3rd Sem. / Mechanical (Foundry & Forging)

Subject : Casting and Forging Drawing

Time : 3 Hrs.   M.M. : 100

SECTION-A

Note: Very Short Answer type questions. Attempt any 15 parts.   (15x2=30)

Q.1 a) Define R.M S value for a surface

b) What is the use of Auto CAD?

c) Define allowance

d) Draw the symbol for removal of material by machining?

e) Name any four types of pollution control devices

f) What is the basic function of a mould?

g) What are two software used in computer aided drafting?

h) What do you mean by H7/g6?

SECTION-C

Note: Long answer type questions. Attempt any three questions.   3x10=30

Q.3 Explain die design for any die casting process with neat sketch.

Q.4 Explain various edit commands used in AutoCAD.

Q.5 Explain various patterns with neat sketches.

Q.6 Explain with sketches the method of making a chisel in a forging shop.

Q.7 Write short note on any two:

a) Tolerance grades

b) Representation of surface roughness

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i) What are the different types of fits?

j) What do you mean by mean roughness index?

k) What is a foundry?

l) What is tolerance?

m) Name four different melting furnaces.

n) Define absolute co-ordinate system?

o) What is hole basis system?

p) Write four commands of Auto CAD.

q) Define layout.

r) What is a upper deviation?

SECTION-B

Note: Short answer type questions. Attempt any ten parts   10x4=40

Q.2 i) Differentiate between surface finish and surface roughness.

(ii) Explain match plate pattern with neat sketch.

(iii) Define unilateral and bilateral tolerances with the help of suitable diagram.

(iv) What is surface roughness? Explain

(v) Explain the steps for starting of AutoCAD?

(vi) Write down the calculations of weight and cost of a cast product.

(vii) Explain application of machining symbols.

(viii) Calculate the basic size, type of fit and tolerance of a 100 mm diameter shaft which is revolving normal in bearing.

(ix) What is the basic need of limits, fits and tolerances?

(x) What do you mean by inter changeability?

(xi) What is a mould box? Explain any one mould box with neat diagram.

(xii) Describe conveyor system material handling with neat sketch.

(xiii) Draw free hand sketch of flywheel.

(xiv) Draw a neat sketch of a melting furnace.

(xv) Draw simple layout of forging shop.