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QUALIFICATION : BACHELOR OF HUMAN NUTRITION	
QUALIFICATION CODE: 08BOHN	LEVEL: 7
COURSE: HUMAN NUTRITION 2	COURSE CODE: HTN721S
DATE: NOVEMBER 2024	SESSION: 2024
DURATION: 3 HOURS	MARKS: 100

FIRST OPPORTUNITY EXAMINATION: QUESTION PAPER

EXAMINER: MRS MARI-LOUISE JEFFERY

MODERATOR: MRS MARJORIE VAN WYK

INSTRUCTIONS (*add other relevant instructions*):

1. Answer all questions on the separate answer sheet.
2. Please write neatly and legibly.
3. Do not use the left side margin of the exam paper. This must be allowed for the examiner.
4. No books, notes and other additional aids are allowed.
5. Mark all answers clearly with their respective question numbers.

PERMISSIBLE MATERIALS:

NONE

ATTACHMENTS

NONE

This paper consists of 5 pages including this front page

QUESTION 1: MULTIPLE CHOICE QUESTIONS**[10 MARKS]**

Evaluate the statements in each numbered section and select the most appropriate answer or phrase from the given possibilities. Fill in the appropriate letter next to the number of the correct statement/phrase on your ANSWER SHEET. [10]

1.1 Inositol is a compound that: [1]

- a) May help with inflammation and metabolic health
- b) Is often prescribed to regulate menstrual cycles and manage symptoms like acne and hirsutism
- c) Has been shown to improve insulin sensitivity and support ovarian function
- d) Aids in digestion and promotes a feeling of fullness

1.2 In insulin resistance: [1]

- a) The insulin-receptor numbers can be increased
- b) Patients have circulating antibodies against insulin or the beta cells
- c) The insulin-receptor structure can be abnormal
- d) A and C

1.3 Which of the following is NOT a common feature of Polycystic Ovary Syndrome (PCOS): [1]

- a) Irregular menstrual cycles
- b) Excess androgen levels
- c) High insulin sensitivity
- d) Ovarian cysts

1.4 Which of the following is a characteristic feature of achalasia: [1]

- a) Increased esophageal motility
- b) Inability of the lower esophageal sphincter to relax
- c) Presence of esophageal diverticula
- d) Excessive acid production

1.5 Which of the following statements about stimulant laxatives and intestinal transit is true? [1]

- a) Stimulant laxatives slow down intestinal motility, enhancing drug absorption
- b) Stimulant laxatives increase the movement of material from the small intestine distally, potentially disrupting drug absorption
- c) Stimulant laxatives have no effect on drug absorption in the gastrointestinal tract
- d) Stimulant laxatives are only effective for treating constipation without affecting intestinal motility

- 1.6 Which of the following is a recommended first-line management strategy for constipation: [1]
- a) Increasing fiber intake
 - b) Using stimulant laxatives
 - c) Performing abdominal surgery
 - d) Reducing fluid intake
- 1.7 Which of the following is a primary risk factor for developing non-alcoholic fatty liver disease (NAFLD): [1]
- a) Excessive alcohol consumption
 - b) Sedentary lifestyle and obesity
 - c) High protein diet
 - d) Viral hepatitis infection
- 1.8 In resource-poor settings or when a child does not want to consume ready-to-use therapeutic food, it can be substituted with: [1]
- a) Breastmilk
 - b) Commercially prepared peanut butter
 - c) F-75
 - d) F-100
- 1.9 Which of the following is NOT a function of the liver: [1]
- a) Producing bile for digestion
 - b) Storing glucose as glycogen
 - c) Filtering and detoxifying blood
 - d) Producing insulin
- 1.10 Which of the following symptoms is commonly associated with diabetic neuropathy: [1]
- a) Increased thirst
 - b) Numbness or tingling in the extremities
 - c) Frequent urination
 - d) Blurred vision

QUESTION 2: TRUE/FALSE QUESTIONS

[10 MARKS]

Evaluate the statements and select whether the statement is true or false. Write the word 'True' or 'False' next to the corresponding number on your ANSWER SHEET. [10]

- 2.1 Drug-nutrient interactions are only relevant for prescription medications and do not affect over-the-counter drugs. [1]

- 2.2 Gastrointestinal diseases can affect nutrient absorption and lead to malnutrition. [1]
- 2.3 A child with stunted growth may still be classified as having normal weight for their age. [1]
- 2.4 Gestational diabetes typically resolves after childbirth. [1]
- 2.5 The Nutrition Care Process is a one-time assessment and does not require follow-up. [1]
- 2.6 Children can outgrow all types of food allergies by adulthood. [1]
- 2.7 Child malnutrition only affects physical health and has no impact on cognitive development. [1]
- 2.8 Food intolerance is the same as a food allergy and involves an immune system response. [1]
- 2.9 Women with gestational diabetes typically require insulin therapy for blood sugar control. [1]
- 2.10 Grapefruit juice has no known interactions with commonly prescribed medications. [1]

SECTION B: SHORT / LONG ANSWER QUESTIONS

[80 MARKS]

QUESTION 3:

[10 MARKS]

3.1 Describe the following terms:

- a) RUTF [3]
- b) Pharmacokinetics [3]
- c) Underlying determinants of maternal and child nutrition [4]

QUESTION 4:

[35 MARKS]

Please answer ALL of the questions in this section.

- 4.1 Differentiate between the two (2) types of food allergy reactions. [8]
- 4.2 The metabolic syndrome is defined as cluster of symptoms associated with central obesity, insulin resistance and hyperinsulinemia.
- a) Discuss the diagnostic criteria of the metabolic syndrome. [6]
 - b) Gout is one of the chronic diseases that develop as a result of poor management of the metabolic syndrome. Critically analyse the effectiveness of low-purine diets in the

management of the disease and discuss the recommended medication options available to manage this condition. [5]

- c) Describe the dietary recommendations to reduce the build-up of uric acid to prevent gout flare-ups. [10]

4.3 Outline the possible gastrointestinal disorders that could be related to the symptoms described below, and the key nutrition management guidelines for each disorder. [6]

- a) Difficulty in swallowing food
- b) Epigastric pain when eating or 2-5 hours after eating
- c) Cramps, distention and flatulence several hours after drinking milk

QUESTION 5:

[35 MARKS]

5.1 In a community setting, you are required to assess the nutritional status of patients diagnosed with Type 2 Diabetes Mellitus.

- a) Explain in detail, the approach you would take in assessing their nutritional status, outlining the steps in the Nutrition Care Process model and the process of achieving each step. [23]
- b) Describe the treatment guidelines that you will follow in your nutrition education session with this patient. [12]

END OF PAPER