Exam.Code:0940
Sub. Code: 7050

2010

B.E. (Mechanical Engineering) Fourth Semester

MEC-405: Manufacturing Technology – I

Time allowed: 3 Hours **Max. Marks: 50**

***NOTE**: Attempt five questions in all, including Question No. I which is compulsory and selecting two questions from each Unit.*

x-x-x

I. Answers the following:-

a) What is chamfering operation?

b) Write the specifications of lathe machine?

c) Name the various work holding devices of planner machine?

d) Name the various cutting tool materials used on a milling machine?

e) What do you mean by speed, feed and depth of cut?

f) Define indexing?

g) Classify the various drilling machines?

h) How alignment of bores is done?

i) What do you mean by tapping?

j) Sketch a typical grinding wheel and label it? (10x1)

UNIT – I

II. a) Define taper. How is the amount of taper expressed? Describe set over method of taper turning on a lathe.

b) What is multi-start thread? Explain with schematic diagram the principle of thread cutting on a lathe. (2x5)

III. a) Describe the quick return mechanism used in a shaper machine?

b) Explain working principle of Universal dividing (Indexing) head? (2x5)

IV. a) Differentiate between:
i) Gang milling and Straddle milling
ii) Up milling and Down milling

b) Write the size and specifications of shaper machine? (2x5)

P.T.O.

UNIT – II

V. a) Explain dressing, truing and balancing of grinding wheel?

b) Outline various factors that influence the selection of grinding wheel. Explain the meaning of any four letters mentioned in the specification printed on a grinding wheel. (2x5)

VI. What is the principle of boring? Describe the boring bars and boring heads with the help of neat sketches? (10)

VII. a) Describe the various elements of screw threads and properly label these?

b) Explain with neat sketch Lathe setup for thread cutting operation. (2x5)

x-x-x