QPC: RN18001298	AR - 18	Reg. No.										
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GIET MAIN CAMPUS AUTONOMOUS GUNUPUR – 765022

B. Tech Degree Examinations, November - 2021

(Seventh Semester)

BCHPE7050 - Industrial Engineering

(Chemical Engineering)

Time: 3 hrs Maximum: 100 Marks

Answer ALL Questions

The figures in the right hand margin indicate marks.

		right hand margin indicate marks.			
	PART – A: (Multiple Choice Questions)		$(2 \times 10 = 20)$		
<u>Q.1.</u>	Answer ALL questions			[CO#]	[PO#]
a.	Work study is also recognized as			CO1	PO1
	(i) Time study	(ii) Motion study			
	(iii) Both time study and motion study	(iv) None of the above			
b.	In process charts, the symbol used for stora	ge is		CO1	PO1
	(i) Circle	(ii) Square			
	(iii) Arrow	(iv) Triangle			
c.	PMTS stands for			CO1	PO1
	(i) Predetermined motion time system	(ii) Predetermined monitoring time	ne system		
	(iii) Productive motion time system	(iv) None of these			
d.	The ship building industry commonly empl	oys layout.		CO2	PO1
	(i) Process	(ii) Product			
	(iii) GT	(iv) Fixed position			
e.	The range of smoothing constant in expon	ential smoothing method is		CO2	PO1
	(i) 1 to 3	(ii) 0.01 to 0.03			
	(iii) 0.1 to 0.3	(iv) None of these			
f.	Planned order release quantity is equal to _	·		CO4	PO1
	(i) Stock on hand	(ii) Projected requirement			
	(iii) Economic order quantity	(iv) None of these			
g.	In, an attempt will be made to re	duce the project completion time ear	lier than the	CO3	PO1
	project completion time.				
	(i) CPM	(ii) PERT			
	(iii) Project crashing	(iv) Resource allocation			
h.	The duration of dummy activity in a project	t network is		CO3	PO1
	(i) Infinity	(ii) A very large value			
	(iii) Zero	(iv) one			
i.	cost decreases when the order size	is increased.		CO4	PO1
	(i) Carrying	(ii) Ordering			
	(iii) Both carrying and ordering	(iv) None of these			
j.	EOQ corresponds to the point in the	e total cost curve.		CO4	PO1
	(i) Maximum	(ii) Minimum			
	(iii) Average	(iv) None of these			
	PART – B: (Short Answer Questions	(s)	$2 \times 10 = 20 \text{ M}$	(arks	
0.2	. Answer ALL questions		[CO#]	П	PO#]
a.	Write down the names of different process	technologies.	CO1	_	O1
b.	Define quality and productivity.		CO1		O1
c.	Explain the concepts involved in new productives	uct design	CO1		01
d.	What are the factors affecting plant location	_	CO2		O2
e.	State the importance of forecasting error ca		CO2		O1
f.	What is multiple activity chart? Illustrate it		CO2		O1
g.	What are the relevant costs of inventory sy	-	CO ₂		O1
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i. S		•	Safety stock in Invariant Safety stock in Invariant Safety Stock in Invariant Safety S	•		ne and n-job p	oroblems.	CO3 CO4		PO1 PO1
j. I	Distinguish bet	tween PERT	and CPM.					CO4	I	PO1
	T – C: (Long		uestions)					(15 x 4 =	= 60 M	[arks]
nswe	er ALL question	<u>ns</u>						Marks	[CO#]	[PO#
3. a.	relationship v (800, 500), (1 numbers of to are 450, 1200	with a new p 1100, 800), (ons transport 0, 300, 800, a	5 existing plants plant. Let the existing (200, 900) and (130 ted per year from the plant of the distance moved (130 ted).	ng plar 00, 300 he new vely. Th	nts hav)). Furt plant hen det	e locations of thermore supp to various exi termine optima	(400, 200), ose that the sting plants	15	CO1	PO2
			(OR)							
c.	What is time	study? Expl	ain in detail, the st	eps inv	olved	in time study.		10	CO1	PO1
d.	State the obje	ectives of pla	ant layout design. (Classify	the la	youts		5	CO1	PO1
	the job. The details of obs acceptable un standard time	duration of t servations are nits produce by assumin	ducted work sample he study is one shifted during the study gallowance of 109	Ift with ne follo ly perio %.	400 m owing t od is	uin. of effective able. The total 150 units. Det	e time. The number of termine the	15	CO2	PO2
	Work number	element	Frequency performance	of	Perfo	ormance ratir	ng			
	1		70		80%					
	3		80 50		120% 110%					
			(OR))						
c.	Write short n	· · · · · · · · · · · · · · · · · · ·								
С.	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	otes on-1) Pr	oduct life cycle		ncurren	t engineering		15	CO1	PO1
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