Roll No.....

Total No. of Questions : 09] [Total No. of Pages : 02

Paper ID [ME210]

(Please fill this Paper ID in OMR Sheet)

B.Tech (Sem. - 4th)

MANUFACTURING PROCESSES - II (ME - 210)

Time : 03 Hours **Maximum Marks : 60**

Instruction to Candidates:

1) Section - A is **Compulsory**.
2) Attempt any **Four** questions from Section - B.
3) Attempt any **Two** questions from Section - C.

Section - A

(10 × 2 = 20)

Q1)

a) Define deep drawing process?

b) What is closed die forging operation?

c) Write the composition of High speed tool steel material?

d) Name the different types of coolants?

e) Define thread cutting operation?

f) Define "Degree of drawing"?

g) What is 'Indexing'?

h) How the size of grinding wheel is specified?

i) Define powder metallurgy process?

j) Define 'broaching' operation?

Section - B

(4 × 5 = 20)

Q2) Write in brief the basic steps involved in powder metallurgy process?

Q3) What is difference between up-milling and down-milling?

Q4) Compare 'metal spinning' with 'extrusion' process.

Q5) Draw the geometry of a single point cutting tool and briefly explain its elements?

Q6) Describe with the help of suitable diagrams, the constructional features of a planner?

Section - C

(2 × 10 = 20)

Q7) (a) What is 'angle of bite' in rolling process? On what factors does its value depend?

(b) What is forging? State the important differences between drop forging and press forging?.

Q8) (a) Explain the drive mechanism of an engine lathe machine?

(b) Define grinding operation? Describe the constructional features of a surface grinder.

Q9) What are different tool materials? Explain the composition, applications, advantages and limitations of alloy carbon steel, cemented carbides, diamonds and CBN.