

Printed Pages : 2



EBT-032

(Following Paper ID and Roll No. to be filled in your Answer Book)

PAPER ID : 154752

Roll No.

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B. Tech.(SEM. VII) (ODD SEM.) THEORY
EXAMINATION, 2014-15**BIOFUELS & ALCOHOL TECHNOLOGY**

Time : 3 Hours]

[Total Marks : 100

Note : Attempt **all** questions .

- 1 Attempt any **four** parts of the following : **4×5=20**
- Discuss the different yeast strains used in fermentation process.
 - What do you mean by Fermentation Efficiency and Distillation Efficiency?
 - If fermentor is to be run at a constant pH of 5.5 and 8% deadband is used, what should be the set point and upper and lower deadband limit for the process?
 - What do you understand by E-number? Explain Gasohol.
 - Describe the parameters which are normally measured to check the progress of fermentation.
 - Explain BIOS factor regarding yeast growth.

- 2 Write short notes on any **four** : **4×5=20**
- (a) Biochemistry of alcohol production
 - (b) Sauerkraut fermentation
 - (c) Alcoholometry
 - (d) Fusel oil Separation
 - (e) Encillium Fermentation process
 - (f) Power alcohol
- 3 Attempt any **two** parts : **2×10=20**
- (a) Why molasses are the perfect feedstock for alcohol production. Briefly discuss the flow chart of alcohol production using molasses.
 - (b) Discuss the modern technique of continues fermentation process for alcohol production.
 - (c) Define the Crabtree Effect in detail. How it affects alcohol production?
- 4 Attempt any **two** parts : **2×10=20**
- (a) Discuss the design fundamentals and affecting parameters of alcohol distillation system.
 - (b) What is Baker's Yeast? Explain its production process with diagram.
 - (c) Write note on Biogas and syngas.
- 5 Attempt any **two** parts : **2×10=20**
- (a) What do you understand by bioenergy? Explain its various sources of production.
 - (b) Give a detail flow chart of alcohol production from cereal grain.
 - (c) Describe the thermal gasification of biomass.