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Hall Tid	cket Number :									D 17	$\neg$
Code: 7	P1A26									R-17	
M.B.	A. II Semester Re	_						inat	ions J	une 2019	
May M	arks: 60	Rese	arcn <i>i</i>	wern	oaoı	ogy	<b>,</b>		7	īme: 3 Hou	ırc
	all five units by ch	noosing (	•	uestio	n fror	n ec	ach u	ınit (			
				UNIT	Γ <b>–</b> Ι						
1.	Define research. Expexamples.	olain resea	arch ap <sub>l</sub>	olicatio	ns in b	usine	ess de	ecisio	ns with	appropriate	12M
				OR							
2.	What is research pro			in deta	il the	vario	ous ste	eps c	f resea	rch process	12M
			Γ								
3.	What is sample size	2 Evolain	lli bae	UNIT		nt m	ethod	e of a	Hatarmir	nina sample	
0.	size.	: Explain	and me	istrate (	umere	111 111	Ctriou	3 01 (	acterrini	iiig sampic	12M
				OR							
4.	Define Research des Research.	sign and e	explain		types	of re	eseard	ch de	signs to	be used in	12M
			Γ	UNIT	_111						
5.	What is scaling? Na scale.	rrate and	differe			en Lil	kert a	nd S	emantic	differential	12M
				OR							
6.	What is a questionna consumers towards	-		-		to st	udy th	ne pu	rchasin	g attitude of	12M
			Γ	UNIT	_IV						
7.	Narrate the following	with suita	able ex								
	a) Observation	method of	data c	ollectio	n.						
	b) Survey or inte	erview me	thod of	data d	ollecti	on.					
	c) Experimentat	ion metho	od of da	ata colle	ection.						12M
				OR							
8.	Explain various stage	es for pre	paring t	the data	a for r	esea	rch ar	nalys	S.		12M
			Γ	UNIT	<b>-V</b>						
9.	State different types	of resear	ch repo			he im	nporta	nce	of report	t writing.	12M
				OR							
10.	Why is graphical a presentation? Demo	_		-		tion	impor	tant	in rese	arch report	12M

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M.B.A. II Semester Regular & Supplementary Examinations June 2019

## **Operations Research**

Max. Marks: 60 Time: 3 Hours

Answer all five units by choosing one question from each unit ( $5 \times 12 = 60 \text{ Marks}$ )

UNIT-I

1. a) Explain the features of Operations Research.

4M

b) Solve the following LPP using graphical method.

Maximize  $(Z) = 5X_1 + 10X_2$ Subject to  $2X_1 + X_2 \ge 8$ ,  $3X_1 + 4X_2 \le 24$ ,  $X_2 \ge 2$  $X_1, X_2 \ge 0$ 

8M

OR

2. Solve the following LPP using Simplex Method.

Maximize 
$$(Z) = 40X_1 + 60X_2 + 38X_3$$
  
Subject to  $4X_1 + 5X_2 + 3X_3 \le 90$ ,  $3X_1 + 2X_2 + 3X_3 \le 54$ ,  $2X_1 + 4X_2 + 3X_3 \le 124$ ,  $X_1, X_2, X_3 \ge 0$ 

12M

UNIT-II

3. a) Explain degeneracy in transportation problem. How do you resolve it?

6M

b) Illustrate the MODI method to determine the optimum solution.

6M

## **OR**

4. Find IBFS to the following transportation problem using (i) North-West Corner Method; (ii) Matrix Minima method; and (c) Vogel's Approximation Method.

		Destinations										
Sources	$D_1$	$D_2$	$D_3$	$D_4$	$D_5$	Supply						
S <sub>1</sub>	12	4	9	5	9	55						
S <sub>2</sub>	8	1	6	6	7	45						
S <sub>3</sub>	1	12	4	7	7	30						
S <sub>4</sub>	10	15	6	9	1	50						
Demand	40	20	50	30	40	180						

12M

UNIT-III

- 5. a) Discuss the situations in which the assignment model can be applied.
  - b) Consider the problem of assigning five operators to five machines. The assignment costs are given in the following table:

			0	perator	y	
		I	II	III	IV	V
	Α	10	5	13	15	16
Machine	В	3	9	18	3	6
	С	10	7	2	2	2
	D	5	11	9	7	12
	Е	7	9	10	4	12

Find the optimal assignments to minimize the cost of allocation. In addition, find the cost of allocation.

**OR** 

Code: 7P1C27

6. A travelling salesman has planned to visit 5 cities. He would like to start from a particular city, visit each city only once and return to the starting city. The travelling cost in rupees is given in the table below. Find the least cost route.

To City Α В C D Ε 0 3 5 Α 7 5 From 7 В 0 8 4 3 City С 5 6 2 8 0 D 3 4 6 0 2 Ε 5 3 2 2 0

12M

UNIT-IV

7. a) Explain the "Saddle Point".

4M

b) Solve the following game using 'Dominance rule'.

Payoff matrix for Problem

			Player	- B
		I	=	Ш
DI A	I	1	7	2
Player - A	II	6	2	7
	Ш	6	1	6
		OR		

8M

8. a) Explain (i) Queue discipline, (ii) Traffic intensity.

4M

- b) A supermarket has a single cashier. During peak hours, customers arrive at a rate of 20 customers per hour. The average number of customers that can be processed by the cashier is 24 per hour. Calculate:
  - (i) The probability that the cashier is idle.
  - (ii) The average number of customers in the queuing system.
  - (iii) The average time a customer spends in the system.
  - (iv) The average number of customers in the queue.
  - (v) The average time a customer spends in the queue waiting for service.

8M

UNIT-V

9. Listed in the table are the activities and sequencing requirements necessary for the completion of a research project.

Activity	Α	В	С	D	Е	F	G	Н	I	J	K	L	М
Predecessor	-	-	В	С	A,D	D	A,D	Е	G,H	ı	G	J,K	L
Duration (weeks)	6	5	2	2	2	1	6	5	6	2	4	3	1

- (i) Draw the network diagram for this project.
- (ii) Find the critical path.
- (iii) Determine the total duration of the project.

12M

OR

10. The data for the PERT network is given in the following table:

Activity nodes	T <sub>O</sub> (Days)	T <sub>m</sub> (Days)	T <sub>P</sub> (Days)
1 →2	2	4	6
1 →3	6	6	6
1 →4	6	12	24
2 →3	2	5	8
2 →5	12	14	28
3 →4	15	24	45
3 →6	3	6	9
4 →6	9	15	27
5 →6	4	10	16

- (i) Draw a network and estimate the earliest and latest event times for all nodes and hence derive critical path.
- (ii) Estimate the expected duration of the project and the corresponding variance.
- (iii) What is the probability of completing the project within 30 days?

12M

	ket Number							
		-						R-17
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IVI.D.P	4. II 3eme:	_	ular & Sup <b>Financial</b> :	•	•	iiriaii	0112 10	116 2019
Мах. Мс	arks: 60			aage			Tir	ne: 3 Hou
Answer	all five unit	s by cho	osing one o	uestion fro	om each	unit (	5 x 12 =	60 Marks
1.	Describe di	fferent fun	ctions of finar	UNIT-I	ement in de	atail		
1.	DC3011DC GI	iloroni idii	Clions of final	OR	omont in ac	, tan		
2.	Discuss: Pr	ofit maxim	ization vs We		zation			
			-		_			
3.	Evaloia diff	arant Nan	DCE to obnigu	UNIT-II	]	~		
ა.	Explain ulli	erent Non	DCF techniqu	es of Capita OR	ai buugeiin	g		
4.	Find out NE	2V and BC	R(PI), given tl		Rate of Re	⊇turn a	s 14 nerd	cent Rank
т.	Projects.	v and bo	rt(i i), givoii ti	no required	Trate of Te	starri a	3 14 pcit	ont. Rank
	E	ΟY	0	1	2		3	4
	NCFA	т А	-19,385	6,000	6,800		7,400	8,000
		•	·					
	(Rs.)	•	-13,800	4,000	4,400		4,800	5,200
		•	·	4,000				
5.	(Rs.)	В	·	4,000 UNIT-III	4,400		4,800	5,200
5.	(Rs.)	B Boss Working	-13,800	4,000 UNIT-III	4,400		4,800	5,200
	(Rs.) What is Gro	Boss Workin	-13,800 g Capital Vs Nets	4,000  UNIT-III  Net Working  OR	4,400 ]   Capital? E	xplain	4,800	5,200
5. 6.	(Rs.) What is Gro	Boss Workin	-13,800	4,000  UNIT-III  Net Working  OR	4,400 ]   Capital? E	xplain	4,800	5,200
	(Rs.) What is Gro	Boss Workin	-13,800 g Capital Vs Nets	4,000  UNIT-III  Net Working  OR	4,400 ]   Capital? E	xplain	4,800	5,200
	What is Grofinancing C What is Inve	entory mains is under	-13,800  Ig Capital Vs Nets  nagement? Ex	4,000  UNIT-III  Net Working  OR  Aplain differed  UNIT-IV  ax bracket	4,400  Capital? E  ent technique  and is eval	explain	4,800 different	5,200 approache
6.	What is Grofinancing C What is Inve	entory mains is under	-13,800  Ig Capital Vs Nets  nagement? Ex	4,000  UNIT-III  Net Working  OR  Applain differed  UNIT-IV  ax bracket absting Rs. 3,	4,400 Capital? E ent technique and is eval	explain ues.	4,800 different	5,200 approache
6.	What is Grofinancing C What is Invertible First Mover plans for its	entory man	-13,800  Ig Capital Vs Nets  nagement? Exercise 40 percent texpansion co	4,000  UNIT-III  Net Working  OR  Aplain differed  UNIT-IV  ax bracket asting Rs. 3,  Pla	4,400 Capital? E ent technique and is eval 00,000 an A	explain ues.	4,800  different  the follo	5,200 approache
6.	What is Grofinancing C What is Invertible First Mover plans for its	entory mains is under proposed S (FV = Rs	-13,800  Ig Capital Vs Nets  nagement? Exercise 40 percent to expansion constant to the consta	4,000  UNIT-III  Net Working  OR  Aplain differed  UNIT-IV  ax bracket asting Rs. 3,  Pla	4,400 Capital? E ent technique and is eval	explain ues.	4,800 different	5,200 approache
6.	What is Grofinancing C What is Invertible First Mover plans for its	entory mains is under proposed of (FV = Rs	-13,800  Ig Capital Vs Nets  nagement? Exercise 40 percent to expansion constitutions. 100)  @ 10%)	4,000  UNIT-III  Net Working  OR  Applain differed  UNIT-IV  ax bracket absting Rs. 3,  Pla  Rs. 1,  Rs. 1,	4,400  Capital? E  ent technique and is eval 00, 000  an A  25, 000  75, 000	explain ues. uating Rs. Rs.	4,800  different  the follo  Plan B  1, 50, 00  1, 50, 00	5,200 approache wing finance
6.	What is Grofinancing C What is Inventor of the Company of the Comp	entory mains is under proposed of (FV = Rs) (Interest e financing	-13,800  In g Capital Vs Notets  In agement? Exercise 40 percent to expansion constant to the	4,000  UNIT-III  Net Working  OR  Kplain differed  UNIT-IV  ax bracket sosting Rs. 3,  Pla  Rs. 1,  Rs. 1,  I rate risky, i	4,400  Capital? E  ent technique and is eval 00,000  an A 25,000 75,000  f First Move	explain ues. uating Rs. Rs.	4,800  different  the follo  Plan B  1, 50, 00  1, 50, 00	5,200 approache wing finance
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Explain different factors affecting the dividend policy of a firm

Explain MM Theory of dividend irrelevance

OR

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9.

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Page 1 of 1

Hall Tid	cket Number :												$\neg$
Code: 7	/P1A21	l l	L	ı	ı			ı		ı	ı	R-17	
M.B.	A. II Semeste	er Reg	ular i	& Su	pple	eme	ento	ıry E	xan	nina	tions J	une 2019	
		Hum											
	arks: 60											īme: 3 Hou	
Answer	all five units b	by cho	osing	one	que	stior ****	n froi	m ed	ach	unit	(5 x 12	= 60 Marks	; )
					U	NIT-							
1.	Define humar	n resou	rce m	nanag				in th	e na	ture	and sc	ope of hum	nan
	resource man	agemer	nt.										
						0	R						
2.	Elaborate diffe	erent rol	es of	a hur	nan r	esou	ırce r	nana	ger.				
						NIT-							
3.	Diagrammatic	ally rep	resent	step	s in h			sourc	e pla	annin	g and ex	xplain them.	
							R						
4.	Elucidate vario	ous step	s in s	elect	ion p	roce	SS.						
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5.	Discuss the st	ens in c	ondu	ctina		NIT-		ram					
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6.	What is perfor	mance	mana	aeme	ent? F			e ste	ns in	perf	ormance	e manageme	ent.
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					UI	NIT-	V						
7.	What do you ι	ındersta	and by	com				nagei	ment	? Ex	plain any	y five princip	les
	that has be fol	llowed v	vhile f	ormu	lating	g an	appro	priat	te co	mpei	nsation p	oolicy.	
						0	R						
8.	Why collective	bargain	ing is	impoı	rtant?	Exp	lain c	liffere	ent ty	pes c	of collecti	ive bargainin	g.
						NIT-							
9.	Define knowle	_	_	ment	t. Illu	strat	e the	kno	wled	ge n	nanagen	nent road m	ıap
	based on Non	aka S M	ioaei.			^	D						
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10.	GOODIE IS A IE	arnind (	oruan	ızatıo	n.Jl	JSüTV	une :	siate	ment	. witn	approbl	riate example	es.

Hall T	icket Number :	٦
Code:	7P1A25	
M.B	.A. II Semester Regular & Supplementary Examinations June 2019	
	Management Information System	
	Marks: 60  Marks: 60  Time: 3 Hour  all five units by choosing one question from each unit ( $5 \times 12 = 60$ Marks)  *********	S
	UNIT-I	
1.	Why are information systems so essential for running and managing a business today?	12M
	OR	
2.	Explain how marketing information systems support the marketing managers in their decision making.	12M
3.	UNIT-III  What is office automation system (OAS)? Explain how OAS increases the	
	efficiency of office management in digital firms.  OR	12M
4.	Discuss about the business benefits of artificial intelligence systems.	12M
5.	UNIT-III  Explain why the testing stage of systems development is so important. Name and describe the three stages of testing for an information system.  OR	12M
6.	Examine the system engineering methodologies for MIS problem solving.	12M
7	UNIT-IV  Describe the components of strategic information planning	4 ON 4
7.	Describe the components of strategic information planning.  OR	12M
8.	a) State the benefits of strategic information systems.	6M
0.	b) Give a brief note on business intelligence infrastructure.	6M
9.	UNIT-V  Describe the roles of firewalls, intrusion detection systems, and antivirus	
	•	12M
	OR	
10	Describe the function of risk assessment and explain how it is conducted for information systems.  ***	12M
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Hall Ti	icket Number :												
Code	7P1A23												R-17
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		٨	۸ark	etin	g N	\an	age	me	nt				
	Marks: 60		•			,.	·			• •	<i>(</i> = 1.		ne: 3 Hours
Answ	er all five units	by choo	osing	one		9stio ****	n tro	om e	each	unit	(5 x 1)	2 =	60 Marks )
					Į	JNIT-	<b>-I</b>						
1.	What do you m	ean by m	arket	infor	matio	on sy	stem	? Ex	plain	its co	ompone	nts '	with suitable
	example.												
						Ol	R						
2.	Describe Conce	epts and I	Funct	ions d	of Ma	ırketi	ng.						
					l	JNIT-	-II						
3.	Write short note	es on					<u>'</u>						
	a) Local M	arketing											
	b) Busines	s Markets	3										
						Ol	R						
4.	What are the ba	ases of S	egme	nting	Con	sume	er ma	rket?	•				
			Ū	ŭ									
					U	NIT-							
5.	Explain the con	cept of B	rand	Equity									
	·	·				Ol	R						
6.	Give a Detailed	account	of Pri	cina (	Obje			l Meth	nods				
0.	Civo a Bolanoa	account	01 1 11	onig (		511700	una	ivioti	1000.				
						NUT	11/						
7.	How do you dev	velon effe	ctiva	Com		NIT-		<i>(</i> ?					
7.	now do you de	velop elle	Clive	COIII	man	OI OI		<b>\</b> :					
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8.	Discuss the role	e of Mark	eting	Cnan	neis	ın se	iling	tne p	roau	CIS.			
						NIT-	-V						
9.	What are the m	odern ma	arketii	ng pra	actice								
						Ol	R						
10.	Write shot note:	s on:											
	a) Marketir	ng Contro	l										
	b) Marketir	ng Depart	ment										

Hall Tic	ket Number :									
Code: 7	7P1A24						•			R-17
M.B.	A. II Semest	er Reg	ular &	Supp	leme	ntary	Exa	mino	itions J	une 2019
	Pro	ductio	n and	Ope	ratio	ns Mc	anag	geme	ent	
Max. M	1arks: 60			_					T	īme: 3 Hours
Answe	r all five units	by cho	osing o		estion ****	from	each	n unit	(5 x 12	= 60 Marks )
					UNIT-	·I				
1.	Differentiate be	tween m	anufactu	ring and	d servi	ce oper	ration	s.		
					OR					
2.	Elucidate the va	arious typ	es of Ma	anufact	uring s	ystems				
					UNIT-	II				
3.	Explain the vari	ous stag	es in Pro	duction	n Plann	ning and	d Con	trol.		
					OR					
4.	Elucidate the va	arious typ	es of Ma	aintena	nce.					
					UNIT-I	II				
5.	Explain the vari	ous facto	ors affect	ing the	facility	locatio	n.			
					OR					
6.	Elucidate the va	arious mo	odels use	ed in lay	y out d	esigns				
				Ţ	JNIT-I	V				
7.	Elucidate the pr	rocess flo	w Charts	s		<u> </u>				

OR

8. Explain Methods study

UNIT-V

9. An engine manufacturing company stocks the items as shown in the following table in its stores. The unit prices, annual consumption quantity in terms of units/year are also given in the same table. Classify the items into A, B and C categories,

Component Code	Description	Price/Unit	Annual Demand (Units/year)
C001	Connecting rod	500	600
C002	Crank case	4000	600
C003	Cylinder	2000	600
C004	Cylinder head	3000	600
C005	Crank shaft	4000	600
C006	Cam	500	1200
C007	Nozzle	500	600
C008	Valve set	1000	1200
C009	Fuel injection pump	1500	600
C010	Exhaust pipe	500	600

OR

10. A manufacturing has to supply 12,000 units of a product per year to his customer. The ordering cost is Rs.100 per order and the carrying cost is Re.0.80 per item per month. The shortage cost is not allowed and the replacement is instantaneous. Determine the Economic order quantity, the time between orders, the number of orders per year and the optimum annual cost if the cost of item is Rs. 2 per item.