

PARUL UNIVERSITY
FACULTY OF APPLIED SCIENCE
M.Sc. Winter 2019-20 Examination

Semester: 1
Subject Code: 11213105
Subject Name: Food Chemistry

Date: 06/12/2019
Time: 10:30am to 1:00pm
Total Marks: 60

Instructions:

1. All questions are compulsory.
2. Figures to the right indicate full marks.
3. Make suitable assumptions wherever necessary.
4. Start new question on new page.

- Q.1. A) Essay type/ Brief note (4x2) (Each of 04 marks) (08)**
a) Explain Classification of lipid.
b) Explain oil refining.
- Q.1. B) Answer the following questions (Any two)**
- a) Short note/ Brief note (2x2) (Each of 02 marks) (04)
1. Write down difference between fat soluble and water soluble vitamins.
 2. Write advantages of fructose over glucose?
- b) Classification of carbohydrates and their examples. (04)
- c) What is rancidity? Write down types of rancidity found in oil/fat? Explain Oxidative rancidity in detail. (04)
- Q.2. A) Answer the following questions.**
- (a) Short note/ Brief note (2x2) (Each of 02 marks) (04)
1. Formation of protein
 2. Explain type of moisture
- (b) List down Physical properties of Lipid. (04)
- Q.2. B) Answer the following questions (Any two)**
- (a) Multiple choice questions. (Each of 01 marks) (03)
1. In the germination process which enzymes activates?
A) Diartreas B) Lactose
C) Maltase D) Lipases
 2. Amylase is a form of?
A) Cereals & grains B) pulses
C) starch D) nuts
 3. Which type of rancidity is more common in butter?
A) Hydrolytic B) Kenotic
C) Oxidative D) All of the above
- (b) Explain water activity. (03)
- (c) Explain the properties and deficiency of vitamin A. (03)
- Q.3. A) Essay type/ Brief note (4x2) (Each of 04 marks) (08)**
(a) Short note on food flavor.
(b) Classification of protein.
- Q.3. B) Answer the following questions (Any two)**
- (a) Short note/ Brief note (2x2)/ Schematically label the figures (2x2) (Each of 02 marks) (04)
- 1) Draw the Structure of: Glucose, Fructose, Lactose, and Maltose
 - 2) What is EMC? Explain in detail.
- (b) Write a short note on polysaccharide. (04)
- (c) Write a short note on vitamin E. (04)

Q.4. A) Answer the following questions.

(a) Short note/ Brief note (2x2) (Each of 02 marks)

(04)

1. What is saturated fatty acid?
2. What is the biological function of protein for human?

(b) Brief note on modified starch.

(04)

Q.4. B) Answer the following questions (Any two)

(a) Short note/ Multiple choice questions. (Each of 01 marks)

(03)

- 1) What is calorie?
- 2) At a_w _____ microorganism can't grow?
- 3) In which body part fructose is stored?

(b) What is Sucrose? Write down its importance and Structure of sucrose.

(03)

(c) Write a short note on Amino acid.

(03)