Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

DIPLOMA ENGINEERING – SEMESTER-6 EXAMINATION –WINTER- 2019

Subject Code:3362301 Date: 26-11-2019

Subject Name: Design For Blow And Thermoforming Moulds

Time:02:30 PM TO 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. **Use of programmable & Communication aids are strictly prohibited.**
5. **Use of only simple calculator is permitted in Mathematics.**
6. **English version is authentic.**

Q.1		Answer any seven out of ten.	**14**
	1.	Write meaning of undercuts.	
	2.	Give any two differences between Injection Blow Molding and Extrusion Blow Molding	
	3.	State any two mold release agents.	
	4.	Define pinch off.	
	5.	Define Blow Ratio and Swell Ratio.	
	6.	Define shrinkage. State effect of mold temperature on shrinkage.	
	7.	Write the meaning of vacuum holes	
	8.	List various thermoforming mold materials.	
	9.	State different materials for Plug.	
	10.	List out different ancillary elements in blow mold	
Q.2	(a)	List out various ejection techniques in thermoform mold	**03**
		OR	
	(a)	State the importance of blow mold cooling	**03**
	(b)	Explain Striker plates in brief.	**04**
		OR	
	(b)	Describe any one flash removal method in blow molding.	**04**
	(c)	Define venting. Explain various venting methods in blow mold with neat sketches	**07**
		OR	
	(c)	Draw a neat sketch of cooling channels for blow mold	**07**
Q.3	(a)	State properties of beryllium copper as blow mold material.	**03**
		OR	
	(a)	Explain importance of mould parting line in a blow mould	**03**
	(b)	State properties require for blow mold materials.	**03**
		OR	
	(b)	List the mould material requirements for a thermoforming mould.	**03**
	(c)	Explain any surface treatment method for thermoforming.	**04**
		OR	
	(c)	List various moving elements for thermoforming mold. Explain any one.	**04**
	(d)	Write significance of Radii & corner edge design in blow mold.	**04**
		OR	
	(d)	Describe Alignment pins in brief.	**04**
Q.4	(a)	Explain Sheet clamping mechanisms for thermoforming.	**03**

OR

	(a)	Explain importance of mould cooling for a thermoforming mould.	**03**
	(b)	State various flash removal methods in blow mold.	**04**

OR

	(b)	Explain any one ejection method of blow mold with neat sketch.	**04**
	(c)	Draw only sectional elevation of a blow mold assembly for a product of your choice.	**07**

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Q.5	(a)	Sketch any two plug shapes.	**04**
	(b)	Write short note on Draft Angle.	**04**
	(c)	Sketch parison stick and label different parts.	**03**
	(d)	Discuss Core rods in blow molds.	**03**

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