KERALA AGRICULTURAL UNIVERSITY

B.Tech (Food.Engg) 2012 Admission VIth Semester Final Examination- June/July -2015

Cat. No: Fdsc.3205

<u>Title: Food Industry Waste Management (2+0)</u>

Marks: 80 Time: 3 hours

Part A

Answer the following

 $(10 \times 1.0 = 10.0)$

State the following statement True (or) False

- 1. Biomass energy is a renewable source.
- 2. Activated carbon has very low degree of micro porosity.
- 3. Briquetting can be done even without binders.
- 4. Briquetting process with binder material requires high pressure
- 5. Activated carbon is used in wastewater treatment.
- 6. Paddy contains about 35 per cent of husk
- 7. Particle boards can be used in false ceiling.
- 8. Mango kernel is used for making briquettes.
- 9. Silver loaded activated carbons are used in domestic water purification.
- 10. Briquetting increases ash content after combustion.

Part B

Answer any TEN of the following Write short note on

- 1. Biomass resource
- 2. Carbonization
- 3. Alkali treatment of lignin
- 4. Pyrolysis
- 5. Activated carbon
- 6. stabilization
- 7. particle board
- 8. briquetting
- 9. COD
- 10. molasses number
- 11. pelleting.
- 12. calendaring.

 $(10 \times 3.0 = 30.0)$

Part C

Answer any SIX questions

 $(6 \times 5.0 = 30.0)$

- 1. Explain pyrolysis and gasification of rice husk:
- 2. Discuss problems encountered in rice bran utilization.
- 3. Write a note on effluent treatment plant in fruit industry.
- 4. Explain various uses of byproduct from wheat milling industry.
- 5. Discuss waste utilization from coconut industry.
- 6. Discuss by-product utilization of pulse milling industry
- 7. Write a note on waste water recycling plant
- 8. Discuss alcohol production from sugar mill.

Part D

Answer any ONE question

 $(1 \times 10.0 = 10.0)$

- 1. Discuss about by-product utilization from meat and poultry industries
- 2. Discuss nature and availability of food industry waste.

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