Question 1:

Algorithm:-

1. Input Rockwell Hardness, Carbon content and Tensile strength,
2. Step1: Check if Rockwell Hardness >50 and Carbon content>0.7 and Tensile strength> 5600

🡪If true, print ‘Grade10’

🡪If false, check step 2.

1. Step 2: check if Rockwell Hardness >50 and Carbon content>0.7 are satisfied.

🡪If true, print ‘Grade 9’

🡪If false, Check step3.

1. Step 3: Check if Carbon content>0.7 and Tensile strength> 5600 are satisfied.

🡪If true, print ‘Grade 8’.

🡪If false, Check step4.

1. Step4: check if Rockwell Hardness >50 and Tensile strength> 5600 are satisfied.

🡪If true, print ‘Grade 7’

🡪If false, print ‘Grade 0’

1. Step5: Stop.



Stop

Start

Grade 0

Grade 7

NO

If (RH) and (TS) are Satisfied

YES

Grade 10

Grade 8

NO

YES

If (CC) and (TS) are Satisfied

Grade 9

NO

YES

If (RH) and (CC) are Satisfied

NO

YES

If all Satisfied

Input:

ROCKWELL HARDNESS(RH), CARBON CONTENT(CC), TENSILE STRENGTH(TS)