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## **CM-7004(3)-CBGS**

### **B.E. VII Semester**

Examination, June 2020

## **Choice Based Grading System (CBGS)**

### **Process Intensification**

*Time : Three Hours*

*Maximum Marks : 70*

- Note:** i) Attempt any five questions.  
ii) All questions carry equal marks.

1. a) Explain mixing in intensified equipment.  
b) Discuss design principle of static mixers.
2. a) Explain the principle of cavitation.  
b) Discuss hydrodynamic cavitation application.
3. a) Discuss the techniques of process intensification application.  
b) Write benefits from process intensification.
4. a) Discuss principle of operation and application of reactive absorption.  
b) Discuss flow patterns and mixing in stirred tanks.
5. a) Discuss the implementation of micro-reaction technology.  
b) Discuss wet and dry etching process.

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6. a) Discuss process intensification through micro reaction technology.  
b) Discuss effect of miniaturization on unit operation and reaction.
  
7. a) Classify the compact heat exchangers.  
b) Explain the working of plate heat exchanger and spiral heat exchanger.
  
8. a) Write note on flat tube and fin heat exchangers.  
b) Write note on micro-channel heat exchangers.

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