

Reg.No. \_\_\_\_\_



**Karunya UNIVERSITY**

(Karunya Institute of Technology & Sciences)  
(Declared as Deemed-to-be University under Sec.3 of the UGC Act, 1956)

**End Semester Examination – April/May – 2017**

**Code : 14ME2004**  
**Sub. Name : MANUFACTURING PROCESSES**

**Duration : 3hrs**  
**Max. marks : 100**

**ANSWER ALL QUESTIONS (5 x 20 = 100 Marks)**

Q. No.	Sub Div.	Questions	Course Outcome	Marks
1.	a.	Discuss the important properties of moulding sand.	CO1	8
	b.	Illustrate the process of shell moulding with neat sketches:	CO1	12
(OR)				
2.	a.	List out the advantages and limitations of sand casting:	CO1	8
	b.	Describe the process of investment casting with neat sketches:	CO1	12
3.	a.	Briefly explain the principle of rolling with a neat sketch.	CO1	8
	b.	Briefly discuss the different types of extrusion processes with relevant sketches:	CO1	12
(OR)				
4.	a.	List out the advantages and disadvantages of hot working:	CO1	6
	b.	Describe the process of injection moulding. List out its advantages.	CO1	14
5.	a.	With relevant sketches discuss the effect of clearance during blanking operation.	CO1	10
	b.	With relevant sketches differentiate compound die and combination die.	CO1	10
(OR)				
6.	a.	Explain various operations that are performed in sheet metal with relevant sketches	CO1	20
7.	a.	Describe the MIG welding process with neat sketch. Also discuss its applications.	CO1	14
	b.	Differentiate TIG welding and MIG welding.	CO1	6
(OR)				
8.	a.	With neat sketches, explain the working principle, types and applications of resistance welding processes.	CO1	20
<u>Compulsory:</u>				
9.	a.	Describe the steps involved in the manufacturing of products through powder metallurgy with relevant sketches.	CO1	20

ALL THE BEST