Paper Id: | 182311 | **Roll No:** | | | | | | | | | | | |

B. TECH.
(SEM-III) THEORY EXAMINATION 2019-20
COMPOSITION, QUALITY AND SAFETY OF FOODS

Time: 3 Hours   *Total Marks: 100*

Note: 1. Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1.   **Attempt *all* questions in brief.**   **2 x 10 = 20**

Q. No.	Question	Marks
a.	What is food?	2
b.	Differentiate between free water and bound water.	2
c.	What do you understand by reducing sugars?	2
d.	What do you understand by dietary fibers?	2
e.	Enlist the essential amino acids required for a normal adult.	2
f.	What do you understand by zwitterions?	2
g.	What is quality control cycle?	2
h.	Differentiate among hue, value and chroma.	2
i.	What do you understand by hazard?	2
j.	What do you understand by food additives?	2

SECTION B

2.   **Attempt any *three* of the following:**   **3 x 10 = 30**

Q. No.	Question	Marks
a.	What do you understand by R.D.A.? Discuss the factors affecting R.D.A. and also give the uses of R.D.A.	10
b.	Write a technical note on browning of foods.	10
c.	Discuss the interaction and linkages involved in protein structure.	10
d.	Enlist the causes of undesirable changes leading to quality deterioration in foods. Also comment on defects in foods.	10
e.	Write a precise note on Hazard Analysis and Critical Control.	10

SECTION C

3.   **Attempt any *one* part of the following:**   **1 x 10 = 10**

Q. No.	Question	Marks
a.	Discuss the undesirable constituents of foods with their significance.	10
b.	Enlist the Vitamins with their sources and the disorders that due to their deficiency.	10

4.   **Attempt any *one* part of the following:**   **1 x 10 = 10**

Q. No.	Question	Marks
a.	Give the classification of lipids. Also discuss the rancidity in fats and oils.	10
b.	Discuss the physical properties of lipids in detail.	10

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5. **Attempt any *one* part of the following:** **1 x 10 = 10**

Q. No.	Question	Marks	CO
a.	Discuss the physicochemical properties of amino acids.	10	
b.	Discuss the different methods for evaluation of protein quality.	10	

6. **Attempt any *one* part of the following:** **1 x 10 = 10**

Q. No.	Question	Marks	CO
a.	Give the various definitions of Quality. Also enlist the responsibilities of quality control department.	10	
b.	What do you understand by Kinesthetic attributes? Also discuss the instruments for measurement of viscosity of any food.	10	

7. **Attempt any *one* part of the following:** **1 x 10 = 10**

Q. No.	Question	Marks	CO
a.	What do you understand by food safety? Also discuss the risk assessment.	10	
b.	Give the classification of foods with respect to spoilage. Also discuss food adulteration.	10	