

SECTION-C

Note: Long answer type questions. Attempt any three questions. 3x10=30

- Q.3 Draw standard guide pillar and guide bush. Explain their construction and list their advantages.
- Q.4 Discuss in detail about various runner layouts and explain the importance of runner balancing.
- Q.5 Write short notes on -
- (a) Pin ejection.
 - (b) Blade ejection.
- Q.6 Name various types of side cores and discuss about one of them in detail.
- Q.7 Write short notes on -
- (a) Sliding splits.
 - (b) Angled lift splits.

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5th Sem. / Rubber Tech.

Subject : Design of Rubber Moulds and Dies - I

Time : 3 Hrs.

M.M. : 100

SECTION-A

Note: Very Short Answer type questions. Attempt any 15 parts. (15x2=30)

- Q.1 a) What is stainless steel?
- b) What is a guide bush?
- c) List various types of sprue bush.
- d) What is a split core?
- e) What is a bolster plate?
- f) Define external undercut.
- g) Define parting surface.
- h) What is an ejection system.
- i) What is a heat pipe?
- j) Expand AISI.

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- k) Write down the shrinkage formula.
- l) Define hardenability.
- m) What is a non-ferrous alloy?
- n) Define injection pressure.
- o) What is an integer mould?
- p) Write down the formula for runner efficiency.
- q) List two techniques of split actuation.
- r) What is a hot runner mould?

SECTION-B

Note: Short answer type questions. Attempt any ten parts
10x4=40

- Q.2
- i) Draw neat diagram of three plate mould.
 - ii) Name four types of design for internally threaded components and draw one of them.
 - iii) Write short note on moulds for externally threaded components.

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- iv) Write a short note on deep chamber cooling design.
- v) Give the advantages of subsurface gate.
- vi) Write a short note on o-rings.
- vii) What is a flat parting surface? Draw two components which would have a flat parting surface.
- viii) Write a short note on gate balancing.
- ix) State the conditions where sleeve ejection is used.
- x) Discuss the indirect bolting method for attachment of mould to plateu.
- xi) Write a short note on chase bolster.
- xii) Discuss beryllium copper alloys as a mold material.
- xiii) Write short note on solid boiler.
- xiv) Differentiate between side core & side cavities.
- xv) Give disadvantages of round edge gate.

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