Seat No.:	Enrolment
No	

## GUJARAT TECHNOLOGICAL UNIVERSITY

Diploma Engineering - SEMESTER-IV • EXAMINATION - WINTER • 2014

Subject Code: 345505 Date: 03-12-2014

**Subject Name: Fabrication Technology - II** 

Time: 02:30 pm - 05:00 pm **Total Marks: 70** 

**Instructions:** 

1. Attempt all questions.

- 2. Make suitable assumptions wherever necessary.
- 3. Figures to the right indicate full marks.
- 4. English version is considered to be Authentic.
- (a) Draw a neat sketch, label its elements and state its functions: **Q.1** Elements of Reactor's
  - (b) XYZ Shell fabricator having following data/information

Sr no.	Description	Sym	Dim in
			mm
1)	O.D. of shell	$D_{o}$	1240
2)	I.D. of shell	$D_{i}$	1220
3)	Height(length) of shell	Н	550
*)	Calculate /find out :-		
1)	Thickness of shell	T	
2)	Mean dia. Of shell	D <sub>m</sub>	
3)	Length of shell plate	Lp	
4)	Shell plate diagonal length	$L_d$	
	_		

(a) Define the term a pressure vessels? **Q.2** 

State functions A Heat Exchanger and mode of heat transfer?

Classifies on various basis / criteria the P.E?

(b) Classify the support and explain any one of them with neat sketch.

OR

(b) State the meaning of ASME codes.

State in brief: - ASME section 1 to 12.

- (a) Explain in brief Third party Inspection Agencies full name with their specific 0.3 **07** abbreviation.
  - (b) Describe the steps followed for Shell to D/end fit-up and set-up with neat sketch

OR

(a) Describe the MTC with typical example 0.3

07

07

07

07

07

07

(b) Write in brief flange marking procedure with high light all construction lines on

1/2

the drawing.

the drawing.				
Sr	Description	Sym	Dim in mm	
no.				
1)	O.D. of flange	$D_{o}$	400	
2)	P.C.D. of flange	$D_{pcd}$	350	
3)	Inside dia of flange	$D_{i}$	200	
4)	No. of bolts holes	N	8	
5)	Dia of bolts holes	$d_b$	20	
6)	Thickness of flange	T	20	

Q.4	(a)	Describe in brief with neat sketch:  i) Tie rod ii) Baffles iii) Spacers iv) Tube  v) Impingement plate	07
	(b)	Describe in brief with neat sketch of PTC and R.F. Pad OR	07
Q. 4	(a)	Define the term 'ovality'?  Describe the concept of Ovality with ref. to spider.	07
	(b)	Prepare a typical inspection report for torospherical D/End with neat sketch.	07
Q.5	(a)	Describe the following terms in brief with neat sketch: Lifting Lug , Turn buckle Elevation in H/E drawing. Run-in and run-out plate for SAW	07
	(b)	Steps for rolling of a cylindrical shell $% \left( 1\right) =\left( 1\right) +\left( 1\right) +\left$	07
Q.5	(a)	OR State the function / APPLICATION of limpet coil.	07
Q.S	(a)	Classify the limpet coil. DESCRIBE them in brief.	U7
	(b)	Explain in brief with neat sketch of defect may be seen during forming of shell	07
		The End Best of Luck	

\*\*\*\*\*

2/2