UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination, May 2023

Course: Nutritional Education   Semester   : IV
Program: B.Sc. Food Nutrition & Dietetics   Duration   : 3 Hours
Course Code: HSND2010   Max. Marks : 100

Instructions:

S. No.	Section A Short answer questions/ MCQ/T&F (9Qx1.5M+5Qx3M= 30 Marks)	Marks	COs

Q1	Which of the following is an example of a nudge?
	  a. Posting a sign that says "No Smoking"
	  b. Placing healthy food options at eye level in a cafeteria
	  c. Offering a discount for a gym membership
	  d. All of the above
		1.5	CO1

Q2	Differentiate between incidence and prevalence.	1.5	CO4

Q3	Which of the following is an example of a barrier to behavior change?
	  a. Access to healthy foods
	  b. Availability of fast-food restaurants
	  c. Price of gym memberships
	  d. All of the above
		1.5	CO3

Q4	List down any 2 nutrition support programs in India and write about the following:
	  a. Objectives
	  b. Services offered
		$3\times2 = 6$ marks	CO5

Q5	What is the purpose of program evaluation?
	  a. To identify the strengths and weaknesses of a program
	  b. To assess the impact of a program on the target population
	  c. To improve the effectiveness and efficiency of a program
	  d. All of the above
		1.5	CO4

Q6	What is the purpose of a logic model in program planning?
	  a. To outline the resources needed for the program
	  b. To illustrate the program's theory of change
	  c. To evaluate the program's outcomes
	  d. To measure the program's impact on the community
		1.5	CO3

Q7	Which of the following is a strength of the randomized controlled trial (RCT) design? a. Allows for the identification of causal relationships.	1.5	CO3

	b. Requires a large sample size. c. Only requires a single data collection point. d. Cannot be affected by confounding variables.		

Q8	Which of the following research designs is best suited to investigate the relationship between exposure to a risk factor and the occurrence of a disease?
	     a. Cross-sectional study
	     b. Cohort study
	     c. Case-control study
	     d. Ecological study
		1.5	CO3

Q9	What is the purpose of a KAP survey in nutrition education?
	     a. To determine the prevalence of nutrition-related health problems
	     b. To identify areas where nutrition education is needed
	     c. To promote healthy eating habits among individuals
	     d. Options b and c
		1.5	CO4

Q10	Which of the following is an example of a closed-ended question used to assess knowledge in a KAP survey?
	     a. What are your thoughts on healthy eating habits?
	     b. Do you know the recommended daily intake of fruits and vegetables?
	     c. How often do you eat fast food?
	     d. All of the above options
		1.5	CO4

Q11	What is the difference between prospective and retrospective study designs. Provide an example of a research question that could be investigated using each design.	3	CO5
Q12	A researcher wants to investigate the relationship between smoking and lung cancer. They recruit two groups of participants - those with lung cancer and those without - and ask them about their smoking habits. The researcher then compares the proportion of smokers in each group to determine if there is a relationship between smoking and lung cancer. Identify which research design is used in the above study and support your answer.	3	CO2
Q13	What resources are needed to implement a nutrition program?	3	CO2
Section B **(4Qx5M=20 Marks)**			
Q1	How can the BBC Model of behavior change be used to guide the design and implementation of public health interventions? Provide an example.	5	CO2
Q2	What is blinding in a clinical trial? How can blinding be achieved in a clinical trial?	5	CO3
Q3	Discuss the importance of using process, impact, and outcome evaluation methods in nutrition education programs. Provide examples of data sources that can be used for each type of evaluation.	5	CO4

Q4	How can communication strategies and channels be used to improve public health outcomes in nutrition?	5	CO5

Section C
(2Qx15M=30 Marks)

| Q1 | Jenny is a working mother who lives in a busy city. She often buys takeout meals for herself and her family as she doesn't have time to cook. Her neighborhood is filled with fast-food chains, and there are very few grocery stores that sell fresh produce. She also finds it challenging to find time to exercise due to her busy work schedule.

Answer the following questions based on the above case study:

  a. What is an obesogenic environment, and how can it impact Jenny's food choices?
  b. How can Jenny make healthier food choices in an obesogenic environment?
  c. What are some strategies that policymakers can implement to promote healthy eating in areas with limited access to fresh produce? | 15 (5marks× 3) | CO1 |
| Q2 | You are a nutrition educator and have been tasked with developing a nutrition program for a community. The community you are working with is a rural farming community with a population of 3,000 people. The community has a high prevalence of overweight and obesity, high blood pressure, and type 2 diabetes.

As part of the program, design a KAP survey to assess women's current knowledge, attitudes, and practices related to IFA's adherence with 5 close ended and open-ended questions each to assess their KAP.
The survey will cover topics such as anemia, medication related taboo, and frequency of tablet intake. The open-ended questions will ask students to describe their current practices related to IFA tablet adherence and any barriers they face in the family.

To develop an effective program, you must conduct a needs assessment, set objectives, and design a program plan. | 15 | CO4 |

Section D
(2Qx10M=20 Marks)

| Q1 | An intervention is planned to substantially increase awareness and knowledge of the health benefits of whole grains among community members over the next 6 months to improve health outcomes.

Based on the above need, develop SMART long term and short-term objectives keeping in mind the PICO framework for the above nutrition program. | 10 | CO5 |

| Q2 | A study was conducted to compare the effectiveness of two pain relief drugs, A and B, in patients with chronic pain. The study included 20 participants who were randomly assigned to receive either drug A or B in the first period of the study, followed by a washout period, and then the other drug in the second period of the study. The study found that drug A was more effective in reducing pain than drug B. However, it was discovered that the therapists who administered the interventions were not blinded to the study conditions and may have been biased in their assessments of the participants' range of motion.

   a.   What type of study design is used in this case study? How does it differ from randomized controlled trials?
   b.   What are some potential sources of bias that could affect the results of this study? | 10
(5marks
×2) | CO3 |