



KERALA AGRICULTURAL UNIVERSITY
B.Tech.(Food Engg) 2015 Admission
VI Semester Final Examination- July 2018

Fdsc.3206

Food Industry Waste Management (2+0)

Marks: 50
Time: 2 hours
(10x1=10)

I Fill up the blanks

- 1 Temperature range for pyrolysis lies between _____ and _____.
- 2 One kg of wood gives _____ kg of charcoal.
- 3 The enzyme present in rice bran is _____.
- 4 The colour of meat is due to _____ pigment.
- 5 _____ and _____ are the by-products obtained from rice processing.
- 6 Calorific value of for rice husk is _____ kcal/kg.
- 7 CIFT means _____.
- 8 Winterization is the process of removal _____.
- 9 _____ is the process of separation of liquids from a solid liquid mixture.
- 10 HACCP stands for _____.

II Write short notes/answers etc on ANY FIVE

(5x2=10)

- 1 Write down the steps involved in oil extraction from food wastes.
- 2 List out steps involved in stabilization of rice bran.
- 3 What are the by-products of pulse milling?
- 4 Briquetting.
- 5 Alcoholic fermentation.
- 6 What are the wastes obtained from tuber crops?
- 7 Feasibility report.

III Answer any FIVE of the following.

(5x4=20)

- 1 List out the major food processing operations and modes of their waste management.
- 2 Draw the process flow chart for refining of crude rice bran oil.
- 3 Draw the flow chart for production of ethanol from sugarcane molasses.
- 4 Describe the processes involved in production of citric acid from fruit wastes.
- 5 Enumerate the fermentation products from cane molasses.
- 6 RRL furfural processing.
- 7 Process flow chart for making ceramics from rice husk.

IV Write an essay on any ONE of the following

(1x10=10)

- 1 Explain sugarcane industry waste and their waste management in detail.
- 2 Explain the different steps involved in pyrolysis of rice husk.
