

**16U474**

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Name: .....

Reg. No.....

**FOURTH SEMESTER B.Sc. DEGREE EXAMINATION, APRIL 2019**

(CUCBCSS-UG)

**CC17U FTL4 B07 – FOOD CHEMISTRY AND ANALYTICAL INSTRUMENTATION**

Food Technology - Core Course

(2017 Admission Regular)

Time: Three Hours

Maximum: 80 Marks

**PART- A**

Answer *all* questions. Each question carries 1 mark.

Multiple choice:

1. Non protein part of enzyme is called  
a) Haloenzyme      b) Prosthetic part      c) Apoenzyme      d) Nanoenzyme
2. The apparatus used to measure heat change during chemical reactions is called  
a) Polarimeter      b) Colorimeter      c) Chromatography      d) None of these
3. The carbohydrates which serves as reserve glucose in body is  
a) Sucrose      b) Glycogen      c) Collagen      d) Protein
4. Non reducing sugar is  
a) Fructose      b) Glucose      c) Sucrose      d) Mannose
5. Iodine value measures  
a) Degree of unsaturation      b) Degree of saturation  
c) Amount of carbon atom      d) Number of iodine present

Name the following:

6. Carotene is mainly responsible for yellow color of .....
7. Pure water freezes at .....°C temperature.
8. A solution of salt in water is called .....
9. Lactose is disaccharide carbohydrate found in the form of glucose and .....
10. Fat and oils generated .....times more energy than protein and carbohydrates.

**(10 × 1 = 10 Marks)**

**PART-B**

Answer any *five* questions. Each question carries 2 marks.

11. Define food chemistry.
12. What is isoelectric point?

13. What are polyols?
14. Explain water activity.
15. Write about the polymorphism of fat?
16. Briefly explain Tritable acidity.
17. Write notes on galacturonic acid.

**(5 × 2 = 10 Marks)**

### **PART-C**

Answer any *six* questions. Each question carries 5 marks.

18. How chlorophyll changes during cooking?
19. Write the effect of heat treatment on proteins.
20. Diagrammatic representation of optical isomer.
21. Difference between reducing sugar and non reducing sugar.
22. Classify chromatographic technique with reference to principle.
23. What are the advantages of using enzymes in food processing?
24. Explain the formation of peptide bond.
25. Define Emulsification.

**(6 × 5 = 30 Marks)**

### **PART-D**

Answer any *two* questions. Each question carries 15 marks.

26. Briefly explain the physical and chemical properties of fat.
27. Write the detail on properties and classification of carbohydrates.
28. What are the principles of spectrophotometers and explain detail.
29. Write short note on qualitative and quantitative determination of protein.

**(2 × 15 = 30 Marks)**

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