

(6 pages) **Reg. No. :** .....

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**Code No. : 30294 E      Sub. Code : JNCH 3 A/  
SNCH 3 A**

U.G. (CBCS) DEGREE EXAMINATION,  
NOVEMBER 2020.

### Third Semester

Chemistry

Non-Major Elective — FOOD CHEMISTRY

(For those who joined in July 2016 onwards)

Time : Three hours Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. The main energy component of rice is
  - (a) fat
  - (b) protein
  - (c) carbohydrate
  - (d) lipid
2. Which of the following is a source of protein?
  - (a) egg
  - (b) rice
  - (c) fruits
  - (d) all the above

3. \_\_\_\_\_ is a leavening agent.
- (a) Vinegar                      (b)  $\text{C}_6\text{H}_5\text{COOH}$   
(c) NaCl                        (d) Yeast
4. Which of the following is a natural colourants?
- (a) anthocyanine  
(b) benzaldehyde  
(c) malachite green  
(d) vanilin
5. \_\_\_\_\_ inhibit the growth of micro-organism.
- (a) fermentation              (b) boiling  
(c) freezing                    (d) evaporation
6. Preservation of food material by radio isotope is done by \_\_\_\_\_.
- (a) U-235                      (b) Co-60  
(c) Th-238                    (d) Pu-239
7. Metanil yellow (yellow pigment) is adulterated in \_\_\_\_\_.
- (a) milk                        (b) oil  
(c) ghee                        (d) turmeric powder

8. Waster is adulterated with \_\_\_\_\_.  
(a) milk (b) oil  
(c) ghee (d) tea powder
9. Which of the following is available under AGMARK?  
(a) milk products  
(b) rice  
(c) oil  
(d) all the above
10. Essential Commodities Act was passed in the year \_\_\_\_\_.  
(a) 1955 (b) 1965  
(c) 1975 (d) 1985

PART B — ( $5 \times 5 = 25$  marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 250 words.

11. (a) Give the classification of food.

Or

- (b) What is calorific value of food? Explain.

12. (a) Write the classification of food colourants.

Or

- (b) What are anti-oxidants? Give their significance.

13. (a) Give the classification of food preservation technique.

Or

- (b) Give the role of radiation in food preservation.

14. (a) What is food adulteration? Explain with example.

Or

- (b) Explain different types of adulterants in food.

15. (a) Write the importance of essential commodities act.

Or

- (b) Give the importance of AGMARK seal in food products.

PART C — ( $5 \times 8 = 40$  marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 600 words.

16. (a) Give the biological importance of carbohydrate and protein in food.

Or

- (b) Write note on : (4 + 4)

- (i) Calorific value of food
- (ii) Balanced diet.

17. (a) Explain the following :

- (i) stabilizers
- (ii) flavours.

Or

- (b) Write note on the following : (4 + 4)

- (i) bleaching agents
- (ii) leavening agents.

18. (a) Give a detailed study of food preservation by deep freezing.

Or

- (b) What are food preserving agents? Explain their role in food preservation.

19. (a) What are the adulterants present in milk, ghee and oil?

Or

- (b) Write the detection analysis of adulterant in Chilli powder.

20. (a) Describe packing and labelling of food material.

Or

- (b) Write note on :

- |                               |     |
|-------------------------------|-----|
| (i) WHO standard              | (4) |
| (ii) Consumer Protection Act. | (4) |

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