

Register Number:

Date:

**ST. JOSEPH’S COLLEGE (AUTONOMOUS), BANGALORE-27**

**UG- IVSEMESTER OPEN ELECTIVE**

**SEMESTER EXAMINATION- APRIL 2019**

**CHOE 4316: Chemistry of Food Production, Health and Nutrition**

**Time: 1½ hrs** **Maximum marks: 35**

**Note: This question paper contains 2 printed pages and 3 parts.**

**PART A**

Answer any **ten** of the following questions.  **10x1=10**

1. Give the names of the primary plant nutrients.
2. What is meant by sour soil?
3. Give a harmful effect of DDT.
4. What does RDA stand for?
5. Name the classes of micronutrients required for the growth of a human being.
6. Deficiency of which mineral can cause goitre?
7. What is the function of the additive, monosodium glutamate in food?
8. Which class of food additive does aspartame belong to?
9. Name a common adulterant used in turmeric powder.
10. How do you detect the presence of chalk powder in sugar?
11. What is the name of the process by which complex organic compounds such as glucose are broken down by the action of enzymes into simpler compounds when no oxygen is present?
12. Name the gas liberated while cooking with baking soda.

**PART B**

Answer any **five** of the following questions. **5x2=10**

1. What do the soil colours i) black and ii) red indicate?
2. How many kilocalories of energy can be obtained per gram of i) fat and ii) carbohydrate?
3. Give two sources of vitamin C.
4. What is meant by basal metabolic rate (BMR)? Give one factor that affects BMR.
5. What are sequestrants? Give an example.
6. How do you detect artificial colouring in tea leaves?
7. What is meant by leavening of bread? Give one example of a leavening agent.

**PART C**

Answer any **three** of the following questions.  **3x5=15**

1. Discuss i) selective and ii) non-selective herbicides with suitable examples.
2. How is urea manufactured? Give its advantages and disadvantages.
3. Discuss the ways of assessing the nutritional status of a human being.
4. What are food preservatives? How are they classified? Explain their mode of action.
5. Discuss i) the function and ii) problems associated with the deficiency and excess of proteins.