



- 9) Adolescents need extra energy and protein in their diet due to rapid growth and bodily changes. Which of the following would you recommend to provide \_\_\_\_\_
- a) Extra snacks between meals
  - b) Extra chips
  - c) A Big Mac after school
  - d) More chocolates
- 10) The elderly are at increased risk for deficiency of \_\_\_\_\_
- a) Vitamin D and B1
  - b) Vitamin A and B12
  - c) Vitamin D and B12
  - d) Vitamin A and B1

**B) True or False.****06**

- 1) Primary school child needs at least 8 glasses of water
- 2) Low fat or fat free means no calories
- 3) Female teenagers need at least 1.0 milligrams of Riboflavin a day
- 4) It is recommended that babies are weaned at 6 months
- 5) Patients who are taking medications such as diuretics may need to be on a high potassium diet
- 6) Exercise will affect the taste of breast milk.

**Q.2 Answer the following. (any two)****16**

- a) Define Nutrition. Write about Good nutrition and Poor Nutrition.
- b) Write about Anterol and Parental feeding
- c) Write about Physiological changes and complications during pregnancy
- d) Write about Nutritional needs for preschool children.

**Q.3 Answer the following.**

- a) Define Calorie. Write about Bomb Calorimeter
- b) Pre and Postoperative care

**08****08****Q.4 Answer the following.**

- a) Define BMR. Write about factors affecting B M R
- b) Modification of normal diet during illness and convalescence

**08****08****Q.5 Answer the following.**

- a) Nutritional needs in pregnancy
- b) Balanced diet for school going children

**08****08****Q.6 Answer the following.**

- a) Role of hormones in milk production and requirement of calorie, proteins and fats of lactating mothers.
- b) Nutritional needs of Adolescent

**08****08****Q.7 Answer the following.**

- a) Responsibilities of dietician and Nutritional counselling
- b) Physiological changes in old age

**08****08**

Seat No.	
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**P. G. Diploma in Dietetics and Nutrition (Sem - I) (New) (CBCS)  
Examination: March/April-2023  
Nutritional Biochemistry (PGDDN102)**

Day & Date: Thursday, 20-07-2023  
Time: 11:00 AM To 02:00 PM

Max. Marks: 80

**Instructions:** 1) All questions are compulsory.  
2) Draw diagrams wherever necessary.  
3) Figures to the right indicate full marks.

**Q.1 Solve any one in detail.** **16**

a) Write about solutions, filtration, diffusion osmosis- its definition, physiological uses

**OR**

b) Write definition, classification, sources and functions of carbohydrates.

**Q.2 Solve any one in detail.** **16**

a) Definition, classification function and sources of protein.

**OR**

b) Write about classification of fat and beta oxidation of fatty acids.

**Q.3 Write in short about the following:-** **16**

a) Write about general body composition.

b) Physiological importance of colloids.

c) Draw gluconeogenesis.

d) Write about ca and vit D its correlation and deficiency diseases.

**OR**

e) Write about Vitamin B1, B2, B3.

f) Draw Krebs cycle.

g) Physical and chemical properties of fat

h) Write about iodine and iron.

**Q.4 Write:-** **16**

a) Function and sources of Na and K.

b) Classification of enzymes.

c) Physiological importance of colloid.

d) Indices for determination of protein quality.

**OR**

e) Write about dialysis

f) Vitamin C sources, function and deficiency.

g) Draw gluconeogenesis pathway.

h) Write about Vitamin B complex.

**Q.5 Write in short.** **16**

a) Sources of carbohydrate.

b) Define surface tension.

c) Draw structure of D.N.A.

d) Biological value of protein.

e) Excess of carbohydrate.

f) Inborn error of lipid metabolism.

g) Function of n6 fatty acids.

h) Vitamin A deficiency diseases.

<b>Seat No.</b>	
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**P. G. Diploma in Dietetics and Nutrition (Semester – I) (New) (CBCS)  
Examination: March/April-2023  
Human Physiology (PGDDN104)**

Day & Date: Friday, 21-07-2023  
Time: 11:00 AM To 02:00 PM

Max. Marks: 80

**Instructions:** 1) All questions are compulsory.  
2) Figures to the right indicate full marks.  
3) Draw diagrams wherever necessary.

**Q.1** Describe in detail about cell, cell division and elementary composition of human body. **16**

**OR**

Write in short about anatomy, functions of digestive tract, digestion, absorption process.

**Q.2** Write the process of urine formation, composition of urine, functions of kidney. **16**

**OR**

Name the various endocrine glands. Describe functions of pituitary gland and add a note on effects of hypo and hyper secretion of pituitary hormones.

**Q.3 Write short answers. (Any Four)** **16**

- a) Functions of lungs
- b) Functions of plasma proteins
- c) Electro Cardiogram (ECG)
- d) Hypo and hyperthyroidism
- e) Menopause and its symptoms

**Q.4 Write short notes on. (Any Four)** **16**

- a) Functions of heart
- b) Exchange of O<sub>2</sub> & CO<sub>2</sub>
- c) Bone classification
- d) Coagulation Process
- e) Role of lymphocyte in immunity

**Q.5 Write in brief.** **16**

- a) Blood Groups
- b) Composition of blood
- c) Thrombosis
- d) Example of Involuntary Muscles
- e) Secretion of ovaries
- f) Inflammation
- g) Normal Platelet Count
- h) Normal Hemoglobin Count



**Q.4 Answer the following.**

- a) What is Acute Glomerular nephritis? Write it in detail with nephrotic syndrome. **10**
- b) Write down and discuss in detail about different Cardio vascular diseases. **06**

**Q.5 Answer the following.**

- a) Mention the diseases of nervous system and write down in detail about Anorexia nervosa and Bulimia. **08**
- b) What is Therapeutic Diet? Discuss this in relation with Diabetes and Cardio-vascular diseases. **08**

**Q.6 Answer the following.**

- a) What should be the dietary management in regard with Anemia and burns. **08**
- b) Write down the dietary management in surgical condition. **08**

**Q.7 Answer the following.**

- a) Write down in detail about dietary management in Cancer and AIDS. **08**
- b) What is Sports nutrition? Write in detail about current need of Sports nutrition. **08**

Seat No.	
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**PG Diploma in Dietetics & Nutrition (Semester - II) (New) (CBCS)  
Examination March/April-2023  
Food Science and Food Microbiology (DDN202)**

Day & Date: Monday, 17-07-2023  
Time: 11:00 AM To 02:00 PM

Max. Marks: 80

- Instructions:** 1) All questions are compulsory.  
2) All questions carry equal marks.  
3) Draw diagrams wherever is necessary.  
2) Figures to the right indicate full marks.

- Q.1** Explain in detail about Fish **16**  
**OR**  
Write about structure of pulses and Nutritive value of pulses
- Q.2** Write in detail about Leavening agents. **16**  
**OR**  
Write in detail about any four methods of Food Preservation
- Q.3 Write in Short (Any four)** **16**  
a) Classification of fruits  
b) Food Additives  
c) Structure of Cereals  
d) Factors contributing to food spoilage  
e) Changes due to cooking in meat  
f) Objectives of cooking Food
- Q.4 Write in short (Any four)** **16**  
a) Nutritive value of Milk  
b) Safe Food Preparation Practices  
c) Beverages  
d) Importance of food preservation  
e) Detection of adulteration in Turmeric powder Milk  
f) Packaging material
- Q.5 Write in Brief** **16**  
a) Skimmed milk powder  
b) Baking powder  
c) Definition of Leavening agent  
d) Two changes due to cooking in fruits  
e) Definition of Food Preservation  
f) Name chemical preservatives  
g) Two changes due to cooking in Meat  
h) Name of food groups

Set No.	
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**P.G. Diploma in Dietetics and Nutrition (Semester - II) (New) (CBCS)  
Examination: March/April-2023  
Sports Nutrition (DDN207)**

Day & Date: Tuesday, 18-07-2023  
Time: 11:00 AM To 02:00 PM

Max. Marks: 80

- Instructions:** 1) Q. Nos. 1 and. 2 are compulsory.  
2) Attempt any three questions from Q. No. 3 to Q. No. 7  
3) Figure to right indicate full marks.

**Q.1 A) Choose correct alternative. (MCQ) 10**

- 1) Fast twitch glycolytic muscle fiber (type 2 b) are \_\_\_\_\_.
  - a) High fatigue resistant
  - b) High susceptible to fatigue
  - c) Low fatigue resistant
  - d) Low susceptible to fatigue
- 2) Net protein utilization focuses on \_\_\_\_\_.
  - a) Nitrogen retention
  - b) Protein digestibility
  - c) Muscle sparing effect of amino acid
  - d) ammonia acid score
- 3) What is the lean factor percent body fat level for normal man \_\_\_\_\_.
  - a) 14 - 20%
  - b) 20 - 28%
  - c) 10 - 14%
  - d) Above 28%
- 4) Branched chained amino acid do not include \_\_\_\_\_.
  - a) Leucine
  - b) Glucosamine
  - c) Valine
  - d) Isoleucine
- 5) Delayed on set muscle soreness (DOMS) congestive agent \_\_\_\_\_.
  - a) Hydroxyproline
  - b) Proline
  - c) Leucine
  - d) Isoleucine
- 6) Glucosamine is helpful in \_\_\_\_\_.
  - a) Nervous tissue
  - b) Connective tissue
  - c) Muscle tissue
  - d) Epithelial tissue
- 7) 1 gm of glycogen is stored with about 3 gm of \_\_\_\_\_.
  - a) Glucose
  - b) Lipid
  - c) Water
  - d) Amino acid
- 8) Which aids describe athletic performance enhancing substance & training techniques?
  - a) Strength
  - b) Performance
  - c) Ergogenic
  - d) None of above
- 9) Out of this, which one is not a method of body fat determination?
  - a) Cadaver analysis
  - b) Underwater weighing
  - c) Potassium ion
  - d) None of above
- 10) Creatine phosphate helps in all except \_\_\_\_\_.
  - a) Football
  - b) Marathon
  - c) Power lifting
  - d) Weight lifting



**B) Fil in the blank.**

- 1) \_\_\_\_\_ is the neuro transmitter.
  - a) Lysine
  - b) Leucine
  - c) Isoleucine
  - d) L- Glutamine
- 2) \_\_\_\_\_ is the best anti-oxidant.
  - a) L-Glutathione
  - b) Glutamine
  - c) Leucine
  - d) Isoleucine
- 3) The brain can use \_\_\_\_\_ cal/day of glucose from liver glycogen.
  - a) 200
  - b) 400
  - c) 600
  - d) 500
- 4) \_\_\_\_\_ primary role of transportation of fatty acid into mitochondria.
  - a) L- carnitine
  - b) L-arginine
  - c) L-valine
  - d) L-tyrosine
- 5) \_\_\_\_\_ will mostly benefit long distance athletes.
  - a) L- carnitine
  - b) Whey Protein
  - c) Creatine
  - d) Coenzyme Q10
- 6) Melatonin main function is improving \_\_\_\_\_.
  - a) Hair
  - b) Muscle
  - c) Hunger
  - d) Sleep

**Q.2 Answer the following.**

16

- a) Write a note on free radical.
- b) Write a note on Branched chain amino acid & their dosage.
- c) Write a note on muscle fiber & their function.
- d) Write a note on body types. (Somatotype)

**Q.3 a)** Write a note on Athletic significance of water & oxygen and briefly describe hydration guidelines for optimum athletic performance during endurance events. **08**

**b)** Write a note on athletic significance of vitamins & briefly describe water soluble vitamins. **08**

**Q.4 a)** Write a note on athletic significance of carbohydrate & carbohydrates for increased athletic performance. **08**

**b)** Write a note athletic significance of protein & briefly describe nitrogen balance & biological value. **08**

**Q.5 a)** Write a note on botanical ergogenic supplement with doses **08**

- i) L- Carnitine & Coenzyme Q10
- ii) Creatine Monohydrate & Caffeine

**b)** Write a note on athletic significance of food & sport supplement & briefly describe food vs supplement. **08**

**Q.6 a)** Write a note on endurance exercise & metabolic response along with aerobic system changes & anaerobic system changes. **08**

**b)** Write a note on Performance Nutrition plan with rational. **08**

- a) Anaerobic - Immediate energy sport & Anaerobic Glycolytic sport
- b) Anaerobic Glycolytic - oxidative glycolytic sport & oxidative sport

**Q.7 a)** Plan a diet for 18 years female powerlifter athlete (1800 kcal). **08**

**b)** Plan a diet for 22 years male who has long distance cycling event. (2200 kcal) **08**

Set  
No.

**P.G. Diploma in Dietetics and Nutrition (Semester - II) (New) (CBCS)  
Examination: March/April-2023  
Food Service Management & Community Nutrition (DDN208)**

Day & Date: Tuesday, 18-07-2023  
Time: 11:00 AM To 2:00 PM

Max. Marks: 80

- Instructions:** 1) Q. 1 and Q. 2 are compulsory.  
2) Attempt any three questions from Q. No. 3 to Q. No. 7  
3) Figure to right indicate full marks.

**Q.1 A) Choose correct alternative (MCQ). 10**

- 1) Anthropometric measurements includes \_\_\_\_\_.  
a) Skin fold thickness                      b) Height  
c) Weight                                      d) all of the above
- 2) The disease which is caused by protein energy malnutrition is \_\_\_\_\_.  
a) Tuberculosis                              b) Marasmus  
c) Goiter                                      d) Anemia
- 3) Which is the key sector of ICDS to provide preschool education in remote areas.  
a) Aanganwadis                              b) training institutes  
c) Creche                                      d) day care center
- 4) Which of the following are the methods of education \_\_\_\_\_.  
a) lectures and demonstration      b) film and slide shows  
c) Workshops                              d) all of the above
- 5) Causes of malnutrition can be classified as immediate underlying and root causes, which of the following would be in the underlying class \_\_\_\_\_.  
a) Low wages  
b) Unclean drinking water  
c) sedentary life style  
d) all of the options listed are correct
- 6) Distribution and service are categorized as \_\_\_\_\_ in the food service system model.  
a) functional subsystems              b) Controls  
c) Inputs                                      d) Outputs
- 7) \_\_\_\_\_ is an example of noncommercial food service.  
a) Caterers                                      b) hospital cafeterias  
c) Bakeries                                      d) Pubs
- 8) Pica is the habit of eating \_\_\_\_\_.  
a) Mud                                      b) Clay  
c) Chalk                                      d) all of the above
- 9) Simple random sampling is a type of \_\_\_\_\_.  
a) non-probability sampling              b) probability sampling  
c) purposive sampling                      d) none of above

