

CLASS: BE  
BRANCH: ALL

SEMESTER: III  
SESSION : MO/2017

SUBJECT: BT3021 BIOLOGICAL SCIENCE

TIME: 1.5 HOURS

FULL MARKS: 25

INSTRUCTIONS:

1. The total marks of the questions are 30.
2. Candidates may attempt for all 30 marks.
3. In those cases where the marks obtained exceed 25 marks, the excess will be ignored.
4. Before attempting the question paper, be sure that you have got the correct question paper.
5. The missing data, if any, may be assumed suitably.

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- Q1 (a) Describe some characteristic that makes virus a non living thing. [2]  
(b) How did the Redi's and Pasteur's experiments disprove the theory of spontaneous generation? [3]
- Q2 (a) Point out the reason behind not choosing oxygen as one of the gas in Miller's experiment? [2]  
(b) List some basic property of organisms on which Whittaker five kingdom was proposed. [3]
- Q3 (a) Silicon is second most abundant element in earth crust but not part of organic molecules why? [2]  
(b) Classify the Monosaccharide's based on number of carbon atom with examples and describe the functions of these carbohydrates in living system. [3]
- Q4 (a) What are the consequences of deficiency of selenium, Fluorine, calcium and cobalt in living organisms? [2]  
(b) What do you understand by Saturated fat and unsaturated fats? Differentiate between fatty acids and triglycerides. [3]
- Q5 (a) A polar bear survives an extreme winter without water and carbohydrates, explain. [2]  
(b) Describe the different steps in Glycolysis? What is the net gain of ATP in this process. [3]
- Q6 (a) Draw a general structure of nucleotide? [2]  
(b) Differentiate between aerobic and anaerobic respiration. [3]

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