

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

MSc DEGREE EXAMINATION DECEMBER 2022
(First Semester)

Branch – FOODS AND NUTRITION

ADVANCED NUTRITION - I

Time: Three Hours

Maximum: 50 Marks

SECTION-A (5 Marks)

Answer ALL questions

ALL questions carry EQUAL marks

(5 x 1 = 5)

- 1 Find the acid produced in anaerobic metabolism.
(i) Carbonic acid (ii) lactic acid
(iii) pyruvic acid (iv) acetic acid
- 2 Which plays a catalytic role in citric acid cycle?
(i) Acetyl co A (ii) citrate
(iii) oxaloacetate (iv) alpha keto- glutarate
- 3 Mention the predominant site of fatty acid synthesis.
(i) Brain (ii) pancreas
(iii) kidney (iv) peripheral tissues
- 4 Choose the mechanism for transporting amino acids in cells.
(i) Active Transport (ii) Passive Transport
(iii) Simple diffusion (iv) Facilitated diffusion
- 5 State the fuel source of brain in an absorptive state.
(i) Glucose (ii) galactose
(iii) fructose (iv) Dextrin

SECTION - B (15 Marks)

Answer ALL Questions

ALL questions carry EQUAL marks

(5 x 3 = 15)

- 6 a Determine the role of High Energy Phosphate in energy storage.
OR
b Evaluate renal regulation of pH.
- 7 a Discuss on Glucose transporters.
OR
b Show the binding ability of Fibre.
- 8 a Determine the biological importance of lipids.
OR
b Explain ketone body formation.
- 9 a Proteins are immune protectors – Illustrate with suitable example.
OR
b Recommend the metabolism of Alanine.
- 10 a Determine the tissue specific metabolism during fasting.
OR
b State the thermic effect of food.

Cont...

SECTION -C (30 Marks)

Answer **ALL** questions

ALL questions carry **EQUAL** marks

(5 x 6 = 30)

11 a Elucidate on components of cell.

OR

b Analyse the role of regulatory peptides in digestive process.

12 a Enumerate on Glycogenolysis.

OR

b Construct the characteristics of Functional Fibre.

13 a Evaluate the role of liver in lipid metabolism.

OR

b Elucidate on brown fat thermogenesis.

14 a Categorize the structure of protein.

OR

b Discuss on protein transcription and protein translation.

15 a Analyse the interrelationship between carbohydrate and lipid metabolism.

OR

b Predict the hormonal influences in body composition regulation.

Z-Z-Z

END