## APJ Abdul Kalam Technological University

# Second Semester M.Tech Degree Examination May 2016

### Ernakulam II Cluster

### ELECTRONICS AND COMMUNICATION ENGINEERING

#### Time: 3 hrs. 05EC 6026 – VLSI PROCESS TECHNOLOGY Max. Marks 60

Ι	12 Marks
a) Write technical note on hot processing	[6]
b) State and explain the types of Oxides	[6]

II	12 Marks
a) Give the importance of sputtering in VLSI fabrication and its different types	[8]
b) What is the significance of damage annealing	[4]

III	18 Marks
a) With neat sketches discuss the concept of Enhancement techniques	[10]
b) Give an account on Chemical-mechanical polishing	[8]

#### OR

#### IV)

a)Discuss the need and application of photo resists and advanced lithography techniques	[12]
b) Mention the features and application Reactive ion etching	[6]

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V	18 Marks
a) Describe the steps used in GaAs Technologies fabrication	[6]
b) How metallization is so significant in VLSI fabrication with an example	[12]
OR	
VI	18 Marks
a) State the importance of Silicon Bipolar Technologies.	[8]
b) List the various micro-fabrication methods of MEMS fabrication	[10]