

Hall Ticket Number :

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**R-15**

**Code: 5P1A21**

M.B.A. II Semester Supplementary Examinations June 2018

**Human Resource Management**

Max. Marks: 60

Time: 3 Hours

Answer all five units by choosing one question from each unit ( 5 x 12 = 60 Marks )

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**UNIT-I**

1. What do you understand by human resource management? Explain the functions of human resource management.

**OR**

2. Critically evaluate the changing roles of human resource management to meet the competitive challenges.

**UNIT-II**

3. What is human resource planning? Explain the factors to be considered while planning human resources.

**OR**

4. Explain the two components of job analysis with an example.

**UNIT-III**

5. Elaborate different methods to evaluate the effectiveness of training and development program conducted in organization.

**OR**

6. Compare any two methods of performance evaluation and justify one appropriate method for evaluating school teachers.

**UNIT-IV**

7. Explain the five stages of career development process.

**OR**

8. Define the term industrial relations. Discuss in detail the importance and objectives of industrial relations.

**UNIT-V**

9. Elucidate different individual level factors and organizational factors affecting the work-life balance of employees.

**OR**

10. Talent management is a key challenge for employers. Discuss various human resource management practices followed in Information Technology sector to retain talented employees.

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Code: 5P1A27

M.B.A. II Semester Supplementary Examinations June 2018

**Operations Research**

Max. Marks: 60

Time: 3 Hours

Answer all five units by choosing one question from each unit ( 5 x 12 = 60 Marks )

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**UNIT-I**

1. a) Discuss the phases of Operations Research 5M  
 b) Solve Min  $Z = 12 X_1 + 20 X_2$

S.T.  $6X_1 + 8 X_2 \leq 100$

$7X_1 + 12X_2 \leq 120$

$X_1 \geq 0, X_2 \geq 0$  by Big M Method. 7M

**OR**

2. a) Write short notes on 'General methods of solving OR models'. 5M  
 b) Solving the following Linear programming problem

Maximize  $Z = 5 x_1 + 2 x_2$

Subject to  $2 x_1 + 7 x_2 \leq 100,$

$3 x_1 + 8 x_2 \leq 135,$

and  $x_1, x_2 \geq 0.$  7M

**UNIT-II**

3. a) Write steps for North-West Corner Method. 5M  
 b)

	D1	D2	D3	D4	Supply
O1	1	2	1	4	30
O2	3	3	2	1	50
O3	4	2	5	9	20
Demand	20	40	30	10	

Obtain the initial solution to above TP using Vogel's approximation method 7M

**OR**

4. a) What is the Travelling salesman problem? 3M  
 b)

	A	B	C	D	Supply
I	1	5	3	3	34
II	3	3	1	2	15
III	0	2	2	3	12
IV	2	7	2	4	19
Demand	21	25	17	17	

Obtain the initial solution to above TP using northwest corner method. 9M

**UNIT-III**

5. a) Write short note on the assignment problem and its applications. 3M  
 b) A company has one surplus truck of each of the cities A, B, C, D and E and one deficit truck in each of the cities 1,2,3,4,5 and 6. The distance between the cities in kilometers is shown in the matrix below. Find the assignment of trucks from cities in surplus to cities in deficit so that the total distance covered by vehicles is minimum

	1	2	3	4	5	6
A	12	10	15	22	18	8
B	10	18	25	15	16	12
C	11	10	3	8	5	9
D	6	14	10	13	13	12
E	8	12	11	7	13	10

9M

**OR**

6. a) What is the unbalanced assignment problem? How is it solved by the Hungarian method? 4M  
 b) Solve the following salesman problem so as to minimize the cost per cycle

		To City				
		1	2	3	4	5
From City	1	$\infty$	10	25	25	10
	2	1	$\infty$	10	15	2
	3	8	9	$\infty$	20	10
	4	14	10	24	$\infty$	15
	5	10	8	25	27	$\infty$

8M

**UNIT-IV**

7. a) Explain (i) Strategy (ii) Pay off Matrix (iii) Saddle point 3M  
 b) Use dominance property to reduce the game to 2X2 game and hence find optimal strategies.

		Player B			
		I	II	III	IV
Player A	I	5	-10	9	0
	II	6	7	8	1
	III	8	7	15	1
	IV	3	4	-1	4

9M

**OR**

8. Workers come to tool store room to receive special tools (required by them) for accomplishing a particular project assigned to them. The average time between two arrivals is 60 seconds and the arrivals are assumed to be in Poisson distribution. The average service time (of the tool room attendant) is 40 seconds. Determine  
 (a) average queue length  
 (b) average length of non-empty queues,  
 (c) average number of workers in system including the worker being attended.  
 (d) mean waiting time of an arrival average waiting time of an arrival who waits. 12M

**UNIT-V**

9. a) Define terms: Activity, Event, Merge Event, Burst Event, Total float, Free float, Critical path, critical activity 6M  
 b) Draw network diagram from following details.

Activity	A	B	C	D	E	F	G	H
Predecessor Activity	-	A	A	B	B,C	E	D,F	G

6M

**OR**

10. a) Write similarities and differences between PERT and CPM. 4M  
 b) A project schedule has the following characteristics. Construct the network and find the critical path and time duration of the project.

Activity	1-2	1-4	1-7	2-3	3-6	4-5	4-8	5-6	6-9	7-8	8-9
Time	2	2	1	4	1	5	8	4	3	3	5

8M

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Hall Ticket Number :										
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<b>R-15</b>
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**Code: 5P1A24**

M.B.A. II Semester Supplementary Examinations June 2018

**Production and Operations Management**

Max. Marks: 60

Time: 3 Hours

Answer all five units by choosing one question from each unit ( 5 x 12 = 60 Marks )

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<b>UNIT-I</b>
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1. Explain the various types of manufacturing systems. 12M

**OR**

2. Differentiate between manufacturing and services operations. 12M

<b>UNIT-II</b>
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3. Explain the various stages of Production Planning and Control. 12M

**OR**

4. Explain the difference types of Maintenance. 12M

<b>UNIT-III</b>
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5. Explain various types of layout. 12M

**OR**

6. Explain the various material handling principles. 12M

<b>UNIT-IV</b>
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7. Explain the process flow charts with suitable example. 12M

**OR**

8. Explain method study and work measurement. 12M

<b>UNIT-V</b>
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9. Explain various methods in calculating MRP. 12M

**OR**

10. In online inspection process, one litre milk glass bottles are selected at random. The number of air bubbles (defects) observed from those bottles is given in the table. [C= No.of air bubble (defects) in each bottle]. Draw a control chart for the below data.

Bottle Number (Sample Order)	Defects C	Bottle Number (Sample Order)	Defects C
1	4	11	3
2	5	12	5
3	7	13	4
4	3	14	3
5	3	15	4
6	5	16	5
7	6	17	3
8	2	18	7
9	4	19	6
10	8	20	13

12M

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