(7)

Total No of Questions: [12] *SEAT NO. :*

[Total No. of Pages : 2]

S.E.Mech/Auto 2008

Manufacturing Processes-I

(Semester - I)

Time: 3 Hours *Max. Marks : 100*

Instructions to the candidates:

1) ***Answers to the two sections should be written in separate answer books.***
2) ***Answer any three questions from each section.***
3) ***Neat diagrams must be drawn wherever necessary.***
4) ***Figures to the right side indicate full marks.***
5) ***Use of Calculator is allowed.***
6) ***Assume Suitable data if necessary***

SECTION I

Q1)	a)	Write a short note on types of core.	[4]
	b)	Describe working Jolting type of molding machine.	[4]
	c)	Write a short note on lost wax casting.	[10]
		OR	
Q2)	a)	Write a short note on shell mold casting.	[4]
	b)	Enlist desirable properties of suitable pattern material.	[4]
	c)	Explain with neat sketch various elements of casting.	[10]
Q3)	a)	Classify press tools.	[4]
	b)	Write a short note on universal rolling machine.	[4]
	c)	Write a short note on shot pining.	[4]
	d)	With help of neat sketch explain the arrangement of dies.	[4]
		OR	
Q4)	a)	Describe high energy rate forming	[4]
	b)	Differentiate between hot working and cold working	[4]
	c)	Explain with help of neat sketch roll forging.	[4]
	d)	Differentiate between forward extrusion and backward extrusion.	[4]
Q5)	a)	Explain in detail submerged metal arc welding	[10]
	b)	Write a short note on types of flames in gas welding	[6]
		OR	
Q6)	a)	Explain in detail Thermit welding.	[10]
	b)	Write a short note on electrical resistance welding .	[6]
		SECTION II	
Q7)	a)	Write a short note on lead screw.	[4]
	b)	Describe working of back geared head stock.	[4]
	c)	Write a short note on Apron mechanism in lathe machines.	[6]
	d)	Draw block diagram of turret lathe machine and label all parts on it	[4]
		OR	

Q8)	a)	Explain working of three jaw chuck.	[4]
	b)	Explain working of taper turning attachment.	[4]
	c)	Calculate the required RPM of a work piece of 100 mm diameter to provide a cutting speed of 50 mpm. also find machining time if length of work is 400 mm and feed is 0.4 mm/ rev, for single pass.	[4]
	d)	Draw a neat sketch with appropriate labeling i) single point cutting tool. ii) Steady rest	[6]
Q9)	a)	Classify milling cutters.	[4]
	b)	Write a short note on Radial drilling machine.	[4]
	c)	Write a short note on thread milling.	[4]
	d)	With help of neat sketch explain the arrangement of universal dividing head.	[4]
		OR	
Q10)	a)	Describe compound indexing with suitable example.	[4]
	b)	Write a short note on work holding devices in milling machine	[4]
	c)	Draw a neat sketch of Planner machine and show important parts on it.	[4]
	d)	Differentiate between face milling and end milling.	[4]
Q11)	a)	Write a short note on manufacturing of grinding wheel and enlist the types of bonds used in grinding wheels	[6]
	b)	Write a short note on Burnishing.	[4]
	c)	With help of neat sketches enlist any four shapes of grinding wheels.	[4]
	d)	Draw a neat sketch of external center less grinding.	[2]
		OR	
Q12)	a)	Write a short note on Honing.	[4]
	b)	Explain buffing and enlist two applications.	[4]
	c)	Explain the meaning of following letters printed on grinding wheel : W-A-40-J-6-V-17.	[4]
	c)	Write a short note on reciprocating table surface grinders.	[4]