

# KERALA AGRICULTURAL UNIVERSITY

B.Tech.Food Engg. 2013 Admission  
One Time Re-examination-February - 2017

Cat. No: Fdsc.3205

Marks: 50

Title: Food Industry Waste Management (2+0)

Time : 2 hours

## I. Fill up the blanks:

(10 x 1=10)

1. Chemical activation for activated carbon production is preferred over physical activation due to ----- temperature; short time.
2. Average size of carbon powder in powder activated carbon is -----
3. Lignocelluloses is composed of hemicellulose, lignin and -----
4. Strong acid is used to ----- digestibility of cellulose by enzymes.
5. In production of paricle board from coir pith phenol formaldehyde of ----- is used.
6. Briquetting has ----- ash content after combustion.
7. ----- is swelling of starch granule in presence of heat and water.
8. Briquetting screw has feed section, compression section and -----
9. ----- is process done to produce smooth surface paper.
10. Biomass as such has ----- combustion efficiency.

## II. Write short notes on ANY FIVE:

(5x 2=10)

1. Autovating.
2. Iodine number.
3. Pectin from fruit waste.
4. Alcohol distillation.
5. Rice germ.
6. BOD.
7. Coconut shell utilization.

## III Write answers on ANY FIVE:

(5 x 4=20)

1. Write a note on oil extraction from waste.
2. Write about waste management in sugar mill.
3. What are wastes from tuber crops?
4. Discuss thermal application in waste utilization.
5. Discuss utilization of meat industry waste.
6. Explain briquetting technology.
7. Write a note on energy from soild waste.

## IV. Write essay on any ONE

(1 x 10=10)

1. Discuss different sources of food waste.
2. Explain utilization of waste from rice milling industry.

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