

Code No: J2110/R16

M. Tech. II Semester Regular Examinations, May-2017 **CRYOGENIC ENGINEERING**

Thermal Engineering (21)

Time: 3 Hours Max. Marks: 60

Answer any FIVE Questions All Questions Carry Equal Marks			
1.		Discuss the variation of different properties of materials during transition from normal to superconducting stage	12
2.		Draw a schematic and temperature-entropy diagram and explain the working of Claude liquefaction system.	12
3.		Explain with a schematic an ideal gas liquefaction system.	12
4.	a b	Distinguish between solid, liquid and gaseous cryogenic fluids. Explain the working of cryogenic refrigeration system.	6 6
5.		Discuss the role of cryogenic's in Biology, Medicine and Food Industry	12
6.		Describe in detail the variation of electrical properties of materials at cryogenic temperatures	12
7.		With a neat sketch explain the working of Simon Helium liquefier	12
8.		With the help of neat labeled sketch explain how cryogenic liquids are stored in a storage vessel. *****	12