HIPM Plastic product Design Evaluation

*Required

18/21

1. Name of Candidate

Sohailuddin Khaja moinuddin.

2. Which of following materials are used in Consumer Durable products?

Mark only one oval.

- [ ] PP
- [ ] HIPS
- [ ] ABS
- [ ] POM
- [ ] Nylon
- [x] All of Above

3. Which of below material is semi crystalline?

Mark only one oval.

- [x] PP
- [ ] ABS
- [ ] PC
- [ ] All of Above

4. What is Tensile modulus range value of HIPS at room temperature?

Mark only one oval.

- [ ] 700 - 900 MPa
- [ ] 1000 - 1600 Mpa
- [x] 1800-2200 Mpa
- [ ] 3500 - 4000 Mpa

5. What is Tensile modulus range value of PP at room temperature?

Mark only one oval.

- [ ] 700 - 900 MPa
- [ ] 1000 - 1400 Mpa
- [x] 1800-2200 Mpa
- [ ] 3500 - 4000 Mpa

6. What is melting temperature range value of PP material?

Mark only one oval.

- [x] 70-100 Deg C
- [ ] 140- 190 Deg C
- [ ] 200 - 264 Deg C
- [ ] 320 - 400 Deg C

7. What is meaning of HDT?

Mark only one oval.

- [x] Heat Deflection Temperature
- [ ] Highly Defined Texture
- [ ] High Density Testing
- [ ] None of above

8. How much material shrinkage value considered for HIPS material in percentage value?

Mark only one oval.

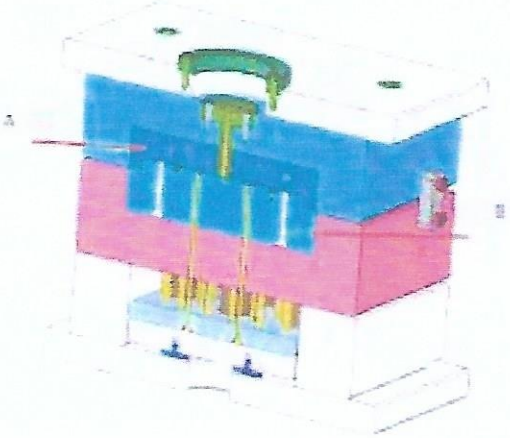
- [x] 0.2 - 0.8
- [ ] 1.1 - 1.4
- [ ] 2.2 - 3.2
- [ ] 3.4-3.8

9. What is typical Nominal wall thickness range for injection mounding parts in mm?

Mark only one oval.

- [ ] 0.2 - 0.9
- [ ] 1 - 1.5
- [x] 2 - 5
- [ ] 5 - 9

10. Below figure shows Core and Cavity, which of following statement is true?



Mark only one oval.

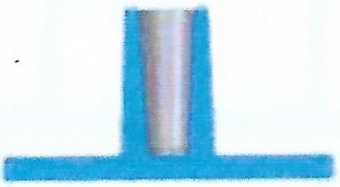
- [ ] A is Cavity and B is Core
- [x] B is Cavity and A is Core
- [ ] Both above statements are wrong
- [ ] Both above statements are right

11. Refereeing below figure, which of following statement is true, when Designing the Bosses in injection molding?

Mark only one oval.

- ( ) Both A and B both Boss design are correct
- ( ) A Boss design is only correct
- (✓) B Boss design is only correct
- ( ) Both A and B both Boss design are NOT correct

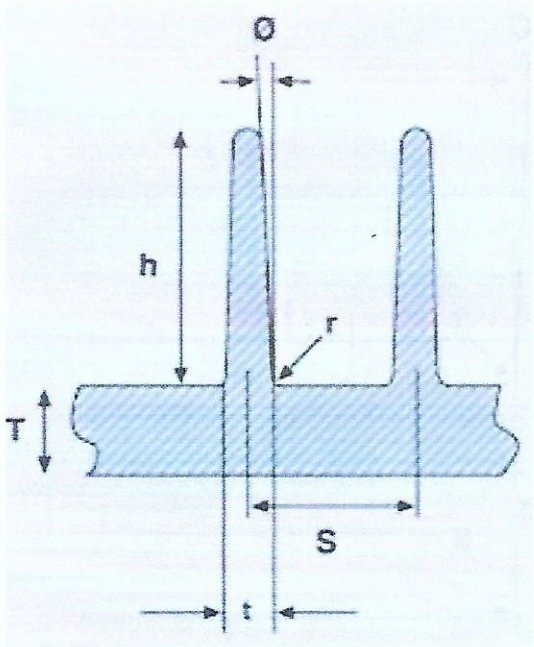
12. What should be ideal wall thickness for Bosses with respect to nominal thickness? (Refer below image)



Mark only one oval.

- [ ] 0.2 * t
- [x] 0.6 * t
- [ ] 1.2 * t
- [ ] 1.6 * t

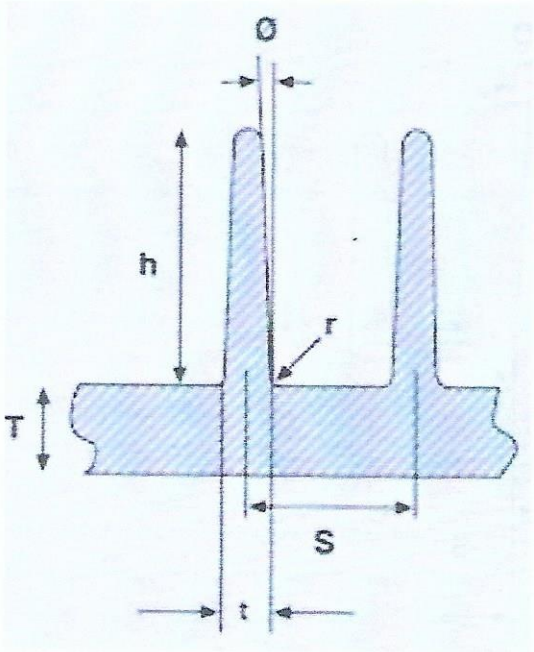
13. Referring below figure, what is ideal rib thickness? where T is nominal base thickness and t is Rib thickness



Mark only one oval.

- [ ] 0.25 * T
- [x] 0.6 * T
- [ ] 0.8 * T
- [ ] 1.2 * T

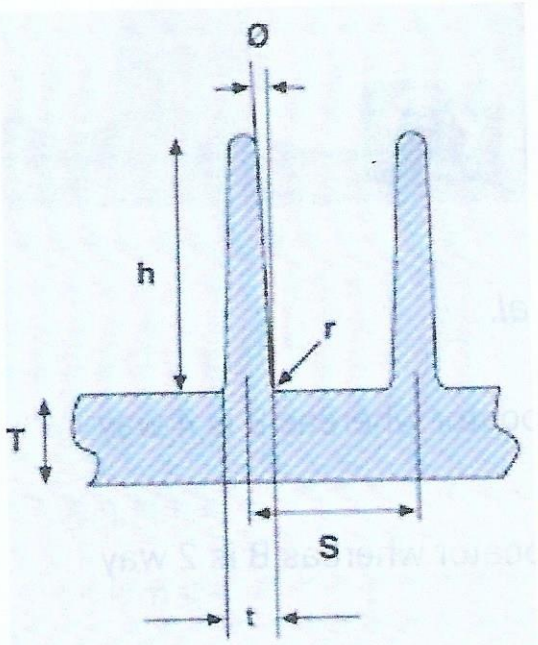
14. Referring below figure, what is ideal rib height? where T is nominal base thickness and h is Rib height



Mark only one oval.

- [x] 3 * T < h
- [ ] 3* T > h
- [ ] 4.8 * T = h
- [ ] None of above

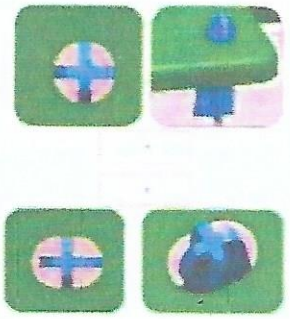
15. Referring below figure, what is ideal distance between two ribs? where T is nominal base thickness and S is ideal distance between the ribs



Mark only one oval.

- [x] 2 * T < S
- [ ] 2 * T > S
- [ ] 1.2 * T = S
- [ ] 1.6 * T = S

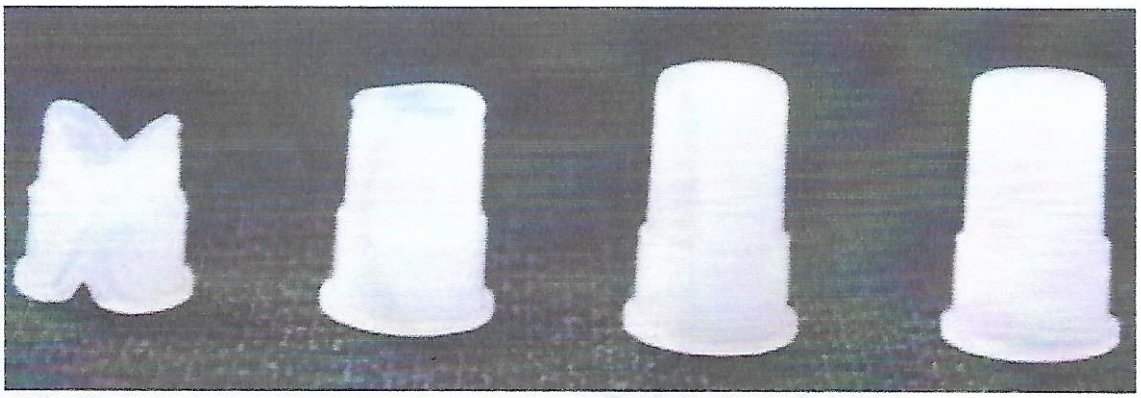
16. Referring to below figure, what is true about the Locators?



Mark only one oval.

- ( ) A is 2 way locator whereas B is 4 way locator
- (✓) A is 4 way locator whereas B is 2 way locator
- ( ) A and B are 4 way locators
- ( ) A and B are 2 way locators

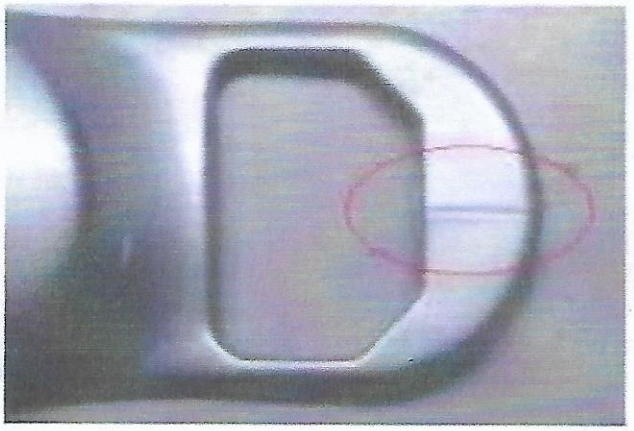
17. Referring to below figure, what is the name of defect?



Mark only one oval.

- [ ] Flow Hesitation
- [x] Short-shot
- [ ] Weld line
- [ ] sink mark

18. Referring to below figure, what is the name of defect?




Mark only one oval.

- ( ) Sinkmark
- (✓) Weldline
- ( ) flow hesitation
- ( ) Air traps

19. How to avoid the weld lines defects?

Mark only one oval.

- ( ) Change the gate positions
- ( ) Change the part thickness.
- ( ) Increase melt and mold temperature. This will allow the flow fronts to interfuse more.
- (✓) All of Above

20. How to avoid the short shot defects?

Mark only one oval.

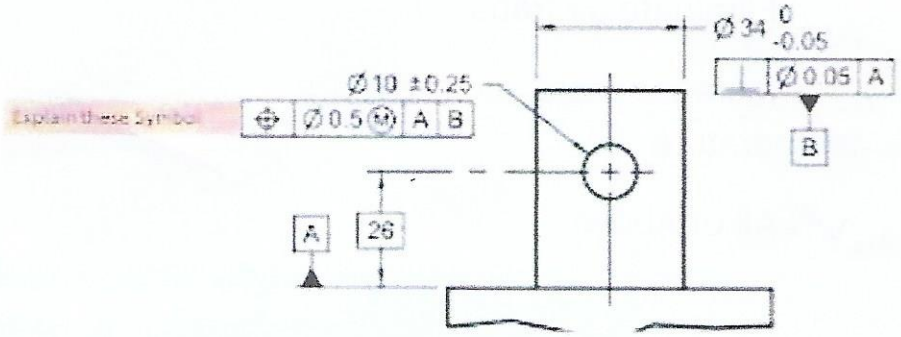
- ( ) Avoid hesitation.
- ( ) Eliminate air traps
- ( ) Increase mold and melt temperature
- (✓) All of Above

21. Which of following statement is true for defining texture for injection molding?

Mark only one oval.

- ( ) Normally 1.5 deg additional to normal draft for 0.025 mm depth of texture
- ( ) Normally 1.5 deg subtraction from normal draft for 0.025 mm depth of texture
- (✓) Normally 0.15 deg additional to normal draft for 0.025 mm depth of texture
- ( ) None of above

22. Referencing to below Figure, Explain the GD&T symbols



⌀ is diameter of circle

⌖ Position.

Ⓜ Maximum material condition / material modular.

Ⓐ Datum A & B.

A.B Reference plane.

±0.25 Upper & lower limit of tolerance.

23. Quilgo Submission ID (do not edit) *

⚠ DO NOT EDIT this field or your time will not be recorded.