

REVISION CHAPTER 1 & 2, C

QUESTION 1

- a) List **TWO (2)** types of angle in mechanics of cutting. (2 marks)

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

- c) List **TWO (2)** types of grinding wheel wear in grinding process. (2 marks)

- d) A mechanist needs to machine, 135mm long rod bar from 55mm to 50mm diameter. Spindle speed rate at, N at 455rpm and federate, f at 0.45mm/rev. Determine the material removal rate (MRR) and cutting time, t. (3 marks)

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

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

QUESTION 2

- a) Sand casting is the most common and versatile form of casting. Explain in details **THREE (3)** advantages and **TWO (2)** disadvantages of this casting process. (5 marks)

QUESTION 3

- a) Cut and wash is one of the molding 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)
