

C 21275

(Pages : 2)

Name.....

Reg. No.....

FOURTH SEMESTER (CUCBCSS—UG) DEGREE EXAMINATION, APRIL 2022

Food Technology

FTL4B07—FOOD CHEMISTRY AND ANALYTICAL INSTRUMENTATION

(2017—2018 Admissions)

Time : Three Hours

Maximum : 80 Marks

I. Objective type (All questions are *compulsory*) :

State whether true or false :

- 1 UV is a column in HPLC.
- 2 Oleic acid is a unsaturated fatty acid.

Match the following :

- | | | | |
|---|-----------|---|-----------------|
| 3 | Sucrose | – | Monosaccharide. |
| 4 | Glucose | – | Polysaccharide. |
| 5 | Cellulose | – | Disaccharide. |

Answer in a single or two words :

- 6 The linkage between two amino acids in a protein.
- 7 Give an example of flavanoid.

Fill in the blanks :

- 8 _____ is an example for oil in water emulsion.
- 9 Enzymatic browning in fruits is due to the action of the enzyme _____.
- 10 _____ is mobile phase in GC.

(10 × 1 = 10 marks)

II. Short Answer type questions (Answer any *five* questions) :

- 11 Define saponification value of an oil.
- 12 Why sucrose is non-reducing sugar ?
- 13 Differentiate between Free and Bound water.

Turn over

- 14 Explain enzyme Specificity.
- 15 Describe denaturation of protein.
- 16 Explain the importance of Rf value in planar chromatography.
- 17 Describe emulsion and give an example.

(5 × 2 = 10 marks)

III. Short Essay questions (Answer any *six* questions) :

- 18 Write briefly about Carotenoids.
- 19 Write short notes on enzyme classification.
- 20 Name the methods for moisture determination and explain one method.
- 21 Write a short note on classification of Lipids.
- 22 Explain one reaction useful for identification of sugars
- 23 Write a short on the factors effecting the enzyme activity
- 24 Describe the changes in proteins during cooking.
- 25 Describe in detail about Ion exchange Chromatography.

(6 × 5 = 30 marks)

IV. Essay Questions (Answer any *two* questions) :

- 26 Explain various methods useful for the determination of molecular weights of proteins.
- 27 Explain in detail about emulsifying agents.
- 28 Write the effect of processing and storage on chlorophyll pigments in foods.
- 29 Write in detail about HPLC.

(2 × 15 = 30 marks)