E.G.S. PILLAY ENGINEERING COLLEGE

Approved by AICTE, New Delhi | Affiliated to Anna University, Chennai
Accredited by NAAC with 'A' Grade | An ISO 9001 : 2008 Certified Institution
NAGAPATTINAM – 611002 TAMIL NADU INDIA
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CYCLE TEST 2

Sem/Section/Year	: VI/B/ III	Date & Session	:
Branch	: B.E.(Mech. Engg.)	Max. Time	: 3 Hours
Course Name	: UCM	Course Code	: ME6004
Faculty Name	: S. RAMABALAN	Max. Marks	: 100 marks

Answer ALL the Questions

Q.No.	PART-A (10X2=20)	CO#	KL
1.	State the working principle of LBM	5	K2
2.	Name two methods of focusing the electron beam	5	K1
3.	Explain why EBM is performed in a vacuum chamber?	5	K2
4.	Name some kinds of maskants used in CHM	4	K1
5.	What are the requirements of tool materials in ECM?	4	K2
6.	Name the etchants used in CM.	4	K1
7.	Name electrolyte for WC based alloys.	4	K1
8.	List the applications of EBM.	5	K1
9.	What is the acronym of LASER?	5	K1
10.	What is plasma?	5	K2

Q.No.	PART-B (5X13=65)	CO#	KL
11.	Describe briefly constructional and working principle of ECM.	4	K2
12.	Describe the characteristics of LBM.	5	K2
13.	Explain constructional and working principle of PAM.	5	K2
14.	Explain constructional and working principle of EBM.	5	K2
15.	Describe advantages, limitations and applications of ECG.	4	K2
Q.No.	**PART-C (1X15=15)**	CO#	KL
16.	Describe advantages, limitations and applications of ECH.	4	K2

Course Outcomes:

After completion of this course, students can able to

1. Explain the need and recent trends in unconventional machining processes.
2. Use mechanical energy based unconventional machining processes.
3. Use electrical energy based unconventional machining processes.
4. Use chemical and electro-chemical energy based unconventional machining processes.
5. Explain thermal energy based unconventional machining processes.

BT Knowledge Level: K1-Knowledge, K2-Understanding, K3-Apply, K4.Analysis, K5-Evaluate, K6-Create

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Q.No. PART-B (5X13=65) CO# KL
11. Describe briefly constructional and working principle of ECM. 4 K2
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