

BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI  
(END SEMESTER EXAMINATION)

CLASS: IMF  
BRANCH: FOOD TECHNOLOGY

SEMESTER : III  
SESSION : MO/18

SUBJECT: IMF3001 FOOD COMPOSITION AND CHEMISTRY  
TIME: 3.00 HOURS

FULL MARKS: 60

**INSTRUCTIONS:**

1. The question paper contains 7 questions each of 12 marks and total 84 marks.
  2. Candidates may attempt any 5 questions maximum of 60 marks.
  3. The missing data, if any, may be assumed suitably.
  4. Before attempting the question paper, be sure that you have got the correct question paper.
  5. Tables/Data hand book/Graph paper etc. to be supplied to the candidates in the examination hall.
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- Q.1(a) What do you mean by water activity? [2]  
Q.1(b) Write a short note on proximate composition of food. [4]  
Q.1(c) Explain the terms food, nutrition and nutrients. [6]
- Q.2(a) What is Bile? [2]  
Q.2(b) Point out the factors affecting absorption of lipids. [4]  
Q.2(c) Write down the properties of lipids and discuss the processing of lipids. [6]
- Q.3(a) Classify the dietary carbohydrates with suitable examples. [2]  
Q.3(b) What are the roles of carbohydrate in the body? [4]  
Q.3(c) Write short notes on the reaction mechanism of monosaccharides. [6]
- Q.4(a) What role do vitamins play in the body? [2]  
Q.4(b) What are the differences in between enzymes and vitamins? [4]  
Q.4(c) Write down the general characteristics of vitamins. [6]
- Q.5(a) What do you mean by Aroma in food? [2]  
Q.5(b) Explain the term taste. [4]  
Q.5(c) Write short notes on chlorophyll and carotenoids. [6]
- Q.6(a) What do you mean by proteins? [2]  
Q.6(b) Explain the term peptide bond. [4]  
Q.6(c) Describe protein denaturation. [6]
- Q.7(a) Explain the term food balance sheet. [2]  
Q.7(b) Define the type of food poisoning. What methods are essential to prevent it? [4]  
Q.7(c) Write down nutritional fact of mango juice and tomato ketchup. [6]

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