

## REVISION CHAPTER 1 & 2, B

### QUESTION 1

- a) List **FOUR (4)** types of chips produced in metal removal process. (2 marks)

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- b) Explain the function of core, sprue and pouring cup in casting process. (3 marks)

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- c) What is abrasive material? How the size of abrasive grain related to its grit number. (2 marks)

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- d) A peripheral milling operation is performed on the top surface of a steel rectangular work piece 400 mm long x 60 mm wide. The helical milling cutter, which has a 100mm diameter and ten teeth, rotates at 150 rpm overhang the width of the part on both sides. Assume the depth of cut = 5.0 mm and feed = 0.25 mm/tooth, determine the material removal rate. (3 marks)

- e) Briefly explain the differences between peripheral milling and face milling processes with an aid of diagram. (5 marks)

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- f) Explain the term of fluidity and THREE (3) considerations in casting operations. (5 marks)

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## QUESTION 2

- a) Permanent mold casting is the process in which the molds are made of metals like cast iron or steel. Explain in details **THREE (3)** advantages and **TWO (2)** disadvantages of this casting process. (5 marks)

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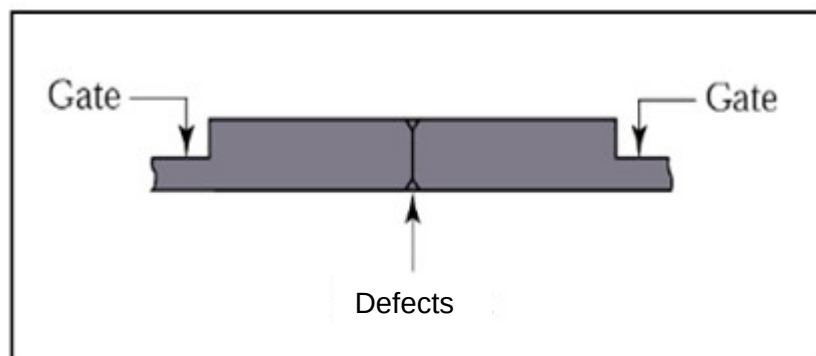
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## QUESTION 3

- a) Blow hole is one of the gas defects in casting. With the aid of a diagram, sketch and briefly describe about this defect. Identify ONE (1) cause why this defect occurred and suggest ONE (1) way how to rectify it. (5 marks)



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