Total Marks: 70

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER–VIII (OLD) - EXAMINATION – SUMMER 2017 Subject Code:182301 Date:04/05/2017 Subject Name: Plastics Mold & Die Design II

Time:10:30 AM to 01:00 PM

Instructions:

- 1. Attempt all questions.
- 2. Make suitable assumptions wherever necessary.
- 3. Figures to the right indicate full marks.

Q.1	(a) (b)	Describe the stripper bush ejection with the help of a sketch What are the factors affecting shrinkage of product in injection moulds? How to	07 07
		consider shrinkage in injection moulds while designing?	
Q.2	(a) (b)	Write a C program for the Shot Capacity. Discuss helical channel Cooling for deep cores	07 07
	(b)	Define: Layout; Heat Rods, Baffle cooling; Collapsible cores; undercut; finger- cam; O-ring	07
Q.3	(a)	What is collapsible core? Write down the advantages and disadvantages of collapsible core.	07
	(b)	Discuss Stripper Plate Ejection in detail.	07
		OR	
Q.3	(a) (b)	How heat rods & heat pipes extract heat from mould components? Explain. [1] Work out the pitch and pitch circle diameter for the interconnecting groove design, given that: diameter of insert =25 mm, gap between inlet and outlet grooves = 2 mm, number of impressions=10, depth of groove=3 mm. [2] Discuss cooling of shallow inserts	07 07
Q.4	(a) (b)	How bubbler cooling is better than baffle cooling? Explain. Write a short note on (i) Pinch-off design (ii) Blow ration in blow moulds OR	07 07
0.4	(a)	Discuss about cooling of Integer Cavities.	07
×	(b)	What are the different types of Extrusion dies? Explain about any two.	07
Q.5	(a)	What are the different parts of Two plate fully automatic injection mould? Draw the single cavity two plate injection mould for a disc of diameter 100 mm thickness	07
	(b)	What are the advantages and disadvantages on transfer Moulding?	07
Q.5	(a)	Discuss various mould designs of compression mould.	07
	(b)	What are the design considerations before designing a blow mould?	07
