E	Enrolln	nent No:					Exa	am Sea	t No:_				
				U.S				VE:	RSI	TY	•		
				Win									
S	ubject	Name: Co	mpute	r Aided	l Prodi	uction l	Manag	ement					
S	ubject	Code: 5TH	E01CP	M1			Br	anch:	M.Tecl	n Mech	anical	(CAD/C	CAM)
S	emeste	er:1	Date: 28/11/2018				Time: 02:30 To 05:30			N	Marks: 70		
<u>I</u>	nstruct	tions:											
		Use of Prog									t is proh	ibited.	
	(2) Instructions written on main answer book are strictly to be obeyed.(3) Draw neat diagrams and figures (if necessary) at right places.												
-	(4)	Assume su	itable c	lata if n	eeded.								
						SECT	ION	T					
Q-1		Attempt t	the Fol	lowing			ION -	- 1					(07)
	a.	Short rang	ge for c	ast may	be use	ful for							1
	b.	Define no	ise.	_									1
	c. d.	Write thre Write the			-	method	l.						1 1
	u. e.	Define sch			IXAI I								1
	f.	What is th	e aim	of inver									1
	g.	What is th	e impo	ortance	of safet	y stock	?						1
Q-2		Attempt a	all que	stions									(14)
	(a)	The dema	_		ct from	last 10	year is	given	below.				7
		year	1	2	3	4	5	6	7	8	9	10	
		demand	133	151	144	163	151	184	166	198	179	192	
		Use the manalysis to the history forecasting	o foreca ical da	ast the c	demand nd MA	from 4 D and	th to 1 Bias in	1th yea	rs. Con	pare th	ne forec	ast with	
	(b)	Briefly wi	_	•				Т.					7
	√- /	<i>J</i> =	1	. ,	. 1)R						-



What is meant by seasonality index? Why is it required to smooth the seasonality

Q-2

Q-3

(a)

(b)

Attempt all questions

Attempt all questions

index for forecasting the demand? Step by step derive simple EOQ model. **(14)**

7

7

(14)

(a) With example explain in detail about ABC ana

(b)

Q-6

Attempt all questions

A printer has one printing process, one binding machine and manuscripts of six books for publication. The durations required (in a day) for printing and binding the books are given below.

Book	1	2	3	4	5	6
Printing time	30	120	50	20	90	110
(days)						
Binding time	80	100	90	60	30	10
(days)						

In what order should books be selected so as to minimize the total duration to publish all the books? In how much time will the printing and binding of all the books be completed?

OR

Q-3 (a) A foreman wants to process four different jobs on three machines. The sequence of operations for all the four jobs is shaping-drilling-tapping. The process periods for all the jobs on these machines are given in table.

JOB	Processing time (min)					
JOB	shaping	drilling	tapping			
1	11	3	15			
2	16	8	4			
3	8	7	13			
4	20	5	8			

Find the sequence in which the job should be processed so as to minimize the total time of completion of all the four jobs. Show the optimal schedule on a Gantt chart.

(b) Explain in detail about linear regression with all the equations and formulas.

SECTION - II

		BECTION II	
Q-4		Attempt the Following questions.	(07)
	a.	List the stages of RFP approach.	1
	b.	What is the purpose of FDC system in shop floor control?	1
	c.	What are the steps for describe operation scheduling?	1
	d.	Define shop floor control system.	1
	e.	Name the components used to build computer process monitoring system	1
	f.	Write the key component of BPR.	1
	g.	Write any two guidelines for ERP implementation.	1
Q-5		Attempt all questions	(14)
	(a)	With flow chart explain about methodology for ERP implementation.	7
	(b)	Experiments reveal that the weekly demand for a product has a Poisson distribution with a given mean. How will you simulate the demand using a table of random numbers?	7
		OR	
Q-5	(a)	Explain the forecasting is techniques other than just the statistical analysis of past data.	7
	(b)	Discuss assembly line balancing for shop floor control.	7



(14)

7

7

7

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	(a)	Explain computational procedure for MRP implementation.	7
	(b)	Write a note on detailed capacity planning.	7
		OR	
Q-6		Attempt all Questions	
_	(a)	Write and explain five methods of shop floor data collection system.	7
	(b)	The demand for electric motors during the last 10 weeks has been 35, 40, 38, 50,	7
		42,44,56,52,48,50 Make the forecast for the 11th week by 3-weekly moving	
		average methods. Prepare a C program for the same	

