Scat IV	o.:	Enrolment No GUJARAT TECHNOLOGICAL UNIVERS		
	DIPLO	OMA ENGG III rd SEMESTER–EXAMINATION – MAY		
Subject Name: Process Heat Transfer Time: 02:30 pm – 05:00 pm Instructions:		me: Process Heat Transfer 0 pm – 05:00 pm	Total Marks: 70	
111511	1. At 2. Ma	tempt all questions. ake suitable assumptions wherever necessary. gures to the right indicate full marks.		
Q.1	(a) (b)	Give five applications of heat transfer. Write three differences between conduction, convection and radiation.	07 07	
Q.2	(a) (b)	State and explain Fourier's law. Define: Thermal conductivity. How it varies with temperature or conductivity.	07 ure. 07	
Q.3	(b)	Explain : Double pipe heat exchanger.	07	
Q.S	(a) (b)	Derive equation of heat flow in two layer cylinder. Explain: 2-4 shell and tube heat exchanger.	07 07	
Q.3	(a) (b)	Derive equation of heat flow in three layer cylinder. Explain: 1-2 shell and tube heat exchanger.	07 07	
Q.4	(a)	Explain: Plate type heat exchanger.	07	

OR

Give difference between dropwise and filmwise condensation.

Explain: condensation.

Explain: Wein's law.

Explain: Duhring's rule.

Explain: Finned type heat exchanger.

Explain: Agitated film evaporator.

Explain: Forced circulation evaporator.

(b)

(a)

(b)

(a)

(b)

(a)

(b)

Q. 4

Q.5

Q.5

07

07

07

07

07

07

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