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Register Number:

Date: 02-04-219

**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**

**This paper contains TWO printed pages and three parts**

**Part A**

Answer any **TEN** of the following 10 x 1= 10 marks

1. Give one deficiency effect of calcium.
2. What is malnutrition?
3. Give an example for antimicrobial preservatives.
4. Name an artificial sweetener.
5. Give an example for emulsifiers.
6. Write the chemical formula of potash.
7. Name a traditional method for the control of weeds in agriculture.
8. Which enzyme catalyses the conversion of glucose to carbon dioxide (CO2 )and ethanol

(C2H5OH).

1. What is the substance that gives carrot its color?
2. List four major elements in the human body.
3. Give the chemical formula of glucose.
4. Expand BMR.

**Part B**

Answer any **FIVE** of the following 5 X 2 = 10 marks

1. What are the six classes of nutrients required for human beings?
2. Give one problem associated with the deficiency of protein.
3. Write two examples for minerals required for human body.
4. Mention any four dietary recommendations for human beings.
5. Give an example of sequestrants. What is their role in food?
6. Explain nitrogen fixation.
7. What is DDT? Give the name of a compound which is a substituent for it.

**Part C**

Answer any **THREE** of the following 3 X 5 = 15 marks

1. Complete the table in one word or sentence each

|  |  |  |
| --- | --- | --- |
|  | Function | Food source |
| Carbohydrate |  |  |
| Protein |  |  |
| Fat |  |  |

1. How do you test the presence of adulterants in the following?
2. Chalk in sugar ii) starch in milk iii) artificial color in chili powder.
3. How is plant nutrients classified? Give an example for each.
4. What are chemical fertilizers? How is calcium superphosphate manufactured? Give an advantage and disadvantage each.
5. Give one source and disease caused by the deficiency of following vitamins i) A ii) D iii) E iv) C v) B complex.

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**CHOE 4316\_A\_19**