



SOLOMON ISLANDS NATIONAL UNIVERSITY
School of Nursing and Allied Health Sciences
Diploma of Public Health (Nutrition & Dietetics)

**ND 632 - NUTRITION & LIFESTYLE
DISEASES**

FINAL EXAMINATION

SEMESTER 1, 2017



SOLOMON ISLANDS NATIONAL UNIVERSITY
SCHOOL OF NURSING & ALLIED HEALTH SCIENCES
DIPLOMA OF NUTRITION AND DIETETICS

ND 632 NUTRITION AND LIFESTYLE DISEASES
FINAL EXAMINATION

TIME ALLOWED : 9:00 AM - 12:00 PM (3 HOURS)
DATE : 12th June 2017
STARTING TIME : 9:00 AM

STUDENT NAME : _____

STUDENT ID : _____

TEST INSTRUCTIONS:

1. You will be given 10 minutes to read the paper.
2. All questions are compulsory, and therefore you must attempt to answer them all.
3. For Short answer questions, write your answers on the space provided.
4. Make sure to write clearly in pen or biro and not in pencil.
5. Write your full name & student ID in the spaces provided above.
6. **This EXAM is worth 50% of your continuous assessment.**

Section	Marks Allocated
Section A: Multiple Choice Questions	/30 Marks
Section B: Short Answer Questions	/40 marks
Section C: Long Answer Questions	/30 Marks
Total Marks	/ 100 marks

GOOD LUCK

Circle the correction answer

0

1. **Community nutrition is the;**
 - a) Process of helping individual who are on special diets
 - b) Process of assessing and diagnosing the different forms of non communicable diseases
 - c) Process of helping individuals and groups develop healthy eating habits in order to promote wellness and prevent disease.
 - d) Process of helping children less than 5 years to take vitamin a supplements
2. **Ecology refers to :**
 - a) The relationship between a person and his/her environment
 - b) The relationship between same population group
 - c) The relationship between different communities
 - d) The relationship between different population groups
3. **An underlying cause of malnutrition is**
 - a) Household food insecurity
 - b) Good sanitation
 - c) Good housing condition
 - d) Inadequate dietary intake
4. **“Food secure” means**
 - a) available supply of food , adequate in quality and quantity to meet the nutritional needs of all family
 - b) limited or uncertain availability of food and the inability to obtain a sufficient food for all family
 - c) available supply of but inadequate in quality and quantity to the nutritional needs of all family
 - d) Limited and available of food supply, adequate in quantity and quality to meet some population groups.
5. **To identify a healthy body weight a common measure of weight and height can be obtain as:**
 - a) Body mass index
 - b) Waist and hip ratio
 - c) Skinfold thickness
 - d) Body fat percentage rating
6. **Central obesity is associated with an**
 - a) Increase risk of non-communicable disease
 - b) Increase risk of communicable disease
 - c) Increase risk severe acute malnutrition
 - d) Increase risk of moderate acute malnutrition
7. **Energy balance is when the energy intake and output is equal. If a person has a positive energy balance that person is more likely to:**
 - a) Gain weight
 - b) Lose weight
 - c) Maintain weight
 - d) Develop diabetes
8. **The key steps involved in needs assessment are:**
 - a. Identifying key characteristics of the area/community and population
 - b. Describe the health status of the area/community and identifying target group/population
 - c. Identify factors influencing the health issue/contributing factor
 - d. All of the above
9. **Which of the following statement is TRUE for TARGET GROUPS in any project?**
 - a) A target group is the intended audience or a specific population group that will be targeted for your project
 - b) A target group should NOT have a specific age
 - c) A target group is a large group of people with different health needs
 - d) All of the above are true
10. **NEEDS ASSESSMENT is best defined as**
 - a) The assessment of dietary plan
 - b) A systematic method of reviewing the health needs and issues facing a given population leading to agreed priorities and resource allocation that will improve health
 - c) Searching of data to find out about the health needs of a given population
 - d) The assessment of health needs based on collection of data from a single source only

11. All of the following statements are the key characteristic of a population that needs to be identified during needs assessment, EXCEPT;
- Employment rate
 - Income and wealth
 - Education
 - Geographical
12. Which of the following statement is TRUE about GOAL?
- Goal is a short term change a project is working towards
 - Goal is a statement that explain how the objective will be achieved
 - Goal is a broad or long term change the project is working towards. It is a statement of what you ultimately want to achieve or your destination.
 - Goal flow on from objective
13. Nutrition intervention is the _____ of the Nutrition Care Process
- 1st step
 - 2nd step
 - 3rd step
 - 4th step
14. Which of the following steps needs to be considered (in order) before implementing any nutrition intervention program?
- Planning and selecting
 - Selecting and planning
 - Assess the situation and planning
 - Selecting and implementation
15. Implementation is simply;
- Planning
 - Assessing
 - To carry out a plan
 - Diagnosing
16. When implementing an intervention program , you are actually targeting a/an;
- Problem
 - Etiology
 - Signs
 - None of the above
17. Which of the following evaluation method determines whether a program is delivered as intended to the targeted recipients?
- Process evaluation
 - Feasibility evaluation
 - Accuracy evaluation
 - Utility evaluation
18. Which level of monitoring is concerned with getting desired output from inputs being utilised?
- Managers at the operational level
 - Managers at the middle level
 - Managers at the top level
 - None of the above.
19. Body Mass Index (BMI) can be calculated to describe the relative body weight for height. If a female has a BMI of 25kg/m² then she is classified as being:
- Having a healthy weight
 - Obese
 - Overweight
 - Underweight
20. Which of these enzymes promotes fat storage in both adipose and muscle cells.
- Lipoprotein lipase
 - Glycosidase
 - Maltase
 - Sucrose
21. The Theory of efficacy of change provide frame work that enable health professionals to target intervention strategies more
- Effectively
 - Fairly
 - Frequently
 - All of the above
22. To successfully plan any nutrition program the first step that needs to be considered is :
- To assess the needs of the target population and existing resources
 - To identify the problem
 - To develop goals and objectives
 - To develop an action plan

23. All of the following are nutrition education medium that can be used to impart nutrition knowledge to the target group EXCEPT;

- a) Media
- b) School curriculum
- c) Cooking workshops
- d) Nutrition Assessment

24. Which of the following is NOT a process of monitoring?

- a) Detecting deviations from plans
- b) Diagnosing causes of deviations
- c) Present result to appropriate stakeholders
- d) Taking corrective action

25. When conducting a program evaluation there are four categories of standards that need to be considered. Which of the following is a major category of standards?

- a) Summative standards
- b) Process standards
- c) Impact standards
- d) Propriety standards

26. A dietary and healthy guideline to reduce the risk of becoming obese one must;

- a) Increase the consumption of fruits and vegetables, physically inactive & eat more lean meat.
- b) Decrease fruits & vegetables, be active & eat more processed meat
- c) Physically active, choose lean meat & increase fruits and vegetables
- d) Drink more sugary drinks, physically active & increase processed meats

27. When teaching any nutrition activity the important aspect to consider is /are

- a) Use simple and appropriate language
- b) Present information in a way that is easily remembered
- c) Provide examples that apply to listeners personal situation
- d) All of the above

28. An example of a nutrition education program is:

- a) Classes or trainings of healthy eating for mothers with at risk children
- b) Fortification program
- c) Micronutrient supplementation program
- d) None of the above

29. Ghrelin is a protein produced by the stomach cells that:

- a) Enhance appetite and decreases energy expenditure.
- b) Decrease appetite and increase energy expenditure
- c) Enhance appetite and increase energy expenditure
- d) None of the above is correct

30. An example of a non-modifiable risk factor for non-communicable diseases is:

- a) Poor diet
- b) Physical inactivity
- c) Genetics
- d) Smoking

Question 1

(2 Marks)

Explain the following statements

a) Energy balance:

b) Positive energy balance:

Questions 2

(4 Marks)

List the 4 categories of thermogenesis (energy expenditure)

1. _____
2. _____
3. _____
4. _____

Question 3

(3 Marks)

Coronary heart disease is the most common form of heart disease. Explain the development of atherosclerosis and how it leads to coronary heart disease

Questions 4

(4 Marks)

List 2 modifiable and non-modifiable risk factors of coronary heart diseases

Modifiable: _____

Non-Modifiable: _____

Question 5

(3 Marks)

List the 6 steps of developing and implementing a nutrition program.

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____

Question 6

(4 Marks)

Monitoring and evaluation are essential management tools to assess whether planned health activities are implemented as expected and desired results are achieved.

List two purposes of monitoring and evaluation

Monitoring:

1. _____

2. _____

Evaluation

1 _____

2 _____

Calculate the BASAL ENERGY EXPENDITURE for the following scenarios. Please show all your calculation work out. Refer to the formula sheet given. Round off your answers to 2 decimal places.

Question 7

6 marks

a) A heavily active female age 20, who is 168 centimeters tall and weighs 54 kilograms

Question 8

6 Marks

b) A moderately active female age 27, who is 145 centimeters tall and weighs 50 kilograms

Question 9

6 Marks

A lightly active male age 38 , who is 167 centimeters tall and weight 76 kilogram

Question 10

6 Marks

A moderately active female age 35, who is 145 centimeters tall and weighs 50 kilograms,

Question 11

A heavily active female age 35 , who is 157 centimeters tall and weighs 60 kilograms

Read the SCENARIO CAREFULLY and answer questions 1 - 3

Regular physical activity provides a wide range of health benefits, including a reduced risk of heart disease, stroke, high blood pressure and some cancers. The lack of physical activity is the fourth leading cause of disease and a major public health concern.

The STEP survey 2007-2008 Solomon Islands reported that only 28 per cent of young people in Honiara aged 15 -25 years had moderate to high exercise levels. The other percentages were more likely to involve in physical inactivity.

The survey also found that among the same age group only 38% consumed the recommended serves of fruits and vegetables daily. Fruits and vegetables have been evident to protect many diseases like cancers because of the high antioxidants content in them.

Data shows that promotion of physical activity and good nutrition are key priorities for the nutrition department within in the Ministry of Health.

Your job as a nutritionist is to develop an INTERVENTION PROGRAM based on the key priority areas to address the current high rates of physical inactivity OR low intake of fruits and vegetables.

Question 1**(10 Marks)**

Assess the situation and answer questions a- c

a) Target population

(2 Marks)

b) Goal Statement

(2 Marks)

c) Objectives (Give at least 3) (NB: Remember your objectives must be SMART) (6 Marks)

1. _____

2. _____

3. _____

Question 2

(1 4 Marks)

Plan your INTERVENTION PROGRAM and answer questions a – d

a) List the three (3) steps of intervention you are going to follow in order. (6 Marks)

1. _____
2. _____
3. _____

b) State your primary **category of intervention strategy** including **one activity** you are going to use for this scenario. (2 Marks)

c) Explain why the intervention category of your choice is relevant for this scenario? (2 Marks)

d) List two (2) resources you can use when implementing this program (4 Marks)

Question 3

(6 Marks)

Monitoring and evaluation

e) List 3 evaluation tools you will use for your planned intervention program

1. _____
2. _____
3. _____



----- *THE END* -----

HARRIS & BENEDICT EQUATION

Basal Energy Expenditure (BEE)

$$\text{Male} = 66.5 + (13.7 \times W) + (5.0 \times H) - (6.8 \times A)$$

$$\text{Female} = 655 + (9.6 \times W) + (1.8 \times H) - (4.7 \times A)$$

W- Weight in kg

H- Height in cm

A- Age in years

Physical Activity FACTOR (AF) (Choose any AF level you want to use).

Strict bed rest 1.0 -1.1
Confined to bed 1.1 -1.2
Light activity 1.3 - 1.4
Moderate activity 1.4 - 1.5
Heavy activity 1.75