

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

CLASS: IMSC
BRANCH: FOOD TECHNOLOGY

SEMESTER : VII
SESSION : MO/19

SUBJECT: SAF1003 ADVANCE FOOD CHEMISTRY AND NUTRITION

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 is LDL and HDL and discuss its functions? What are the role of nutrition in physiological system? [6]
Q.1(b) Give dietary classification of carbohydrates. Give examples of disaccharides [6]
- Q.2(a) What is nutrition and good nutrition? Classify food based on predominate function. [6]
Q.2(b) Show the simplified overview of carbohydrate metabolism. Discuss the metabolism of fructose and galactose. [6]
- Q.3(a) How you evaluate and assess the proteins? Describe the characteristics of fat. [6]
Q.3(b) Discuss the benefit of diet with high carbohydrate intake. Differentiate between dextrinization and Caramelization [6]
- Q.4(a) Correlate Mrs. NERG with body organs. What are the causes for negative nutrient balance? [6]
Q.4(b) Show pictorially the digestion and absorption of lipids. What are the functions of gallbladder in digestive system? [6]
- Q.5(a) Compare undernutrition vs overnutrition. Show the accurate view of DRI. [6]
Q.5(b) Write the different steps in blood sugar control in human body. Denaturation and Adaptation of proteins. [6]
- Q.6(a) What are the functions of small intestine in digestive system? How PDCAAS is calculated? [6]
Q.6(b) Discuss common causes of food borne intoxication? Discuss the non enzymatic browning. [6]
- Q.7(a) Show protein metabolism in digestive system. What are vitamins like compounds? [6]
Q.7(b) Discuss four phytochemicals its source and functions on human body? Discuss the physical aspects of lipids. [6]

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