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JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

T2 EXAMINATION-APRIL 2018

B.Tech/M.Tech VIII Semester

COURSE CODE: 14B1WBI741

COURSE NAME: Bio-resources and Industrial Product

COURSE CREDITS: 3

MAX.MARKS: 25

Max Time: 1.5 Hr

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

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Q.1 (a) what are "second generation" biofuels? [2.5]

(b) "Presence of small amount of water and free fatty acid in vegetable oil reduce the yield of biodiesel production" comment on the statement. [2.5]

Q.2 (a) Write a detail note on penicillin biosynthesis. [3]

(b) Many food products can be preserved by lowering "water activity" justify the statement [2]

Q.3 Bacteria cannot be seen with naked eyes, but these can be seen with the help of a microscope. If you have to carry a sample from your home to your biology laboratory to demonstrate the presence of and identification of microbe under microscope, which sample would you carry and why? [2]

Q.4 Define terpenoids and classify them according to the number of isoprene unit with example [4]

Q.5 What is essential oil? How are essential oil extracted? [4]

Q.6 What are the different scale of bioresource engineering [2]

Q.7 what are bio-fertilizers? Write down the difference between bio-fertilizers and green manure [3]