

## Unit 7 - Week 5

## Course outline

## How to access the portal

## WEEK 0

## Week 1

## Week 2

## Week 3

## Week 4

## Week 5

 Introduction To Injection Molding Process, Materials, Terminologies Related To Plastic Parts & Design Guidelines

 Estimation of Mold Cost for Injection Molding (Dixon & Poli's Method)

 Estimation of Mold Cost for Injection Molding (Dixon & Poli's Method) - Continued

 Mold Cost Estimation - Tutorial

 Design for Additive Manufacturing

 Demo

 Supplementary material

 Week 5 - Feedback

 Quiz : Assignment 5

## Week 6

## Week 7

## Week 8

## VIDEO DOWNLOAD

## Live sessions

## Assignment 5

The due date for submitting this assignment has passed. As per our records you have not submitted this assignment.

Due on 2019-09-04, 23:59 IST.

[Click here](#) to download the Data table for Questions 5-9.

1) Knit lines in injection molded parts can be avoided by

0.5 points

- proper mold cavity design
- maintaining right injection pressure
- maintaining right temperature
- properly positioning the gates

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
*properly positioning the gates*

2) What is a "shut off hole" in injection molded parts

0.5 points

- a hole created by side action
- a hole created in the mold closing and opening direction
- a hole created on the sides by mold closing and opening action
- a hole with a boss

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
*a hole created on the sides by mold closing and opening action*

3) Surface finish of Additive Manufactured parts can be improved by

0.5 points

- using support structure
- choosing proper build orientation
- reducing the scan speed
- increasing the raster gap

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
*choosing proper build orientation*

4) Support structures are required for powder bed fusion additive manufacturing process

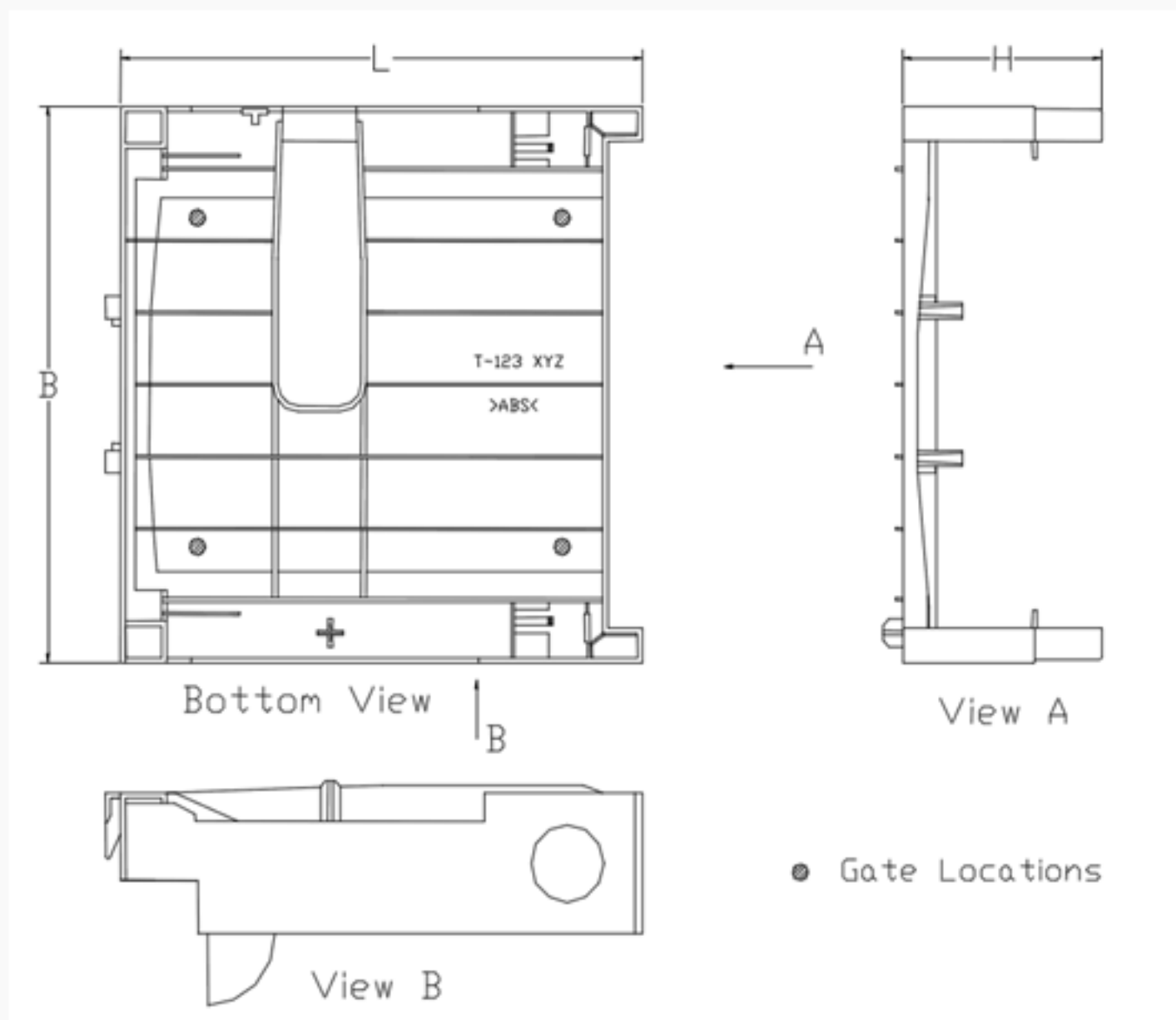
0.5 points

- No, for all materials
- Yes, for all materials
- Yes for polymers
- Yes for metals

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
*Yes for metals*

For the given plastic part drawing estimate the relative tooling construction cost using Dixon and Poli's method. The part has internal undercuts on two sides. It has envelope dimensions of 259mm x 251mm x 106mm. The bottom wall is multi-curved. It has one face with external undercuts, extensive ribbing on its backside, five windows, two bosses, four slots and four depressions. Commercial tolerances and a surface finish of SPI 3 are required. Use data tables provided.



5) The part is of \_\_\_\_ type?

1 point

- Box
- Flat

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
*Box*

6) Can the part be placed in one half of the mold?

2 points

- Yes
- No

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
*No*

7) What is the basic tool complexity cost C<sub>b</sub>?

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
*(Type: Range) 6.6,8*

2 points

8) What is the subsidiary tooling cost C<sub>s</sub>?

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
*(Type: Range) 1.7,2.2*

2 points

9) What is the tolerance cost C<sub>t</sub>?

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
*(Type: Range) 0.9,1.02*

1 point