Hall Ticket No: | | | | | | | | | | | Question Paper Code: 16MCA401

MADANAPALLE INSTITUTE OF TECHNOLOGY & SCIENCE, MADANAPALLE

(UGC-AUTONOMOUS)

MCA II Year II Semester (R16) Supplementary End Semester Examinations – December 2019

(Regulations: R16)

WEB PROGRAMMING THROUGH PHP

Time: 3Hrs **Max Marks: 50**

Attempt all the questions. All parts of the question must be answered in one place only.
In Q.no 1 to 5 answer either Part-A or B only

Q.1(A)	i) Explain the following in HTML. (a) Paragraph Tags (b) Hyperlinks ii) With proper example describe table tag in HTML.	10M
	OR	
Q.1(B)	Design an HTML code to create a web page containing an application form to input your Bio-data.{The bio –data should contain text boxes, radio buttons, submit and reset buttons appropriately}	10M
Q.2(A)	i) Discuss the different database related functions in PHP. ii) What is scope? Discuss passing by value with example.	10M
	OR	
Q.2(B)	i) What is recursion? Explain implementation of recursion function using PHP with example. ii) Write a short note on reusing code.	10M
Q.3(A)	i) Explain error handling in PHP. ii) Discuss in detail about inheritance in PHP.	10M
	OR	
Q.3(B)	i) Write a PHP program to send an Email with attachment. ii) Explain about operations and attributes in PHP.	10M
Q.4(A)	Explain in detail on database and web data base architecture.	10M
	OR	
Q.4(B)	i) Explain the procedure of designing own web database. ii) Write a short note on MySQL identifiers.	10M
Q.5(A)	i) How to connect to MySQL database using PHP? Explain with syntax. ii) Explain implementation of authentication with PHP and MySQL.	10M
	OR	
Q.5(B)	Discuss about various application techniques in PHP.	10M

*** END***

Hall Ticket No: | | | | | | | | | | | Question Paper Code: 16MCA407

MADANAPALLE INSTITUTE OF TECHNOLOGY & SCIENCE, MADANAPALLE

(UGC-AUTONOMOUS)

MCA II Year II Semester (R16) Supplementary End Semester Examinations – December 2019

(Regulations: R16)

NETWORK SECURITY ESSENTIALS AND STANDARDS

Time: 3Hrs **Max Marks: 50**

Attempt all the questions. All parts of the question must be answered in one place only.
In Q.no 1 to 5 answer either Part-A or B only

Q.1(A)	Write in detail about multilevel model of security.	10M
	OR	
Q.1(B)	i. What are the Types of Attacks and explain each with an example.	5M
	ii. Write about Layers and Cryptography.	5M
Q.2(A)	What is meant by Public Key Cryptography? Explain RSA algorithm in detail.	10M
	OR	
Q.2(B)	Explain in detail with a neat diagram: Diffie-Hellman Key Exchange with an example.	10M
Q.3(A)	Write a detailed note on Password Based authentication and Address Based authentication.	10M
	OR	
Q.3(B)	Write short notes on: i. Multiple Trusted Intermediaries	5M
	ii. Delegation	5M
Q.4(A)	Illustrate the following: i. Secure Socket Layer Protocol (SSL) /TLS	5M
	ii. Kerberos Version 4	5M
	OR	
Q.4(B)	Explain How Real Time Communication Security takes place in networks?	10M
Q.5(A)	Explain the protocol MIME in Email Security.	10M
	OR	
Q.5(B)	How would you use different security services for Electronic mail?	10M

***** END*****

Hall Ticket No: | | | | | | | | | | | Question Paper Code: 16MBA114

MADANAPALLE INSTITUTE OF TECHNOLOGY & SCIENCE, MADANAPALLE

(UGC-AUTONOMOUS)

MCA II Year II Semester (R16) Supplementary End Semester Examinations – December 2019

(Regulations: R16)

OPERATIONS RESEARCH

Time: 3Hrs Max Marks: 50

Attempt all the questions. All parts of the question must be answered in one place only.
In Q.no 1 to 5 answer either Part-A or B only

Q.1(A) A company sells two different products A and B making a profit of Rs. 40 and Rs. 30 per unit respectively. They are both produce with the help of a common production process and are sold in two different markets. The production process has a total capacity of 30,000 man-hours. It takes 3 hours to produce a unit of A and one hour to produce a unit of B. The market has been surveyed and company officials feel that the maximum number of units of A that can be sold is 8,000 units and that of B is 12,000 units. Subject to these limitations, formulate LP model and determine the optimal product mix that maximizes the profit using Graphical method. 10M

OR

Q.1(B) Solve the following LPP by using Simplex method 10M

Max. $Z = 5x_1 + 7x_2$

Subject to constraints $x_1 + x_2 \leq 4$, $3x_1 + 8x_2 \leq 24$, $10x_1 + 7x_2 \leq 35$, and $x_1, x_2 \geq 0$

Q.2(A) A manufacturer wants to ship 22 loads of his product as shown below. The matrix gives the kilometers from source to destinations. 10M

	D_1	D_2	D_3	D_4	D_5	Supply
S_1	5	8	6	6	3	8
S_2	4	7	7	6	5	5
S_3	8	4	6	6	4	9
Demand	4	4	5	4	8	

The shipping cost is Rs. 10 per load per kilometer. What is shipping schedule should be used in order to minimize the total transportation cost?

OR

Q.2(B) What are the differences between assignment and transportation problems and also explain the Hungarian method. 10M

Q.3(A) Briefly explain the following terms:
(i) Payoff matrix (ii) two person zero sum game (iii) Saddle point 10M
(iv) maximini and (v) Dominance rule

OR

Q.3(B) Determine a sequence of the jobs that minimizes the total elapsed time required to complete all jobs on machines M_1, M_2 and M_3 in the order M_1-M_2-M_3. 10M

Job	1	2	3	4	5	6
M_1	8	3	7	2	5	1
M_2	3	4	5	2	1	6
M_3	8	7	6	9	10	9

Q.4(A) What is Simulation? Explain the types of simulation used in OR with examples. 10M

OR

Q.4(B) The following mortality rates have been observed for a certain type of fuse: 10M

Week	1	2	3	4	5
% fail by the end of the week	5	15	35	57	100

There are 1000 fuses in use and it costs Rs 5 to replace an individual fuse. If all fuses were replaced simultaneously it would cost Rs 1.25 per fuse. It is proposed to replace all fuses at fixed intervals of time, whether or not they have burnt out, and to continue replacing burnt out fuses as they fail. At what time intervals should the group replacement be made? Also prove that this optimum policy is superior to the straight forward policy of replacing each fuse only when it fails.

Q.5(A) Consider the following details of a project, 10M

Activity	Predecessor	Duration		
		Optimistic	Most likely	Pessimistic
A	-	6	7	8
B	-	1	2	9
C	-	1	4	7
D	A	1	2	3
E	A, B	1	2	9
F	C	1	5	9
G	C	2	2	8
H	E, F	4	4	4
I	E, F	4	4	10
J	D, H	2	5	14
K	I, G	2	2	8

(i) Construct the network, (ii) determine the critical path and expected project completion time and (iii) find the probability of completing the project on or before 25 weeks.

OR

Q.5(B) **Workers come to a tool store room to enquire about the special tools required by them. The average time between the arrivals is 60 seconds and the arrivals are distributed in Poisson fashion. The average service time is 40 seconds. Determine** 10M

(i) Average queue length.

(ii) Average length of non-empty queue.

(iii) Average number of workers in the system including the workers being attended.

(iv) Mean waiting time of an arrival.

*** END***