Reg. No. :

Code No.: 40291 E Sub. Code: JSCH 3 B/ SSCH 3 B

> B.Sc. (CBCS) DEGREE EXAMINATION, NOVEMBER 2019.

> > Third Semester

Chemistry - Main

Skill based Subject - FOOD CHEMISTRY

(For those who joined in July 2016 onwards)

Time: Three hours Maximum: 75 marks

PART A — $(10 \times 1 = 10 \text{ marks})$

Answer ALL questions.

Choose the correct answer:

- leafy vegetables get most of their green colour from
 - (a) Carotene
- (b) Chlorophyll
- (c) Mitochondria
- (d) Xanthophyll

- When we chop onions, our eyes can burn because a chemical reaction produces
 - (a) Acetic acid
- (b) Hydrochloric acid
- (c) Nitric acid
- (d) Sulphuric acid
- None of the naturally occurring anti-oxidant phenols are permitted as food additives. This statement is
 - (a) True

- (b) False
- (c) Some times true
- d) None of the above
- 4. ———— salts are used in fruit processing operations in concentration below 0.1%
 - (a) Calcium
- (b) Sodium
- (c) Magnesium
- (d) All the above
- 5. The reason for the addition of adulterants is
 - (a) To increase self-life of products
 - (b) To improve flavour, colour and appearance
 - (c) To sell lesser quantity at the same price
 - (d) All the above

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- 6. The reason which shows the impact of adulteration on the economy is
 - (a) Adulteration people falling sick and spending money on treatment
 - (b) Adulteration people falling sick and court cases
 - (c) Both (a) and (b)
 - (d) None of the above
- FDA stands for
 - (a) Food and Drug Administration
 - (b) Florida Dental Association
 - (c) Functional Data Analysis
 - (d) First Division Association
- 8. The expanded form of WHO is
 - (a) World health office
 - (b) World health organisation
 - (c) White house office
 - (d) White house organisation

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- 9. The mineral present in milk is
 - (a) Calcium
- (b) Barium
- (c) Magnesium
- d) Iron
- 10. The method used to estimate glucose is
 - (a) Bertranel method
 - (b) Haber process
 - (c) Iodine value method
 - (d) None of the above

PART B — $(5 \times 5 = 25 \text{ marks})$

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

Each answer should not exceed 250 words.

11. (a) Discuss briefly the function of lipids.

Or

- (b) Discuss in detail the functions of vitamins and minerals.
- 12. (a) Give any two preservatives. Explain their roles.

Or

(b) Write down briefly the characteristics of food additives.

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[P.T.O.]

 (a) Write a note on prevention of food Adulteration Act.

Or

- (b) How are the food adulterants present in turmeric powder and milk determined?
- 14. (a) Explain briefly the FA, FDA and WHO.

Or

- (b) Write down briefly on the consumer protection Act.
- 15. (a) How is casein isolated from milk?

Or

(b) How is protein present in food stuff estimated?

PART C — $(5 \times 8 = 40 \text{ marks})$

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

Each answer should not exceed 600 words.

(a) How are proteins classified? Explain their functions.

Or

(b) What is meant by food? How is it classified? Discuss the energy requirements of individuals.

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17. (a) Explain briefly any two methods of food preservation.

Or

- (b) Explain the following:
 - (i) Sweeteners
 - (ii) Flavours
 - (iii) Emulsifiers
 - (iv) Food colourants.

 $(4 \times 2 = 8)$

18. (a) What is meant by food adulteration? What are the adulterants present in oil, honey and chilly powder? How are they determined?

Or

- (b) What is meant by food poisoning? Explain briefly how it is prevented.
- (a) What are ISI and AGMARK? Explain briefly their functions.

Or

- (b) (i) Explain briefly the essential commodities Act. (4)
 - (ii) Discuss briefly the packing and labelling of foods. (4)

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What is meant by fat? How is fat present in food stuff determined? 20. (a)

Or

What is meant by Bertranel method? Explain briefly how it is used to estimate glucose.

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