Dr Ashole Kuny

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT T-2 EXAMINATION- April 2019

B. Tech 8th Semester

COURSE CODE:

14B1WBT741

MAX. MARKS: 25

COURSE NAME:

Bio-resources and Industrial Products

COURSE CREDITS: 3

MAX. TIME: 1.5 Hr

Note: All questions are compulsory. Carrying of mobile phone during examinations will be treated as case of unfair means. Use of calculator is allowed.

Q No. 1 Discuss the role of bacteria to clean up the oil spills? Explain with examples. (CO III) (2 marks)

Q No. 2 Discuss the role of microorganisms as enzyme resources. Explain the basic methodology of enzyme production using genetic engineering techniques. (CO IV) (3 marks)

Q No. 3 Discuss the various methods of heavy metals recycling and recovery in the polluted water. (CO II) (3 marks)

Q No. 4 Discuss the various modes of action of probiotics in human body. What are the various factors which affect the probiotics ecosystem? (CO III) (3 marks)

Q No. 5 What do you understand by Prebiotics? What are the various types of prebiotics? Explain with suitable example. (CO IV) (4 marks)

Q No. 6 Discuss the various steps used in meat processing. What is the nutritional value of red meat as a food product? (CO V) (4 marks)

Q No. 7 Write a short note on following. (CO V) $(1.5 \times 4 = 6 \text{ marks})$

- (a) Cell surface engineering for metal removal
- (b) Margarine and condensed milk as dairy products
- (c) Poultry products and their nutritional value
- (d) Beekeeping and honey production