

(6 pages)

Reg. No. : .....

**Code No. : 6530**

**Sub. Code : ZNDM 11**

M.Sc. (CBCS) DEGREE EXAMINATION,  
NOVEMBER 2022.

First Semester

Nutrition and Dietetics with Hospitality  
Management – Core

ADVANCES IN DIET THERAPY – I

(For those who joined in July 2021 onwards)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. A diet bridges the gap between clear fluid and soft diet.  
(a) semi solid                      (b) solid  
(c) normal                              (d) full fluid
  
2. BMI is useful to determine —————  
(a) Diabetes                              (b) Obesity  
(c) CVD                                      (d) Ulcer

3. \_\_\_\_\_ is a long duration fever
- (a) Malaria                      (b) Influenza  
(c) Cold                          (d) Tuberculosis
4. TPN is
- (a) Total Parenteral Nutrition  
(b) Typical Parenteral Nutrition  
(c) Type I partially parental feeding  
(d) Tube feeding method
5. Pot belly is a symptom of \_\_\_\_\_
- (a) Kwashiorkor                (b) Marasmus  
(c) Scurvy                        (d) Beriberi
6. When the food is directly given in veins is called \_\_\_\_\_
- (a) parental                      (b) enteral  
(c) intravenous                (d) saline
7. A person who had a renal transplant should regulate the intake \_\_\_\_\_
- (a) Carbohydrate                (b) Proteins  
(c) Fats                            (d) Vitamin



12. (a) Elicit on Enteral Feeding.

Or

(b) Enumerate the metabolic changes during fever?

13. (a) How will you provide counseling for a burn patient?

Or

(b) Define Multiple Organ Dysfunction Syndrome (MODS). Write its causes and prevention.

14. (a) How to prevent obesity in childhood? Why?

Or

(b) Write the nutrition management and symptoms of Anorexia Nervosa and Bulimia Nervosa.

15. (a) Define food allergy and Itemize the diagnostic tests.

Or

(b) Differentiate osteoporosis and osteomalacia. Write the causes and symptoms.

PART C — (5 × 8 = 40 marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 600 words.

16. (a) Detail on different types of hospital diets.

Or

- (b) Outline Nutrient and Drug interaction?

17. (a) Enumerate the recent advances in techniques and feeding methods.

Or

- (b) Plan a diet for a AIDS patient and justify your menu with proper principles.

18. (a) What do you mean by metabolic stress analysis? Enumerate the complications and treatment for the same.

Or

- (b) Elaborate on the causes, symptoms, methods to determine Vitamin A deficiency.

19. (a) Detail on causes, classification and clinical manifestations of obesity.

Or

- (b) Plan a menu for underweight. Comment on selection of foods.

20. (a) Enumerate on food allergy and its mechanism with elimination diets.

Or

- (b) Differentiate parkinson's disease and Alzheimer's disease with causes, symptoms and dietary management.
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Reg. No. : .....

**Code No. : 6531**

**Sub. Code : ZNDM 12**

M.Sc. (CBCS) DEGREE EXAMINATION,  
NOVEMBER 2022.

First Semester

Nutrition and Dietetics with Hospitality Management

ADVANCED FOOD SCIENCE – I

(For those who joined in July 2021 onwards)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. Cooking food in hot liquid, steam, or a combination of the two.
  - (a) Dry heat cooking
  - (b) Moist heat cooking
  - (c) Deep-fat frying
  - (d) Radiation

2. Water performs all the following functions in body except
- (a) serving as a reactant for chemical reactions
  - (b) dissolving and transporting nutrients
  - (c) maintaining body temperature
  - (d) providing energy
3. Which sense is determined by the olfactory bulb?
- (a) Taste
  - (b) Smell
  - (c) Sight
  - (d) Touch
4. How many food samples can generally be evaluated at one time during sensory?
- (a) 10
  - (b) 7
  - (c) 5
  - (d) 3
5. What is released during starch gelatinisation?
- (a) Amylose
  - (b) Amytiville
  - (c) Amitale
  - (d) Amylostarch
6. What treatment should be given to pulses which are hard to dehusk?
- (a) Soak with hot water
  - (b) Apply red earth
  - (c) Soak with cold water
  - (d) Apply black soil



7. The process of adding Vitamins A and D to milk is called:
- (a) substantiation      (b) homogenization  
(c) fortification      (d) pasteurization
8. \_\_\_\_\_ is/are used to build and repair muscle.
- (a) carbohydrates      (b) fiber  
(c) protein      (d) fat
9. Foods that are short of one or more of the essential amino acids
- (a) aldehydes      (b) maillard reaction  
(c) complete protein      (d) incomplete protein
10. Which action will result in denaturing the enzymes?
- (a) Adding sodium chloride  
(b) Ahilling in the refrigerator  
(c) Hydrolysis of the starches  
(d) Warming a mixture to room temperature

PART B — (5 × 5 = 25 marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 250 words.

11. (a) Outline the function of food.

Or

- (b) Give details on the role of water activity.

12. (a) Enumerate the rating test.

Or

- (b) Describe the osmotic pressure.

13. (a) Summarize the properties of sugar.

Or

- (b) Enumerate the functional properties of protein.

14. (a) Illustrate on rigor mortis in meat.

Or

- (b) Bring out the nutritional importance of fruits and vegetables.

15. (a) Enumerate on Fermentation technology in short.

Or

- (b) What are the steps involved in food product Development?

PART C — (5 × 8 = 40 marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 600 words.

16. (a) Explain the Role of water in foods.

Or

- (b) Elaborate on the different types of cooking method.

17. (a) Detail on different test on Subjective evaluative different techniques.

Or

- (b) Enumerate a detailed note on Chemical properties of foods.

18. (a) Outline the nutritive value and importance of cereals.

Or

- (b) Discuss importance of protein for infants and children.

19. (a) Give detailed notes on meat and discuss post mortem changes in meat.

Or

- (b) Explain enzymatic and non enzymatic reaction in fruits and vegetables.

20. (a) Detail on Enzymes.

Or

- (b) Explicit the food product standardization and patenting of foods?
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(6 pages)

Reg. No. : .....

**Code No. : 6532**

**Sub. Code : ZNDM 13**

M.Sc. (CBCS) DEGREE EXAMINATION,  
NOVEMBER 2022.

First Semester

Nutrition and Dietetics with Hospitality  
Management – Core

NUTRITIONAL PHYSIOLOGY

(For those who joined in July 2021 onwards)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. The junction between two neurons are called
  - (a) Cerebrum
  - (b) Cerebellum
  - (c) Sulci
  - (d) Synapse

2. \_\_\_\_\_ is secreted in pancreas.
- (a) oxytocin                      (b) protease  
(c) insulin                        (d) thyroxin
3. Proteins are digested by \_\_\_\_\_.
- (a) Lipase                        (b) Protease  
(c) Amylase                      (d) Esterase
4. Fat is absorbed in \_\_\_\_\_
- (a) villi  
(b) walls of intestine  
(c) lacteal  
(d) bile duct
5. Colouring pigment in blood is \_\_\_\_\_
- (a) myoglobin  
(b) haemoglobin  
(c) actin  
(d) myosin
6. Pure blood from heart to tissues is carried by \_\_\_\_\_
- (a) Aorta  
(b) Interior venacava  
(c) Pulmonary artery  
(d) pulmonary vein

7. Respiratory buffer is maintained by \_\_\_\_\_
- (a) Carbonates
  - (b) Haemoglobin
  - (c) Chlorides
  - (d) Sulphates
8. \_\_\_\_\_ is a natural antioxidant.
- (a) Vitamins B
  - (b) Vitamin A
  - (c) Vitamin K
  - (d) Vitamin C
9. Sperm is produced in \_\_\_\_\_.
- (a) Vas deference
  - (b) Testis
  - (c) Vagina
  - (d) Ovary
10. Milk is ejected with the help of the hormones
- (a) Oestrogen
  - (b) Oxytocin
  - (c) Prolactin
  - (d) Thyroxin

PART B — (5 × 5 = 25 marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 250 words.

11. (a) Explain the hormones secreted by thyroid and parathyroid gland. State the role of the hormones.

Or

- (b) Brief on function of cerebrum.

12. (a) Outline the transport of gases during respiration.

Or

- (b) Proteins are digested to amino acids. Discuss the process.

13. (a) Define blood clotting and state the factors affecting the mechanism.

Or

- (b) Differentiate innate immunity and humoral immunity.

14. (a) “Electrolyte balance is important” comment on the statement.

Or

- (b) Give a brief note on formation of Urine.



15. (a) Write notes on female reproductive organs.

Or

(b) Enumerate on menstruation and Pregnancy.

PART C — (5 × 8 = 40 marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 600 words.

16. (a) Draw the structure of skeletal muscle and smooth muscle and write the process of muscle contraction.

Or

(b) Illustrate on eye-Discuss the parts of eye and state the functions.

17. (a) Give detail on digestion and absorption of carbohydrates.

Or

(b) Give a diagrammatic structure of digestive system.

18. (a) Outline the substances present in blood.

Or

(b) Define heartbeat and discuss the factors and the process.

19. (a) Illustrate cross section of kidney and explain the parts with functions.

Or

- (b) Detoxification is important – justify the statement and write the enzymes involved in it.

20. (a) Outline Male reproductive organs. Enumerate the function.

Or

- (b) Enumerate the different stages in a female reproductive cycle.
-



3. Food that is highly susceptible to spoilage and must be consumed in a short period of time.
  - (a) perishable food
  - (b) sweets
  - (c) unwholesome food
  - (d) wholesome food
  
4. What is the easiest way to identify spoiled foods.
  - (a) Improper shelving
  - (b) Bad or spoiled taste
  - (c) Torn packaging
  - (d) Changes in color and smell
  
5. What does mold need in order to grow and spread?
  - (a) vibrant and dry areas
  - (b) vibrant and damp areas
  - (c) dark and dry areas
  - (d) dark and damp areas
  
6. What does Bacteria need in order to grow?
  - (a) Air and Soil
  - (b) Air and Moisture
  - (c) Food, Moisture, and Time
  - (d) Air, Time, and Light
  
7. The two parts of HACCP include:
  - (a) hazard analysis and critical control points
  - (b) health analysis and critical control points
  - (c) hazard analysis and critical conformation production
  - (d) health analysis and critical conformation production

8. Central "AGMARK" laboratory is located at.  
(a) Mumbai (b) Nagpur  
(c) Pune (d) Jaipur
9. Percentage irrigated area of wheat in India is.  
(a) 20% (b) 10%  
(c) 50% (d) 85%
10. Food Corporation of India launched in \_\_\_\_\_  
(a) 1946 (b) 1964  
(c) 1986 (d) 1999

PART B — (5 × 5 = 25 marks)

Answer ALL questions, choosing either (a) or (b).  
Each answer should not exceed 250 words.

11. (a) Explain role of harvest technology.  
Or  
(b) Define Buffer stock? Brief.
12. (a) Summarize the prevention of spoilage using Chemicals.  
Or  
(b) Discuss the rats and rodents spoilage in food losses.
13. (a) Write notes on importance and methods of safe handling of foods.  
Or  
(b) Give a brief note on fumigation techniques followed by controlling insects.
14. (a) Illustrate the role of SWC in controlling food losses.  
Or  
(b) Traditional methods followed in India to control food losses – Comment.

15. (a) Enumerate on Wheat processing.  
Or  
(b) List down the importance of breakfast cereals and its importance.

PART C — (5 × 8 = 40 marks)

Answer ALL questions, choosing either (a) or (b)  
Each answer should not exceed 600 words.

16. (a) Explicate the government measures to argument buffer stock.  
Or  
(b) Mark a detail notes on food losses in the post-harvest period.
17. (a) Detail on physical agents causing food losses.  
Or  
(b) Explain the types of agents causing food losses.
18. (a) Illustrate on control of spoilage agents and types Explain.  
Or  
(b) Outline the insect control method and critically analyse the methods.
19. (a) Detail notes on FCI Godowns.  
Or  
(b) Explain any three agencies controlling food losses in India.
20. (a) Enumerate the processing of pulses.  
Or  
(b) Elaborate the notes on rice processing methods.



2. Which force is involved in the Chromatography?
  - (a) Hydrogen bonding
  - (b) London force
  - (c) Electric static force
  - (d) All of the above
  
3. Which of the following is not the consequence of insulin deficiency in carbohydrate metabolism?
  - (a) Increased blood glucose concentration
  - (b) Decreased gluconeogenesis
  - (c) Decreased peripheral glucose utilization
  - (d) Increased glycogen breakdown
  
4. Which of the following processes are important in explaining obesity?
  - (a) Food environment
  - (b) Physical activity
  - (c) Individual psychology
  - (d) All of these
  
5. Which of the following is an essential fatty acid?
  - (a) Linolenic acid
  - (b) Arachidonic acid
  - (c) Oleic acid
  - (d) Palmitic acid



6. Which of the following enzyme is responsible for the conversion of cholesterol to cholesterol ester inside the cells?
- (a) Lecithin Cholesterol Acyl Transferase
  - (b) Acyl CoA Cholesterol Acyl Transferase
  - (c) Cholesterol Esterase
  - (d) None of the Above
7. Citrullinemia is the disorder of which pathway?
- (a) Transamination
  - (b) Deamination
  - (c) Urea cycle
  - (d) None of the above
8. What happens during PKU?
- (a) Accumulation of phenylalanine
  - (b) Accumulation of tyrosine
  - (c) Accumulation of tryptophan
  - (d) All of the above
9. Which leucocytes release heparin and histamine in blood?
- (a) Neutrophil                      (b) Basophil
  - (c) Eosinophil                      (d) Monocytes

10. Which Vitamin essential for blood clotting?
- (a) Vitamin A
  - (b) Vitamin B
  - (c) Vitamin C
  - (d) Vitamin D

PART B — (5 × 5 = 25 marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 250 words.

11. (a) Define Biophysics. What are the principles of colorimeter?

Or

- (b) Give brief notes on radioimmunoassay.

12. (a) What are the symptoms of hyperglycemia?

Or

- (b) List down the biochemical changes in carbohydrate metabolism.

13. (a) How do develop atherosclerosis explain it?

Or

- (b) Give short notes on Hypolipidemia.

14. (a) Highlight clinical significance of protein concentration in blood.

Or

- (b) What are the functions of cerebrospinal fluid and other body fluids?

15. (a) Mention on types of anemia and suggest remedial measures to treat anaemia.

Or

- (b) Give elaborate notes on role of sodium in human body.

PART C — (5 × 8 = 40 marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 600 words.

16. (a) Explain on gas chromatography.

Or

- (b) Write about the flame photometry in detail.

17. (a) Give an elaborated note on biochemical changes in diabetes mellitus.

Or

- (b) Discuss on inborn errors of carbohydrate metabolism in detail.

18. (a) What are the biochemical changes in hypertension? Write about the hypertension.

Or

(b) Give detailed notes on inborn errors of fat metabolism.

19. (a) Explain uraemia and uric acid diseases.

Or

(b) What are the disorders of protein metabolism? and Explain the biochemical changes of urine.

20. (a) Describe notes on physical and biochemical changes in AIDS.

Or

(b) Give elaborated notes on Law of electron neut.

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(6 pages)

Reg. No. : .....

**Code No. : 6539**

**Sub. Code : ZNDM 32**

M.Sc. (CBCS) DEGREE EXAMINATION,  
NOVEMBER 2022

Third Semester

Nutrition and Dietetics with Hospitality Management

SPORTS NUTRITION

(For those who joined in July 2021 onwards)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. Skeletal muscles are the target organ of the \_\_\_\_\_
  - (a) Autonomic nervous system
  - (b) Somatic nervous system
  - (c) Sympathetic nervous system
  - (d) Parasympathetic nervous system

2. Reliability of a test can be influenced by —————
- (a) Environmental condition
  - (b) Subject preparation
  - (c) Diurnal variation
  - (d) All of the above
3. A rower who becomes injured and cannot train may lose muscular endurance. This is an example of which principle of training?
- (a) Specificity                      (b) Progression
  - (c) Intensity                        (d) Reversibility
4. Which of the following is an appropriate type of training to improve cardiovascular endurance?
- (a) Continuous training
  - (b) Weight training
  - (c) Plyometrics
  - (d) HIIT
5. The concern of eating disorders is found to be greater among female athletes participating in:
- (a) Aesthetic sports
  - (b) Combat sports
  - (c) Sprint sports
  - (d) Racket sports

6. If an athlete participating in track cycling sprint event plans to consume the pre competition meal 2 hours prior to the event, his carbohydrate amount in the meal should be:
- (a) 1 gm/kg BW
  - (b) 2 gm/kg BW
  - (c) 3 gm/kg BW
  - (d) 4 gm/kg BW
7. Which macro-mineral is present in beans and potatoes?
- (a) Potassium                      (b) Calcium
  - (c) Sodium                         (d) Iron
8. Which vitamin is considered as one of the healthiest and safest nutrients?
- (a) Vitamin A
  - (b) Vitamin D
  - (c) Vitamin C
  - (d) Vitamin E
9. Which of the following is a rich source of antioxidants which fight disease?
- (a) Tea                                (b) Coffee
  - (c) Water                            (d) None of the above

10. Antioxidants fight against
- (a) Bacteria
  - (b) Viruses
  - (c) Free radicals
  - (d) None of the above

PART B — (5 × 5 = 25 marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 250 words.

11. (a) Define sports physiology. Classify the sports physiology.

Or

- (b) What are the characteristics of team sports?

12. (a) How do maintain weight in sports body build?

Or

- (b) Give the brief notes on methods to measure body composition.

13. (a) Write about the role of carbohydrate in exercise performance

Or



(b) Give short notes on effect of exercise on protein requirements.

14. (a) Discuss briefly about the pre event meal. Enlist any five tips to be kept in mind.

Or

(b) Briefly discuss the dietary recommendations for different nutrients.

15. (a) Give a short note on various body fat % according to the sport athletes.

Or

(b) Give brief notes on Dual Energy X-ray Absorptiometry (DEXA).

PART C — (5 × 8 = 40 marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 600 words.

16. (a) Explain about the nutritional requirements for sports.

Or

(b) Elaborate on the types of team sports. Give the two menu plan.

17. (a) Give a detailed notes on fluid and electrolyte requirements for sports man.

Or

(b) Define hydration strategies. And explain it's based on rules of the sport.

18. (a) Write about fat soluble vitamins requirements for sports player.

Or

(b) Give detailed notes on nutrition energy expenditure during physical activity.

19. (a) Explain the vitamins and minerals requirements for sports players.

Or

(b) Explain the post event meal. Enlist any five tips to be kept in mind

20. (a) Describe notes on role of antioxidants for sports

Or

(b) Give elaborated notes on fat metabolism

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Reg. No. : .....

**Code No. : 6540**

**Sub. Code : ZNDM 33**

M.Sc. (CBCS) DEGREE EXAMINATION,  
NOVEMBER 2022.

Third Semester

Nutrition and Dietetics with Hospitality Management

RESEARCH METHODOLOGY

(For those who joined in July 2021 onwards)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. Who was the author of the book named “Methods in Social Research”?  
(a) Kerlinger                      (b) CR Kothari  
(c) Goode and Hatt                (d) Wilkinson

2. Which of the following is not the method of Research?
- (a) Survey
  - (b) Historical
  - (c) Observation
  - (d) Philosophical
3. "Sampling Cases" can be defined as
- (a) Sampling using a sampling frames
  - (b) Identifying people who are suitable for research
  - (c) Literally the researcher's brief case
  - (d) A sampling of people, newspapers, television programs etc.
4. Which one is called non-probability sampling?
- (a) Quota sampling
  - (b) Cluster sampling
  - (c) Systematic sampling
  - (d) Stratified random sampling
5. A research intends to explore the result of possible factors for the organization of effective maid-day meal interventions. Which research method will be most appropriate for this study?
- (a) Descriptive survey method
  - (b) Historical method
  - (c) Ex-post facto method
  - (d) Experimental method

6. Which of the following features are considered as critical in qualitative research?
- (a) Collecting data with the help of standardized research tools
  - (b) Design sampling with probability sample techniques
  - (c) Collecting data with bottom-up empirical evidence
  - (d) Gathering data with top-down schematic evidence
7. The F-test:
- (a) Is essentially a two-tailed test
  - (b) Is essentially a one-tailed test
  - (c) Can be one-tailed as well as two-tailed depending on the hypotheses
  - (d) Can never be one tailed test
8. What is the use of Factorial Analysis?
- (a) For setting the hypotheses
  - (b) To understand the difference between two variables
  - (c) To understand the relationship between two variables
  - (d) To understand the difference between various variables

9. The "Sociogram" technique is used to study \_\_\_\_\_.
- (a) Vocational Interest
  - (b) Human Relations
  - (c) Professional Competence
  - (d) Achievement Motivation
10. In the Data View in the SPSS Data Editor, each column represents what?
- (a) A case
  - (b) A data point
  - (c) A missing value
  - (d) A variable

PART B — (5 × 5 = 25 marks)

Answer ALL questions, choosing either (a) or (b).  
Each answer should not exceed 250 words.

11. (a) Define research. What are the characteristics of research?
- Or
- (b) Give brief notes on guidelines for writing abstract.
12. (a) How do determine sample size?
- Or
- (b) List down the steps in sampling design.

13. (a) Write about the interview method of research.

Or

(b) Give short notes on scaling techniques.

14. (a) State the advantages and disadvantages of mean and median.

Or

(b) What are the uses of 'T' and 'F' test?

15. (a) Give notes on significance of chi-square test.

Or

(b) Discuss on correlation.

PART C — (5 × 8 = 40 marks)

Answer ALL questions, choosing either (a) or (b)

Each answer should not exceed 600 words.

16. (a) Explain about the types of research.

Or

(b) Define thesis. Write about the parts, steps in writing thesis.

17. (a) Give the notes on types of sampling.

Or

(b) Discuss on sampling errors and non sampling errors.

18. (a) What is the primary data? Write about the primary data.

Or

(b) Give detailed notes on tabulation of data.

19. (a) Explain the measures of dispersion.

Or

(b) What is the rank correlation? And explain it.

20. (a) Describe notes on significance of null hypothesis and give one examples.

Or

(b) Give elaborated notes on SPSS.

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Reg. No. : .....

**Code No. : 6541**

**Sub. Code : ZNDM 34**

M.Sc. (CBCS) DEGREE EXAMINATION,  
NOVEMBER 2022.

Third Semester

Nutrition Dietetics with Hospitality Management –  
Core

**FOOD SAFETY AND SANITATION**

(For those who joined in July 2021 onwards)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. What are the four steps to food safety?
  - (a) Store, cook, clean and eat
  - (b) Clean, cook, eat and throw
  - (c) Clean, separate, cook, chill
  - (d) Get, cook, clean and consume

2. Food Safety and Standards Act, 2006- operationalised on :
- (a) 5<sup>th</sup> August, 2007      (b) 5<sup>th</sup> August, 2011  
(c) 5<sup>th</sup> August, 2012      (d) 5<sup>th</sup> August, 2013
3. Which of the following bacteria are responsible for causing the greatest number of food borne illnesses?
- (a) Salmonella              (b) Campylobacter  
(c) E. coli                      (d) None of the above
4. In order to properly wash your hands before or after handling food, exactly what is the minimum amount of time you should wash your hands under running water?
- (a) 10 sec                      (b) 20 sec  
(c) 1 minute                  (d) None of the above
5. When sanitizing dish clothes or cutting boards at home using chlorine bleach, how much bleach should be added, per quart of water?
- (a) 1 teaspoon                (b) ½ cup  
(c) ½ quart                      (d) None of the above

6. Which one is the effective cleaning and sanitization of the equipments?
- (a) All items must be stored off the floor. Allowing clearance from the floor gives plenty of room for cleaning beneath shelving and equipment.
  - (b) Undertake regular maintenance, for example filling holes and replacing damaged tiles.
  - (c) Keep only what you need at the food business premises
  - (d) All of the these
7. What happens during the clarification or separation step at a wastewater treatment plant?
- (a) Large solid things are screened out
  - (b) Scum and sludge are separated from the liquid wastewater
  - (c) Treatment with chlorine or ultraviolet light to kill pathogens
  - (d) Liquid wastewater is mixed with air to help bacteria breakdown small particles of solid material

8. What is the first thing that happens to wastewater at a wastewater treatment plant?
  - (a) Treatment with chlorine or ultraviolet light to kill pathogens
  - (b) Liquid wastewater is mixed with air to help bacteria breakdown small particles of solid material
  - (c) Large solid things are screened out
  - (d) Scum and sludge are separated from the liquid wastewater
  
9. The very first thing you should do if you are the first to witness or discover an accident on the job site is to:
  - (a) Go find at least one co-worker to help you so you can work as a team
  - (b) Go to the scene and help the person(s) injured
  - (c) Find and fill out the necessary forms to document the incident
  - (d) Activate the emergency response system
  
10. The purpose of a cartridge-style respirator is to:
  - (a) Reduce the concentration of particulates in the air you breathe
  - (b) Provide a pure oxygen breathing environment where there is insufficient oxygen in the air
  - (c) Enhance your personal appearance for maximum social appeal
  - (d) Convert exhaled carbon dioxide back into oxygen for re-breathing

PART B — (5 × 5 = 25 marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 250 words.

11. (a) Define food safety. What are the role of government in food safety?

Or

- (b) Give brief notes on changing trends in food consumption and choice.

12. (a) Discuss about the calibration of thermometer.

Or

- (b) List down the preventing temperature abuse in food safety.

13. (a) Write about the methods of cleaning in food industry.

Or

- (b) Give short notes on chemical sanitizing.

14. (a) Outline the plumbing hazards in food establishment.

Or

- (b) How do treat garbage and refuse sanitation?

15. (a) Highlight notes on common type of injuries.

Or

(b) Give a short notes on bioterrorism.

PART C — (5 × 8 = 40 marks)

Answer ALL questions, choosing either (a) or (b)

Each answer should not exceed 600 words.

16. (a) Explain about the role of government in food safety.

Or

(b) Write about the food production manager certification.

17. (a) What are the methods to maintain temperature of food?

Or

(b) Epitomize the importance of good personal hygiene. Elaborately.

18. (a) Write about the principles of cleaning and sanitizing in detail.

Or

(b) Give an elaborates note on application of cleaning agents.

19. (a) Explain the integrated pest management (IPM) in detail.

Or

(b) What are the pest controls? Explain.

20. (a) Describe notes on self-inspection safety checks.

Or

(b) Give elaborated notes on food borne illness.

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