Hall T	icke	t Number :	
Code:	7P1.	A26 R-17	
	Ν	1.B.A. II Semester Supplementary Examinations January 2019	
		Research Methodology	
Max. N Answe	-	Time: 3 Hou five units by choosing one question from each unit (5 x 12 = 60 Mark ا	
7 (115 ** (5]
		UNIT-I	
1.		Define research, explain different types of research.	121
		OR	
2.		Explain the process of research in detail.	12N
0			
3.		What is research design? Compare and contract among exploratory, descriptive and causal research designs.	12N
		OR	
4.		Distinguish between probability and non-probability sampling methods.	121
		UNIT–III	
5.	a)	Outline the differences between interview and schedule.	6N
	b)	What are the issues involved in designing multiple choice questions?	6N
6.		OR	
0.		Design a mystery shopper observation form to evaluate facility and signage aspects of a retail store environment.	12N
		UNIT–IV	
7.		Define scaling, discuss about Likert scale of rating scale.	12N
		OR	
8.		Explain about paired comparison and rank order method of ranking scales.	12N
9.		UNIT-V Describe the process of research report preparation. Summarize the	
01		guidelines for report writing.	12N
		OR	
10.	a)	What is a pie chart? For what type of information is it suitable? For what type	
	L.)	of information is it not suitable? Explain the role of technology and internet in research work.	6N
	b)	Explain the role of technology and internet in research work.	6N

Hall Ti	icket Number :																	_
Code	: 5P1A22	II				1	1	1	1	1						R-1	5	
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Answe	er all five units b	у спо	OOSI	ng c	Jne	40e	\$1101 *****		nec	lCH	Unii	(3	XI	Z –	- 00) Ma	iks j	
							NIT-											
1.	Write a detaile	d note	e on i	the r	near	ning a		uncti	ons	of fin	ancia	al r	nana	age	eme	ent.		12M
0		. ,.					OR		6 14						,			
2.	2. "Wealth maximization is more important than profit maximization." Justify. 12											12M						
					ĺ	U		•										
3.	Write a detaile	d note	on	disco	ounte				echni	ques	s of c	ap	ital b	bud	lget	ing.		12M
							OR											
4.	ABC limited pre	opose	es to	acqu	uire a	a ma	chine	e for	Rs 6	,00,0)00 a	Ind	the	pa	rtic	ulars		
	are as follows.																	
	a) Life of t b) Salvage				•		st the	and	of 4	VOO	·~ _ [20	1 00		ر ۱0 /			
	b) Salvage c) Income									•					JU /	-		
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						UN	IIT–I											
5.	Write a detaile	d note	e on i	invei	ntory	' mar	nage	ment										12M
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6.	Write a detaile	d note	e on	rece	ivabl	es m	iana	geme	ent.									12M
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7.	Write a detaile	d note	e on	NOI	theo				ructu	ıre.								12M
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8.	Write a detaile	d note	on	oper	ating	g and	l fina	ncial	leve	rage	s.							12M
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9.	Write a detaile	u note	; UU ;	uie f	acto	is int	OR	ung	une d	IVIDE	na p	OII	cy.					12M
10.	Write a detaile	d note	on '	Walt	er M	പപ		vider	nd no	olicy								12M
10.				••uit			**	1001	ia pe	y.								. 2181

Hall Lic	ket Number :							
Code: 7	P1C27						R-1	7
\sim	.B.A. II Semester Su	ppler	nenta	iry Exc	aminc	itions	January 2019	
	(Operc	itions	Rese	arch			
Max. Mo							Time: 3 I	
Answer c	Il five units by choosir	ng one	e quest *****	ion tro ***	m ead	ch uni	t (5 x 12 = 60 Ma	rks)
				UNIT-I				
1. a)	Explain the history of	operatio	ons res	earch.				41
b)	Solve the following LF	^o graphi	ically:					
	Maximize z= 8000x ₁ -	⊦ 7000x	2					
	Subject to							
	$3x_1 + x_2 \le 66$							
	$x_1 + x_2 \le 45$							
	x ₁ ≤ 20							
	x ₂ ≤ 40							
	$x_1, x_2 \ge 0$							81
	Define O.D. and dias	ina ita a		OR				41
2. a)			•	mizo: z	21/1	v 2		4
b)	Use penalty (Big M) n Subject to	lethod	lo maxi	mze. z	= 381	- x2		
	$2x_1 + x_2 \ge 2$							
	$x_1 + 3x_2 \le 3$							
	x ₂ ≤ 4							
	x ₁ , x ₂ ≥0							8
				UNIT-I				
3. a)	What is degeneracy in	n transp	ortatior	n proble	ems? ⊦	low is i	it resolved?	4
b)		W1	W2		/3	W4	Supply	
	F1	19	30		0	10	7	
	F2	70	30		0	60	9	
	F3	40	8		0	20	18	
	Demand Obtain the optimal so	5 Iution to	8 Avadava		7	14		8
				OR				0
4. a)	What is the difference b	etween	Assiann		blem a	nd Trar	sportation Problem?	41
u) b)			•				•	
0,	value being the unit c			11 43	ing v/t			1
	3	D ₁	D_2	D ₃	D ₄	D_5	supply	
	C ₁	35	41	28	16	20	285	
	C ₂	14	21	28	30	15	145	
	C ₃	45	18	17	29	26	165	
	Demand	125	125	100	100	175		8

UNIT-III

- 5. a) Write the steps for solving a A.P. by Hungarian method
 - b) A medical representative has to visit five stations A, B, C, D and E. He does not want to visit any station before completing his tour of all the stations and wishes to return to the starting Station. Costs of going from one station to other station are given below. Determine the optimal route.

6.	a)	What is an Assignment Problem?	

a) What is an Assignment Problem? Solve the following Assignment Problem b)

- 7. a) Explain the difference between pure strategy and mixed strategy.
 - b) A and B play a game in which each has three coins a 5p, a 10p and a 20p. Each player selects a coin without the knowledge of the other's choice. If the sum of the coins is an odd amount, A and B's coin; if the sum is even, B wins A's coin. Find the best strategy for each player and the value of the game.

OR

- 8. In a bank 4 cash counters are opened for drawing money. On average 50 persons arrive in 5 hour a day. Each cashier has to spend 15 minutes on the average on an arrival. If the arrivals are poissionally distributed and service times are according to exponential distribution. Determine
 - a) Average number of customers in the system
 - b) Average number of customers waiting in the system.
 - c) Average time of a customer's spend in the system.
 - d) The probability that a customer has to wait before he gets service. 12M

- 9. a) Write applications of PERT/CPM techniques.
 - b) Describe the role of network models of operations research the managerial decision making.

OR

8M

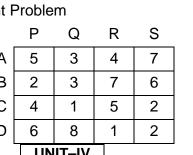
4M

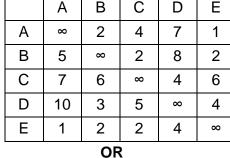
4M 10. a) State Rules for Network Diagram b) A project schedule has the following characteristics. Construct the PERT network and find the critical path and time duration of the project. 3-6 4-5 4-8 5-6 6-9 7-8 8-9 Activity 1 - 21-4 1-7 2–3 2 4 5 8 4 Time 2 1 1 3 3 5 8M ***

4M

8M

Ρ Q R S 5 7 А 3 4 В 2 3 7 6 С 4 1 2 5 8 1 2 D 6 UNIT-IV





8M

4M

8M

Hall	Ticke	et Numbe	er:]				1
Code	: 5P2	2C23]		R-1	5	
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Max.										_						ime: 3 ⊦		
Answe	er all	five unit	s by	' chc	oosii	ng o		Ues *****		from	n ea	chu	nit (5 x 1	12 =	60 Mar	ks)	
									UNI	T–I								
1.	a)	Perform	fou	ur ite	erati	ons	oft	the	Newt	ton-F	Raps	on r	neth	od 1	to d	obtain th	ne 🧯	6M
		approxim	nate	value	e of	(17)	¹ / ₃ sta	arting	g with	the	initia	l app	roxin	natio	n x	=2.	, c	ויונ
	b)	Use the	Sec	ent m	neth	od to	dete	ermin	e the	root	t of th	ne eq	uatic	on C	'osx	$-xe^x =$	0. 6	6M
_				_					OR					_				
2.		Perform										the e	quati	ion			1	2M
		ln x –	· x +	3 =	$0, x_{0}$	$_{0} = 1$	/4, X	1 = 1	_/2, x ₂ UNIT		L.]							
3.	a)	Solve the	e fol	lowin	g eo	quatio	ons b	oy us			auss	elimi	natic	on m	etho	d.		214
		2x + 2y	+z	= 1,4	x +	2 <i>y</i> +	- 3z =	= 2, x	: + y	+ z =	= 3.						Ċ	6M
	b)	Solve the			•	•		•	•				al me	ethoo	d.		6	6M
		4x + y +	z =	2, x ·	+ 5y	y + 2z	z = -	-6, x	-		2 = -	-4.						
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4.		Find the	larg	est E	ige	n val	ue ar	nd its	s Eige	en ve	ector	of A	= 1	. 1	1	by usir	ng 1	2M
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		powerm		<i>.</i>					UNIT	-111	٦							
5.		Find the	leas	st squ	lare	s app	oroxir	natic	on of	seco	nd d	egree	e for	the o	discr	ete data		
		x		-2			-1			0			1			2	1	2M
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8.		Use Gau	iss b	ackw	/ard	inter	polat	tion f	ormu	la to	find	f(32)	giver	n tha	t <i>f</i> (2	5)=0.270	7, 1	2M
		f(30)=0.3	3027	', f(35	5)=0	.3380	6, <i>f</i> (4	0)=0			-						1	2111
9.		Find the	valu	ie of	v fo	r ~ —	04	hv Pi	UNIT		_ thod	aive	n th	at				
0.											1	2M						
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10.		Apply the	o foi	irth o	rde	r ₽₋⊮	met	hodi	OR to find) 1) -	and w	(በ ን ነ		'n			
10.		y' = xy					met			<i>y</i> (0	,, c	anu y	(0.2)	, giv	UII		1	2M
		<i>yy</i>	<i>.</i>	·				**	*									

Code:	R-15										
	Jary 2019										
	Production and Operations Management										
	Marks: 60	Time: 3 Hours									
Answe	r all five units by choosing one question from each unit (5 x	12 = 60 Marks)									
	UNIT-I	noture and econe									
1.	Define production and operations management and write about of production and operations management.	nature and scope									
	OR										
2.	Explain the types of manufacturing systems.										
۷.	Explain the types of manufacturing systems.										
	UNIT–II										
3.	What is production planning and control? What are its different sta	ges? Explain.									
	OR										
4.	What is break down maintenance? How is it different from preven	tive maintenance?									
	Explain.										
	UNIT–III										
5.	What are the material handling principles?										
	OR										
6.	Discuss the types of layouts.										
	UNIT–IV										
7.	Define productivity. Also explain the ways and means of improving	the productivity.									
	OR										
8.	What are the different recording techniques used in the method st	udv? Explain each									
	of them in brief.										
	UNIT–V										
9.	Explain about the Just in-Time production.										
	OR										
10.	What is control chart? Bring out the steps involved in the construct	tion of X-chart and									
	R - chart.										

Hall Ticket Number :

R-15

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