

**M.VOC. 1<sup>ST</sup> SEMESTER EXAMINATION-2022**

**Department of Nutrition, Mugberia Gangadhar Mahavidyalaya**

**PAPER-ADVANCES IN FOOD BIO-CHEMISTRY AND NUTRITION(FTNM13T)  
[THEORY]**

**Full Marks: 40      Time: 2 Hours**

*The figures in the margin indicate full marks. Candidates are required to give their answers in their own words as far as practicable.*

1. Answer any five questions. 5x2
  - a. What is PER?
  - b. What is glycemic index?
  - c. Define water activity.
  - d. What is balanced diet?
  - e. Write any two advantages of microwave cooking.
  - f. Write any two advantages of essential fatty acids.
  - g. Explain the importance of Gums in Food industry.
  - h. What is smoke point?
  
2. Answer any four questions 4x5
  - a. What is denaturation? Write the structure of protein. (2+3)
  - b. Discuss briefly about starch gelatinization and retro gradation. (2.5+2.5)
  - c. Write a short note on hydrogenation.
  - d. What is modified starch? Write the food applications of modified starch. (2+3)
  - e. What is the mechanism of nitrosamine formation in meat products?
  - f. Write short note on Phospholipids.
  
3. Answer any one question. 10x1
  - a. Write short notes on (5+5)
    - i. Enzymatic browning
    - ii. Non enzymatic browning
  - b. Describe the changes that occur in proteins during processing of food.