

Test Booklet Series



Test Booklet
(Dietitian)

Test Booklet No.

Name of Applicant :

Answer Sheet No. :

Applicant ID/Roll No. :

Signature of Applicant :

Date of Examination :

Signature of the Invigilator(s)

Time of Examination :

1.

2.

Duration : 60 Minutes]

[Maximum Marks : 50

IMPORTANT INSTRUCTIONS

- (i) The question paper is in the form of Test-Booklet containing **50 (Fifty)** questions. All questions are compulsory. Each question carries four answers marked (A), (B), (C) and (D), out of which only one is correct. Choose the correct option or the most appropriate option.
- (ii) On receipt of the Test-Booklet (Question Paper), the candidate should immediately check it and ensure that it contains all the pages, i.e., **50** questions. Discrepancy, if any, should be reported by the candidate to the invigilator immediately after receiving the Test-Booklet.
- (iii) A separate Answer-Sheet is provided with the Test-Booklet/Question Paper. On this sheet there are **50** rows containing four circles each. One row pertains to one question.
- (iv) The candidate should write his/her Application ID/Roll number at the places provided on the cover page of the Test-Booklet/Question Paper and on the Answer-Sheet and **NOWHERE ELSE**.
- (v) No second Test-Booklet/Question Paper and Answer-Sheet will be given to a candidate. The candidates are advised to be careful in handling it and writing the answer on the Answer-Sheet.
- (vi) For every correct answer of the question **One (1) mark will be awarded**. There will be **negative marking of 0.25 mark** for every incorrect answer.
- (vii) Marking shall be done only on the basis of answers responded on the Answer-Sheet.
- (viii) To mark the answer on the Answer-Sheet, candidate should darken the appropriate circle in the row of each question with Blue or Black pen.
- (ix) For each question only **one** circle should be **darkened** as a mark of the answer adopted by the candidate. If more than one circle for the question are found darkened or with one black circle any other circle carries any mark, the answer will be treated as incorrect.
- (x) The candidates should not remove any paper from the Test-Booklet/Question Paper. Attempting to remove any paper shall be liable to be punished for use of unfair means.
- (xi) Rough work may be done on the blank space provided in the Test-Booklet/Question Paper only.
- (xii) *Mobile phones (even in Switch-off mode) and such other communication/programmable devices are not allowed inside the examination hall.*
- (xiii) No candidate shall be permitted to leave the examination hall before the expiry of the time.

DO NOT OPEN THIS QUESTION BOOKLET UNTIL ASKED TO DO SO.

1. As per ICMR-NIN 2020 RDA, the recommended protein intake for a sedentary adult Indian male (65 kg) is approximately:
 - (A) 40 g/day
 - (B) 54 g/day
 - (C) 75 g/day
 - (D) 90 g/day
2. The energy yield per gram of dietary fat is approximately:
 - (A) 4 kcal
 - (B) 7 kcal
 - (C) 9 kcal
 - (D) 2 kcal
3. A 25-year-old woman on a strict vegan diet for 3 years presents with tingling and numbness in both hands and glossitis. Which nutrient deficiency is the most likely cause of her neurological symptoms?
 - (A) Iron
 - (B) Vitamin B₁₂
 - (C) Calcium
 - (D) Folate
4. As per ICMR-NIN 2020 RDA, the recommended dietary iron intake for an adult non-pregnant, non-lactating Indian woman is:
 - (A) 8 mg/day
 - (B) 15 mg/day
 - (C) 29 mg/day
 - (D) 40 mg/day
5. The enzyme salivary amylase (ptyalin), present in human saliva, primarily initiates the digestion of which nutrient in the oral cavity?
 - (A) Proteins into peptides
 - (B) Emulsified fats into fatty acids
 - (C) Starch into maltose and dextrins
 - (D) Cellulose into glucose
6. A 55-year-old male is 170 cm tall and weighs 85 kg. Calculate his Body Mass Index (BMI) and classify his nutritional status.
 - (A) 25.6 kg/m² – Overweight
 - (B) 29.4 kg/m² – Overweight (pre-obese)
 - (C) 32.1 kg/m² – Class I obesity
 - (D) 36.7 kg/m² – Class II obesity
7. Mid-Upper Arm Circumference (MUAC) is widely used as a screening tool for acute malnutrition in children aged 6–59 months. A MUAC reading that indicates Severe Acute Malnutrition (SAM) is:
 - (A) < 11.5 cm
 - (B) < 12.5 cm
 - (C) 11.5–12.4 cm
 - (D) < 13.5 cm

8. Nutritional Risk Screening 2002 (NRS-2002) is recommended for screening hospitalized adult patients. A total score of ≥ 3 on NRS-2002 indicates:
- (A) No nutritional risk — routine care
 - (B) Mild nutritional risk — observe
 - (C) Moderate nutritional risk — dietary counselling
 - (D) Severe nutritional risk — nutritional support indicated
9. Subjective Global Assessment (SGA), a bedside technique based on history and physical examination, classifies patients' nutritional status into which of the following categories?
- (A) Normal, mild, moderate, severe
 - (B) Well-nourished (A), moderately malnourished (B), severely malnourished (C)
 - (C) Low, medium, high risk
 - (D) Grade I, II, III, IV
10. A 60-year-old patient with cirrhosis is being assessed for protein-energy malnutrition. Which of the following visceral proteins has a SHORT half-life (approximately 2 days) and is the most clinically useful marker for monitoring acute (within one week) changes in nutritional status?
- (A) Serum albumin (half-life ~20 days)
 - (B) Serum transferrin (half-life ~8 days)
 - (C) Serum prealbumin (half-life ~2 days)
 - (D) Retinol-binding protein (half-life ~12 hours)
11. A 55-year-old man with type 2 diabetes has HbA1c 8.5%, BMI 30, and no nephropathy. According to current ADA/ICMR guidelines, the recommended distribution of carbohydrates in his total daily caloric intake is approximately:
- (A) 25–30%
 - (B) 45–60%
 - (C) 65–75%
 - (D) 10–15%
12. A patient with chronic kidney disease (CKD stage 4, eGFR 18 mL/min/1.73 m²) on conservative (non-dialysis) management should restrict daily protein intake to approximately:
- (A) 0.6 g/kg/day
 - (B) 1.0 g/kg/day
 - (C) 1.2 g/kg/day
 - (D) 1.5 g/kg/day

13. A patient on maintenance hemodialysis (3 sessions/week) requires a higher protein intake than a pre-dialysis CKD patient because amino acids and peptides are lost into the dialysate. The KDOQI-recommended protein intake for a stable hemodialysis patient is:
- (A) 0.6–0.8 g/kg/day
 - (B) 0.8–1.0 g/kg/day
 - (C) 1.0–1.2 g/kg/day
 - (D) 1.5–2.0 g/kg/day
14. A patient with decompensated cirrhosis presents with ascites and pedal edema. The most appropriate dietary restriction to manage fluid overload is:
- (A) Restrict potassium to < 2 g/day
 - (B) Restrict sodium to ~2 g/day (5 g salt)
 - (C) Restrict phosphorus
 - (D) Restrict calcium
15. A malnourished 45-year-old alcoholic patient (BMI 16) who has been nil per os for 10 days is started on full-strength enteral feeding at target rate. On day 2 of feeding, serum phosphate drops from 3.2 to 1.0 mg/dL, with hypokalemia and hypomagnesemia. The most likely diagnosis is:
- (A) Tube feeding intolerance
 - (B) Refeeding syndrome
 - (C) Aspiration pneumonia
 - (D) Hyperglycemic hyperosmolar state
16. In managing a patient at high risk of refeeding syndrome, the standard initial management is to:
- (A) Start feeding at full target caloric rate immediately
 - (B) Restrict calories to 10–20 kcal/kg/day, supplement thiamine 200–300 mg/day, and correct serum potassium, magnesium, and phosphate before and during feeding
 - (C) Administer only 5% dextrose IV and avoid all enteral feeds
 - (D) Increase sodium intake aggressively to prevent hyponatremia
17. The most appropriate position for administering a bolus feed through a Ryles (nasogastric) tube to minimise the risk of aspiration is:
- (A) Supine with flat head
 - (B) Semi-recumbent with head of bed elevated 30–45°
 - (C) Prone position
 - (D) Trendelenburg (head-down) position

- 18.** Percutaneous Endoscopic Gastrostomy (PEG) is the preferred long-term enteral feeding route for patients requiring tube feeding for ≥ 4 weeks. The most common early complication of PEG placement is:
- (A) Peritonitis
 - (B) Tube dislodgement
 - (C) Wound infection at PEG site
 - (D) Bowel perforation
- 19.** Before administering feed through a newly inserted Ryles (nasogastric) tube, the most reliable bedside method to confirm gastric placement is:
- (A) Auscultation of insufflated air ("whoosh test")
 - (B) pH testing of aspirate ($\text{pH} \leq 5.5$ indicates gastric placement)
 - (C) Visual inspection of aspirate colour
 - (D) Bubble test through tube
- 20.** A 70-year-old patient on continuous tube feeding develops osmotic diarrhea after the formula was changed to a high-osmolality polymeric feed. The most appropriate initial management is to:
- (A) Stop feeding completely for 48 hours
 - (B) Switch to an isotonic or lower-osmolality formula and reduce the rate temporarily, then advance gradually
 - (C) Administer loperamide 4 mg immediately and continue full-rate feeding
 - (D) Increase the rate of feeding to push through the feed faster
- 21.** Total Parenteral Nutrition (TPN) is most clearly indicated in which of the following clinical situations?
- (A) Patient NPO for less than 5 days with intact and functional GI tract
 - (B) Patient with severe short bowel syndrome and intestinal failure unable to meet needs enterally
 - (C) Patient who refuses to eat hospital food
 - (D) Patient with mild anorexia of 2 days' duration
- 22.** The recommended central venous catheter tip position for long-term Parenteral Nutrition (PN) administration is:
- (A) In the right atrium
 - (B) At the cavoatrial junction (lower SVC / upper RA)
 - (C) In the subclavian vein distal to the clavicle
 - (D) In the brachiocephalic vein

23. A patient on PN develops hyperglycemia (blood glucose 280 mg/dL). The most appropriate initial management is to:
- (A) Increase lipid emulsion and stop dextrose
 - (B) Decrease dextrose infusion rate and consider intravenous insulin titration
 - (C) Stop PN immediately and switch to oral diet
 - (D) Increase amino acid content of PN
24. The non-protein calorie to nitrogen (NPC:N) ratio in a standard parenteral nutrition formula for a metabolically stable adult is typically:
- (A) 50:1
 - (B) 100:1
 - (C) 150:1
 - (D) 300:1
25. A patient on long-term home parenteral nutrition (HPN) for > 6 months develops bone pain and vertebral fractures. The most likely contributing nutrient/metabolic imbalance is:
- (A) Excess vitamin K
 - (B) Aluminum toxicity and inadequate vitamin D, calcium, and phosphorus
 - (C) Excess iron
 - (D) Excess zinc
26. As per ICMR-NIN 2020 RDA, the recommended additional energy intake during the 2nd and 3rd trimesters of pregnancy is:
- (A) +85 kcal/day
 - (B) +170 kcal/day
 - (C) +350 kcal/day
 - (D) +520 kcal/day
27. The World Health Organization (WHO) and UNICEF recommend exclusive breastfeeding for infants up to the age of:
- (A) 2 months
 - (B) 4 months
 - (C) 6 months
 - (D) 12 months
28. A 9-month-old infant is being introduced to complementary feeding (introduction of solid foods alongside breast milk). The most appropriate first complementary food per WHO / IAP guidelines is:
- (A) Cow's milk in a bottle
 - (B) Honey
 - (C) Iron-fortified single-grain cereal
 - (D) Egg white

- 29.** A 14-month-old child weighing 6.5 kg presents with bilateral pitting edema on the dorsum of feet, weight-for-height z-score < -3 , and mid-upper arm circumference of 10.8 cm. According to WHO criteria, the diagnosis is:
- (A) Marasmus (SAM without edema)
 - (B) Severe Acute Malnutrition (SAM) — edematous type (kwashiorkor)
 - (C) Moderate Acute Malnutrition (MAM)
 - (D) Stunting without acute malnutrition
- 30.** In the WHO 10-step management protocol for SAM, the therapeutic formula F-75 (75 kcal/100 mL) is used during which phase?
- (A) Rehabilitation phase
 - (B) Stabilization phase (Phase 1)
 - (C) Transition phase only
 - (D) Discharge phase
- 31.** In commercial kitchen layout design, the recommended workflow direction (to prevent cross-contamination and ensure efficiency) is:
- (A) Serving → Storage → Preparation → Cooking → Wash-up
 - (B) Receiving/Storage → Preparation → Cooking → Service → Wash-up
 - (C) Wash-up → Cooking → Serving → Preparation → Storage
 - (D) Cooking → Storage → Serving → Preparation → Wash-up
- 32.** A cyclic menu in institutional catering (e.g., hospital or hostel mess) is most commonly designed for a cycle period of:
- (A) 1–3 days
 - (B) 7–14 days
 - (C) 30 days
 - (D) 90 days
- 33.** The "food cost percentage" in a catering operation is calculated using which of the following formulas?
- (A) $(\text{Cost of food sold} \div \text{Selling price}) \times 100$
 - (B) $(\text{Selling price} \div \text{Cost of food sold}) \times 100$
 - (C) $(\text{Total revenue} \times \text{Cost of food sold})$
 - (D) $(\text{Number of portions} \times \text{Selling price})$
- 34.** The FSSAI Schedule 4 (Hygienic Practices) recommends hot-holding of cooked food at or above:
- (A) 40°C
 - (B) 60°C
 - (C) 75°C
 - (D) 100°C

35. In menu planning for a 300-bed multispecialty hospital with general, diabetic, renal, soft, and clear-fluid diet requirements, the most appropriate menu type is:
- (A) Static menu with one dish per meal
 - (B) Cyclic menu (7-day rotation) with selective menu items for therapeutic diets
 - (C) Single fixed menu for all patients
 - (D) À la carte menu only
36. The "Danger Zone" temperature range in which pathogenic bacteria multiply rapidly in potentially hazardous food is:
- (A) Below 0°C
 - (B) 5°C to 60°C
 - (C) 60°C to 75°C
 - (D) Above 100°C
37. HACCP, a systematic preventive approach to food safety, stands for:
- (A) Hazard Analysis Critical Control Point
 - (B) Hygiene Assessment and Critical Control Plan
 - (C) Hazard Assessment Critical Cooking Point
 - (D) High Assessment Critical Control Process
38. In a hospital kitchen, the most critical control point (CCP) for ensuring the safety of cooked rice (a known vehicle for *Bacillus cereus* food poisoning) is:
- (A) Receiving of dry rice
 - (B) Dry storage temperature
 - (C) Cooking temperature and rapid cooling of cooked rice (within 2 hours to < 5°C)
 - (D) Dishwashing of serving plates
39. The food safety message — "Clean, Separate, Cook, Chill" — originally promoted by the USDA (and widely used by food safety agencies globally, including in FSSAI training material) corresponds to:
- (A) The four pillars of HACCP
 - (B) Four core food safety practices for consumers and food handlers
 - (C) Four critical control points in a kitchen
 - (D) Four steps in menu planning
40. A food handler in a hospital kitchen is diagnosed with which of the following conditions and must be excluded from food handling duties until medically cleared?
- (A) Common cold with mild runny nose
 - (B) Mild tension headache
 - (C) Typhoid carrier status/active *Salmonella* infection
 - (D) Mild eczema on the forearm

- 41.** A 68-year-old patient on long-term warfarin therapy (for atrial fibrillation) should be counseled to maintain a CONSISTENT daily intake of which nutrient, rather than restricting it completely?
- (A) Vitamin K (leafy green vegetables, broccoli, spinach)
 - (B) Vitamin C (citrus fruits)
 - (C) Iron (red meat)
 - (D) Calcium (dairy)
- 42.** Long-term use of metformin in type 2 diabetes patients is most commonly associated with impaired absorption and deficiency of:
- (A) Vitamin B₁₂
 - (B) Vitamin C
 - (C) Folate
 - (D) Vitamin D
- 43.** A patient on long-term loop diuretic therapy (e.g., furosemide) is most at risk of developing deficiency of which electrolytes?
- (A) Sodium only
 - (B) Potassium and magnesium
 - (C) Iron
 - (D) Vitamin A
- 44.** Concurrent consumption of grapefruit juice significantly increases the serum concentration of certain drugs (e.g., simvastatin, felodipine) by inhibiting which intestinal / hepatic enzyme?
- (A) CYP1A2
 - (B) CYP3A4
 - (C) CYP2D6
 - (D) CYP2C9
- 45.** Patients prescribed monoamine oxidase inhibitors (MAOIs) for depression must AVOID foods high in which substance to prevent hypertensive crisis?
- (A) Potassium (bananas)
 - (B) Tyramine
 - (C) Dietary fiber
 - (D) Vitamin K
- 46.** Long-term therapy with proton pump inhibitors (PPIs) such as omeprazole can impair absorption of which of the following nutrients due to reduced gastric acid?
- (A) Vitamin B₁₂, calcium, magnesium, and iron
 - (B) Vitamin A only
 - (C) Folate only
 - (D) Vitamin C only

- 47.** ADIME is the standardized Nutrition Care Process documentation framework used in clinical dietetics. ADIME stands for:
- (A) Assessment, Diagnosis, Intervention, Monitoring, Evaluation
 - (B) Admission, Discharge, Investigation, Management, Examination
 - (C) Assessment, Detection, Intervention, Maintenance, Exit
 - (D) Analysis, Decision, Intervention, Monitoring, Education
- 48.** POSHAN Abhiyaan (Prime Minister's Overarching Scheme for Holistic Nutrition, launched 2018), India's flagship nutrition mission, primarily targets which demographic groups?
- (A) Elderly population above 60 years
 - (B) Pregnant women, lactating mothers, and children under 6 years of age
 - (C) Adult males 18–60 years
 - (D) Adolescent girls only
- 49.** In dietary counselling, the "teach-back" method is used to:
- (A) Test the counsellor's knowledge
 - (B) Assess the patient's understanding by asking them to repeat the information in their own words
 - (C) Increase session duration
 - (D) Avoid answering the patient's questions
- 50.** The Integrated Child Development Services (ICDS) scheme provides supplementary nutrition, preschool education, and health services to which target groups?
- (A) Children 0–3 years only
 - (B) Children 0–6 years, pregnant women, and lactating mothers
 - (C) Children 6–14 years
 - (D) Adolescents 10–18 years

ROUGH WORK