MADANAPALLE INSTITUTE OF TECHNOLOGY & SCIENCE, MADANAPALLE
(UGC-AUTONOMOUS)
MCA II Year I Semester (R16) Supplementary End Semester Examinations –December 2019
(Regulations: R16)
FINANCIAL ACCOUNTING FOR MANAGERS

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)	Define double entry system of accounting. Discuss the objectives and importance of accounting.	10M

OR

Q.1(B)	(i) What are the golden rules of debit and credit?	5M
	(ii) Discuss the uses of accounting.	5M
Q.2(A)	What are the accounting concepts? Explain any five in detail.	10M

OR

Q.2(B)	The following balances are obtained from the books of XYZ Ltd., for the year ending 31st March, 2018.	10M

Particulars	Dr. Rs.	Cr. Rs.
Purchases and Sales	4,50,000	9,63,000
Returns	30,000	15,000
Debtors and Creditors	6,00,000	3,66,000
Drawings and Capital	72,000	3,18,000
Interest received		12,000
Salaries	90,000	
Wages	60,000	
Rent	66,000	
Printing and stationery	24,000	
Insurance	36,000	
Opening stock	1,50,000	
Office expenses	36,000	
Furniture	60,000	
Total	**16,74,000**	**16,74,000**

Adjustment: a) Closing Stock Rs.4,00,000

You are required to prepare Trading, Profit & Loss A/c and a Balance Sheet.

Q.3(A)   Distinguish between straight line method and written down value method.   10M

OR

Q.3(B)   The following is the record of receipts of certain materials during February, 2019:   10M
February 1 Received 400 units @ Rs. 10 per unit
February 4 Received 300 units @ Rs. 11 per unit
February 16 Received 200 units @ Rs. 12 per unit
February 25 Received 400 units @ Rs. 13 per unit
        During February 2019, the following issues of materials are made
February 10 Issued 200 units
February 15 Issued 100 units
February 17 Issued 200 units
February 20 Issued 200 units
February 26 Issued 100 units
February 28 Issued 200 units
Show how these transactions will appear in the Stores Ledger under LIFO Method
and state the amount of inventory of February 28, 2019.

Q.4(A)   State the differences between funds flow statement and cash flow statement.   10M

OR

Q.4(B)   What is funds flow statement? Explain the steps in the preparation of funds flow   10M
statement.

Q.5(A)   What are the profitability ratios? Explain their significance.   10M

OR

Q.5(B)   From the following Balance Sheet calculate: 10M
        (a) Current Ratio.
        (b) Quick Ratio.
        (c) Super quick ratio
        (d) Working capital ratio.

Liabilities	Rs.	Assets	Rs.
Equity share capital	1,00,000	Cash in hand	2,000
6% preference share capital	1,00.000	Cash at Bank	10,000
7% Debentures	40,000	Bills receivable	30,000
8% Public debt	20,000	Investments	20,000
Bank over draft	40,000	Sundry debtors	70,000
Sundry Creditors	60,000	Closing stock	40,000
Outstanding expenses	7,000	Plant and Machinery	1,00,000
Proposed dividend	10,000	Furniture	30,000
Reserves	1,50,000	Land and Buildings	2,20,000
Provision for taxation	20,000	Goodwill	35,000
Profit & loss account	20,000	Preliminary expenses	10,000
	5,67,000		5,67,000

*** END***

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DESIGN AND ANALYSIS OF ALGORITHMS
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)   Give the algorithm for matrix multiplication and find the time complexity of the   10M
         algorithm using step – count method.
                                             OR

Q.1(B)   i. Explain the properties of an algorithm with an example.   10M
         ii. Differentiate between Bigoh and omega notation with example

Q.2(A)   Show the result of running Merge sorting technique on the sequence   10M
         38,27,43,3,9,82,10
                                             OR

Q.2(B)   Explain the greedy technique for solving the Job Sequencing problem.   10M

Q.3(A)   Explain the Travelling sales man problem.   10M

                                             OR

Q.3(B)   Draw an Optimal Binary Search Tree for n=4 identifiers (a1,a2,a3,a4) = (do,if, read, 10M
         while) P(1:4)=(3,3,1,1) and Q(0:4)=(2,3,1,1,1)

Q.4(A)   Give the solution to the 8-queens problem using backtracking method with algorithm.   10M

                                             OR

Q.4(B)   Explain the Graph – coloring problem. And draw the state space tree for m= 3colors   10M
         n=4 vertices graph. Discuss the time and space complexity.

Q.5(A)   i. Explain the basic concepts of P, NP, NP-Complete and NP-Hard.   10M
         ii. Discuss in detail on Clique Decision problem
                                             OR

Q.5(B)   i. Explain a NP-Hard code generation problem.   10M
         ii. State and explain CooK's theorem
                                        *** END***