - (B) Beriberi
  - (C) Pellagra
  - (D) Rickets
98. Select the spices rich in antioxidants.
- (A) Turmeric, cumin, onion
  - (B) Turmeric, ginger, garlic
  - (C) Ginger, garlic, onion
  - (D) Cumin, garlic, onion
99. 100 ml of breast milk has \_\_\_\_\_ calcium.
- (A) 20 mg
  - (B) 35 mg
  - (C) 45 mg
  - (D) 50 mg
100. Foods that are low in \_\_\_\_\_ hamper the absorption of more iron in the body.
- (A) vitamin C
  - (B) vitamin E
  - (C) vitamin K
  - (D) vitamin A

**SPACE FOR ROUGH WORK**

SPACE FOR ROUGH WORK

SEAL

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NUT/OPDC/24/16-A

16

T25—30×4