



Notes: * Answer All of the Following Questions:

** Marks Are Distributed Evenly

- Q1) (a) State and explain the basic component of automation system.
(b) State the advantages and disadvantages of CNC machines over the conventional machines.

(20 Mark)

- Q2) Reflect an object defined by the points (1,2), (3,5), (7,8) and (4,4) about an arbitrary axis passes through points (4,4) and (9,6).

(20 Mark)

- Q3) Find the stresses in the two bar assembly which is loaded with force P , and constrained at the two ends, as shown in figure 1.



Figure (1)

(20 Mark)

- Q4) An index table driven by a Geneva mechanism has eight stations with a driver speed of (12 rpm), calculate, Index time, Dwell time, Cycle time, and Production rate.

(20 Mark)

Continue >>>

Q5) Write an appropriate program using G-function for machining the shape shown in figure 2 using 10mm/min feed and 500 rpm and tool No. 1.

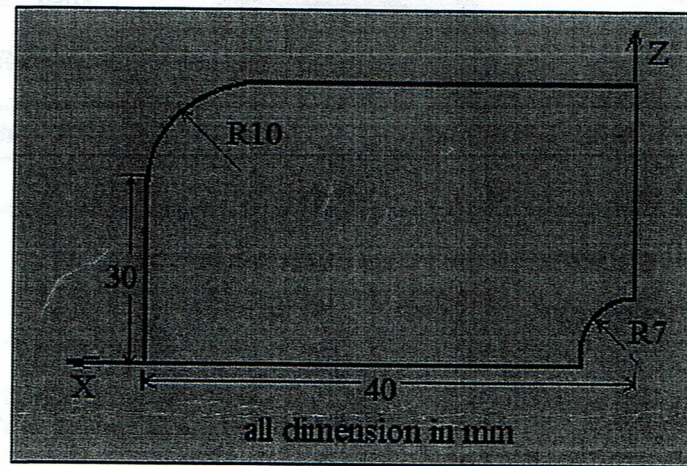


Figure (2)

(20 Mark)

*** GOOD LUCK ***

Lecturer

Dr. Safaa Kh. Leabi

Dept. Head

Asst. Prof. Mohammad Sabri