

End Semester Examination, Dec. 2023

BFST – First Semester

MATHEMATICS (BFST-DS-101)

Time: 3 hrs.

Max Marks: **100**

No. of pages: 3

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Marks are indicated against each question.

Q.1 Answer the following:

a) Calculate the Volume and the Surface area of the object:



[CO-1,4] **2**

$$\frac{C(22, 19)}{P(11, 9)}$$

b) Find: $\frac{C(22, 19)}{P(11, 9)}$ [CO-1] **2**

c) How many arrangements can be made with the letters of the word ICE CREAM? [CO-1] **2**

d) Find the value of a and b, if $y = a \ln(x) + bx^2 + x$ has extreme values at $x=1$ and $x=3$. [CO-1,3] **4**

e) Find the approximate value of $f(2.02)$, where $f(x) = 9x^3 + 4x^2 + 7x + 9$ [CO-1,3] **4**

f) What is the approximate volume of the solid given in the figure (1.1) [CO-1,4] **2**

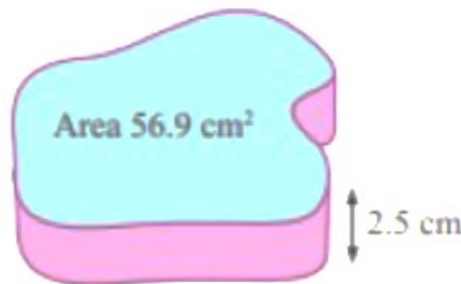


Figure (1.1)

g) Find $\frac{dy}{dx}$, $y = 4x^2 - 2\sqrt{x} + 2 \cos 5x + e^{3x}$ [CO-1,3] **2**

h) Find the probability that in a leap year, there will be 53 Sundays. [CO-1] **2**

PART-A

Q.2 a) A sweet contains sugar syrup up to about 30% of its volume. Find approximately how much syrup would be found in 40 sweets, each shaped like a cylinder with two hemispherical ends with length 6 cm and diameter 3.5 cm. [CO-1,4] **10**

b) Find the surface area of the figure (1.2):

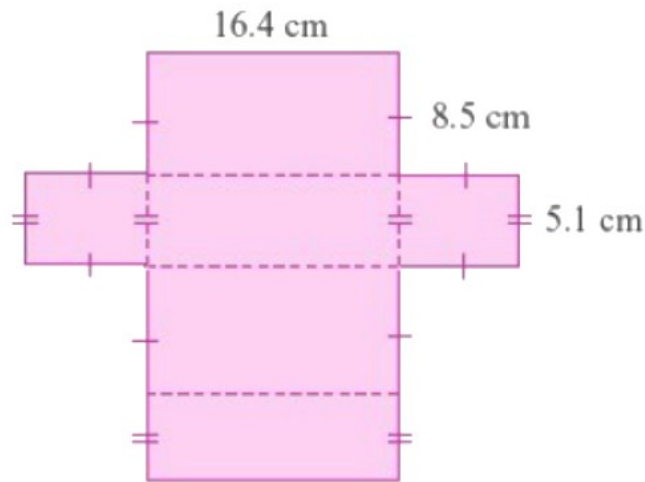


Figure (1.2)

[CO-1,4] 5

c) Find the volume of the solid given in the figure (1.3):

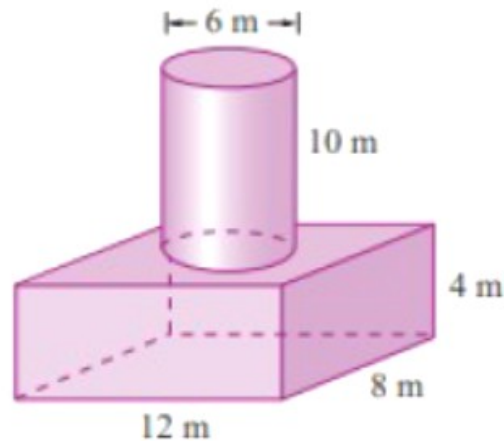


Figure (1.3)

[CO-1,4] 5

Q.3 a) If $y = \cos^2 7x + 2x^{\frac{9}{2}} + \ln(7x) + e^{-5x}$, find $\frac{dy}{dx}$ [CO-1,3] 7

b) If $y = \sin 4x \cos 5x + \ln(5x)e^{-3x}$, find $\frac{dy}{dx}$ [CO-1,3] 7

c) If $y = \frac{\sin 4x + 3x^9}{e^{-9x}}$, find $\frac{dy}{dx}$ [CO-1,3] 6

Q.4 a) The probability that a person visiting a health care center to have routine checkup is

0.54, the probability that he will have a common cold is 0.25. The probability that he will have routine checkup or a common cold is 0.75. What is the probability that a person visiting a health care center will have his routine checkup and common cold? [CO-1] 7

b) If $C(12, x) = C(12, x+9)$, find $C(x, 5)$ [CO-1] 7

c) The probability of solving the specific problem independently by the persons' p and q are 1/7 and 1/5 respectively. In case, if both the persons try to solve the problem independently, then calculate the probability that the problem is solved? [CO-1] 6

PART-B

- Q.5 a) Find the maximum or minimum value of $f(x) = x^3 - 16x$ [CO-1,3] **10**
 b) Using differentials, find the approximate value of $\sqrt{16.02}$ [CO-1,3] **10**
- Q.6 a) Evaluate: $\int e^{-5x} \cos(3x) dx$ [CO-1,3] **10**
 b) Evaluate: $\int \frac{5x+12}{x^2+10x-10} dx$ [CO-1,3] **10**
- Q.7 a) Evaluate: $\int_0^{\frac{\pi}{2}} \frac{\cos^4 x}{\sin^4 x + \cos^4 x} dx$ [CO-1,3] **10**
 b) Evaluate: $\int_0^{\frac{\pi}{2}} \log(\sin x) dx$ [CO-1, 3] **10**

End Semester Examination, Dec. 2023
B. Sc. (Food Science & Technology) - First Semester
LIFE SCIENCES (BFST-DS-102)

Time: 3 hrs

Max Marks: **100**

No. of pages: 1

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Marks are indicated against each question.

Q.1 Define 'Cell'. What are different cell organelles and their functions? [CO-1][L-1] **20**

PART-A

Q.2 Analyze the role of various methods of transport of nutrients across the cell membrane. [CO-1][L-4] **20**

Q.3 Draw a well labelled diagram of DNA and discuss it in detail. [CO-2][L-2] **20**

Q.4 Classify bacteria on the basis of shape and composition and also throw light on bacterial growth curve. [CO-3][L-4] **20**

PART-B

Q.5 Classify the pigments present in plants. Write a short note on each pigment. [CO-4][L-4] **20**

Q.6 Summarize about physiology and function of circulatory and excretory system. [CO-4][L-4] **20**

Q.7 Write short notes on the following:

- a) Plant breeding.
- b) Tissue culture.
- c) Single cell protein.
- d) Transgenic animals.

[CO-4][L-1] **5×4**

End Semester Examination, Dec. 2023
B. Sc. (FST) – First Semester
PRINCIPLES OF FOOD SCIENCE AND TECHNOLOGY
(BFST-DS-103)

Time: 3 hrs.

Max Marks: **100**

No. of pages: 1

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Marks are indicated against each question.

Q.1 Define food science and its relation with the industry. How food processing industry of India has an impact on its economic growth? **2×10**

PART-A

Q.2 Discuss the nutritional composition of meat, fish and eggs. [CO-1][L-2] **20**

Q.3 Give diagrammatic representation of sensory room. Explain classification of Sensory tests. [CO-3][L-1] **20**

Q.4 Discuss the different types of sensory tests used in food sensory evaluation. [CO-2][L-2] **20**

PART-B

Q.5 Write down the functions of food packaging. Discuss various types and uses of packaging material. [CO-3][L-4] **20**

Q.6 Explain different processing techniques in food industry. Write briefly about designer foods, fabricated foods, frozenfoods and fortified foods. [CO-2][L-1] **20**

Q.7 Give classification of Colloidal dispersion. Explain about stability of food foams with example. How colloidal chemistry is applicable to food preparation. [CO-4][L-2] **20**

End Semester Examination, Dec. 2023
B. Sc. – First Semester
PRINCIPLES OF FOOD PROCESSING AND PRESERVATION
(BFST-DS-104)

Time: 3 hrs.
100

Max Marks:

No. of pages: 1

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Marks are indicated against each question.

- Q.1 a) Explain the term food spoilage and types of food spoilage. (CO 2,L1) **10**
b) Explain in detail the principle and methods of distillation, regimentation, and centrifugation. (CO 2,L1) **10**

PART-A

- Q.2 Explain in detail the principle and processing of microwave and irradiation in food processing. (CO3, L3) **20**
- Q.3 Explain in detail the following:
a) Sterilization.
b) Pasteurization.
c) Blanching.
d) Thermal death time. (CO2, L2) **5×4**
- Q.4 Explain in detail the preservatives and fermentation in processing of foods. (CO3, L4) **20**

PART-B

- Q.5 Explain the drying method and explain any three types of driers in detail. (CO4, L4) **20**
- Q.6 Define water activity and explain the sorption isotherms. (CO3, L2) **20**
- Q.7 Discuss principle of processing and preservation by low temperature. Explain any two methods of low temperature. (CO 1, L4) **20**

End Semester Examination, Dec. 2023
B. Sc. (FST) – Third Semester
TECHNOLOGY OF FRUITS AND VEGETABLES (BFST-DS-301)

Time: 3 hrs.

Max Marks: **100**

No. of pages: 1

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Marks are indicated against each question.

Q.1 Discuss about the present status of fruit and vegetable industry in India. How pre and post-harvest changes occurs in fruits and vegetables affect its quality. **20**

PART-A

Q.2 a) Give in detail the classification and composition of fruits and vegetables each. [CO-1][L-2] **10**
b) What are the chemical treatments used to preserve fruits and vegetable. [CO-1][L-2] **10**

Q.3 Write short notes on the following (**any two**):
a) Fermented used vegetable and pickle.
b) Food preserves and candies.
c) Dehydration of fruits and vegetables. [CO-2][L-1] **10×2**

Q.4 Discuss about MAP and CAP preservation techniques of fruits and vegetables. [CO-3][L-2] **20**

PART-B

Q.5 Explain in detail the manufacturing process of tomato puree, sauce and ketchup. [CO-3] [L-4] **20**

Q.6 Explain about the processing of fruit juice powder carbonated beverages, Jam and Jelly along with the defects occurs during production. [CO-3][L-1] **20**

Q.7 Define 'canning processing'. Give detailed production of any two canned fruits/vegetable and enumerate types of spoilages occurs in canned products. [CO-4][L-2] **20**

End Semester Examination, Dec. 2023
B. Sc. (FST) – Third Semester
FOOD MICROBIOLOGY AND FOOD SAFETY (BFST-DS-302)

Time: 3 hrs.

Max Marks: **100**

No. of pages: 1

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Marks are indicated against each question.

Q.1 How is food microbiology related to allied food sectors. How microbes are classified on the basis of morphological characteristics. **20**

PART-A

Q.2 "Microorganisms can be classified on the basis of their characteristic morphology", justify the statement. Explain the dependency of microbes on pH. [CO-1][L-2] **20**

Q.3 Write a short note on the following:

- a) Microbial growth curve.
- b) Intrinsic growth factors.
- c) Extrinsic growth factors.

[CO-1][L-1] **20**

Q.4 Discuss the microbial spoilage of milk, meat, fruits and egg. [CO-2][L-2] **20**

PART-B

Q.5 Define 'food fermentation' and its types. Enlist various types of food fermentations. Explain the processing of any one fermented product. [CO-3][L-4] **20**

Q.6 What do you mean by food borne diseases. Discuss about any two food intoxications. [CO-2][L-1] **20**

Q.7 What do you mean by HACCP. Explain HACCP principles with relevant example. [CO-4][L-2] **20**

End Semester Examination, Dec. 2023

B. Sc. (FS&T) - Third Semester FOOD CHEMISTRY-I (BFST-DS-303)

Time: 3 hrs.

Max Marks: **100**

No. of pages: 1

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Marks are indicated against each question.

Q.1 Explain in detail the structure, nomenclature, properties of starch, glycogen, cellulose, modified celluloses. (CO1, L2) **20**

PART-A

Q.2 Explain in detail the structure, nomenclature, conformation, physical and chemical reaction of monosaccharides and oligosaccharides? [CO1, L2] **20**

Q.3 Explain the classification and structure of proteins along with their physical and functional properties. (CO2, L1) **20**

Q.4 Define water and water activity. Explain in detail the various types and structure of water along with sorption phenomenon. (CO2, L3) **20**

PART-B

Q.5 Explain classification and nomenclature of enzymes. What is the effect of processing on enzymes present in foods? (CO3, L2) **20**

Q.6 Differentiate between enzymatic and non-enzymatic browning. Explain in detail Maillard and Ascorbic acid oxidation. (CO3, L1) **20**

Q.7 Explain in detail physico-chemical and nutritional changes occurring during drying, dehydration, Irradiation, Freezing and Canning. (CO4, L2) **20**

End Semester Examination, Dec. 2023
B. Sc. (FS&T) - Third Semester
TECHNOLOGY OF SPICES, HERBS AND PLANTATION CROPS
(BFST-DS-306)

Time: 3 hrs.

Max Marks: **100**

No. of pages: 1

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Marks are indicated against each question.

Q.1 Explain classification of spices on the basis of plant parts, economic importance, climatic requirement, origin and flavor, season of growth and based on botanical description? (CO1, L1) **20**

PART-A

Q.2 Discuss the different types of Tea and its processing. (CO4, L2) **20**

Q.3 Explain in the detail the classification, nutritive value functional role and processing of various herbs? (CO2, L3) **20**

Q.4 What are various methods, processing, advantages and disadvantages of whole and dry spices? (CO3, L3) **20**

PART-B

Q.5 Describe the processing of cocoa and coffee and what are the different chocolate defects? (CO4, L2) **20**

Q.6 Discuss the processing, advantages and disadvantages of oleoresins? (CO2, L3) **20**

Q.7 Explain the processing of whole essential oils, their advantages and disadvantages. (CO3, L4) **20**

End Semester Examination, Dec. 2023

B. Sc. (FST) – Third Semester

FOOD PLANT HYGIENE, SANITATION AND WASTE MANAGEMENT (BFST-DS-307)

Time: 3 hrs.

Max Marks: **100**

No. of pages: 1

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Marks are indicated against each question.

Q.1 Explain the importance of sanitation in food industry. Why sanitary design of food equipment is important? [CO-2][L-2] **20**

PART-A

Q.2 Discuss various sanitary laws and regulations important for waste management. [CO-1][L-2] **20**

Q.3 Enlist the quality parameters/characteristics of waste water. Explain about their importance in waste reduction. [CO-3][L-2] **20**

Q.4 Explain about the concept of waste management in food industry and importance of waste disposal. [CO-2][L-1] **20**

PART-B

Q.5 Explain the concept and importance of GHP AND GMP in food industry. [CO4, L4] **20**

Q.6 Discuss various treatment of waste water for food waste industry. [CO3, L2] **20**

Q.7 Write down the types of sanitizer and method of sanitizing used in food industry. [CO-2][L-3] **20**

End Semester Examination, Dec. 2023
B. Sc. (FST) – Fifth Semester
INSTRUMENTATION AND ANALYTICAL TECHNIQUES
(BFST-DS-501)

Time: 3 hrs.

Max Marks: **100**

No. of pages: 1

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Marks are indicated against each question.

- Q.1 Explain in details the procedure of determination of moisture, fat, crude fibre, protein and mineral content of various food samples? [CO3, L2] **20**

PART-A

- Q.2 Enlist various types of electrophoresis and explain in details the principle, components and complete procedure of SDS-PAGE and Agarose gel electrophoresis along with the diagram? [CO2, L1] **20**

- Q.3 Explain in details the principle, components and complete process of HPLC and GLC along with the schematic diagram? [CO4, L1] **20**

- Q.4 Explain in detail the various sampling techniques along with the Sample preparation for analysis of various food samples? [CO1, L4] **20**

PART-B

- Q.5 Discuss the principle, components and complete process of Ion-exchange and thin layer chromatography along with the schematic diagram? [CO4, L1] **20**

- Q.6 Explain in detail the working principle and component of Fourier Transform Infrared Spectroscopy (FTIR), Atomic absorption spectroscopy (AAS), Atomic fluorescence spectroscopy (AFS). [CO4, L3] **20**

- Q.7 Differentiate between single beam and double beam spectrophotometer and Give working principle of both the instruments. [CO2, L3] **20**

End Semester Examination, Dec. 2023
B. Sc. (FST) – Fifth Semester
TECHNOLOGY OF MEAT, POULTRY, SEAFOODS AND HONEY
(BFST-DS-502)

Time: 3 hrs.

Max Marks: **100**

No. of pages: **1**

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Marks are indicated against each question.

Q.1 What is the current status of meat, poultry and seafood industry in India? How they contribute to the Indian food economy? **20**

PART-A

Q.2 Explain about the meat muscle structure, its composition and nutritive value. **20**
[CO-2][L-3]

Q.3 Explain the process of rigour mortis. Write down about various physico-chemical properties of meat. **20**
[CO-3][L-2]

Q.4 Differentiate between meat curing and smoking. Discuss about sausage and RTE meat products. **20**
[CO-4][L-2]

PART-B

Q.5 What are the different types of egg preservation methods? Explain about quality parameters of fish and egg. **20**
[CO-2][L-1]

Q.6 Discuss about any four fish preservation methods. **20**
[CO-1][L-4]

Q.7 What do you understand by Honey. Discuss its quality attributes and nutritional value. Explain the properties of honey products. **20**
[CO-3] [L-5]

End Semester Examination, Dec. 2023

B. Sc. (FST) – Fifth Semester

EMERGING FOOD PROCESSING TECHNOLOGIES (BFST-DS-504)

Time: 3 hrs.

Max Marks: **100**

No. of pages: 1

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Marks are indicated against each question.

Q.1 Define microwave and ohmic heating and explain the principle, mechanism, advantages and disadvantages of both techniques? (CO3, L2) **20**

PART-A

Q.2 Define HPP and explain its application and physico-chemical effect on foods? (CO2, L2) **20**

Q.3 Explain in details the osmotic dehydration along with its mechanism and application of osmotic dehydration? (CO3, L2) **20**

Q.4 Define hurdle technology and describe the principle and significance of hurdle technology? What are the different potential hurdles in food preservation? (CO2, L2) **20**

PART-B

Q.5 What are the fundamentals of ultrasound treatment for food preservation and what is the mechanisms in food preservation? What are the effects of ultrasound on food properties? (CO2, L1) **20**

Q.6 Explain membrane filtration and various designs of different modules of membranes along with the applications of membrane filtration used in food industries? (CO3, L2) **20**

Q.7 Explain mechanism and applications of radio-frequency processing and dielectric heating. (CO1, L2) **20**

End Semester Examination, Dec. 2023
B. Sc. (FST) – Fifth Semester
FOOD PLANT EQUIPMENT AND PROCESS DESIGN
(BFST-DS-505)

Time: 3 hrs.

Max Marks: **100**

No. of pages: 1

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Marks are indicated against each question.

Q.1 Explain in detail the design of various food equipments used in various unit operations (drying, freezing, size reduction, evaporation and membrane separation)?
(CO1, L3) **20**

PART-A

Q.2 Define Plant Layout and what are the different types of plant layout and explain various factors involved in plant layout? What are general plant design considerations?
(CO3, L4) **20**

Q.3 Explain in detail the product and process design of bakery with the help of flow diagrams.
(CO4, L1) **20**

Q.4 Define break even analysis Explain in detail the analysis of plant cost and profitability and capital investment?
(CO4, L2) **20**

PART-B

Q.5 Draw different symbols of storage tank, belt conveyer, elevator, cyclone separator, propeller, blender, open tank, crusher, centrifuge and screw feeder? (CO1, L1) **20**

Q.6 Explain in detail how to find out plant location, selection of materials for construction, design and testing standards?
(CO2, L3) **20**

Q.7 What are flow patterns? Draw and explain different types of flow patterns?
(CO3, L3) **20**

End Semester Examination, Dec. 2023

B. Sc. (Nutrition & Dietetics) – First Semester

BIOCHEMISTRY-I (BN&D-103)

Time: 3 hrs.

Max Marks: **100**

No. of pages: 1

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Marks are indicated against each question.

Q.1 Answer/Explain the following in brief:

- Which cell organelle is called as brain of a cell and why? Explain briefly.
- Why mitochondria is called as power house of a cell?
- Draw a well labeled diagram of eukaryotic cell.
- Which all bonds are present in the structure of glycogen and where?
- What is the role of lysosomes in a cell? Draw a labeled diagram of it.
- Vitamin A.
- Water.
- Sodium.
- Stereoisomerism.
- Vitamin B 12.

[CO-2][L-3] **2×10**

PART-A

- Q.2 a) Draw the structures of the following sugars: Lactose, Sucrose, Amylose, Mannose, Glucose. [CO-1][L-2] **10**
b) What is the role of Vitamin B1? Explain its sources, RDA and deficiency diseases. [CO-1][L-2] **10**

- Q.3 How starch and other sugars are digested? Explain the process of digestion of sugars in detail with all the enzymes involved. Support your answer with suitable diagrams. [CO-2][L-2] **20**

- Q.4 What is biochemistry? Explain its scope in medical field? Also write its various branches and their applications in detail [CO-3][L-2] **20**

PART-B

- Q.5 Write a detailed note on four level organizations of proteins. Support your answer with suitable diagrams. [CO-3][L-3] **20**

Q.6 Distinguish between:

- Prokaryotic and eukaryotic cell.
- Animal and plant cell.

[CO-2][L-3] **10×2**

- Q.7 a) What are the important phospholipids in our body? Mention their functions in detail. [CO-2][L-4] **10**
b) What are essential amino acids? Explain it. [CO-2][L-4] **10**

End Semester Examination, Dec. 2023
B. Sc. (Nutrition and Dietetics) - First Semester
BASICS OF FOOD AND NUTRITION (BND-DS-101)

Time: 3 hrs.

Max Marks: **100**

No. of pages: 1

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Marks are indicated against each question.

Q.1 What are the latest trend seen in the field of nutrition. Discuss the role of nutritionist in community and hospitals. [CO-4][L-3] **20**

PART-A

Q.2 Define any ten terms used in the study of nutrition. Describe the functions of food with suitable examples. [CO-1][L-1] **20**

Q.3 Write short notes on:
a) Do's and don'ts of healthy eating.
b) Food groups and food pyramid. [CO-2][L-2] **10×2**

Q.4 Explain the marks of good nutrition with examples in context to balance diet. [CO-3][L-3] **20**

PART-B

Q.5 Classify vitamins. Explain the functions, RDA and dietary sources of vitamin-D. [CO-3][L-2] **20**

Q.6 What are the principles of cooking? Explain the different methods of cooking with suitable examples. [CO-2][L-3] **20**

Q.7 Discuss the importance of functional foods for healthy living. [CO-4][L-5] **20**

End Semester Examination, Dec. 2023
B. Sc. (Nutrition & Dietetics) - First Semester
FUNDAMENTALS OF BIOCHEMISTRY (BND-DS-102)

Time: 3 hrs.

Max Marks: **100**

No. of pages: 1

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Marks are indicated against each question.

Q.1 Answer the following:

- a) What are the fat-soluble vitamins?
- b) Define 'non-essential nutrients'.
- c) Give structural illustration of sucrose.
- d) Expand and explain RDA.

[CO-1][L-1] **5×4**

PART-A

Q.2 What is the difference between a prokaryotic and eukaryotic cell. What are the different cells organelles present in the eukaryotic cell? [CO-2][L-2] **20**

Q.3 What are carbohydrates? How they are classified? Describe the properties of monosaccharides. [CO-3][L-4] **20**

Q.4 What are the properties of lipids? What is their biochemical role in the body? [CO-2][L-3] **20**

PART-B

Q.5 Describe essential and non-essential amino acids. How proteins are classified and state their physiological significance in the body? [CO-3][L-5] **20**

Q.6 Describe Vitamins, classifications and their respective functions in the body in detail. [CO-1][L-2] **20**

Q.7 What are minerals? Enumerate their dietary sources, RDA and biochemical role. [CO-3][L-4] **20**

End Semester Examination, Dec. 2023
B. Sc. (Nutrition and Dietetics) - First Semester
HUMAN ANATOMY AND PHYSIOLOGY-I (BND-DS-103)

Time: 3 hrs.

Max Marks: **100**

No. of pages: 1

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Marks are indicated against each question.

Q.1 Explain the following (**any five**):

- a) Tissues.
- b) Mitochondria.
- c) Plasma membrane.
- d) Nucleus.
- e) Platelets.
- f) ECG.
- g) Lymph.

[CO-2] [L-5] **4×5**

PART-A

Q.2 Distinguish between the following:

- a) Animal cell and plant cell.
- b) Active transport and passive transport.

[CO-1] [L-4] **10×2**

Q.3 Draw a well labeled diagram of alimentary tract and discuss the common digestive disorders.

[CO-2][L-4] **20**

Q.4 Describe the two types of blood grouping systems in detail.

[CO-3] [L-2] **20**

PART-B

Q.5 Draw a well labeled diagram of the Heart. Also, discuss the systemic circulation of blood.

[CO-4] [L-4] **20**

Q.6 Describe the functions of spleen with the help of a well labeled diagram.

[CO-2] [L-4] **20**

Q.7 Draw a well labeled diagram of human respiratory system and discuss its functions.

[CO-2] [L-4] **20**

End Semester Examination, Dec. 2023
B. Sc. (Nutrition and Dietetics) - First Semester
COMMUNICATION AND EXTENSION EDUCATION (BND-DS-106)

Time: 3 hrs.

Max Marks: **100**

No. of pages: 1

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Marks are indicated against each question.

Q.1 How to utilize the knowledge of communication and extension education in daily practice. [CO-4][L-3] **20**

PART-A

Q.2 Discuss the elements of communication process and its characteristics. [CO-1][L-1] **20**

Q.3 Write short notes on:

a) Feedback in communication.

b) Communicator-receiver relationship.

[CO-2][L-2] **10×2**

Q.4 Define 'audiovisual aids'. Discuss the nature, characteristics and classification of audiovisual aids. [CO-3][L-3] **20**

PART-B

Q.5 Explain the concept and philosophy of extension education. [CO-3][L-2] **20**

Q.6 List out the qualities of an extension worker and discuss the role of extension worker.

[CO-2][L-3] **20**

Q.7 What are the objective behind extension education programme. Discuss the application of extension education in nutrition and dietetics. [CO-4][L-5] **20**

End Semester Examination, Dec. 2023
B. Sc – Second Semester
NUTRITION: A LIFE CYCLE APPROACH (BND-DS-202)

Time: 3 hrs.

Max Marks: **100**

No. of pages: 1

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Marks are indicated against each question.

Q.1 Discuss the physiological changes during infancy. How do these influences the nutritional requirements of an infant? [CO-1][L-2] **10**

PART-A

Q.2 "Psycho-social influences affect food behavior and nutritional status during adolescences", Justify the statement with appropriate example. [CO-2][L-5] **20**

Q.3 a) Discuss the nutritional requirement of a 5-year old child [CO-3][L-2] **10**
b) Comment on the food preferences of a preschooler [CO-4][L-4] **10**

Q.4 Elaborate with reasons, the various nutrition related problems common among elderly. What steps would you advocate to overcome the same? [CO-4][L-5] **20**

PART-B

Q.5 Writes short notes on:
a) Reference Indian Man and woman. [CO-1][L-1] **5**
b) Fats and essential fatty acid requirements of adults. [CO-2][L-1] **5**
c) Nutritional needs and dietary modification during lactation. [CO-4][L-1] **5**
d) Factors affecting lactation. [CO-3][L-1] **5**

Q.6 Discuss the role of BFHI and BPNI in the growth and development of infant and children [CO-3][L-3] **20**

Q.7 Discuss the physiological changes which occur during pregnancy. Elaborate on the complications which may arise during this period. [CO-1][L-4] **20**

End Semester Examination Dec. 2023
B. Sc. (Nutrition and dietetics) - Second Semester
HUMAN ANATOMY AND PHYSIOLOGY-II (BND-DS-203)

Time: 3 hrs.

Max Marks: **100**

No. of pages: 1

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Marks are indicated against each question.

Q.1 Explain the following (**any four**):

- a) Neurotransmission.
- b) Cranial nerves.
- c) Appendicular skeleton system.
- d) Thyroid gland.
- e) RAAS.

[CO-3][L-3] **5×4**

PART-A

Q.2 Differentiate between the following:

- a) Sympathetic nervous system and parasympathetic nervous system
- b) Autonomic and somatic nervous system.

[CO-1][L-4] **10×2**

Q.3 Discuss the various joints and their classification.

[CO-1] [L-2] **20**

Q.4 Discuss the hormones secreted by the adrenal gland. Also, discuss the disorders caused due to over/under secretion of these hormones.

[CO-3][L-2] **20**

PART-B

Q.5 Draw the structure of a nephron and explain the process of urine formation.

[CO-2][L-3] **20**

Q.6 Draw a well labeled diagram of the female reproductive part. Also, discuss the physiology of menstruation.

[CO-4][L-3] **20**

Q.7 Discuss the importance of water and electrolytes in sports physiology. [CO-2][L-2] **20**

End Semester Examination, Dec. 2023
B.Sc. (Nutrition & Dietetics) - Third Semester
FUNDAMENTALS OF FOOD SCIENCE (BND-DS-301)

Time: 3 hrs.

Max Marks: **100**

No. of pages: 1

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Marks are indicated against each question.

Q.1 Discuss the effect of heat on starch and their important in cooking process. [CO-1][L-2] **20**

PART-A

Q.2 Discuss the composition and nutritive value of pulses. [CO-2][L-1] **20**

Q.3 What are the different types of plant pigments and how heat and pH affect them? [CO-4][L-2] **20**

Q.4 What are sugars? Discuss its classification along with structure and examples. [CO-2][L-2] **20**

PART-B

Q.5 Explain various types of pasteurization methods. How it helps in increasing the shelf life of milk? [CO-4][L-2] **20**

Q.6 What is the difference between concept of red meat and white meat? Discuss the composition and nutritive value of both in detail. [CO-2][L-2] **20**

Q.7 Define "Rancidity in fats". Discuss various methods by which it can be prevented. [CO-1][L-2] **20**

End Semester Examination, Dec. 2023
B. Sc. (Nutrition and Dietetics) – Third Semester
COMMUNITY HEALTH NUTRITION (BND-DS-302)

Time: 3 hrs.
100

Max Marks:

No. of pages: 1

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Marks are indicated against each question.

Q.1 Explain the following (**any four**):

- a) Community organization.
- b) Primary health care.
- c) National health policy.
- d) MDMP.
- e) ICAR.

[CO-1][L-2] **5×4**

PART-A

Q.2 What do you understand by HDI? Discuss in detail.

[CO-2][L-3] **20**

Q.3 Discuss the health system of India in detail.

[CO-3][L-2] **20**

Q.4 What are the various communicable disease control programs in India? Write any two in detail.

[CO-4][L-3] **20**

PART-B

Q.5 Discuss **any two** in detail:

- a) ICDS.
- b) NNACP.
- c) NIDDCP.

[CO-1][L-2] **10×2**

Q.6 Discuss the National Nutrition Security Act. Also, discuss the role of WHO.

[CO-2][L-3] **20**

Q.7 Describe the process of development of National Nutrition Programs. [CO-3][L-4] **20**

End Semester Examination, Dec. 2023
B. Sc. (Nutrition & Dietetics) - Third Semester
HEALTH, FITNESS AND SPORTS NUTRITION (BND-DS-303)

Time: 3 hrs

Max Marks: **100**

No. of pages: 1

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **PART A** and **TWO** questions from **PART B**. Marks are indicated against each question.

Q.1 Define ABCD methods of health status. Discuss any two components in detail. **20**

PART-A

Q.2 Discuss the body composition evaluation process in detail. [CO-2][L-1] **20**

Q.3 Macronutrients and micronutrients has a great impact on physical fitness and status of an athlete. Comment on the statement and explain in detail. [CO-1][L-5] **20**

Q.4 Explain the metabolism of carbohydrates during exercise. Differentiate between Pre game, during game and post game meal nutritional requirements and hydration. [CO-3][L-4] **20**

PART-B

Q.5 Rohit is a boxer. He does 3 hours of resistance training everyday. Discuss the role of protein and Fat metabolism during his activity [CO-4][L-5] **20**

Q.6 Discuss types of sports drinks and dietary supplements in detail. [CO-2][L-2] **20**

Q.7 Describe the various chakras in detail. [CO-5][L-4] **20**

End Semester Examination, Dec. 2023
B. Sc. (Nutrition and Dietetics) - Third Semester
PREVENTIVE MEDICINE AND PROMOTIVE HEALTH (BND-DS-304)

Time: 3 hrs

Max Marks: **100**

No. of pages: **1**

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Each question carries equal marks.

- Q.1 Critically evaluate the factors causing the change in the pattern of disease occurrence
[CO-1][L-4] **20**

PART-A

- Q.2 Apply the concept of web of causation theory of epidemiology in defining causes of coronary heart disease. Discuss the public health approaches to deal with its current situation
[CO3][L-3] **20**
- Q.3 Elaborate the concept of phases of natural history of diseases occurrence to understand the epidemiology of diseases.
[CO2][L-4] **20**
- Q.4 Explain the epidemiology of chickenpox and poliomyelitis diseases occurrence. [CO2][L-2] **20**

PART-B

- Q.5 Discuss the concept of health and well being in context to human development in detail.
[CO1][L-1] **20**
- Q.6 Discuss the public health approaches to prevention and control to communicable diseases. Explain the universal immunization program for communicable diseases.
[CO4][L-2] **20**
- Q.7 Critically analyze the concept of disease causation and its application in modern medicine.
[CO4][L-4] **20**

End Semester Examination, Dec. 2023
B. Sc. (Nutrition and Dietetics) - Third Semester
MATERNAL AND CHILD HEALTH AND NUTRITION (BND-DS-305)

Time: 3 hrs

Max Marks: **100**

No. of pages: 1

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Marks are indicated against each question.

Q.1 What is the current status and factors affecting maternal and child nutrition in India?
[CO-4][L-6] **20**

PART-A

Q.2 Explain the nutrition modulation of embryonic development in detail. [CO-1][L-3] **20**

Q.3 Discuss the physiological changes during pregnancy. [CO-2][L-2] **20**

Q.4 What are the physiological and psychological implications of lactation period?
[CO-2][L-3] **20**

PART-B

Q.5 Discuss national guidelines on breast feeding and complimentary feeding.
[CO-3][L-2] **20**

Q.6 When should premature babies start complementary feeding? Explain. [CO-3][L-5] **20**

Q.7 How do you monitor growth and development of a child? Draw the diagram of how growth chart is used for growth monitoring?
[CO-4][L-6] **20**

End Semester Examination, Dec. 2023

B. Sc. (Nutrition and Dietetics) - Third Semester

FOOD PACKAGING (BND-DS-306)

Time: 3 hrs

Max Marks: **100**

No. of pages: 1

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Marks are indicated against each question.

- Q.1 What are the different types of materials used for packaging? Discuss their advantages and disadvantages. [CO-2][L-2] **20**

PART-A

- Q.2 What are the different types of plastic packaging? How plastic packaging can be made more sustainable? [CO-4][L-2] **20**

- Q.3 Discuss about various types of metal packaging, what is the use of lacquers in metal packaging [CO-4][L-1] **20**

- Q.4 What is compostable and non-compostable packaging? What are their advantages and disadvantages? [CO-3][L-2] **20**

PART-B

- Q.5 Discuss retort packaging with examples. What are its advantages over other types of packaging? [CO-4][L-2] **20**

- Q.6 How foods are labelled in India? Discuss in detail each component of food labelling. [CO-1][L-2] **20**

- Q.7 What are the food labelling laws in India? Are the labelling laws in India comparable to international labelling laws? [CO-1][L-2] **20**

End Semester Examination, Dec. 2023
B. Sc. (Nutrition and Dietetics) – Third Semester
FOOD SCIENCE AND TECHNOLOGY (BND-DS-307)

Time: 3 hrs.

Max Marks: **100**

No. of pages: 1

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Marks are indicated against each question.

Q.1 What are the chemical changes that occur in the grains during storage? [CO-2][L-1] **20**

PART-A

Q.2 Throw some light on post-harvest losses of cereal grains. [CO-2][L-3] **20**

Q.3 Some constituents in legumes reduce the nutritive value and also toxic to human health. Comment on the statement. [CO-2][L-3] **20**

Q.4 Discuss through flowchart the steps involved in processing of oils. [CO-4][L-2] **20**

PART-B

Q.5 What is pasteurization? Explain different methods of pasteurization. [CO-3][L-1] **20**

Q.6 Summarize the process of ripening of fruits by discussing the changes in pectin. [CO-1][L-5] **20**

Q.7 Classify packaging materials and discuss their examples. [CO-3][L-4] **20**

End Semester Examination, Dec. 2023
B. Sc. (Nutrition and Dietetics) - Third Semester
BASICS OF FOOD MICROBIOLOGY (BND-DS-308)

Time: 3 hrs.

Max Marks: **100**

No. of pages: 1

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Marks are indicated against each question.

- Q.1 Write in details of the morphological structure of bacteria and discuss about the role of bacteria the recent advance research field. (CO4) {L6} **20**

PART-A

- Q.2 Differentiate between prokaryotic and eukaryotic cells. (CO1) {L3} **20**
- Q.3 Explain intrinsic and extrinsic parameters of foods which affect microbial growth. (CO2) {L2} **20**
- Q.4 Discuss the importance of microbes in food industries. Write a short note on probiotics, prebiotic and symbiotic. (CO2) {L3} **20**

PART-B

- Q.5 Write definition and concept of spoilage of milk sources of contamination and microorganisms involved in spoilages of foods: Milk and Bread. (CO3) {L2} **20**
- Q.6 What is the concept of preservation? List out technique of preservation. Write a note on chemical preservation, freezing, drying. (CO3) {L5} **20**
- Q.7 Definition of fermentation and type of fermentation. Explain traditional Indian fermented food. (CO4) {L6} **20**

End Semester Examination, Dec. 2023
B. Sc. (Nutrition & Dietetics) - Third Semester
INTRODUCTION TO FIRST AID AND NURSING (BND-DS-309)

Time: 3 hrs.

Max Marks: **100**

No. of pages: 1

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Marks are indicated against each question.

Q.1 What are the principles and importance of first aid nursing? Write golden rule and purpose of first aid. [CO-4][L-6] **20**

PART-A

Q.2 Write an overview of medical emergencies in the community. [CO-1][L-3] **20**

Q.3 How do you give emergency care to a patient with a animal bite? [CO-2][L-2] **20**

Q.4 Explain electric shock first aid treatment for the patient. [CO-2][L-3] **20**

PART-B

Q.5 What are the core areas of nursing process? [CO-3][L-2] **20**

Q.6 What is the procedure of bed making and types of bed making? [CO-3][L-5] **20**

Q.7 How do you promote rest and sleep in patients? What are the sleep aids in ICU? [CO-4][L-6] **20**

End Semester Examination, Dec. 2023
B. Sc. (Nutrition and Dietetics) – Third Semester
INTRODUCTION TO HERBAL SCIENCE (BND-DS-310)

Time: 3 hrs.

Max Marks: **100**

No. of pages: 1

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Marks are indicated against each question.

- Q.1 List out new foods by using herbs for home health care and explain relation of herbs and nutrition. [CO-4][L-6] **5×4**

PART-A

- Q.2 History and classification of herbs and discuss about role of herbs in day-to-day life. [CO-1][L-3] **20**
- Q.3 Explain Calotropis gigantean in detail. [CO-2][L-2] **20**
- Q.4 Illustrate outdoor and indoor herbal garden. [CO-2][L-3] **20**

PART-B

- Q.5 Write culinary aspects of herbs and nutritional value of herbs. [CO-3][L-2] **20**
- Q.6 Discuss about herb and health. Write a note on herbal remedies-herbal first aid, home remedies- for common cold, fever, headaches and migraines. [CO-3][L-5] **20**
- Q.7 "Herbs has a cosmetic impact or skin, hair, scalp." Explain the statement. [CO-4][L-6] **20**

End Semester Examination, Dec. 2023
B. Sc. (Nutrition and Dietetics) – Fourth Semester
PUBLIC HEALTH NUTRITION (BND-DS-405)

Time: 3 hrs.

Max Marks: **100**

No. of pages: 1

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Each question carries equal marks.

Q.1 What are the epidemiological aspects of relationship between nutrition, health and disease? [CO4][L4] **20**

PART-A

Q.2 Discuss about the scope, aim and current context of public health nutrition. [CO3][L1] **20**

Q.3 Give the details of national health care system and definition of health determinants. [CO2][L2] **20**

Q.4 Write two methods of rapid nutritional assessment in the community and its impact on their health behavior and food habits. [CO3][L2] **20**

PART-B

Q.5 Define 'anemia'. What are the type of anemia, etiology and prevention strategies. [CO2][L3] **20**

Q.6 What is the current malnutrition status in India, define under-nutrition and etiology of PEM? [CO5][L3] **20**

Q.7 What is non communicable disease (NCD), its etiology and preventive strategies of obesity, diabetes and coronary heart diseases? [CO6][L4] **20**

End Semester Examination, Dec. 2023
B. Sc. (Nutrition and Dietetics) – Fifth Semester
STATISTICS AND RESEARCH METHODOLOGY (BND-DS-502)

Time: 3 hrs.

Max Marks: **100**

No. of pages: 2

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Marks are indicated against each question.

Q.1 Describe the various steps involved in research process with a suitable example. **20**

PART-A

Q.2 Differentiate between Primary and Secondary data collection. Discuss the various methods of primary data collection. [CO-2][L-4] **20**

Q.3 Write the coding of following data: [CO-2][L-3] **20**
GENERAL INFORMATION:

Name (Optional):

Sex:

Male
Female
Other

Age:

Nationality:

Religion:

Hindu
Muslim
Sikh
Christian
Jain
Any other

Education level:

Undergraduate
Graduate
Postgraduate
Doctorate
Post Doctorate

Occupation:

Student
Service
Self Employed
Homemaker

ANTHROPOMETRIC MEASUREMENTS:

Height: _____

Weight: _____

BMI: _____

PCOD is prevalent in which age group the most?

- 20-30 years
30-40 years
more than 40

Do you feel diet has a major role in treating PCOD?

- YES
NO

Which of the following are the symptoms of PCOD:

- Irregular Mensural cycle
Acne
Weight gain
Sleeplessness
Cyst in ovaries

Q.4 Create the frequency and cumulative frequency distribution table for the following data:

141	147	126	138	149	136	137	131
143	152	125	172	171	132	132	148
145	143	119	164	170	157	165	157
145	144	150	162	142	155	139	155

[CO-3][L-6] **20**

PART-A

Q.5 Create a histogram, frequency polygon graph and cumulative percentage graph of the following data:

141	147	126	138	149	136	137	131
143	152	125	172	171	132	132	148
145	143	119	164	170	157	165	157
145	144	150	162	142	155	139	155

[CO-3][L-6] **20**

Q.6 Calculate mean and standard deviation of the following data:

Marks	No. of Students
0-10	17
10-20	20
20-30	34
30-40	22
40-50	7

[CO-4][L-3] **20**

Q.7 Calculate mode and median of the following data:

Product per day in tons	No. of days
10-20	4
20-30	12
30-40	40
40-50	41
50-60	27
60-70	13
70-80	9
80-90	4

[CO-4][L-3] **20**

End Semester Examination, Dec. 2023

B. Sc. (Nutrition and Dietetics) - Fifth Semester

FUNCTIONAL FOODS (BND-DS-504)

Time: 3 hrs.

Max Marks: **100**

No. of pages: 1

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Marks are indicated against each question.

Q.1 What are functional foods? Give their classification in detail. [CO-1][L-1] **20**

PART-A

Q.2 Throw light on role of functional foods in preventing diseases. [CO-1][L-3] **20**

Q.3 Differentiate between prebiotics and probiotics. What is significance of prebiotics? [CO-2][L-2] **20**

Q.4 Define characteristics and functional properties of resistant starch, gums and dietary fibre in detail. [CO-2][L-4] **20**

PART-B

Q.5 Discuss various mechanisms of probiotics and prebiotic action on human body functions. [CO-3][L-2] **20**

Q.6 Describe the contribution of foods to preserving the microflora in the human intestine. Give five suitable examples. [CO-4][L-5] **20**

Q.7 Write short notes on the following:

a) Phytoestrogens.

b) Flavonoids.

[CO-1][L-1] **10×2**

End Semester Examination, Dec. 2023
B. Sc. (Nutrition and Dietetics) – Fifth Semester
NUTRITION AND FOOD SECURITY (BND-DS-505)

Time: 3 hrs.

Max Marks: **100**

No. of pages: 1

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Marks are indicated against each question.

Q.1 Define 'food security'. Write a brief note on food revolution and agricultural revolution in India. [CO4][L6] **20**

PART-A

Q.2 Discuss about food availability and food distribution system in India. [CO1][L3] **20**

Q.3 What is the role of women in house hold food security and what are the other factors affecting food security? [CO2][L2] **20**

Q.4 How public sector program intervene food and nutrition security? [CO2][L3] **20**

PART-B

Q.5 How agricultural development link with nutritional outcome? [CO3][L2] **20**

Q.6 Discuss on National food security Act, 2013. [CO3][L5] **20**

Q.7 Explain the current malnutrition status among adult and children India. What are the major programs to improve the food security? [CO4][L6] **20**

End Semester Examination, Dec. 2023
B. Sc. (Nutrition and dietetics) – Fifth Semester
HEALTH AND WEIGHT MANAGEMENT (BND-DS-506)

Time: 3 hrs.

Max Marks: **100**

No. of pages: 1

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Marks are indicated against each question.

Q.1 Describe the scientific principles of weight management with an emphasis on lifestyle modification for improving health. [CO-2] [L-3] **20**

PART-A

Q.2 What is energy balance? Discuss the theories related to weight management. [CO-2][L-2] **20**

Q.3 Discuss the concepts of underweight, overweight and obesity. Explain body weight components and measurement of obesity. [CO-1][L-1] **20**

Q.4 How to inculcate healthy lifestyle practices and techniques for weight management? [CO-3][L-3] **20**

PART-B

Q.5 Write the prevalence and current scenario of obesity in India. Give the dietetic management of obesity. [CO-4][L-4] **20**

Q.6 What is the prevalence and current scenario of underweight? Explain the health hazards of underweight. [CO-4][L-5] **20**

Q.7 Write short notes on management strategies of:
a) Lifestyle changes.
b) Surgical procedures. [CO-3][L-6] **10×2**

End Semester Examination, Dec. 2023
B. Sc. (Nutrition and Dietetics) – Fifth Semester
FOOD MARKETING AND CONSUMERISM (BND-DS-507)

Time: 3 hrs.

Max Marks: **100**

No. of pages: 1

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Marks are indicated against each question.

Q.1 Discuss the benefits of understanding consumer knowledge as per food marketing.
[CO-2][L-5] **20**

PART-A

Q.2 Illustrate the methods of studying consumer behavior. [CO-1][L-4] **20**

Q.3 What do you understand by brand equity? Discuss the Value of brands in marketing strategy. [CO-2][L-2] **20**

Q.4 What is retailing? Discuss the various steps in purchase process. [CO-3][L-3] **20**

PART-B

Q.5 What are customer centric organisation? Also, discuss their characteristics. [CO-2][L-2] **20**

Q.6 What is Maslow's hierarchy of needs? Explain in detail using a suitable chart. [CO-3][L-1] **20**

Q.7 What is the importance of Customer Satisfaction? Also, discuss the various factors affecting it. [CO-4][L-3] **20**

End Semester Examination, Dec. 2023
B. Sc. (Nutrition & Dietetics) – Fifth Semester
HOSPITAL AND HEALTHCARE MANAGEMENT (BND-DS-508)

Time: 3 hrs.
100

Max Marks:

No. of pages: 1

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Marks are indicated against each question.

Q.1 How management is important for health care set up in a country? Elaborate your answer giving suitable examples. [CO2][L3] **20**

PART-A

Q.2 How can the process of management be applied in defining special requirements for setting up of pediatric and maternity ward in a hospital. [CO2][L3] **20**

Q.3 Describe the concept of management in hospital set up. Elaborate your answer with the help of well-defined examples. Also, discuss the set of principles and characteristics followed by management in a hospital set up. [CO1][L2] **20**

Q.4 What are the different statutory requirements in the hospital designing set up? Also, explain the structural organization of hospital set up. Discuss why it is important to maintain structural set up of management in health care industry. [CO2][L4] **20**

PART-B

Q.5 Quality Council of India and NABH help in achieving quality management in a health care sector. Discuss how they are important in health care set up. [CO3][L3] **20**

Q.6 There are different national health programs in context to a country. List down the different National health programs being run in India and discuss some of the important national programs pertaining to both communicable and non-communicable diseases. [CO3][L2] **20**

Q.7 A set of different management strategies are required for proper hospital and health care set up. Discuss the different strategies for Job Analysis, Job Description and specifications for hospital staff. [CO4][L3] **20**

Supplementary Examination, Dec. 2023

Bachelor of Physiotherapy — First Year

PHYSIOLOGY (BPT 102)

Time: 3 hrs.

Max Marks: **80**

No. of pages: 1

Note: Attempt **EIGHT** questions in all; **PART-A is compulsory**. Attempt any **FIVE** questions from **PART-B** and **TWO** questions from **PART-C**. Marks are indicated against each question.

PART-A

Q.1 Answer the following question:

- a) What is blood-brain barrier? How does it regulate the transport of substances between the bloodstream and the brain?
- b) What is the difference between the somatic and autonomic nervous systems?
- c) What are the two types of nephrons in the kidney?
- d) What is the function of the heart valves?
- e) What is the role of the thymus gland in the endocrine system? [CO-2,3][L-3] **2×5**

PART-B

- Q.2 What is the difference between the intrinsic and extrinsic pathways of blood clotting and how do they work together? [CO-1][L-2] **8**
- Q.3 Discuss the process of fertilization and implantation and the role of placenta in maintaining pregnancy. [CO-3][L-1] **8**
- Q.4 Differentiate between the functions of two types of nephrons in the kidney? [CO-4][L-1] **8**
- Q.5 What are the different types of receptors found in the body and how are they classified based on their location, structure and function? [CO-2][L-6] **8**
- Q.6 Discuss the role of the sympathetic and parasympathetic nervous systems in regulating cardiac output, including the effects of sympathetic and parasympathetic stimulation on heart rate, contractility and vasomotor tone. [CO-5][L-1] **8**
- Q.7 What is the function of adrenal glands in the endocrine system? [CO-5][L-2] **8**

PART-C

- Q.8 How do changes in membrane potential contribute to the generation and transmission of nerve impulses? [CO-5][L-2] **15**
- Q.9 Describe the cardiac cycle, including the different phases and events that occur during each phase. [CO-5,6][L-1] **15**
- Q.10 Explain the functions and regulation of pancreatic secretions, including the roles of enzymes such as amylase, lipase, and trypsin. How are pancreatic secretions regulated? [CO-2,3][L-6] **15**

Supplementary Examination, Dec. 2023

Bachelor of Physiotherapy – First Year

BIOCHEMISTRY (BPT 103)

Time: 3 hrs.

Max Marks: **80**

No. of pages: 1

Note: Attempt **EIGHT** questions in all; **PART-A is compulsory**. Attempt any **FIVE** questions from **PART-B** and **TWO** questions from **PART-C**. Marks are indicated against each question.

PART-A

Q.1 Answer the following in brief:

- What do you mean by osmotic pressure?
- Define 'Donnan membrane equilibrium'.
- Define 'polysaccharide' with example.
- Explain genetic code.
- What are allosteric enzymes?

[CO-2][L-5] **2×5**

PART-B

Q.2 What are isotopes? Describe their role in diagnosis and treatment of diseases.

[CO-1][L-4] **8**

Q.3 Explain the pathways involved in the metabolism of iron and calcium.

[CO-2][L-3] **8**

Q.4 Describe various nutritional aspects associated with carbohydrate, fat and protein.

[CO-4][L-2] **8**

Q.5 What are the Exergonic and Endergonic reactions? Explain electron transport chain.

[CO-3][L-5] **8**

Q.6 Explain different reactions and properties of proteins.

[CO-4][L-1] **8**

Q.7 Explain in detail the metabolic reactions of glycolysis.

[CO-2][L- 3] **8**

PART-C

Q.8 What is the daily requirement, physiological functions, and diseases associated with vitamins deficiency.

[CO-5][L-4] **15**

Q.9 Describe enzymes kinetics and the factors affecting enzyme activity. Also, explain different types of enzyme inhibitions.

[CO-1][L-2] **15**

Q.10 Describe the structure and function of cell and subcellular organelles.

[CO-4][L-5] **15**

Supplementary Examination, Dec. 2023

Bachelor of Physiotherapy — First Year

ELECTROTHERAPY-I (BPT 104)

Time: 3 hrs.

Max Marks: **80**

No. of pages: 1

Note: Attempt **EIGHT** questions in all; **PART-A is compulsory**. Attempt any **FIVE** questions from **PART-B** and **TWO** questions from **PART-C**. Marks are indicated against each question.

PART-A

- Q.1 a) Explain Laws of radiation. [CO1][L1]
b) What is fluidotherapy? [CO2,3][L2]
c) Explain seddon classification for nerve fibers. [CO4][L4]
d) Define 'refractory period'. [CO2][L2]
e) What is pelvic floor stimulation? [CO5][L4] **2×5**

PART-B

- Q.2 Explain Faradic current and indications for Faradic current. [CO4,3][L2] **8**
- Q.3 Explain IDC and give physiological effects of current. [CO1,2][L4] **8**
- Q.4 Explain Cryotherapy along with method of application and physiological effects. [CO3,4][L5] **8**
- Q.5 Elaborate the technique for Paraffin Wax bath methods of Wax bath application? [CO1,2,3][L2] **8**
- Q.6 Explain Faradic foot bath along with technique of application and patient preparation? [CO3,4, L2] **8**
- Q.7 Explain contrast bath and technique for contrast bath? [CO2,3][L2] **8**

PART-C

- Q.8 Explain electro diagnostic techniques also explain SD curves for innervation, partial and denervation. [CO3,4][L2] **15**
- Q.9 Define TENS and modes of TENS along with pain gate theory. [CO3,4][L2] **15**
- Q.10 Define currents and classification and physiological effect of Low frequency currents. [CO4][L6] **15**

Supplementary Examination, Dec. 2023

Bachelor of Physiotherapy – First Year

EXERCISE THERAPY-I (BPT 105)

Time: 3 hrs.

Max Marks: **80**

No. of pages: 1

Note: Attempt **EIGHT** questions in all; **PART-A is compulsory**. Attempt any **FIVE** questions from **PART-B** and **TWO** questions from **PART-C**. Marks are indicated against each question.

PART-A

Q.1 Answer the following in brief:

- a) What is active movement?
- b) Full form of MMT.
- c) Define 'equilibrium'.
- d) Difference between 'spring and pulleys'.
- e) Define '1RM'.

2×5

PART-B

Q.2 Explain in detail about the types of movements. [CO-2][L-2] **8**

Q.3 What is suspension therapy? Explain in detail the principles and uses of suspension therapy. [CO-3][L-5] **8**

Q.4 What is therapeutic Gymnasium? Enumerate various equipments used in the gymnasium and their importance. [CO-1][L-5] **8**

Q.5 Write the grades of MMT. Describe the principle and application technique of MMT. [CO-2][L-3] **8**

Q.6 What is the use of goniometer? Describe the types and parts of goniometer with diagrams. [CO-6][L-4] **8**

Q.7 What are passive exercises? Describe in detail. [CO-5][L-1] **8**

PART-C

Q.8 Describe general relaxation techniques. Write its indications, precautions and contraindications. [CO-4][L-3] **15**

Q.9 What is massage therapy? Explain the classification of massage. Discuss any two techniques of massage in detail. [CO-2][L-5] **15**

Q.10 Explain the types of resistance exercises. Name atleast two equipment for resistance training. Discuss the usage of each. [CO-4][L-5] **15**

Supplementary Examination, Dec. 2023

Bachelor of Physiotherapy — Second Year

PHARMACOLOGY (BPT-202)

Time: 3 hrs.

Max Marks: **80**

No. of pages: 1

Note: Attempt **EIGHT** questions in all; **PART-A is compulsory**. Attempt any **FIVE** questions from **PART-B** and **TWO** questions from **PART-C**. Marks are indicated against each question.

PART-A

- Q.1 a) Mention the advantages and disadvantages of oral and intravenous route of drug administration. [CO-3][L-1] **5**
b) Explain the indications and adverse effects of NSAIDs. [CO-2][L-2] **5**

PART-B

- Q.2 What is the difference between local and general anesthesia? Describe by giving suitable examples of drugs. [CO-4][L-5] **8**
- Q.3 Critically evaluate benzodiazepines and barbiturates with suitable examples of drugs in each class. [CO-5][L-4] **8**
- Q.4 How do antihistaminic drugs (H₁ blockers) act? Mention the indications and side effects. [CO-3][L-3] **8**
- Q.5 What are the indications and adverse effects of Quinolones? Mention the mechanism of action also. [CO-4][L-5] **8**
- Q.6 What is the management of bronchial asthma? Explain in relation to various classes of drugs. [CO-5][L-3] **8**
- Q.7 Write the management of organophosphates poisoning. [CO-3][L-4] **8**

PART-C

- Q.8 Critically evaluate various glucocorticoids. Mention the indications, contraindications and adverse effects of glucocorticoids. [CO-5][L-5] **15**
- Q.9 Explain various classes of antihypertensive drugs. Give suitable examples of drugs in each category. [CO-3][L-4] **15**
- Q.10 What is the treatment of peptic ulcer? Explain various classes of drugs with respect to their mechanism of action. [CO-6][L-3] **15**

Supplementary Examination, Dec. 2023

Bachelor of Physiotherapy - Second Year

ELECTRO THERAPY-II (BPT 203)

Time: 3 hrs.

Max Marks: **80**

No. of pages: 1

Note: Attempt **EIGHT** questions in all; **PART-A is compulsory**. Attempt any **FIVE** questions from **PART-B** and **TWO** questions from **PART-C**. Marks are indicated against each question.

PART-A

Q.1 Answer the following:

- a) Enumerate types of UVR lamps.
- b) Define Chronaxie.
- c) Define mono chromaticity.
- d) Full form of LASER.
- e) Difference between AC and DC current.

2×5

PART-B

Q.2 Explain the uses, indication and contraindications of IRR. Explain the production and sources of IRR. [CO-2][L-3] **8**

Q.3 What is short wave diathermy? Discuss the principle of short wave diathermy. [CO-5][L-4] **8**

Q.4 What is biofeedback? Explain its effects, indications and contra indications. [CO-3][L-3] **8**

Q.5 Discuss about the size of electrodes of short-wave diathermy. [CO-1][L-2] **8**

Q.6 Explain the physical effects and therapeutic uses of LASER. [CO4-][L-5] **8**

Q.7 What is ultrasound therapy? Discuss its indications and contraindications. [CO-6][L-4] **8**

PART-C

Q.8 Elaborate physiological effects of UVR? Explain in detail High pressure lamp and kromayer lamp with diagrams. [CO-2][L-5] **15**

Q.9 What is PUVA? Explain the technique of application with dosage. [CO-6][L-3] **15**

Q.10 Describe the principle and technique of surface electromyography practice in physiotherapy. [CO-5][L-2] **15**

Supplementary Examination, Dec. 2023

Bachelor of Physiotherapy — Second Year

EXERCISE THERAPY - II (BPT 204)

Time: 3 hrs.

Max Marks: **80**

No. of pages: 1

Note: Attempt **EIGHT** questions in all; **PART-A is compulsory**. Attempt any **FIVE** questions from **PART-B** and **TWO** questions from **PART-C**. Marks are indicated against each question.

PART-A.

- Q.1 a) Define 'hydrotherapy'. (CO-4, L2)
b) Define 'PNF'. (CO-2, L1)
c) Enlist the motor control theories. (CO-4, L3)
d) Shoe-off technique of measurement for axillary crutch. (CO-1, L5)
e) Circumductory gait. (CO-3, L4) **2×5**

PART-B

- Q.2 Classify motor skills. (CO-4, L2) **8**
Q.3 What is Tadasana and its benefit? (CO-6, L1) **8**
Q.4 Enumerate postural abnormalities in frontal plane and write any one in detail. (CO-2, L3) **8**
Q.5 Indications and contraindications for mobilization. (CO-3, L5) **8**
Q.6 Principles of hydrotherapy. (CO-4, L6) **8**
Q.7 Advantages of group therapy. (CO-3,L4) **8**

PART-C

- Q.8 Name the parts of Axillary crutch and write in detail about partial weight bearing walking gait pattern. (CO-2, L1) **15**
Q.9 Describe the technique of shoulder joint mobilization to improve abduction and internal rotation range. (CO-5, L3) **15**
Q.10 Discuss various types of breathing exercises. Write in detail about indications, effects and technique of diaphragmatic breathing exercise. (CO-2, L4) **15**

Supplementary Examination, Dec. 2023

Bachelor of Physiotherapy – Second Year

BIOMECHANICS (BPT 205)

Time: 3 hrs.

Max Marks: **80**

No. of pages: 1

Note: Attempt **EIGHT** questions in all; **PART-A is compulsory**. Attempt any **FIVE** questions from **PART-B** and **TWO** questions from **PART-C**. Marks are indicated against each question.

PART-A

Q.1 Answer the following:

(a) Describe lever and its type.

(b) Discuss kinematic chain exercises.

[CO-1,2][L-3] **5×2**

PART-B

Q.2 What is static and dynamic posture? Explain the factors responsible for static and dynamic balance. [CO-1][L-4] **8**

Q.3 What do you mean by length-tension and force-velocity relationship? How do they contribute to muscle strength? [CO-2,3][L-3] **8**

Q.4 Describe in detail about the biomechanics of talocrural joint.

[CO2,3][L-2] **8**

Q.5 Explain joint lubrication and its types. How does it affect the pathology of the joint?

[CO-4,5][L-3] **8**

Q.6 Discuss in details about intervertebral disc and its mechanics. Discuss the kinematics of L3-L4 movement including facet joint and intervertebral disc. [CO-6][L-5] **8**

Q.7 Discuss different prehensions and precision handling. Explain with important kinematic and kinetic events. [CO-1][L-4] **8**

PART-C

Q.8 Explain different phases of normal gait. Discuss the various determinants of gait.

[CO-5][L-5] **15**

Q.9 Write the biomechanics of glenohumeral and scapulothoracic joint. Explain scapulothoracic rhythm. Explain the pathomechanics of painful arc syndrome. [CO-3,6][L-6] **15**

Q.10 Describe patellofemoral joint. Explain the biomechanics of patellofemoral joint. Discuss the relation of Q-angle with patellofemoral joint during weight and non-weight bearing knee flexion and extension. [CO-4][L-6] **15**

Supplementary Examination, Dec. 2023
Bachelor of Physiotherapy – Second Year
SOCIOLOGY AND PSYCHOLOGY (BPT 206 (T))

Time: 3 hrs.

Max Marks: **80**

No. of pages: 1

Note: Attempt **EIGHT** questions in all; **PART-A is compulsory**. Attempt any **FIVE** questions from **PART-B** and **TWO** questions from **PART-C**. Marks are indicated against each question.

PART-A

Q.1 Answer the following:

- a) Explain problem of Juvenile delinquency. [CO-2, L2]
- b) Initiative of government to reduce beggary. [CO-2, L1]
- c) Explain modern trends in caste system. [CO-1, L3]
- d) Explain factors of poverty and how is it affecting the society. [CO-3, L4]
- e) Hippocrates classification for personality. [CO-4, L1] **2×5**

PART-B

- Q.2 Define 'learning' and types and theories of learning. [CO-3, L2] **8**
- Q.3 Define 'thinking'. Write above levels of thinking and types of thinking. [CO-6, L1] **8**
- Q.4 Define 'behavior'. What are the various types of behavior? Explain in detail. [CO-2, L3] **8**
- Q.5 Explain the role of urban and rural community in public health. [CO-3, L5] **8**
- Q.6 Explain social work in detail. [CO-4, L6] **8**
- Q.7 Explain personality disorders in detail. [CO-3, L4] **8**

PART-C

- Q.8 What is attitude? Explain its measurement and explain theories and factors in attitude change. [CO-4][L-5] **15**
- Q.9 Explain the role and types of guidance and counseling. [CO-2][L-4] **15**
- Q.10 Explain operant theory of conditioning by skinner. Also explain schedule of reinforcement. [CO-6][L-2] **15**

Supplementary Examination, Dec. 2023

Bachelor of Physiotherapy - Second Year

PATHOLOGY AND MICROBIOLOGY (BPT-201)

Time: 3 hrs.

Max Marks: **80**

No. of pages: 1

Note: Attempt **EIGHT** questions in all; **PART-A is compulsory**. Attempt any **FIVE** questions from **PART-B** and **TWO** questions from **PART-C**. Marks are indicated against each question.

PART-A

Q.1 Answer the following:

- a) Give four differences between healing by primary and secondary union. [CO-3][L-2]
- b) Write four differences between benign and malignant tumours. [CO-1][L-1]
- c) Define 'Gangrene' and name its types. [CO-4][L-3]
- d) Describe the growth curve of the bacteria. [CO-2][L-1]
- e) Describe bacterial capsule. [CO-1][L-2] **2×5**

PART-B

- Q.2 Tabulate the difference between 'active' and 'passive' immunity. [CO-2][L-3] **8**
- Q.3 Describe the moist heat method of sterilization. [CO-4][L-4] **8**
- Q.4 Describe in detail the type one hypersensitivity reaction. [CO-3][L-3] **8**
- Q.5 Define 'shock'. Discuss classification and stages of shock. [CO-3][L-4] **8**
- Q.6 Describe Hemophilia and von Willebrands disease. [CO-5][L-2] **8**
- Q.7 Define 'metastasis'. Discuss the routes of spread and its mechanism. [CO-2][L-3] **8**

PART-C

- Q.8 Draw the structure of Immunoglobulin and label its parts. Tabulate the differences between the classes of Immunoglobulins [CO-4][L-5] **15**
- Q.9 Describe in detail the laboratory diagnosis of pulmonary tuberculosis. [CO-3][L-3] **15**
- Q.10 Define and classify anaemia. Discuss Iron deficiency anaemia in detail. [CO-6][L-6] **15**

End Semester Examination, Dec. 2023

Bachelor of Physiotherapy – Fifth Semester

ORTHOPEDICS (BPT-DS-501)

Time: 3 hrs.

Max Marks: **100**

No. of pages: 1

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Marks are indicated against each question.

Q.1 Answer the following in brief:

- a) Define grades of meniscal tear. [CO-1][L-1]
- b) Write a short note on 'skeletal traction' [CO-2][L-1]
- c) Write short note on 'PPRP'. [CO-3][L-2]
- d) Define comminuted fracture. [CO-2][L-1]
- e) Describe the factors affecting fracture healing [CO-4][L-2]
- f) Give any 2 indications of screw fixation. [CO-2][L-2]
- g) What is phantom pain? [CO-3][L-1]
- h) Define pathological fracture [CO-1][L-1]
- i) What is subluxation? [CO-2][L-2]
- j) What is the ideal position of sling application for clavicle fracture? [CO-1][L-2]

2×10

PART-A

- Q.2 Elaborate the classification, surgical and treatment objectives and goals for fracture neck of femur for a male patient of 50 years of age. [CO-3,4][L-5] **20**
- Q.3 Define the Classification, Pathogenesis, Investigations, Differential Diagnosis, Complications and Management of spondylolisthesis. [CO-3][L-3] **20**
- Q.4 Discuss in detail the types of amputations. What are the associated complications and management of complications for below knee amputation? [CO-2][L-2] **20**

PART-B

- Q.5 Discuss the pathology, clinical features, examination and surgical management of rheumatoid arthritis. [CO-3][L-2] **20**
- Q.6 Define and classify fractures. Explain in detail the management of open fracture and closed fracture. [CO-2][L-3] **20**
- Q.7 Explain in details the indications, complications of discectomy, laminectomy and spinal fusion surgery. [CO-4][L-2] **20**

End Semester Examination, Dec. 2023
Bachelor of Physiotherapy – Seventh Semester
CARDIOPULMONARY AND CARDIOPULMONARY SURGERY
(BPT-DS-701)

Time: 3 hrs.

Max Marks: **100**

No. of pages: **1**

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Marks are indicated against each question.

- Q.1
- a) Enumerate TOF. [CO-5][L-3]
 - b) Differentiate between pneumonectomy and lobectomy [CO-2][L-2]
 - c) Define 'Eisenminger syndrome'. [CO-2][L-2]
 - d) What is Lung Abscess? [CO-1][L-2]
 - e) Discuss gold classification of COPD. [CO-4][L-4]
 - f) What is Inter aortic balloon counterpulsation? [CO-5][L-2]
 - g) Explain pan acinar and centrilobular emphysema. [CO-3][L-2]
 - h) Define in detail bronchiectasis. [CO-3][L-1]
 - i) Difference between emphysema and bronchitis. [CO-1][L-2]
 - j) What is orthopnea? [CO-2][L-2] **2×10**

PART-A

- Q.2 Explain pneumothorax along with clinical feature and management. [CO-3][L-4] **20**
- Q.3 Explain pneumonia with pathophysiology and Clinical features of the disease. [CO-4][L-3] **20**
- Q.4 Explain Heart failure along with Pathophysiology and Treatment. [CO-2][L-5] **20**

PART-B

- Q.5 Explain COPD along with Pathology and clinical features. [CO-3,4][L-3] **20**
- Q.6 Define valvotomy and explain different types of valves for valve replacement surgeries. [CO-2][L-4] **20**
- Q.7 Explain Bronchial asthma alongwith pathology, clinical features and treatment. [CO-3,4][L-3] **20**

End Semester Examination, Dec. 2023
Bachelor of Physiotherapy – Seventh Semester
CARDIOPULMONARY PHYSIOTHERAPY (BPT-DS-702)

Time: 3 hrs.

Max Marks: **100**

No. of pages: 1

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Marks are indicated against each question.

Q.1 Answer the following in brief:

- a) Enumerate differences between heterotropic and orthotropic heart transplantation. [CO-5][L-3]
- b) Enumerate and define PEP devices. [CO-2][L-2]
- c) Explain Sniffing Technique. [CO-2][L-2]
- d) What is Bronchopulmonary fistula? [CO-1][L-2]
- e) Discuss blue bloaters and pink puffers. [CO-4][L-4]
- f) Differentiate between 'open and closed' heart surgery. [CO-5][L-2]
- g) Explain percussion technique? [CO-3][L-2]
- h) Discuss physiotherapy in DVT. [CO-3][L-1]
- i) Explain thoracic expansion exercises.
- j) Enumerate bronchopulmonary segments. **2×10**

PART-A

Q.2 Explain technique for heart transplant. Also explain day wise protocol after surgery. [CO-3][L-4] **20**

20

Q.3 Explain breathing control techniques for emphysema along with all phases of active cycle of breathing techniques. [CO-4][L-3] **20**

20

Q.4 Explain pulmonary Rehab for Patient Suffering from Chronic bronchitis. Also explain phases of pulmonary Rehab. [CO-2][L-5] **20**

20

PART-B

Q.5 Explain AD techniques along with equipment and indications for a chronic bronchitis patient. [CO-3,4][L-3] **20**

Q.6 Explain the incision for lobectomy. Also mention the indications, clinical features and day wise PT protocol after lobectomy. [CO-2][L-4] **20**

Q.7 Explain chest PNF techniques. Emphasize on all the techniques along with methods of application. [CO-3,4][L-3] **20**

End Semester Examination, Dec. 2023
Bachelor of Physiotherapy – Seventh Semester
COMMUNITY BASED REHABILITATION (BPT-DS-703)

Time: 3 hrs

Max Marks: **100**

No. of pages: 1

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Marks are indicated against each question.

Q.1 Answer the following in brief:

2X10

- a) Define morbidity and mortality rate. [CO-2][L-2]
- b) Differentiate between community physiotherapy and private physotherapy practice. [CO-1][L-3]
- c) Explain role of social security in public health administration. [CO-3][L-4]
- d) Describe the concept of environmental hygiene in promotion of health. [CO-4][L-2]
- e) Define the process of urbanization. [CO-2][L-3]
- f) Explain health problems of vulnerable groups - pregnant and lactating women. [CO-4][L-5]
- g) Explain "Mental health". [CO-5][L-3]
- h) Define the objectives of national family planning. [CO-2][L-4]
- i) What is mental retardation? [CO-1][L-1]
- j) Explain health program for geriatrics care. [CO-3][L-2] **2×10**

PART-A

- Q.2 Elaborate the concept of community based rehabilitation. Write in detail about strategies adopted and various approaches for CBR implementation. [CO-4][L-3] **20**
- Q.3 Define "Demography". List all the social factors related to health and disease contributing to population dynamics. [CO-3][L-4] **20**
- Q.4 Discuss in detail about occupational health. Explain the prevention and hazards of occupational health conditions. List the measures for public health education in field of occupational health. [CO-5][L-4] **20**

PART-B

- Q.5 Define "Urbanization". Describe the role of rural and urban society and its impact on health and disease in society. [CO-4][L-2] **20**
- Q.6 Explain the concepts of health and diseases with reference to socio economic and cultural environment. [CO-3][L-1] **20**
- Q.7 Explain "Mental health programme". Also explain the role of physiotherapists in community aspects of mental health development from birth to adolescence stage. [CO-2][L-4] **20**

End Semester Examination, Dec. 2023
Bachelor of Physiotherapy – Seventh Semester
MARKETING IN HEALTH MANAGEMENT (BPT-DS-704)

Time: 3 hrs.

Max Marks: **50**

No. of pages: **1**

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Marks are indicated against each question.

Q.1 Write short notes on:

- a) What are types of marketing segmentation?
- b) Discuss the advantages of quality assurance in hospital.

5×2

PART-A

Q.2 What do you understand by distribution channels in marketing? Discuss the significance of the same. [CO-3][L-2] **10**

Q.3 What are the objectives of hospital management? Discuss its types and advantages. [CO-2,1][L-2] **10**

Q.4 Elaborate the aims and various types of consumer behavior. What is the importance of same for an organization? [CO-3][L-3] **10**

PART-B

Q.5 Discuss the importance and principles of administration and organization in context to physiotherapy. [CO-4][L-2] **10**

Q.6 What are the levels of medical care? Discuss the role of GDA in supporting departments of hospitals. [CO-2][L-4] **10**

Q.7 Discuss physiotherapy practice in India. Also elaborate the planning and designing of ancillary and medical services. [CO-3][L-2] **10**

End Semester Examination, Dec. 2023
 Bachelor of Physiotherapy – Seventh Semester
PLACEMENT PREPARATORY PROGRAM (CDC-BPT-411)

Time: 1½ hrs.

Max Marks: **50**

No. of pages: 6

Note: All questions are **compulsory**. Each question has **FOUR** options with **ONE** correct answer. Select the correct answer. All questions are of **ONE** mark each. There is no **NEGATIVE** marking. Mention the correct option for each question in the blank answer key given herein below. Calculator is not permitted.

1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
11.	12.	13.	14.	15.	16.	17.	18.	19.	20.
21.	22.	23.	24.	25.	26.	27.	28.	29.	30.
31.	32.	33.	34.	35.	36.	37.	38.	39.	40.
41.	42.	43.	44.	45.	46.	47.	48.	49.	50.

Directions: In the question a part of the sentence has been highlighted in bold. Alternatives of the highlighted part are given which may improve the construction of the sentence. Select the correct alternative.

- Q.1 Choose the INCORRECT option for: Tips for preparing self-introduction for an interview: [CO-1] [L-1]
 A) Collect all technical experience
 B) Hand written introduction to the interviewer
 C) Timely update your information
 D) Choose the experience you want to showcase
- Q.2 Choose the correct options for: "Mistake to be avoided in a cover letter" [CO-1] [L-1]
 A) Salary expectations B) Too much information
 C) Lies and Exaggerate D) All of above
- Q.3 Which option can help to highlight technical skills for an interviewee? [CO-1] [L-1]
 A) Personal details B) Internship
 C) Hobbies D) None of above
- Q.4 Why is education history important for an interviewer? [CO-1] [L-1]
 A) It is not important as it has already been mentioned in the portfolio
 B) It allows interviewer to formulate better decisions for candidate selection
 C) To set vision of the company
 D) All of above
- Q.5 Choose the DO for preparation of Self Introduction: [CO-1] [L-1]
 A) Focus on Technical skills
 B) Draft self-introduction a few days before the interview
 C) Highlight internship and projects
 D) All of above
- Q.6 Which one is the incorrect element for a cover letter? [CO-1] [L-1]
 A) Contact Person's Name, Title, Employer, and Address
 B) Salutation
 C) Opening Paragraph

D) Weaknesses

- Q.7 Which one is the correct element for a professional Self-Introduction? [CO-1] [L-1]
A) Online/offline certificates B) Curricular participation
C) Lab work D) All of above
- Q.8 Why is Clinic internship description important in Self introduction? [CO-1] [L-1]
A) It eliminates the need for motivation

B) It provides a clear direction and focus for essential skills for applied job
C) It guarantees immediate success
d) None of above
- Q.9 What is INCORRECT in Self introduction preparation? [CO-1] [L-1]
A) Highlight your technical skills B) Elaborate your Clinic training
C) Body language blunders D) All of above
- Q.10 What is the common mistake done by the candidates in Cover letter? [CO-1] [L-1]
A) Saying too much. B) Forgetting to proofread
C) Bragging D) All of above
- Q.11 For which of the following is applicable: "a document of motivation is a letter of introduction attached to or accompanying another document such as a curriculum vitae."
[CO-1] [L-1]
A) Application for leave B) Cover Letter
C) Resume D) Bio Data
- Q.12 The statement is true for which of the following: "direct nursing care experiences with patients or clients, or clinical simulation of such experiences, which offer the student the opportunity to integrate, apply, and refine specific skills and abilities based on theoretical concepts and scientific principles."
[CO-1] [L-1]
A) Certificate B) Cover Letter
C) Clinic Training D) Project
- Q.13 What is an NOT true for interview portfolio? [CO-1] [L-1]
A) serve as visual aids that add credibility and helps set you apart from other candidates
B) is a negotiated and typically legally binding arrangement document between parties as to a course of action for contract.
C) is a collection of your best work and illustrates how you've applied your relevant skills, education and experience.
D) organizes your academic and professional documentation and credentials.
- Q.14 Choose the best mentioned for "A interview portfolio can be handwritten" [CO-1] [L-1]
A) True B) False
C) Depends on the situation D) Cover letter is not required
- Q.15 What must be included in an interview portfolio? [CO-1] [L-1]
A) Personal Profile B) Resume
C) Cover letter D) All of the above
- Q.16 Why self-branding is important during the interview? [CO-2] [L-2]

- A) Make a great impression
- B) To become famous
- C) To make more friends
- D) None of above

- Q.17 Choose the correct option for: How to attend a video interview? [CO-2] [L-2]
A) Make eye contact with the camera
B) Sitting in a messy room
C) Leaving inappropriate tabs or apps open when screen-sharing
D) Turn off your camera
- Q.18 For which of the following is applicable for: "Don't use an unprofessional background"
[CO-2] [L-2]
A) Telephonic interview- B) Personal interview
- C) Video interview
- D) Group interview
- Q.19 What is video interview? [CO-2] [L-2]
A) usually a face-to-face meeting
B) A group interview consists of a single interviewer
C) interviewer or a panel of interviewers ask questions through a live video
D) to screen candidates telephonically
- Q.20 Choose the CORRECT option for: What is the DO for telephonic interview? [CO-2] [L-2]
A) Have your CV/application with you – The interviewer will probably have a copy of this in front of them. ...
B) Be prepared - Prepare like it is a face-to-face interview
C) Charge your phone!
D) All of above
- Q.21 Choose the correct option for: Telephonic interview etiquette is to..... [CO-2] [L-2]
A) use speaker phone- B) speak in a private
- C) speak over the interviewer
- D) show poor behavior
- Q.22 Why are telephone greetings so important? [CO-2] [L-2]
A) It is the first impression.- B) It shows that you are happy.
- C) It shows that you are polite
- D) Both A & C
- Q.23 What is important about your voice on telephonic interview? [CO-2] [L-2]
A) The volume.- B) The speed.
- C) The tone.
- D) All of the above
- Q.24 Why do company arrange telephonic interview? [CO-2] [L-2]
A) They don't want to hire candidate
B) To check for basic requirements and gauge the interest level of candidates.
C) Company need to complete their calling target
D) All of above
- Q.25 When you answer the phone, you need to say your name and...? [CO-2] [L-2]
A) The name of the company.- B) "How are you today?"
- C) Hello!
- D) None of above
- Q.26 What should you never tell during an interview? [CO-3] [L-3]
A) Your salary requirement- B) What job you prefer

- C) Cut the call and continue the interview
- D) Silent your phone before the interview and check your phone after the interview

- Q.35 What would be the BEST answer when the interviewer asks what your biggest STRENGTH is? [CO-3] [L-3]
- A) My biggest strength is my patience and dedication.
 - B) My biggest strength is being pretty chill when things go crazy.
 - C) My biggest strength is telling people off when I disagree with what they are saying.
 - D) My biggest strength is that I am very good at lifting heavy things.
- Q.36 What would be the BEST answer when the interviewer asks what your biggest WEAKNESS is? [CO-3] [L-3]
- A) My biggest weakness is that I'm actually very physically weak. Lifting things is hard.
 - B) My biggest weakness is that I tend to do too much. I have to remind myself to share responsibilities.
 - C) My biggest weakness is what I am so unorganized)I can't keep track of anything.
 - D) My biggest weakness is that I love to sleep and sometimes I can't stay awake.
- Q.37 What do crossed arms often indicate in body language? [CO-3] [L-3]
- A) Confidence
 - B) Openness
 - C) Defensiveness
 - D) Eagerness
- Q.38 A firm handshake is often associated with which of the following traits? [CO-3] [L-3]
- A) Nervousness
 - B) Confidence
 - C) Disinterest
 - D) Deception
- Q.39 Mirroring in body language refers to: [CO-3] [L-3]
- A) Copying someone's body language to build rapport
 - B) Standing in front of a mirror and practicing facial expressions
 - C) Making identical hand gestures during a conversation
 - D) Changing body language to convey a different message
- Q.40 What does a genuine smile usually involve? [CO-3] [L-3]
- A) Only the lips
 - B) The lips and eyes
 - C) Only the eyes
 - D) The forehead and cheeks
- Q.41 If you are going to an interview at an office, how should you dress? [CO-3] [L-3]
- A) A hat and sweatshirt
 - B) A tuxedo or gown
 - C) My favourite jeans
 - D) Dress pants, a collared shirt, and a jacket
- Q.42 When you walk into your interview, what is the first thing you should do? [CO-3] [L-3]
- A) Directly sit down and wait to be spoken to
 - B) Look at your phone to make sure you are on time
 - C) Make eye contact, shake hands and greet the interviewer
 - D) Hug the interviewers and thank them
- Q.43 It is appropriate and okay to wear a spaghetti strap blouse at a "business casual" event. [CO-3] [L-3]
- A) True
 - B) False
 - C) Depends on business event
 - D) All of above

- Q.44 Which of the following articles of clothing counts as casual wear? [CO-3] [L-3]
A) Bowtie B) Turtleneck
C) Sports Coat D) None of the above
- Q.45 What dress code fits in this description; attire wore in a corporate environment, usually for businessmen/women in an office setting. [CO-3] [L-3]
A) Casual B) Semi Casual
C) Formal D) None of the above
- Q.46 What is body language? [CO-3] [L-3]
A) Communication using only facial expressions
B) Communication using written language
C) Nonverbal communication through gestures, facial expressions, and posture
D) Verbal communication using words and sentences
- Q.47 Complete the statement with the correct option for: "When going to an interview," [CO-3] [L-3]
A) A man should wear a suit and tie. B) Males/females should wear dress shoes.
C) Woman should wear a pantsuit D) All of above
- Q.48 What are the four types of dress codes for the workplace? [CO-3] [L-3]
A) Casual, Khaki and Polo shirt, Formal, and Business Professional
B) Smart-Business File, Business Professional, Semi-Formal, and Super Formal
C) Casual, Business Casual, Business Professional. and Formal
D) Formal, Business Casual, Jeans and T-shirt, and Interview Attire
- Q.49 Which part of the body is one of the most expressive in terms of showing emotions? [CO-3] [L-3]
A) Feet B) Hands
C) Eyes D) Ears
- Q.50 Complete the sentence: Leaning forward during a conversation typically indicates..... [CO-3] [L-3]
A) Boredom B) Aggression
C) Interest or engagement D) Shyness

End Semester Examination, Dec. 2023

B. Sc. (FST)/ B. Sc. (Nutrition & Dietetics) – First Semester COMMUNICATION SKILLS/PROFESSIONAL COMMUNICATION (CDC-FST-111/CDC-ND-111)

Time: 1½ hrs.

Max Marks: **50**

No. of pages: 4

Note: All questions are compulsory. Each question has **FOUR** options with **ONE** correct answer. Select the correct answer. All questions are of **ONE** mark each. There is no **NEGATIVE** marking. Mention the correct option for each question in the blank answer key given herein below. Calculator is not permitted.

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31.	32.	33.	34.	35.	36.	37.	38.	39.	40.
41.	42.	43.	44.	45.	46.	47.	48.	49.	50.

- Q.1 What is an attitude? [CO-1][L-1]
a) Physical Posture
b) A mental state of readiness to react to a certain object or idea
c) A type of clothing
d) A form of communication
- Q.2 Attitudes are typically formed through: [CO-1][L-2]
a) Genetic inheritance
b) Socialization and personal experiences
c) Political affiliation
d) Random chance
- Q.3 Prejudice is an example of which component of attitude? [CO-1][L-2]
a) Affect
b) Behavior
c) Cognition
d) None
- Q.4 Which theory suggests that people are motivated to maintain consistency among their attitudes and behaviors? [CO-1][L-2]
a) Social identity theory
b) Cognitive dissonance theory
c) Elaboration likelihood model
d) Self-perception theory
- Q.5 Which of the following is an example of a behavioral component of attitude? [CO-1][L-2]
a) Believing that exercise is important for health
b) Feeling happy when exercising
c) Going for a run every morning
d) Discussing the benefits of exercise with a friend
- Q.6 Which of the following best describes an attitude? [CO-1][L-2]
a) An observable action or response to a situation.
b) A positive or negative evaluation of something.
c) A behavior that is consistent across all situations.
d) A reaction that is completely unrelated to one's beliefs.
- Q.7 Which of the following best defines cultural diversity? [CO-1][L-1]
a) The presence of people from different cultural backgrounds within a group or organization.
b) The dominance of one culture over all others in a group or organization.
c) The exclusion of people from certain cultures in a group or organization.
d) The uniformity of culture within a group or organization.
- Q.8 What is the primary goal of diversity and inclusion initiatives in organizations? [CO-1][L-2]
a) To discriminate against certain groups.
b) To maintain the status quo.
c) To create a more equitable and inclusive workplace.
d) To encourage groupthink.

- Q.9 What is the danger of relying on stereotypes when making judgments about people? [CO-1][L-2]
- It fosters open-mindedness and understanding
 - It leads to fair and accurate assessments
 - It can result in unfair and biased decisions
 - It promotes inclusivity and equality
- Q.10 Which strategy can help combat stereotyping? [CO-1][L-2]
- Increasing exposure to diverse perspectives
 - Reinforcing existing stereotypes through media
 - Avoiding any discussions about differences
 - Promoting conformity to societal norms
- Q.11 In many countries, which of the following is NOT a legal protection for LGBTQAI+ individuals? [CO-1][L-1]
- Marriage equality
 - Hate crime laws
 - Employment discrimination
 - Conversion therapy support
- Q.12 In many countries, which of the following is a common obstacle to LGBTQAI+ rights and acceptance? [CO-1][L-2]
- Widespread legal protections
 - Strong societal support
 - Stigmatization and discrimination
 - All of the above
- Q.13 Which of the following strategies can help combat gender discrimination in society? [CO-1][L-2]
- Promoting gender stereotypes
 - Providing equal opportunities and access to education and employment
 - Encouraging workplace harassment
 - Excluding certain genders from leadership roles
- Q.14 Which of the following is an example of gender discrimination in the workplace? [CO-1][L-2]
- Providing equal pay for equal work
 - Promoting employees based on their qualifications
 - Promoting only men to managerial positions
 - Offering flexible work arrangements for all employees
- Q.15 What is courtesy? [CO-1][L-2]
- A formal set of rules for behaviour
 - Polite and considerate behavior towards others
 - Being overly aggressive and assertive
 - Ignoring social norms
- Q.16 Fill in the blank with the correct preposition: "The painting is a reflection _____ the artist's emotions." [CO-2][L-3]
- of
 - from
 - over
 - without
- Q.17 Select the sentence with the correct preposition usage: [CO-2][L-3]
- She parked her car beside the building.
 - She parked her car below the building.
 - She parked her car against the building.
 - She parked her car above the building.
- Q.18 Fill in the blank with the correct article: "I'm thinking of getting _____ master's degree in computer science." [CO-2][L-3]
- a
 - an
 - the
 - none
- Q.19 Select the appropriate article for the blank: "I was intrigued by _____ idea of time travel." [CO-2][L-3]
- a
 - an
 - the
 - none
- Q.20 Which sentence correctly uses the future perfect continuous tense? [CO-2][L-3]
- She will have been dancing for two hours by then.
 - She will be dancing for two hours by then.
 - She has been dancing for two hours by then.

- d) She will have dancing for two hours by then.
- Q.21 What is the correct form of the verb in the future continuous tense for the pronoun "I"? [CO-2][L-3]
 a) will be run b) will running c) will be running d) will run
- Q.22 Which of the following sentences uses the conditional perfect tense correctly? [CO-2][L-3]
 a) If she would have gone, she will have met him.
 b) If she went, she would have met him.
 c) If she goes, she will have met him.
 d) If she goes, she would have met him.
- Q.23 Choose the sentence with the accurate subject-verb agreement: [CO-2][L-3]
 a) The list of ingredients for the recipe is long.
 b) Some of the data were missing from the report.
 c) Either John or his friends were responsible for the mess.
 d) The collection of antique cars are worth a fortune.
- Q.24 Identify the sentence with the INCORRECT subject-verb agreement: [CO-2][L-3]
 a) The group of musicians play beautifully.
 b) Every student and teacher was present at the meeting.
 c) The collection of stamps are impressive.
 d) Either the cat or the dog have been causing trouble.
- Q.25 Choose the sentence with the correct subject-verb agreement: [CO-2][L-3]
 a) There is a few apples left in the basket.
 b) Neither of the options were suitable for me.
 c) The pair of shoes was missing.
 d) Each of the students have completed their homework.
- Q.26 Choose the adverb that correctly completes the sentence: "She spoke so _____ that I could barely hear her." [CO-2][L-3]
 a) Softly b) Soft c) Soften d) Softest
- Q.27 Identify the adverb in the sentence: "The cat stealthily crept up on its prey." [CO-2][L-3]
 a) The b) Stealthily c) Cat d) Prey
- Q.28 Which adverb is used to emphasize a point or add emphasis to a sentence? [CO-2][L-3]
 a) Actually b) Quietly c) There d) Maybe
- Q.29 What is the adjective form of the noun "obstacle"? [CO-2][L-3]
 a) Obstructional b) Obstacleful c) Obstantant d) Obstinate
- Q.30 Which adjective best describes something that is capable of causing harm or damage? [CO-2][L-3]
 a) Harmless b) Beneficial c) Destructive d) Constructive
- Q.31 What is intonation in linguistics? [CO-2][L-1]
 a) The pitch, melody, and rhythm of speech
 b) The study of written language
 c) The use of gestures in communication
 d) The speed of speech delivery
- Q.32 Which of the following is NOT a component of intonation? [CO-2][L-1]
 a) Pitch b) Volume c) Stress d) Rhythm
- Q.33 Which statement is true about the role of intonation in speech? [CO-2][L-2]
 a) It has no impact on the meaning of a sentence.
 b) It can change the meaning or interpretation of a sentence.
 c) It only affects the volume of speech.
 d) It is the same in all languages.
- Q.34 Which of the following is NOT a common type of tone in language? [CO-2][L-1]
 a) Formal b) Informal c) Monotone d) Humorous
- Q.35 When a speaker uses a persuasive tone, what is their primary goal? [CO-2][L-2]
 a) To entertain the audience
 b) To inform the audience

- c) To convince or influence the audience
d) To confuse the audience
- Q.36 Which of the following is NOT a part of a syllable in terms of pronunciation? [CO-2][L-1]
a) Vowel b) Consonant c) Tense d) Onset
- Q.37 Which of the following factors can affect pronunciation? [CO-2][L-1]
a) Gender b) Age c) Dialect d) All of the above
- Q.38 Which of the following is an example of a homophone? [CO-2][L-1]
a) Two different words with the same spelling
b) Two different words with the same meaning
c) Two different words with different meanings and spellings
d) Two different words with the same pronunciation
- Q.39 What is the term for the study of the sounds of human speech and their production, transmission, and reception? [CO-2][L-1]
a) Grammar b) Phonetics c) Syntax d) Semantics
- Q.40 Which of the following is NOT a barrier to effective listening? [CO-3][L2]
a) Noise b) Prejudice c) Concentration d) Distractions
- Q.41 Which of the following statements is true about effective listening skills? [CO-3][L-2]
a) Effective listening skills are innate and cannot be developed.
b) Effective listening is solely about hearing words and not understanding emotions.
c) Effective listening skills can be improved through practice and conscious effort.
d) Effective listening requires constant talking to keep the conversation going.
- Q.42 Select the best approach for handling a disagreement during a conversation: [CO-3][L-2]
a) Interrupt the speaker and assert your viewpoint
b) Avoid the topic altogether
c) Listen actively, seek to understand, and then respond respectfully
d) Agree with everything the speaker says to avoid conflict
- Q.43 Which of the following is an important aspect of vocal variety in effective speaking? [CO-3][L-2]
a) Speaking in a monotone voice
b) Using the same volume throughout the speech
c) Varying pitch, tone, and pace for emphasis
d) Speaking loudly at all times
- Q.44 What does it mean to "know your audience" when preparing a speech? [CO-3][L-2]
a) Choosing a topic you are passionate about
b) Tailoring your message to the interests and needs of your listeners
c) Speaking in a foreign language to challenge the audience
d) Ignoring the preferences of the audience
- Q.45 Which of the following is an effective technique to engage the audience during a speech? [CO-3][L-2]
a) Reading the entire speech from a script
b) Speaking in a monotone voice
c) Asking questions, telling stories, or using humor
d) Avoiding any pauses or breaks in speech
- Q.46 What is the first step in the process of effective reading comprehension? [CO-3][L-2]
a) Skimming b) Scanning c) Previewing d) Deep reading

Read the below passage and answer questions (Q.47-Q.50) based on it: [CO-3][L-3]
Climate Change and Its Effects

Climate change is a pressing global issue that has garnered significant attention in recent years. It refers to long-term alterations in temperature and weather patterns on Earth. These changes are primarily driven by human activities, including the burning of fossil fuels, deforestation, and industrial processes. The consequences of climate change are far-reaching and affect various aspects of our environment and society.

One of the most visible effects of climate change is the rise in global temperatures. Over the past century, the Earth's average temperature has increased by approximately 1.2 degrees Celsius. This may seem like a small change, but it has a profound impact on the planet. Rising temperatures lead to the melting of polar ice caps and glaciers, contributing to sea level rise. This, in turn, threatens coastal communities and ecosystems.

- Q.47 What is the primary cause of climate change? [CO-3] [L-3]
a) Natural weather patterns
b) Human activities
c) Solar radiation
d) Volcanic eruptions
- Q.48 How has the Earth's average temperature changed over the past century? [CO-3] [L-3]
a) It has decreased by 1.2 degrees Celsius
b) It has remained constant
c) It has increased by about 1.2 degrees Celsius
d) It has increased by about 5 degrees Celsius
- Q.49 Which word in the paragraph is a synonym of 'gathered'? [CO-3] [L-3]
a) Alterations b) Garnered c) Aspects d) Profound
- Q.50 Which word in the paragraph is an antonym of 'negligible'? [CO-3] [L-3]
a) Alterations b) Garnered c) Aspects d) Profound

End Semester Examination, Dec. 2023

B. Sc. (Nutrition & Dietetics) / B. Sc. (FST) – Third Semester

PROFESSIONAL COMPETENCY ENHANCEMENT-I

(CDC-ND-211/CDC-FST-211)

Time: 1½ hrs.

Max Marks: **50**

No. of pages: 5

Note: All questions are **compulsory**. Each question has **FOUR** options with **ONE** correct answer. Select the correct answer. All questions are of **ONE** mark each. There is no **NEGATIVE** marking. Mention the correct option for each question in the blank answer key given herein below. Calculator is not permitted.

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31.	32.	33.	34.	35.	36.	37.	38.	39.	40.
41.	42.	43.	44.	45.	46.	47.	48.	49.	50.

Directions (Q.1 to Q.16): Select the correct option from the following: [CO1][L2]

- Q.1 When dealing with a workplace conflict, which of the following is an effective communication skill?
a) Avoid listening to the other party's perspective
b) Use "I" statements to express your feelings and needs
c) Interrupt the other person to make your point
d) Respond with aggression to assert dominance
- Q.2 Which conflict resolution style involves giving in to the other party's desires and concerns?
a) Collaboration b). Avoidance c) Accommodation d) Compromise
- Q.3 Which of the following is an essential component of conflict resolution?
a) Assigning blame b) Ignoring the issue
c) Understanding the underlying issues d) Avoiding communication
- Q.4 What is an essential communication skill for effective conflict management?
a) Interrupting the other person to assert your viewpoint
b) Avoiding eye contact during discussions
c) Active listening to understand the other party's perspective
d) Responding with hostility to establish dominance
- Q.5 When should you seek professional help or mediation for workplace conflicts?
a) As soon as any conflict arises
b) Only when legal action is imminent
c) When conflicts cannot be resolved internally
d) Never, as it's a sign of weakness
- Q.6 What is the potential benefit of resolving workplace conflicts effectively?
a) Decreased job satisfaction
b) Lower productivity
c) Improved team morale and collaboration
d) Increased turnover
- Q.7 How can healthcare professionals follow up with patients to strengthen rapport?
a) Avoid any further contact to maintain boundaries
b) Conduct regular follow-up visits to check on their health
c) Only follow up in cases of critical medical conditions
d) Send generic, automated messages
- Q.8 How should healthcare professionals handle patient complaints or concerns to build rapport?
a) Ignore complaints to avoid conflict
b) Listen attentively, empathize, and seek solutions
c) Respond defensively and assign blame
d) Disregard patient feedback

- Q.9 What is the role of nonverbal communication in patient rapport building?
- a) It is irrelevant in healthcare settings
 - b) It can help convey empathy and understanding
 - c) It should be avoided to maintain professionalism
 - d) It should be used exclusively for patient diagnosis
- Q.10 What is the significance of maintaining patient confidentiality in healthcare rapport building?
- a) It is not necessary, as patients don't expect confidentiality
 - b) It builds trust and demonstrates respect for privacy
 - c) It delays medical treatment and diagnosis
 - d) It allows sharing patient information with colleagues
- Q.11 How can active listening contribute to building rapport with patients?
- a) By interrupting patients to speed up consultations
 - b) By demonstrating genuine interest and concern
 - c) By avoiding eye contact to respect patients' privacy
 - d) By using medical terminology to establish expertise
- Q.12 Why is a shared vision and common goals important for team cohesion?
- a) To create internal competition and rivalry among team members
 - b) To promote individualism within the team
 - c) To align team efforts toward a common purpose and direction
 - d) To discourage team members from working together
- Q.13 How can teams utilize constructive feedback to enhance cohesion?
- a) By avoiding feedback to prevent conflicts
 - b) By providing only negative feedback to motivate team members
 - c) By seeking and giving feedback to improve teamwork and team dynamics
 - d) By criticizing team members in public settings
- Q.14 What is the significance of role clarity within a cohesive team?
- a) It encourages team members to take on multiple roles simultaneously
 - b) It fosters ambiguity and confusion about responsibilities
 - c) It ensures that each team member understands their roles and responsibilities
 - d) It discourages team members from taking on any responsibilities
- Q.15 How can team leaders promote inclusivity within their teams?
- a) By favoring certain team members over others
 - b) By discouraging team meetings and interactions
 - c) By acknowledging and valuing the contributions of all team members
 - d) By focusing solely on individual achievements
- Q.16 How does customer service contribute to the overall reputation of nutrition and dietetics professionals and practices?
- a) It has no impact on reputation.
 - b) It can lead to a positive reputation and attract more clients.
 - c) It primarily benefits individual professionals.
 - d) It discourages clients from seeking dietary advice.
- Q.17 What role does personalize dietary planning play in nutrition and dietetics customer service?
- a) It discourages clients from seeking dietary guidance.
 - b) It prioritizes generic dietary recommendations for all clients.
 - c) It aligns dietary efforts with individual client needs and preferences.
 - d) It simplifies the professionals' workload.
- Q.18 How does customer service contribute to the overall reputation of food, science and technology professionals?
- a) It has no impact on reputation.
 - b) It can lead to a positive reputation and attract more clients.
 - c) It primarily benefits individual professionals.
 - d) It discourages clients from seeking dietary advice.

- Q.19 Why is exceptional customer service crucial for nutrition and dietetics professionals?
- It primarily benefits the professionals themselves.
 - It helps in charging higher fees for services.
 - It ensures client satisfaction and compliance with dietary recommendations.
 - It reduces the need for personalized nutrition plans.
- Q.20 How can healthcare professionals handle patient complaints or concerns effectively to maintain good customer service?
- By ignoring complaints to prevent conflicts
 - By responding defensively and assigning blame to patients
 - By listening attentively, empathizing, and seeking solutions
 - By avoiding any communication with the complaining patient
- Q.21 What is the significance of a patient-centered approach in healthcare customer service?
- It leads to higher healthcare costs.
 - It focuses solely on the healthcare provider's convenience.
 - It aligns healthcare efforts with patient needs and preferences.
 - It discourages patient feedback and involvement
- Q.22 How does effective communication contribute to excellent customer service in healthcare?
- It leads to patient confusion and misunderstanding.
 - It increases patient satisfaction and trust in healthcare professionals.
 - It discourages patients from asking questions.
 - It delays the delivery of medical care.
- Q.23 Why is customer service important for professionals in the healthcare sector?
- It helps professionals compete with other healthcare providers.
 - It ensures that patients receive medical treatment promptly.
 - It enhances patient satisfaction, trust, and overall care quality.
 - It reduces the workload of healthcare professionals.
- Q.24 How does good customer service impact a company's reputation?
- It has no impact on reputation.
 - It can lead to a positive reputation and attract more customers.
 - It primarily benefits the company's employees.
 - It discourages customers from engaging with the company.
- Q.25 What is the role of empathy in customer service?
- To avoid addressing customers' emotions
 - To demonstrate indifference to customers' concerns
 - To understand and share customers' feelings and experiences
 - To establish dominance over customers
- Q.26 Why is consistency important in customer service?
- It confuses customers and leads to dissatisfaction.
 - It creates a chaotic and unpredictable service experience.
 - It ensures that customers receive the same level of service every time.
 - It encourages customer complaints.
- Q.27 How can effective problem-solving skills benefit customer service interactions?
- By avoiding customer complaints altogether
 - By preventing customers from expressing their concerns
 - By resolving customer issues and improving satisfaction
 - By blaming customers for their problems
- Q.28 Which of the following statements best reflects the attitude of an adaptable employee?
- "I prefer to do things the way I've always done them."
 - "I embrace change and view challenges as opportunities for growth."
 - "I avoid any tasks that require learning new skills."
 - "I expect everything to remain the same in my job."

- Q.29 How does an adaptable employee react to setbacks or failures?
- a) By blaming others and refusing to take responsibility
 - b) By giving up and quitting the job
 - c) By learning from mistakes and finding alternative solutions
 - d) By avoiding any challenging tasks
- Q.30 What does adaptability in the workplace refer to?
- a) Sticking to traditional methods and routines
 - b) The ability to adjust to new situations and changes effectively
 - c) Resisting any form of change
 - d) Avoiding any challenges or obstacles at work
- Q.31 How can an employee demonstrate adaptability when faced with a change in their job role?
- a) By refusing to accept the new responsibilities
 - b) By requesting to be exempt from the change
 - c) By seeking training and proactively learning the required skills
 - d) By complaining about the change to coworkers
- Q.32 In the workplace, what is one of the primary ways employees can demonstrate active listening?
- a) By constantly interrupting others to share their own opinions
 - b) By providing solutions before fully understanding the issues
 - c) By maintaining eye contact, asking clarifying questions, and summarizing key points
 - d) By avoiding all forms of communication
- Q.33 What potential benefit can active listening have for customer service professionals?
- a) Decreased customer satisfaction
 - b) Increased customer complaints
 - c) Improved customer relationships and problem resolution
 - d) Higher employee turnover
- Q.34 How does active listening contribute to resolving conflicts in the workplace?
- a) By escalating conflicts and making them worse
 - b) By avoiding conflicts altogether
 - c) By facilitating open communication and finding mutually acceptable solutions
 - d) By assigning blame to one party
- Q.35 Why is it important to seek feedback from others during problem-solving?
- a) To avoid any external input and maintain control
 - b) To increase the complexity of the problem
 - c) To gain diverse perspectives and identify blind spots
 - d) To discourage collaboration and teamwork
- Q.36 What is the first step in the problem-solving process?
- a) Implementing a solution
 - b) Identifying the problem
 - c) Assigning blame
 - d) Ignoring the problem
- Q.37 Which of the following is a key component of effective problem-solving?
- a) Avoiding any collaboration with others
 - b) Relying solely on personal assumptions
 - c) Gathering relevant information and data
 - d) Ignoring potential solutions
- Q.38 In self-branding, what should early career professionals aim to communicate to others?
- a) That they have no specific skills or expertise
 - b) Their unique value, skills, and what sets them apart from others
 - c) That they are exactly like everyone else in their field
 - d) That they are not interested in professional development

- Q.39 What is the significance of consistency in self-branding?
- To change one's personal brand frequently to appear adaptable
 - To create confusion among colleagues and peers
 - To maintain a clear and recognizable professional image over time
 - To avoid any personal development and growth
- Q.40 Which of the following is a key element of self-branding?
- Avoiding any online presence or social media activity
 - Consistently showcasing your skills, values, and strengths
 - Keeping your achievements and abilities a secret
 - Emulating the branding of others in your field
- Q.41 Which one of the following involves how we arrange personal space and what we arrange in it ?
- Kinesics
 - Proxemics
 - Time language
 - Paralanguage
- Q.42 What is the way individuals interpret the use of time?
- Chronemics
 - Chremetics
 - Chromatics
 - Timnomatics
- Q.43 Which of the following are the body parts especially arms, legs, hands and head convey meaning.
- Gestures
 - Proxemics
 - Time language
 - Paralanguage
- Q.44. When two people stand very close to each other during a conversation, which proxemic zone are they likely in?
- Personal distance
 - Intimate distance
 - Social distance
 - Public distance
- Q.45 What is one advantage of using virtual interviews for both employers and candidates?
- Greater difficulty in assessing a candidate's qualifications
 - Reduced flexibility in scheduling interviews
 - Increased travel expenses for candidates
 - Time and cost savings for both parties
- Q.46 In a virtual interview, how should you approach non-verbal communication, such as gestures and facial expressions?
- Avoid all forms of non-verbal communication
 - Be natural and use non-verbal cues to express yourself professionally
 - Exaggerate your gestures and facial expressions to stand out
 - Keep your video off to avoid non-verbal communication
- Q.47 What should you do if technical issues arise during a virtual interview?
- Ignore the issues and continue the interview
 - Politely address the issues, request a brief pause, and work to resolve them
 - Immediately end the interview and reschedule
 - Blame the issues on the interviewer
- Q.48 Which of the following is a common mistake to avoid during a virtual interview?
- Dressing casually because it's a virtual meeting
 - Asking questions about the company and role
 - Muting your microphone when not speaking to reduce background noise
 - Providing concise and clear responses to questions
- Q.49 Which of the following is a common mistake to avoid when creating a resume?
- Including personal information like your age, marital status, or social security number
 - Using a generic resume for all job applications without customization
 - Omitting contact information to maintain privacy
 - Providing excessive detail about unrelated part-time job
- Q.50 When tailoring your resume for a specific job application, what should you emphasize?
- Your personal life story
 - General skills and experiences unrelated to the job
 - Relevant qualifications, experiences, and keywords from the job posting
 - Your salary expectations

End Semester Examination, Dec. 2023
M. Sc. (Nutrition & Dietetics) – First Semester
PROFESSIONAL COMMUNICATION-I (CDC-ND-511)

Time: 1½ hrs.

Max Marks: **50**

No. of pages: 6

Note: All questions are **compulsory**. Each question has **FOUR** options with **ONE** correct answer. Select the correct answer. All questions are of **ONE** mark each. There is no **NEGATIVE** marking. Mention the correct option for each question in the blank answer key given herein below. Calculator is not permitted.

1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
11.	12.	13.	14.	15.	16.	17.	18.	19.	20.
21.	22.	23.	24.	25.	26.	27.	28.	29.	30.
31.	32.	33.	34.	35.	36.	37.	38.	39.	40.
41.	42.	43.	44.	45.	46.	47.	48.	49.	50.

- Q.1 What is the primary goal of feedback in the context of professional communication?
 [CO-1][L-1]
 a) To criticize and blame
 b) To praise excessively
 c) To provide constructive input for improvement
 d) To interrupt the process of communication
- Q.2 Which communication barrier relates to making assumptions about others based on stereotypes?
 [CO-1][L-1]
 a) Physical barriers
 b) Cultural barriers
 c) Psychological barriers
 d) Language barriers
- Q.3 When should you use active listening in a professional communication setting?
 [CO-1][L-1]
 a) When one has to make an important point.
 b) In order to dominate a particular conversation.
 c) For the purpose of establishing control.
 d) In order to understand the speaker's perspective.
- Q.4 Which of the following is an example of formal communication in a workplace?
 [CO-1][L-1]
 a) Chatting with your co-workers during lunch hour
 b) Sending a memo to the employees
 c) Texting a colleague about a project.
 d) Attending an office party.
- Q.5 Which communication channel or medium is most suitable for conveying complex technical information?
 [CO-1][L-1]
 a) Face-to-face meeting
 b) Text message
 c) Phone call
 d) Email
- Q.6 In a formal business setting, what is the most appropriate way to greet someone you're meeting for the first time?
 [CO-1][L-2]
 a) Hi! Nice to meet you!
 b) Hey, what's up?
 c) Hello, my name is (your name)
 d) None of these
- Q.7 When introducing yourself in a professional context, you should include: [CO-1][L-2]
 a) Your hobbies and interests
 b) Your family background
 c) Your academic credentials
 d) Your social habits.
- Q.8 Choose the correct set of options for the following. In a multicultural workplace, it's

essential to be mindful of:

[CO-1][L-2]

- i) Only using one's native language
- ii) Avoiding cultural sensitivity
- iii) Being open to different customs and greetings.
- iv) Showing mutual respect for different cultures.

- a) 1 & 2 b) 1 & 3 c) 3 & 4 d) 2 & 3

Q.9 Choose the correct set of options for the following. When asking for permission to take time off from work, one should: [CO-1][L-2]

- a) Not bother asking anyone and take time off whenever required
- b) Sending an email without stating a reason.
- c) Inform your supervisor after the leave has been taken.
- d) Request time off in advance and state a reason.

Q.10 Which of the following is an appropriate way to ask for clarification in a meeting?

[CO-1][L-2]

- a) "Everything you said went above my head."
- b) "Can you please elaborate upon the concept?"
- c) "This makes zero sense."
- d) "What makes you say that?"

Directions Q.11-Q.15: Read the following passage and answer the set of questions that follow.

In the heart of the bustling city lies a serene park known as Central Oasis. This green haven provides respite from the daily grind, with its lush trees, tranquil ponds, and vibrant flower beds. Central Oasis is a place where people from all walks of life come to unwind, read, and connect with nature. It stands as a testament to the importance of green spaces in urban environments, offering a breath of fresh air amidst the concrete jungle.

Q.11 In the passage, the word "Serene" is closest in meaning to which of the following?

[CO-2][L-1]

- a) Calm b) Dirty c) Chaotic d) Similar

Q.12 What is the opposite of the word "Respite" as used in the passage? [CO-2][L-1]

- a) Break b) Perpetuation c) Relief d) Tranquility.

Q.13 Choose a one-word substitute for the phrase "from all walks of life". [CO-2][L-1]

- a) Eclectic b) Optimistic c) Dialectic d) Pessimistic

Q.14 In the passage, an alternate term for the word "Testament" could be? [CO-2][L-1]

- a) Retraction b) Contrary c) Confirmation d) Contradiction

Q.15 In the passage, the word "Amidst" is opposite in meaning to which of the following?

[CO-2][L-1]

- a) Among b) Amid c) Beyond d) Betwixt

Q.16 In passive voice, the subject receives the action, while in active voice, the subject:

[CO-2][L-1]

- a) Performs the action b) Doesn't perform any action
- c) Ignores the action d) Observes the action

Q.17 In formal and academic writing, passive voice is often employed to: [CO-2][L-1]

- a) Make the text more engaging b) Create a sense of urgency
- c) Display clarity and objectivity d) Present complex ideas tautologically

Q.18 Which out of the following sentences is in the active voice? [CO-2][L-1]

- a) The book was read by Sarah b) The cat chased the mouse.

- c) The cake was made by John d) The report was written by me

Q.19 Which of the following is an example of passive voice? [CO-2][L-1]

- a) She painted a beautiful picture b) The car was driven by my mother
- c) The storm damaged the roof d) They are playing soccer

Q.20 Identify the voice of the following sentence. "One should keep one's promise". [CO-2][L-1]
a) Active b) Passive c) Both A&B d) None of these

Directions Q.21-Q.25: Choose the correct option which depicts the error in the following sentences.

Q.21 We (a)/ saw (b)/ a elephant (c)/ in the zoo (d). [CO-2][L-1]
a) a & b b) b & c c) c only d) d & a

Q.22 In the conclusion it (a)/ may be said (b)/ that the writer has surpassed (c)/ the ethical norms(d). [CO-2][L-1]
a) a only b) a, b & c c) c & d d) a, b, c & d

Q.23 The company's profits (a) / have been steadily (b) / increasing for the past year. (c)/ no error (d). [CO-2][L-1]
a) a only b) a, b & c c) c & b d) d only

Q.24 Ramesh told me (a)/ that he first went (b)/ to the Mexico and (c)/ then to the Netherlands (d). [CO-2][L-1]
a) a b) c c) d d) b

Q.25 One should be true (a)/ to one's words in (b) order to earn good name (c) and fame in the life (d). [CO-2][L-1]
a) a b) c c) d d) b

Directions Q.26-Q.30: Choose the option with the correct order of sentences for the following paragraphs.

Q.26 Paragraph: [CO-2][L-1]
a) But this did not mean that death was the Egyptians only preoccupation.
b) Even papyri come mainly from pyramid temples.
c) Most of our traditional sources of information about the old kingdoms are monuments of the rich, like pyramids and tombs.
d) Houses in which ordinary Egyptians lived have not been preserved, and when most people died, they were buried in simple graves.
e) We know infinitely more about the wealthy people of Egypt than we do about the ordinary people, as most monuments were for the rich.
a) c d b e a b) e c d a b c) e d c b a d) d e c a b

Q.27 Paragraph: [CO-2][L-1]
a) He felt justified in bypassing Congress altogether on a variety of moves.
b) At times he was fighting the entire congress.
c) Bush felt he had a mission to restore power to the presidency.
d) Bush was not fighting just the democrats.
e) Representative democracy is a messy business, and a CEO of the White House does not like the legislature of second guessers and time-wasters.
a) c a e d b b) d b a e c c) c e a d b d) e c d b a

Q.28 Paragraph: [CO-2][L-1]
a) It also gives rise to a feeling of animosity among the different sections of the society.
b) In a democratic system, frequent use of power is never desirable, be it on part of the government or the people.
c) Therefore, citizens should never resort to violent ways and means in democracy, though they have the right to oppose the government.
d) It destroys stability and security in public life.
a) d b a c b) b d a c c) b d c a d) d a c b

Q.29 Paragraph: [CO-2][L-1]
a) He was so busy with them that he did not get time to eat.
b) Thousands of people came to him and asked different types of questions.
c) No one cared to see if he had his food or rest that night.
d) Swami Vivekanand once stayed in a small village.
a) d b a c b) b d a c c) b d c a d) d a c b

- Q.30 Paragraph: [CO-2][L-1]
- a) The facts speak for themselves so they need exposition only, not demonstration.
 - b) At the present moment, it is widely recognized that India holds the balance in the world-wide competition between rival ideologies.
 - c) It is not, of course, only in geographical sense that India is in a key position.
 - d) India's key position simply needs pointing out.
- a) d a c b b) c d a b c) b c d a d) b d a c

Directions Q.31-Q.40: Read the following passage and answer the set of questions that follow:

Nutrition and dietetics play a vital role in maintaining good health. Our bodies require a balanced intake of nutrients, including carbohydrates, proteins, fats, vitamins, and minerals, to function optimally. Proper nutrition can prevent various health problems, such as obesity, heart disease, and diabetes. Dietitians and nutritionists are professionals who help individuals make informed food choices to meet their dietary needs and health goals.

A well-balanced diet includes a variety of foods from different food groups. Carbohydrates provide energy, while proteins are essential for growth and repair. Fats are important for overall health, but they should be consumed in moderation. Vitamins and minerals, found in fruits and vegetables, support various bodily functions.

Dietitians work with individuals to create personalized meal plans that consider their dietary restrictions, allergies, and preferences. They also provide guidance on portion control and mindful eating. Nutritionists educate clients on the nutritional value of foods and help them make healthier choices when dining out or grocery shopping.

Proper nutrition not only supports physical health but also influences mental well-being. A balanced diet can improve mood and cognitive function, while deficiencies in certain nutrients can lead to mood disorders and cognitive decline.

- Q.31 What is the primary purpose of nutrition and dietetics? [CO-2][L-2]
- a) To promote weight loss b) To treat obesity
 - c) To maintain good health d) To increase energy levels
- Q.32 Which of the following is NOT mentioned as a nutrient that our bodies require? [CO-2][L-2]
- a) Carbohydrates b) Proteins c) Fats d) Sugar
- Q.33 What health problems can proper nutrition help prevent, according to the passage? [CO-2][L-2]
- a) Arthritis and asthma b) Obesity and heart disease
 - c) Allergies and diabetes d) Anxiety and depression
- Q.34 What role do dietitians and nutritionists play in helping individuals with their diets? [CO-2][L-2]
- a) They prescribe medication for dietary problems
 - b) They create personalized meal plans and provide guidance.
 - c) They perform surgery to remove excess weight.
 - d) They design exercise routines.
- Q.35 How can a balanced diet influence mental well-being, as stated in the passage? [CO-2][L-2]
- a) It can prevent all mental health issues.
 - b) It has no impact on mental well-being.
 - c) It can improve mood and cognitive function.
 - d) It leads to cognitive decline.
- Q.36 What is the primary goal of strategic reading? [CO-2][L-2]
- a) To read as fast as possible.
 - b) To understand the text deeply and efficiently.
 - c) To skim through the text without comprehension.
 - d) To memorize every word in the text.

- Q.37 When should you use the strategy of skimming a text? [CO-2][L-2]
 a) To memorize every detail b) To locate specific information quickly
 c) To understand complex concepts d) To read something leisurely
- Q.38 What does it mean to "annotate" a text while reading? [CO-2][L-2]
 a) To highlight key points and make margin notes.
 b) To read silently without taking any notes.
 c) To skip unimportant parts.
 d) To read the text aloud.
- Q.39 Which of the following is NOT a step in the SQ3R method? [CO-2][L-1]
 a) Survey b) Question c) Recite d) Revise
- Q.40 Which reading technique involves previewing a text by quickly scanning headings, subheadings, and keywords before reading in-depth? [CO-2][L-1]
 a) Skimming b) Scanning c) Previewing d) SQ3R
- Q.41 The pitch and tone of one's voice are examples of non-verbal communication through: [CO-3][L-1]
 a) Kinesics b) Proxemics c) Paralanguage d) Haptics
- Q.42 What is the significance of a firm handshake in non-verbal communication? [CO-3][L-2]
 a) It conveys confidence and trustworthiness
 b) It suggests timidity and insecurity.
 c) It indicates indifference.
 d) It represents anger or frustration.
- Q.43. Which of the following is an example of how chronemics can influence communication? [CO-3][L-2]
 a) Using appropriate hand gestures while speaking.
 b) Being late for a meeting without prior notice.
 c) Sending a well written email.
 d) Maintaining eye contact during a presentation.
- Q.44 The four main zones of personal space, as defined by Edward T. Hall, are: [CO-3][L-1]
 a) Intimate, personal, social, and public
 b) Private, communal, restricted, and open
 c) Close, medium, far, and very far
 d) Inner circle, outer circle, middle circle, and outermost circle
- Q.45 What is the primary function of "social-polite touch" in haptics? [CO-3][L-2]
 a) To convey affection and intimacy
 b) To establish authority and dominance
 c) To communicate empathy and support
 d) To initiate romantic interest
- Q.46 What is rapport building in communication? [CO-3][L-1]
 a) Creating a physical barrier between you and the other person
 b) Establishing a positive and harmonious connection with someone
 c) Using complex language to impress others
 d) Avoiding eye contact during a conversation
- Q.47 How can active listening contribute to rapport building? [CO-3] [L-2]
 a) By dominating the conversation
 b) By offering unsolicited advice
 c) By showing genuine interest and understanding
 d) By avoiding eye contact
- Q.48 Which of the following is NOT a non-verbal way to build rapport? [CO-3][L2]
 a) Maintaining good eye contact
 b) Using open and welcoming body language
 c) Interrupting the conversation frequently
 d) Smiling and nodding in agreement

- Q.49 Which of the following is a barrier to rapport building? [CO-3][L-1]
- a) Displaying empathy
 - b) Using mirroring and matching techniques
 - c) Making assumptions about the other person
 - d) Maintaining open body language
- Q.50 How can showing respect for a client's autonomy enhance rapport in nutrition counseling? [CO-3][L-2]
- a) By making all dietary decisions for the client
 - b) By dismissing the client's preferences
 - c) By avoiding discussing dietary choices
 - d) By involving the client in decision-making about their diet

End Semester Examination, Dec. 2023
M. Sc. (Nutrition & Dietetics) – Third Semester
PLACEMENT PREPARATORY PROGRAM (CDC-ND-611)

Time: 1½ hrs.

Max Marks: **50**

No. of pages: 5

Note: *All questions are compulsory. Each question has **FOUR** options with **ONE** correct answer. Select the correct answer. All questions are of **ONE** mark each. There is no **NEGATIVE** marking. Mention the correct option for each question in the blank answer key given herein below. Calculator is not permitted.*

1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
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31.	32.	33.	34.	35.	36.	37.	38.	39.	40.
41.	42.	43.	44.	45.	46.	47.	48.	49.	50.

- Q.1 What does the term "important but not urgent" typically refer to in the context of the Eisenhower Matrix? [CO-1][L-1]
 a) Tasks that require immediate attention
 b) Long-term goals and strategic planning
 c) Tasks that can be ignored
 d) Routine and unimportant tasks
- Q.2 What is the first step in effective time management? [CO-1][L-1]
 a) Creating a to-do list
 b) Setting long-term goals
 c) Identifying priorities
 d) Checking emails
- Q.3 How can delegation be beneficial for time management? [CO-1][L-1]
 a) It increases your workload
 b) It allows you to control every aspect of a project.
 c) It frees up your time for higher-priority tasks.
 d) It reduces the need for setting goals.
- Q.4 Which of the following is typically found in Quadrant III of the Eisenhower Matrix? [CO-1][L-1]
 a) Critical work with tight deadlines
 b) Long-term goals and planning
 c) Tasks that are neither urgent nor important
 d) Time-sensitive tasks that can be delegated
- Q.5 What is the significance of understanding time cultures in a globalized world? [CO-1][L-2]
 a) It helps promote a universal approach to time management.
 b) It fosters cultural awareness and effective communication.
 c) It eliminates the concept of time in business and social interactions.
 d) It discourages intercultural interactions.
- Q.6 Which of the following is a characteristic of a polychronic time culture? [CO-1][L-1]
 a) Strict adherence to schedules and deadlines
 b) A focus on one task at a time
 c) Flexibility in handling multiple tasks simultaneously
 d) Minimal interruptions and multitasking
- Q.7 Which of the following is an example of a time management technique that helps reduce distractions? [CO-1][L-1]
 a) Time blocking
 b) Multitasking
 c) Reactive task management
 d) Procrastination
- Q.8 Which time culture is often associated with cultures that prioritize relationships and

- social interactions over strict adherence to schedules? [CO-1][L-1]
a) Future-oriented b) Present-oriented
c) Past-oriented d) Circular-oriented
- Q.9 What does Steven Covey advocate for in terms of time management and personal effectiveness? [CO-1][L-1]
a) A focus on quick fixes and shortcuts
b) A proactive and principle-centered approach
c) Relying solely on technology for time management
d) Avoiding long-term planning and goal setting
- Q.10 What term is commonly used to describe the blending of different time cultures in a multicultural society? [CO-1][L-1]
a) Time conflict b) Time paradox c) Time convergence d) Time isolation
- Q.11 What is intrinsic motivation? [CO-2][L-1]
a) Motivation that comes from external rewards and recognition
b) Motivation that arises from within oneself, driven by personal satisfaction or interest
c) Motivation solely based on financial incentives
d) Motivation achieved through social pressure
- Q.12 Flexibility in the workplace often involves: [CO-2][L-2]
a) Rejecting any new ideas or suggestions
b) Being open to different perspectives and approaches
c) Consistently adhering to established procedures
d) Avoiding collaboration with colleagues
- Q.13 Why is adaptability considered a valuable skill in the workplace? [CO-2][L-2]
a) It leads to inflexibility and inefficiency.
b) It fosters innovation and problem-solving.
c) It discourages teamwork and collaboration.
d) It prioritizes adherence to established processes.
- Q.14 What role does ethical behavior play in building core values in a professional space? [CO-2][L-1]
a) It fosters a culture of integrity and accountability.
b) It erodes trust and credibility.
c) It encourages unethical conduct.
d) It has no impact on workplace values.
- Q.15 What does integrity in a professional context mean? [CO-2][L-2]
a) Adapting to any situation at any cost
b) Acting in accordance with one's values and ethical principles
c) Compromising personal values for career advancement
d) Prioritizing financial gain over ethical behavior
- Q.16 What is one way to build trust within a team? [CO-4][L-1]
a) Encourage open communication and active listening
b) Promote competition among team members
c) Discourage sharing of personal experiences
d) Keep team members isolated from one another
- Q.17 Which of the following factors can contribute to team cohesion? [CO-4][L-1]
a) Lack of clear goals and objectives
b) Frequent changes in team membership
c) Effective communication and shared values
d) Encouraging individualism at all costs
- Q.18 What is the role of active listening in conflict resolution? [CO-4][L-1]
a) To dominate the conversation and assert one's point of view
b) To avoid all communication with the opposing party
c) To understand the perspective of the other party and show empathy
d) To escalate the conflict by adding more parties to the discussion

- Q.19 In the conflict resolution model by Thomas-Kilmann, which style is characterized by a high degree of assertiveness and a low degree of cooperation? [CO-4][L-1]
 a) Competing b) Avoiding c) Collaborating d) Compromising
- Q.20 Which of the following is a key element of effective conflict management? [CO-4][L-1]
 a) Promoting a win-lose outcome
 b) Fostering open and honest communication
 c) Avoiding all forms of negotiation
 d) Blaming one party for the conflict
- Q.21 In a group discussion, one must communicate with? [CO-3][L-1]
 a) Hostility b) Ignorance c) Knowledge d) Long sentences
- Q.22 What is judged through a Group discussion? [CO-3][L-1]
 a) An individual's personality b) A candidate's appropriateness for the job
 c) Communication Skills d) All of them
- Q.23 When is the worst time to break into a sub-group discussion? [CO-3][L-1]
 a) When everyone is silent
 b) When one person is talking
 c) When two or three people are talking simultaneously.
 d) When there is less time left
- Q.24 Topics related to gender, religion and set cultural mindset are called? [CO-3][L-1]
 a) Argumentative b) Abstract c) Factual d) Case Based
- Q.25 A group discussion on current affairs is generally known as? [CO-3][L-1]
 a) Abstract group discussions b) Case studies
 c) Factual d) Topical
- Q.26 Which out of following options should NOT be exercised in a group discussion? [CO-3][L-1]
 a) Appropriate to the issue and make original points
 b) Exercise active listening
 c) Making fun of the fellow participants
 d) Validate one's arguments with relevant examples
- Q.27 Asserting authority or superiority to manipulate the group or certain members is an example of? [CO-3][L-1]
 a) Task role b) Hindering role c) Maintenance role d) No role
- Q.28 Performing a 'Task role' in a group discussion pertains to? [CO-3][L-1]
 a) Seeking relevant information about a question or a concern
 b) Removing self psychologically or physically from the group
 c) Putting down other's ideas and suggestions
 d) Being friendly, warm and responsive to others
- Q.29 Which of the following options are an example of an abstract group discussion? [CO-3][L-1]
 a) Do deadlines destroy creativity? B) Confidence vs Knowledge
 c) Freedom is a myth d) All of them
- Q.30 Which of the following communication styles is preferred in Group discussion? [CO-3][L-1]
 a) Aggressive b) Passive c) Assertive d) Indifferent
- Q.31 When introducing yourself in an interview, you should: [CO-5][L-1]
 a) Provide a detailed personal history.
 b) Focus on your educational background.
 c) Highlight your relevant skills and experiences.
 d) Keep it brief and avoid sharing too much information.
- Q.32 When mentioning professional experience, which of the following should one prioritize? [CO-5][L-1]
 a) Your most recent job b) Any job, regardless of relevance
 c) Your first job out of college d) Your part-time jobs during school
- Q.33 What is the purpose of mentioning career goals during a self-introduction? [CO-5][L-2]

- a) To make the interviewer laugh
 - b) To show off your long-term planning skills
 - c) To demonstrate your commitment to the company's mission
 - d) To give the interviewer unsolicited advice
- Q.34 How should one tailor a self-introduction to the specific job one is interviewing for? [CO-5][L-2]
- a) By providing generic information about oneself
 - b) By mentioning unrelated skills in order to stand out
 - c) By highlighting relevant skills and experiences related to the job
 - d) By discussing one's personal life in detail
- Q.35 When delivering a self-introduction, one's tone should generally be: [CO-5][L-1]
- a) Friendly and professional
 - b) Casual and laid-back
 - c) Overly formal and serious
 - d) Indifferent and disengaged
- Q.36 What type of content is typically included in a portfolio for a nutritionist? [CO-5][L-2]
- a) A detailed list of personal references
 - b) Sample of customized diets and research work
 - c) A lengthy autobiography
 - d) A list of favorite books and movies
- Q.37 How should you organize the content in your portfolio to make it easy for employers to navigate? [CO-5][L-1]
- a) Present everything in a single, long document
 - b) Use a chaotic and random arrangement
 - c) Organize content logically with clear headings and sections
 - d) Include unrelated content to show your diverse interests
- Q.38 How should you tailor your portfolio content for a specific job application? [CO-5][L-1]
- a) Include everything you've ever done
 - b) Highlight experiences and skills relevant to the specific job
 - c) Keep it generic to appeal to a wide range of jobs
 - d) Omit any references to previous employers
- Q.39 Which of the following is a common format for creating an online portfolio? [CO-5][L-1]
- a) Microsoft Word document
 - b) Printed and mailed package
 - c) Personal blog or website
 - d) Handwritten notes
- Q.40 Which of the following should NOT be included in a portfolio? [CO-5][L-1]
- a) Resume
 - b) Academic certificates
 - c) Experience certificates
 - d) List of expectations from the job
- Q.41 What are companies looking for during a technical interview? [CO-5][L-1]
- a) Examples of technical skills and knowledge
 - b) Honesty about areas with less technical knowledge
 - c) Desire to continue learning and expanding technical knowledge
 - d) All of the above
- Q.42 Which of the following tips should NOT be taken into consideration in order to maximize preparation before a technical interview? [CO-5][L-1]
- a) Review of employer instructions
 - b) Researching standard technical questions
 - c) Revising salary expectations
 - d) All of the above
- Q.43 What type of interview is typically conducted over the phone or through video conferencing? [CO-5][L-1]
- a) Panel interview
 - b) Behavioral interview
 - c) Virtual interview
 - d) Group interview
- Q.44 Which type of interview assesses a candidate's problem-solving skills and creativity? [CO-5][L-1]
- a) Stress interview
 - b) Case interview
 - c) Informational interview
 - d) Structured interview
- Q.45 When a candidate is interviewed by multiple people from different departments within

- the company, it is called a: [CO-5][L-1]
a) One-on-one interview b) Group interview
c) Cross-functional interview d) Behavioral interview
- Q.46 What is the first step in an effective job search? [CO-5][L-1]
a) Creating a LinkedIn profile
b) Sending out generic resumes
c) Applying to as many jobs as possible
d) Identifying your career goals and skills
- Q.47 Which of the following is NOT a common job search strategy? [CO-5][L-1]
a) Networking
b) Online job boards
c) Sending unsolicited emails to employers
d) Attending career fairs
- Q.48 Which of the following is a key element of an employability mindset? [CO-5][L-1]
a) Resisting change and sticking to routine
b) Continuous learning and adaptability
c) Avoiding challenges to minimize risk
d) Maintaining a rigid career path
- Q.49 What is the primary purpose of a LinkedIn headline? [CO-5][L-1]
a) Displaying personal contact information
b) Sharing your current job title and company
c) Listing all your skills and qualifications
d) Showcasing your hobbies and interests
- Q.50 What does the term "cold emailing" refer to in the context of job searches? [CO-5][L-1]
a) Reaching out to potential employers or contacts without prior interaction
b) Sending job applications without a cover letter
c) Sending automated rejection emails to unsuccessful applicants
d) Creating a dedicated email address for job applications

End Semester Examination, Dec. 2023
M. Sc. (Nutrition & Dietetics) - Third Semester
ADVANCED CLINICAL NUTRITION (MNDC-DS-301)

Time: 3 hrs

Max Marks: **100**

No. of pages: 1

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Marks are indicated against each question.

- Q.1 A 21 year old girl is starting losing weight. She has lost more than 6 kgs in a month and loss of muscle mass is very high. There is an increase in appetite but also increase in anxiety and fatigue. She is also having the symptoms of Graves's disease. Identify the condition, define the diagnostic criteria and nutritional management of the condition.

[CO-1][L-5] **20**

PART-A

- Q.2 "PCOD is very common in young adults. Lifestyle changes and physical activity can have a greater impact on reduction of PCOD". Comment on the statement.

[CO-1][L-4] **20**

- Q.3 A 4 year old girl had a streptococcal infection and admitted to the hospital. Identify the condition and plan nutritional management for the same

[CO-3][L-6] **20**

- Q.4 Discuss the physiology of Kidney. A 54 year old man had uncontrolled diabetes. His lipid profile was above normal range. He was having oliguria but he was ignoring it from past 15 days. Suddenly, no urine was passed by him in 24 hours, he got worried and rush to the hospital. Identify the disease, its pathophysiology and nutritional management.

[CO-2][L-5] **20**

PART-B

- Q.5 Discuss the pathophysiology, symptoms and nutritional management of cystic fibrosis.

[CO-2][L-2] **20**

- Q.6 Discuss the following:

a) Stroke.

b) Drug nutrient interaction.

[CO-4][L-2] **10×2**

- Q.7 Differentiate between Osteoporosis, Osteo arthritis and Rheumatoid arthritis.

[CO-4][L-4] **20**

End Semester Examination, Dec. 2023
M. Sc. (Nutrition & Dietetics) - Third Semester
NUTRITION IN INTENSIVE CARE (MNDC-DS-302)

Time: 3 hrs

Max Marks: **100**

No. of pages: 1

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Marks are indicated against each question.

Q.1 Explain in detail the impact of malnutrition in critically ill patients. Discuss the stage of starvation v/s stress in critically ill patients. [CO-1][L-4] **20**

PART-A

Q.2 a) Discuss the enteral nutrition support in the critically ill patients. [CO-1][L-3] **10**
b) Explain the mechanism of ECG. [CO-3][L-2] **10**

Q.3 What is the difference between normal cell and cancer cell? Explain the dietary management of cancer in detail. [CO-3][L-3] **20**

Q.4 What are the different degrees of burn? Explain the dietary management of burn in patient suffering from 20% burn. [CO-4][L-2] **20**

PART-B

Q.5 Describe in detail metabolic and respiratory alkalosis with its compensatory mechanism. [CO-3][L-3] **20**

Q.6 Discuss the pathophysiology, diagnosis and prevention of ventilator associated pneumonia [CO-3][L-2] **20**

Q.7 Explain in detail the peritoneal dialysis method used in kidney failure. [CO-2][L-4] **20**

End Semester Examination, Dec. 2023

M. Sc. (Nutrition & Dietetics) - Third Semester

MANAGEMENT OF NUTRITION RELATED DISORDER (MNDC-DS-303)

Time: 3 hrs

Max Marks: **100**

No. of pages: 1

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Marks are indicated against each question.

Q.1 A 50 year old male was admitted in B.K Hospital, Faridabad. His chief complaint were cough, poor appetite, excessive joint pain for 1 week, chest pain for 1 month, weight loss, evening rise in temperature, and breathlessness. On physical examination he was found to be afebrile, conscious and oriented. On laboratory examination his hemoglobin, total count, lymphocytes, MCH, MCV, MCHC and RBC levels was found to be decreased.

Question:

- What is his current diagnosis?
- What is the best suitable dietary management strategy for him?
- Any lifestyle modification is required.

[CO-4][L-6] **20**

PART-A

Q.2 Describe the pathophysiology of HIV/AIDS and how it impacts the nutritional status of any individual? [CO-1,2][L-2] **20**

Q.3 Briefly describe the pathophysiology of homocystinuria, symptoms and dietary management. [CO-3][L-3] **20**

Q.4 Discuss the pathogenesis of phenylketonuria. [CO-1][L-2] **20**

PART-B

Q.5 Write short notes on the following:

- Diet Elimination-reintroduction and food challenge for diagnosing the food allergy.
- Differentiate between bulimia and anorexia nervosa. [CO-1,3][L-5] **10×2**

Q.6 Throw a light on alcohol metabolism and contributing factors of blood alcohol concentration. Also discuss the nutritional management of chronic alcoholism. [CO-1,3][L-5] **20**

Q.7 Write short notes each of the following:

- Differentiates between autosomal recessive and autosomal dominant.
- Pathophysiology of Wilson's disease and dietary measures.
- Dying process.
- Role of hospice centre in palliative care.

[CO-4][L-5] **5×4**

End Semester Examination, Dec. 2023
M. Sc. (Nutrition & Dietetics) - First Semester
NUTRITIONAL BIOCHEMISTRY (MND-DS-101)

Time: 3 hrs

Max Marks: **100**

No. of pages: 1

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Marks are indicated against each question.

- Q.1 There are different dehydrogenases involved in various metabolic reactions of human body. Discuss the types of NAD and FAD linked dehydrogenases involved in carbohydrate and fat metabolism; also explaining their role in deriving energy production from oxidative phosphorylation. [CO-3][L-3] **20**

PART-A

- Q.2 Chemiosmosis is used to derive the production of ATP using energy obtained from proton gradient. Define the term chemiosmosis and support your answer explaining its mechanism. Also discuss how oxidative phosphorylation is different from substrate level phosphorylation. [CO-2][L-2] **20**

- Q.3 There is a reciprocal relationship between the pathway of glycogenesis and glycogenolysis under conditions of fed and starved state. Explain the role of induction, repression and covalent modifications in this reciprocal relationship of regulation. [CO-3][L-4] **20**

- Q.4 Lipogenesis (Biosynthesis of fatty acids) is regulated by nutritional status of body and both long term and short term regulations in the body along with the role of insulin and glucagon in fatty acid biosynthesis [CO-1][L-2] **20**

PART-B

- Q.5 Hormones have an important role in regulating both carbohydrate and lipid metabolism. Name the hormone released from (β -cells of islets of langerhans of pancreas. Explain its role in regulating both lipid and carbohydrate metabolism. [CO-4][L-1] **20**

- Q.6 There are two pathways of purine nucleotide biosynthesis. Explain salvage pathway of purine nucleotide biosynthesis, giving detailed reactions of this pathway. Also, explain the biochemical significance of the enzyme involved in salvage pathway in context to disorders of nucleic acid metabolism. [CO-2][L-1] **20**

- Q.7 A certain mechanism is seen in DNA replication in a prokaryotic cell. Discuss this mechanism in detail for the different types of strand synthesis by enzymes. [CO-3][L-2] **20**

End Semester Examination, Dec. 2023

M. Sc. (Nutrition & Dietetics) - First Semester

HUMAN PHYSIOLOGY (MND-DS-102)

Time: 3 hrs

Max Marks: **100**

No. of pages: 1

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Marks are indicated against each question.

Q.1 Describe briefly the structure and function of following cell organelles:

- a) Nucleus.
- b) Ribosome.
- c) Cell membrane.
- d) Endoplasmic reticulum.
- e) Mitochondria.

[CO-2][L-1] **4×5**

PART-A

Q.2 Describe the digestion and absorption of proteins in the digestive system. Support it with a labelled diagram. [CO-2][L-2] **20**

Q.3 Classify nerves and briefly explain their properties. [CO-1][L-1] **20**

Q.4 Illustrate the structure of red blood cells and describe its role in anemia. [CO-4][L-2] **20**

PART-B

Q.5 Describe the mechanism of respiration and factors affecting respiration. [CO-3][L-2] **20**

Q.6 Draw the structure of heart and explain the function of its parts. [CO-1][L-2] **20**

Q.7 Explain the mechanism of formation of urine in human excretory process. [CO-2][L-2] **20**

End Semester Examination, Dec. 2023
M. Sc. (Nutrition and Dietetics) – First Semester
HUMAN NUTRITION REQUIREMENT (MND-DS-103)

Time: 3 hrs.

Max Marks: **100**

No. of pages: 1

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Marks are indicated against each question.

Q.1 What are the different methods of assessing nutrient requirements?
(CO3,L5) **20**

PART-A

Q.2 What are the factors affecting BMR. Explain all the three components of energy expenditure.
(CO1, L2) **20**

Q.3 Describe the methods of improving protein quality. Explain the digestion and absorption of proteins.
(CO3,L2) **20**

Q.4 Discuss the functions of carbohydrates in the body. Discuss the importance and types of dietary fiber.
(CO3, L3) **20**

PART-B

Q.5 Describe in detail the digestion and absorption of Vitamin D and Iron. (CO4,L4) **20**

Q.6 Explain the importance of water balance in the body. Discuss the factors influencing water distribution.
(CO2,L1) **20**

Q.7 Discuss the nutritional considerations for space mission in detail. (CO2,L2) **20**

End Semester Examination, Dec. 2023

M. Sc. – First Semester

FOOD SCIENCE AND PROCESSING TECHNOLOGY (MND-DS-104)

Time: 3 hrs.

Max Marks: **100**

No. of pages: 1

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Marks are indicated against each question.

- Q.1 'Food Science comprises of various dimensions under its umbrella'. Justify the statement with suitable examples. **20**

PART-A

- Q.2 Describe the following:
a) Structure of meat.
b) Nutritive value of egg. (CO-1, L-1) **10×2**
- Q.3 Depict the processing of milk using a flowchart. Also, outline the processing steps of ice-cream and butter. (CO-2, L-2) **20**
- Q.4 Illustrate wet milling process of pulses. State the advantages of employing mechanical rice milling over hand pounding technique. (CO-3, L-3) **20**

PART-B

- Q.5 Define sensory evaluation. Demonstrate the pre-requisites for conducting sensory evaluation in an institution.(CO-3, L-3) **20**
- Q.6 Differentiate between conventional and modern milling of rice. (CO-2, L-2) **20**
- Q.7 a) Explain the characteristics to assess egg quality. (CO-4, L-2) **10**
b) What are the parameters which need to be taken into account while buying meat cuts? (CO-4, L-2) **10**

End Semester Examination, Dec. 2023
M. Sc. (Nutrition and Dietetics) - First Semester
HEALTHCARE MANAGEMENT (MND-DS-105)

Time: **3** hrs.

Max Marks: **100**

No. of pages: **1**

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Marks are indicated against each question.

Q.1 Enumerate the various concepts of management in providing health care services. **20**

PART-A

Q.2 Explain the different models of organizational behaviour. [CO-1][L-4] **20**

Q.3 Write about group and team dynamics and motivational aspects involved in healthcare management. [CO- 2] [L-2] **20**

Q.4 Enumerate the requirements of ICU, OT.Pediatric, Maternity ward. [CO- 2] [L-3] **20**

PART-B

Q.5 Write in detail about the role of QCI and NABH in quality management of health care. [CO-3] [L-1] **20**

Q.6 Discuss the hygiene and sanitation steps to be followed in kitchen and canteen services. [CO-4] [L-4] **20**

Q.7 What are challenges that are faced by the patients in billing, claiming, and insurance? [CO-4] [L-4] **20**

End Semester Examination, Dec. 2023
M. Sc. (Nutrition and Dietetics) – Third Semester
ADVANCED NUTRITIONAL SCIENCES (MND-DS-306)

Time: 3 hrs.
100

Max Marks:

No. of pages: 1

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Marks are indicated against each question.

Q.1 Illustrate the reason behind bioavailability of nutrients. Discuss in detail. [CO-1][L-2]
20

PART-A

Q.2 What are the potential health benefits of food components other than nutrients?
[CO-1][L-1] **20**

Q.3 Discuss the role of specific nutrients in controlling gene expression: Protein lipids, vitamins and minerals.
[CO-2][L-2] **20**

Q.4 What is active and passive immunity? Analyze the role of nutrition in immune function
[CO-3][L-5] **20**

PART-B

Q.5 Explain the different methods of evaluation of protein quality in detail. [CO-4][L-4] **20**

Q.6 What is the relationship between nutrient interaction and bioavailability of nutrients? Discuss the impact of interaction on nutrient bioavailability. [CO-4][L-6] **20**

Q.7 What are the functional foods? Discuss the role of functional foods in detail.
[CO-1][L-3] **20**

End Semester Examination, Dec. 2023
M. Sc. (Nutrition and Dietetics) – Third Semester
SPORTS SUPPLEMENTS AND DOPING (MND-DS-309A)

Time: 3 hrs.

Max Marks: **100**

No. of pages: 1

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Marks are indicated against each question.

Q.1 Discuss about various ergogenic aids in improving sports performance. **20**

PART-A

Q.2 Enumerate the role of carbohydrate, protein and fat supplement in sports. **20**
[CO-3][L-2]

Q.3 Discuss the reasons for prevalence of dietary supplements and ergogenic aids use in sports. **20**
[CO-3][L-3]

Q.4 Write in detail about creatinine use in sports. **20**
[CO-3][L-1]

PART-B

Q.5 Enumerate briefly about WADA antidoping rules violations. **20**
[CO-2][L-2]

Q.6 What are the steps to be taken to control inadvertent doping. **20**
[CO-4][L-4]

Q.7 Explain in detail ethical aspects of doping. **20**
[CO-1][L-3]

End Semester Examination, Dec. 2023
M. Sc. (Nutrition and Dietetics) – Third Semester
NUTRITION FOR PARATHLETES (MND-DS-310)

Time: 3 hrs.

Max Marks: **100**

No. of pages: 1

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Marks are indicated against each question.

- Q.1 Discuss the following:
- a) PPE.
 - b) Spasticity.
 - c) Pressure ulcers.
 - d) Autonomic dys reflexia.
 - e) Sclerosis.

[CO-2][L-2] **4×5**

PART-A

- Q.2 Describe in detail the international history of IPC. [CO-1][L-2] **20**
- Q.3 Illustrate role of below mentioned committees (**any two**):
- a) Anti-doping committee.
 - b) AHSN committee.
 - c) Sports science committee.

[CO-4][L-3] **10×2**

- Q.4 What are the various techniques for body composition analysis? [CO-3][L-5] **20**

PART-B

- Q.5 Discuss in detail the roles and responsibilities of Women in sports committee. [CO-4][L-1] **20**
- Q.6 Calculate the nutritional requirements of an athlete with quadriplegia (wt-64 kg & ht-5'8"). [CO-2][L-3] **20**
- Q.7 What are disabled sports organizations? Discuss their role in detail. [CO-3][L-1] **20**

End Semester Examination, Dec. 2023
M. Sc. (Nutrition and Dietetics) – Third Semester
ADVANCED FOOD SCIENCE AND CHEMISTRY (MNDF-DS-301)

Time: 3 hrs.

Max Marks: **100**

No. of pages: 1

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Marks are indicated against each question.

Q.1 Define rancidity, lipolysis and hydrogenation. Explain the physical and chemical properties of lipids. (CO2,4, L3) **20**

PART-A

Q.2 Differentiate between fat and water soluble vitamins? Explain structure and importance of all water and fat soluble vitamins? (CO4, L4) **20**

Q.3 Explain in detail the structure, nomenclature, physical and chemical reaction of monosaccharides and oligosaccharides? (CO2, L3) **20**

Q.4 Define basic tastes and flavour? Explain various food flavours and food enhancers used in the various food products and their importance in food processing. (CO3, L4) **20**

PART-B

Q.5 Explain the classification and structure of proteins along with their physical and functional properties. (CO2, L3) **20**

Q.6 Define water and water activity? Explain in detail the various types and structure of water and ice along with sorption phenomenon? (CO1, L2) **20**

Q.7 Explain in detail the structure, nomenclature, and properties of starch, glycogen, cellulose, pectin and hemicelluloses. (CO4, L2) **20**

End Semester Examination, Dec. 2023
M. Sc. (Nutrition and Dietetics) – Third Semester
BIOTECHNOLOGY OF FOOD (MNDF-DS-302)

Time: 3 hrs.

Max Marks: **100**

No. of pages: 1

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Marks are indicated against each question.

- Q.1 Define fermentation and explain in detail the various types of fermentation? Explain every component of different types of fermentors with help of a diagram?
(CO2, L4) **20**

PART-A

- Q.2 Explain in details the processing of any two genetically modified foods and applications of genetic modification in food industry.
(CO2, L4) **20**

- Q.3 Explain in detail the role of enzymes in dairy, bakery and beverage industry in detail?
(CO3, L3) **20**

- Q.4 Define plasmid and bacteriophage. Explain in detail the process and application of gene/DNA cloning and PCR?
(CO3, L2) **20**

PART-B

- Q.5 Define enzyme kinetics and explain with the help of equation. What are the factors affecting the reaction rate of enzyme kinetics explain each factor in detail?
(CO3, L3) **20**

- Q.6 Explain in detail the history, benefits, risks of genetic modification in food industry and four pillars of organic farming?
(CO1, L2) **20**

- Q.7 Define genetic engineering and explain in detail the hazards of genetic engineering.
(CO4, L3) **20**

End Semester Examination, Dec. 2023
M. Sc. (Nutrition and Dietetics) – Third Semester
MICROBIOLOGY OF FOOD (MNDF-DS-303)

Time: 3 hrs.

Max Marks: **100**

No. of pages: 1

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Marks are indicated against each question.

Q.1 Describe the following (**any four**):

- a) Post processing contamination.
- b) BOD.
- c) COD.
- d) Pathogens.
- e) Food borne poisoning.

[CO-2][L-2] **5×4**

PART-A

Q.2 What are microbes? Illustrate the characteristics of yeast and molds with the help of examples. [CO-1][L-3] **20**

Q.3 Explain the factors responsible for food spoilage in detail. [CO-2][L-2] **20**

Q.4 Outline the principle of low temperature preservation techniques with suitable examples. [CO-3][L-4] **20**

PART-B

Q.5 What do you understand by intoxication? Discuss the various food borne illnesses. [CO-2][L-1] **20**

Q.6 What are the various types and sources of food wastes? Explain in detail. [CO-3][L-2] **20**

Q.7 What are mycotoxins? Also, write about the measures to control infection in foods caused by pathogenic organisms. [CO-4][L-1] **20**

End Semester Examination, Dec. 2023
M. Sc. (Nutrition and Dietetics) – Third Semester
FOOD AND NUTRITION SECURITY (MNDP-DS-301)

Time: 3 hrs.

Max Marks: **100**

No. of pages: 1

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Marks are indicated against each question.

Q.1 Evaluate concepts and definitions of food and nutrition security at national, regional, household and individual levels to discuss the current situation in India. [CO-1][L-4] **20**

PART-A

Q.2 Explain the government initiatives in water and sanitation sector and health sector to improve food and nutrition security. [CO-2][L-3] **20**

Q.3 Elaborate the concept of National Plan of Action on Nutrition. [CO-3][L-4] **20**

Q.4 Critically analyses implementation status, monitoring / evaluation of existing public sector programs to improve food and nutrition security. [CO-4][L-5] **20**

PART-B

Q.5 What do you understand irradiation and supplementation to offer food security, explain using suitable vehicles for it? [CO-2][L2] **20**

Q.6 Apply the role of bio fortification and organic foods in improving food and nutrition security. [CO-3][L-4] **20**

Q.7 Discuss the factors of poor coverage of national nutritional security programme. [CO-4][L-3] **20**

End Semester Examination, Dec. 2023

M. Sc. (Nutrition and Dietetics) – Third Semester

HEALTH PROMOTION AND NUTRITION COMMUNICATION (MNDP-DS-302)

Time: 3 hrs.

Max Marks: **100**

No. of pages: 1

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Marks are indicated against each question.

- Q.1 Draw the national and international dietary guidelines of different countries to critically analyze its impact on human development. [CO-1][L-5] **20**

PART-A

- Q.2 What is a communication channel? Discuss the importance and key steps for effectively choosing communication channels for behavior change communication. [CO-2][L-4] **20**

- Q.3 Explain the principles of ethics in nutrition and health communication. Write a short note on policy brief [CO-2][L-2] **20**

- Q.4 Discuss the factors and consequences of health literacy in India? Differentiate between advocacy and behavior change communication. [CO-3][L-1] **20**

PART-B

- Q.5 Discuss the effective advocacy strategies to influence government on nutrition policies. [CO-2][L-2] **20**

- Q.6 What is the significance of social marketing? How the principles of social marketing helpful in improving nutritional status? [CO-3][L-3] **20**

- Q.7 Elaborate the role of different stakeholders in nutrition promotion. What is the goal and objectives of communication for behavior change? [CO-4][L-1] **20**

End Semester Examination, Dec. 2023
M. Sc. (Nutrition and Dietetics) – Third Semester
ASPECTS OF PUBLIC HEALTH NUTRITION (MNDP-DS-303)

Time: 3 hrs.

Max Marks: **100**

No. of pages: 1

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Marks are indicated against each question.

Q.1 Define programme planning cycle in detail. How it is useful for making successful programme. [CO 2,1, L-3] **20**

PART A

Q.2 Differentiate between Programme Evaluation and Review Technique (PERT) and Critical Path Method. Describe the Critical path Method in detail. [CO 4, L-4] **20**

Q.3 Describe the steps of Preceed-proceed model. Also discuss its advantages and disadvantages. [CO 4, L-4] **20**

Q.4 Write short notes on following:
a) Need assessment.
b) Features of good objectives.
c) Advantages of Susman's model.
d) Slack time of any network diagram. [CO 3, L-2] **5×4**

PART B

Q.5 Write short notes on the following:

- a) Differentiate between cost benefit and cost effective analysis with example. [CO3, L-4] **10**
- b) Describe the objective and function of any one government health organization. [CO3, L-3] **10**

Q.6 Describe the function of Niti Aayog. How it is different from planning commission? [CO 4, L-4] **20**

Q.7 Describe the beneficiaries and objectives of National Rural Health Mission. [CO 3, L-3] **20**

End Semester Examination, Dec. 2023
M. Sc. (Nutrition & Dietetics) - Third Semester
EXERCISE PHYSIOLOGY AND METABOLISM (MNDS-DS-301A)

Time: 3 hrs.

Max Marks: **100**

No. of pages: **1**

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Marks are indicated against each question.

Q.1 Enumerate the physiological changes that occur due to exercise:

- a) Cardio.
- b) Pulmonary.
- c) Muscular.
- d) Skeletal.

[CO-4][L-1] **5×4**

PART-A

Q.2 Write in detail about types of exercise, training periodization.

[CO-2][L-1] **20**

Q.3 Enumerate the mechanism of ventilation and diffusion transport and exchange of gases.

[CO-2][L-3] **20**

Q.4 Explain in detail about energy expenditure estimation methods.

[CO-3][L-4] **20**

PART-B

Q.5 Discuss the role of hypothalamus in thermoregulation, write about exertional heat illnesses.

[CO-3][L-4] **20**

Q.6 Describe the role of various hormones in exercise and their adaptation to training.

[CO-3,4][L-5] **20**

Q.7 Write a note on importance of exercise in health and fitness.

[CO-1][L-3] **20**

End Semester Examination, Dec. 2023
M. Sc. (Nutrition and Dietetics) – Third Semester
SPORTS SPECIFIC NUTRITION (MNDS-DS-302A)

Time: 3 hrs.

Max Marks: **100**

No. of pages: **1**

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Marks are indicated against each question.

- Q.1 Sports fitness do not depend only on training but diet and nutrition plays an important role in this. Give your views on the statement. [CO-1 L-1] **20**

PART-A

- Q.2 Illustrate the carbohydrate requirements during endurance and ultra-endurance training in a tabular form. [CO-2 L-4] **20**

- Q.3 As a sports nutritionist, suggest training diet to an elite female racket player regarding training diet, hydration and post recovery meal. [CO-2][L-4] **20**

- Q.4 Give recommendations to a weight lifter for weight management (pre-season, off season and in season). [CO-1][L-5] **20**

PART-B

- Q.5 What are the nutritional factors that can produce fatigue in team sportsperson? [CO-2][L-1] **20**

- Q.6 Throw some light on women participation in national and international sports. [CO-4] [L-3] **20**

- Q.7 How gynecological disorders in female sportsperson are relate to dietary habits? Discuss in detail. [CO-4] [L-2] **20**

End Semester Examination, Dec. 2023
M. Sc. (Nutrition & Dietetics) – Third Semester
EXERCISE AND SPORTSNUTRITION (MNDS-DS-303A)

Time: 3 hrs.

Max Marks: **100**

No. of pages: 1

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Marks are indicated against each question.

Q.1 Define sports nutrition. Discuss the history in detail. [CO-2][L-1] **20**

PART-A

Q.2 Explain the metabolism of CHO and fat during exercise of 24 year old boy. He performs more an 4 hours of activity everyday. He wants to increase his performance to participate in a competition at higher altitude. Discuss the role of GI and GL in exercise and recommendations of carbohydrate for varying intensities and pre, during and post competition [CO-2][L-5] **20**

Q.3 Discuss the following in detail:
a) Protein requirement post exercise
b) Recommendations of fats for varying level of training [CO-1][L-2] **20**

Q.4 Explain the various components of energy expenditure and differentiate between the methods for determining energy expenditure commonly used among athletes. Discuss in detail. [CO-3][L-4] **20**

PART-B

Q.5 "Micronutrients are important factor to enhance the performance of athlete" Comment on it. [CO-3][L-5] **20**

Q.6 A marathon runner wants to improve hid performance by increasing the time of training. He workout for around 2 hours but feels fatigue and not able to continue till 3 hours. What kind of sports drink should be recommended? Discuss the baverage type, composition, timing, volume and also compare that drink with other sports drinks composition. Do post exercise drinks can be recommended? If yes then specify. [CO-4][L-5] **20**

Q.7 Write short notes:
a) Synergistic effect of dehydration and hyperthermia.
b) Importance of periodisation. [CO-4][L-2] **20**

Supplementary Examination, Dec. 2023
Master of Physiotherapy — First Year
REVIEW OF BASIC SCIENCES-I (ANATOMY AND PHYSIOLOGY)
(MPT 101)

Time: 3 hrs.

Max Marks: **80**

No. of pages: **1**

Note: Attempt **SIX** questions in all; from which attempt any **TWO** questions from **PART-A** and **FOUR** questions from **PART-B**. Marks are indicated against each question.

PART-A

- Q.1 Explain Kreb's cycle. [CO-3][L-2] **10**
- Q.2 Write about the Anaerobic Process: Power and Capacity of high energy breakdown. [CO-2][L-1] **10**
- Q.3 Enumerate the steps of cardiac cycle. [CO-2][L-3] **10**

PART-B

- Q.4 Explain the Hormone regulation of fluids and electrolytes during Exercise. [CO-5][L-2] **15**
- Q.5 Discuss about the effects of Breath holding and scuba diving along with physiological changes while descending and ascending. [CO-3,4][L-4] **15**
- Q.6 Write about the muscle types and relationship with fatigue. [CO-6][L-1] **15**
- Q.7 Explain the regulation of Cardiac and Pulmonary system at high altitude. [CO-4][L-2] **15**
- Q.8 Sketch out the stages of Wallerian degeneration. [CO-6][L-3] **15**
- Q.9 Illustrate the relationship between muscle length and the force development. [CO-5][L-3] **15**

Supplementary Examination, Dec. 2023

Master of Physiotherapy — First Year

REVIEW OF BASIC SCIENCES-II (PATHOLOGY AND PHARMACOLOGY) (MPT 102)

Time: 3 hrs.

Max Marks: **80**

No. of pages: 1

Note: Attempt **SIX** questions in all; from which attempt any **TWO** questions from **PART-A** and **FOUR** questions from **PART-B**. Marks are indicated against each question.

PART-A

- Q.1 Define 'healing'. Discuss wound healing by primary union. Also give the factors that affect healing. [CO-3][L-2] **10**
- Q.2 Define 'metabolic bone diseases'. Discuss renal osteodystrophy in detail. [CO-1][L-1] **10**
- Q.3 Organize a detailed note on skeletal muscle relaxant. [CO-1][L-2] **10**

PART-B

- Q.4 Define 'inflammation'. Discuss granulomatous inflammation in detail. [CO-4][L-2] **15**
- Q.5 Write short notes on rickets and osteomalacia. Also add a note on osteoporosis. [CO-1][L-1] **15**
- Q.6 Discuss myocardial infarction in detail mentioning the etiology, risk factors, sequential pathological changes and lab diagnosis. [CO-5][L-5] **15**
- Q.7 Classify NSAIDs. Illustrate the mode of action and adverse effects of NSAIDs. [CO-6][L-3] **15**
- Q.8 Demonstrate the classification and mode of action of antipsychotic drugs. [CO-6][L-3] **15**
- Q.9 Distinguish between local anaesthetic and general anaesthetic. Classify local anaesthetic with their mode of action. [CO-6][L-4] **15**

Supplementary Examination, Dec. 2023

Master of Physiotherapy – First Semester

APPLIED PHYSIOTHERAPY (MPT 103)

Time: 3 hrs.

Max Marks: **80**

No. of pages: 1

Note: Attempt **SIX** questions in all; in which attempt any **TWO** questions from **PART-A** and **FOUR** questions from **PART-B**. Marks are indicated against each question.

PART-A

- Q.1 Assess a geriatric case with complaints of balance impairments by using balance tools. [CO3][L5] **10**
- Q.2 Explain how Tai Chi can be used for balance and coordination. Justify your answer with recent researches. [CO1][L2] **10**
- Q.3 Differentiate between therapeutic Russian and diadynamic current stimulation with usage. [CO1][L3] **10**

PART-B

- Q.4 Determine the role of different relaxation exercises in physical therapy intervention. Justify your statement with evidences. [CO5][L3] **15**
- Q.5 Explain the principles of hydrotherapy. Demonstrate the various methods of hydrotherapy along with its indications and contraindications. [CO6][L2] **15**
- Q.6 Examine the kinetics and kinematics of hemiplegic gait with graphical representation. [CO2][L3] **15**
- Q.7 Describe advanced developments of application of therapeutic ultrasound in cancer. [CO5][L3] **15**
- Q.8 Discuss recent advances in field of LASERs. Explain any one of the advance technology in therapeutic LASER in physiotherapy. [CO6][L2] **15**
- Q.9 Explain closed kinematic and open kinematic exercises with example. [CO5][L3] **15**
- Q.10 Assess and discuss the different joint mobilization techniques for a case of frozen shoulder. [CO6][L2] **15**

Supplementary Examination, Dec. 2023
Master of Physiotherapy — First Year
APPLIED BIOMECHANICS & ERGONOMICS (MPT 104)

Time: 3 hrs.

Max Marks: **80**

No. of pages: 1

*Note: Attempt **SIX** questions in all; from which attempt any **TWO** questions from **PART-A** and **FOUR** questions from **PART-B**. Marks are indicated against each question.*

PART-A

- Q.1 Attempt all questions.
(2x5=10 Marks)
- a) Classify muscles. [CO-2][L-4]
 - b) Define 'ergonomics'. [CO-6][L-1]
 - c) Define 'accelerometer'. [CO-1][L-2]
 - d) Enumerates effects of immobilization on bone. [CO-3][L-3]
 - e) Phases of running gait. [CO-5][L-2] **2x5**
- Q.2 Explain in detail the time and rate dependent properties of muscle. [CO-2] [L-1] **10**
- Q.3 Enumerate work related musculoskeletal disorders seen in computer professionals. Add a note on ergonomic advise to prevent these disorders. [CO-6] [L-3] **10**

PART-B

- Q.4 Explain the Pathomechanics of Compressive and distraction injuries seen in elbow joint. [CO-3][L-2] **15**
- Q.5 Write in detail about various Lever system seen in human body and their role in mechanical advantage. [CO-2][L-2] **15**
- Q.6 Define 'EMG'. Explain the instrumentation and the role of EMG physiotherapy. [CO-4][L-2] **15**
- Q.7 Discuss kinetic and kinematics of stance phase of normal gait cycle. [CO-5][L-3] **15**
- Q.8 Enumerate various types of muscle work along with example. Add a note on iso-kinetic assessment. [CO-5][L-5] **15**
- Q.9 What is Rapid Upper Limb Assessment (RULA) in ergonomics? Write in detail about the components of the test and its interpretation. [CO-6][L-4] **15**

Supplementary Examination, Dec. 2023
 Master of Physiotherapy – First Year
BIOSTATISTICS AND RESEARCH METHODOLOGY (MPT 105)

Time: 3 hrs.

Max Marks: **80**

No. of pages: 1

*Note: Attempt **SIX** questions in all; in which attempt any **TWO** questions from **PART-A** and **FOUR** questions from **PART-B**. Marks are indicated against each question.*

PART-A

Q.1 Mention the components of a research proposal. [CO5][L3] **10**

Q.2 Consider the following distribution:

Marks:	0-10	10-20	20-30	30-40
Frequency:	18	12	20	25

Compute mean, median and mode. [CO2][L5,3] **10**

Q.3 The grades of 36 students in an auditing test are:

Grades:	30-40	40-50	50-60	60-70	70-80	80-90	90-100
No. of Students:	3	4	6	10	6	4	3

Find standard deviation. [CO4][L5] **10**

PART-B

Q.4 Describe the characteristics of a hypothesis. Classify different types of hypothesis. Justify the significance of a p-value. [CO5][L2] **15**

Q.5 What are the pre-requisites for obtaining informed consent? Mention the components of informed consent form. [CO1][L5,6] **15**

Q.6 A panel of judges A and B graded seven debaters and independently awarded the following marks:

Marks by A:	40	34	28	30	44	38	31
Marks by B:	32	39	26	30	38	34	28

An eighth debater was awarded 36 marks by judge A while judge B was not present. If judge B were also present, how many marks would you expect him to award to eighth debater assuming that the same degree of relationship exists in their judgment. [CO5][L6] **15**

Q.7 Define 'sampling'. Mention different types of sampling. [CO4][L5,L3] **15**

Q.8 Differentiate between validity and reliability. Mention different types of validity. [CO3][L2] **15**

Q.9 What are various methods of data collection? Explain with examples. [CO3][L2] **15**

Supplementary Examination, Dec. 2023
Master of Physiotherapy – First Year
PROFESSIONAL DEVELOPMENT AND ETHICS (MPT 106)

Time: 3 hrs.

Max Marks: **80**

No. of pages: **1**

Note: Attempt **SIX** questions in all; Attempt any **TWO** questions from **PART-A** and **FOUR** questions from **PART-B**. Marks are indicated against each question.

PART-A

- Q.1 Explain various theories of learning with reference to education in healthcare. [CO-3][L-2] **10**
- Q.2 Discuss various processes under which "management" of an organization works with examples in healthcare settings. [CO-1][L-2] **10**
- Q.3 Explain important steps of effective "human resource management." [CO-1][L-2] **10**

PART-B

- Q.4 Roles of physiotherapist as an educator. [CO-1][L-3] **15**
- Q.5 Practicing ethic of "Justice" in physiotherapeutic management of patient. [CO-2][L-2] **15**
- Q.6 What is principle of integrity and accountability? Give example of its application in Physiotherapy practice. [CO-2][L-2] **15**
- Q.7 Discuss important Medico-legal issues of physiotherapy practice. [CO-5][L-5] **15**
- Q.8 Explain few Features of "Microsoft Word Application." [CO-6][L-3] **15**
- Q.9 What is collective bargaining? Discuss the pros and cons of collective bargaining. [CO-2][L-2] **15**

Supplementary Examination, Dec. 2023
Master of Physiotherapy (Sports) — Second Year
MEDICAL AND SURGICAL MANAGEMENT OF SPORTS INJURIES
(MPT 502)

Time: 3 hrs.

Max Marks: **80**

No. of pages: 1

Note: Attempt **SIX** questions in all; in which attempt any **TWO** questions from **PART-A** and **FOUR** questions from **PART-B**. Marks are indicated against each question.

PART-A

- Q.1 Explain the following:
a) Role of physiotherapists in injury prevention. [CO-1][L-1]
b) Protective equipment used in cricket. [CO-1][L-1] **5×2**
- Q.2 Write in detail about the post operative management for Tendo Achilles Rupture. [CO-2][L-2] **10**
- Q.3 Enumerate common overuse injuries seen in Badminton players and write the physiotherapy management for Rotator cuff injury. [CO-5][L-3] **10**

PART-B

- Q.4 What is SLAP tear? Mention its grades and post surgical physiotherapy management. [CO-5][L-5] **15**
- Q.5 Explain the mechanism of ACL injury, its Assessment and post surgical rehabilitation in detail. [CO-4][L-2] **15**
- Q.6 Discuss in detail common problems faced by disabled athlete while training and competition. [CO-3][L-4] **15**
- Q.7 Explain in detail mechanism of injury for hamstring strain, its special tests and Physiotherapy management for the same. [CO-6][L-2] **15**
- Q.8 Enlist the prohibited drugs to be used by athletes. Add a note on testing procedure by WAD A. [CO-3][L-2] **15**
- Q.9 Explain in detail the patho physiology of female athlete triad and add a note on management. [CO-2][L-5] **15**

End Semester Examination, Dec. 2023

OPEN ELECTIVE - COMMON FOR ALL BRANCHES

RECENT TRENDS IN FOODS (ND-OE-001)

Time: 3 hrs.

Max Marks: **100**

No. of pages: 1

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Marks are indicated against each question.

- Q.1 Explain the following:
- a) Organic foods.
 - b) Conventional foods.
 - c) Ready to eat foods.
 - d) Genetic modification.
 - e) Nano foods.

[CO1][L1] **4×5**

PART-A

- Q.2 Summarize the scope and importance of organic foods in India. [CO-2,3][L-2] **20**
- Q.3 Define 'organic foods'. Outline the methods of production of organic farming. [CO-1,4][L-5] **20**
- Q.4 Discuss the role of nanotechnology in food processing and food safety. State the application of nanotechnology packaging? [CO-1,4][L-5] **20**

PART-B

- Q.5 Comment on the health and safety aspects of GM Foods. [CO-2,3][L-2] **20**
- Q.6 Classify convenience foods on the basis of their processing and ease of consumption. Also give three examples in each category. [CO-2][L-4] **20**
- Q.7 Justify nutrition and health aspect of convenience foods. [CO-2][L-5] **20**

End Semester Examination, Dec. 2023
OPEN ELECTIVE - COMMON FOR ALL BRANCHES
HEALTH AND FITNESS EDUCATION (PT-OE-002)

Time: 2 hrs.

Max Marks: **50**

No. of pages: 1

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Marks are indicated against each question.

Q.1 Answer the following in brief:

- a) Define 'movements'. [CO1, L2]
- b) What are the three axis and planes? [CO1, L2]
- c) Discuss non-primitive data type with help of examples. [CO3, L5]
- d) Explain 'stretching'. [CO2, L2]
- e) Describe 'plane'. [CO3, L5]
- f) Enumerate any two elements of yoga. [CO4, L2]
- g) Describe 'Pranayama'. [CO4, L3]
- h) Mention any two medical conditions in which yoga is found to be effective. [CO2, L5]
- i) List any two effects of alcohol abuse on health of the athletes. [CO1, L2]
- j) Explain health education. [CO1, L2] **1×10**

PART-A

- Q.2 a) Describe the role of exercise and its impact on human body. [CO1, L2] **5**
b) Explain the types of muscles in detail. [CO1, L3] **5**
- Q.3 What are resistance exercises? Explain the types of resistance training in detail. [CO2, L3] **10**
- Q.4 Enumerate the physical and mental limitation of exercises. [CO3, L5] **10**

PART-B

- Q.5 Discuss the importance of yoga. [CO-1,2 L4] **10**
- Q.6 Write down the principles of health education. [CO-2 L3] **10**
- Q.7 Why Yoga is considered as an effective way for fitness training? Explain in detail. [CO-5,6 L5] **10**

End Semester Examination, Dec. 2023
OPEN ELECTIVE - COMMON FOR ALL BRANCHES
ERGONOMICS AND HUMAN FACTOR (PT-OE-003)

Time: 2 hrs.

Max Marks: **50**

No. of pages: **1**

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Marks are indicated against each question.

Q.1 Explain the following:

10 marks

- | | |
|---|-------------------------|
| a) Effect of exercises on different physiological function. | [CO-1][L-2] |
| b) Mechanical risk factors. | [CO-2][L-3] |
| c) Role of ergonomics in home activities. | [CO-2,3][L-3] |
| d) Draw a work design station. | [CO-1,4][L-2] |
| e) Effect of stress on ergonomics. | [CO-1,2][L-3] |
| f) Physiology of exercises. | [CO-3,4][L-4] |
| g) Behavior. | [CO-2,3][L-5] |
| h) Occupational safety. | [CO-2,3][L-24] |
| i) Visual display terminal. | [CO-2][L-3] |
| j) Name of designing a work station. | [CO-1][L-2] 1×10 |

PART-A

Q.2 Enumerate the Musculoskeletal disorder related to bad posture. [CO-3][L-3] **10**

Q.3 Write the difference between bad Posture and good posture and how good posture is helpful. [CO-3][L-2] **10**

Q.4 Explain the role of visual display terminal and work station ergonomics in offices. [CO-4][L-4] **10**

PART-B

Q.5 Explain the psycho-social considerations in ergonomics. [CO-1][L-4] **10**

Q.6 Write about the health of individual and occupational safety. [CO-1,2][L-2] **10**

Q.7 How exercises are helpful in maintaining good ergonomics. [CO-2][L-3] **10**