Code No: MB1913/R19

MBA I Semester Regular/Supplementary Examinations, February-2024

ACCOUNTING FOR MANAGERS

Time: 3 Hours **Max. Marks: 75**

Answer Any* FIVE *Questions one from each unit
Question No. 11 is Compulsory

UNIT-I

1. a) Explain the scope and importance of financial accounting. 6M
   b) What is ledger? Explain the process of ledger posting. 6M

(OR)

2. a) Describe various conventions of accounting? 6M
   b) **1 :** Journalize the following transactions : 6M

2019	**Rs.**
Jan. 1 Mohan started business with cash	80,000
Jan. 6 Purchased goods from Ram on credit	30,000
Jan. 8 Sold goods on cash	6,000
Jan. 15 Bought Furniture from Yogi for cash	8,000
Jan. 18 Paid Salary to manager	6,500
Jan. 20 Paid Rent to land lord in cash	1,000

UNIT-II

3. a) Describe the meaning and importance of the interpretation of financial statements. 6M
   b) What do you mean by ratio? Explain different types of ratios. 6M

(OR)

4. a) What is meant by common-size statements? What purpose do they serve? 6M
   b) The following data has been given in respect of two general 6M
   Insurance firms. Calculate their NWC and comment upon the liquidity position.

	Company X	Company Y
Total Current Assets	Rs. 2,80,000	Rs. 1,30,000
Total Current Liabilities	Rs. 2,20,000	Rs. 1,10,000

UNIT-III

5. a) What are different types of inventory valuation methods? 6M
   b) Explain the different classifications of costs? 6M

(OR)

6. a) Illustrate about LIFO and FIFO methods of inventory. 6M
   b) Discuss the different methods of costing. 6M

UNIT-IV

7.	a)	What are essential features of budgeting?	6M
	b)	Explain the scope of management accounting.	6M
		(OR)	
8.	a)	Distinguish between 'fixed budget' and 'flexible budget'.	6M
	b)	Draw the procedure and format of cash budget.	6M
		UNIT-V	
9.	a)	Variance analysis is an integral part of standard costing system. Discuss.	6M
	b)	What are the limitations of standard costing? Explain.	6M
		(OR)	
10.	a)	Explain the managerial applications of break even analysis.	6M
	b)	A Company budgets for a production of 150000 units. The variable cost per unit is Rs.14 and fixed cost per unit is Rs.2 per unit. Calculate the BEP.	6M

11. **CASE STUDY** 15M

A factory, working for 50 hours a week, employs 100 workers on a job work. The standard rate is ₹1 an hour and standard output is 200 units per gang hour. During a week in June, ten employees were paid at ₹0.80p. an hour and five at ₹1.20 an hour. Rest of the employees were paid at the standard rate.
Actual number of units produced was 10,200

i. Calculate labour cost variances.

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Code No: M5702/R19

M. Tech. I Semester Regular/Supplementary Examinations, February-2024

CMOS DIGITAL IC DESIGN

Common to VLSI (57), VLSID (72), VLSISD (61) and VLSI Micro Electronics (76)

Time: 3 Hours **Max. Marks: 75**

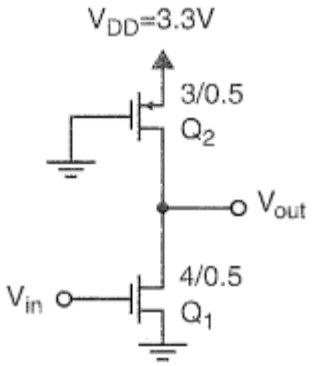
Answer any FIVE Questions One Question From Each Unit
All Questions Carry Equal Marks

UNIT-I

1. a Discuss about Transistor equivalency with three theorems and I-V Equations. 8M
   b Explain Pseudo-NMOS Inverter with neat sketches. 7M

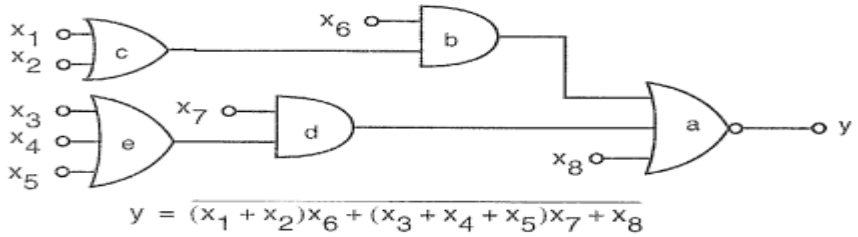
OR

2. a Define Threshold Voltage. Express threshold voltage and discuss dependency of V_T on various parameters. 8M
   b For the alternative pseudo-NMOS inverter, Calculate V_{th} 7M



UNIT-II

3. Illustrate Step by step procedure to the following logic diagram to realize with Pseudo NMOS gates 15M



OR

4. a How the MOS inverters connected in cascade can drive large capacitive loads? Explain. 8M
   b Explain the procedure to design an adder circuit using CMOS logic. 7M

UNIT-III

5. a What is the difference between latch and flip-flop? Explain. 8M
   b Differentiate static and dynamic latches. 7M

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OR

6.	a	Draw a negative edge sensitive SR flip-flop and explain.	8M
	b	Draw the D latch by using CMOS logic and explain its operation in detail.	7M

UNIT-IV

7.	a	Explain voltage boot strapping with an example.	8M
	b	Explain the speed and power dissipation in dynamic CMOS logic.	7M

OR

8.	a	Illustrate Dynamic CMOS transmission gate logic with an example.	8M
	b	Explain the concept of charge storage and charge leakage associated with pass transistor logic.	7M

UNIT-V

9.	a	Explain the principle of NAND gate flash memory with a neat diagram.	8M
	b	Write about the leakage currents in SRAM.	7M

OR

10.	a	List out the different types of DRAM and compare them.	8M
	b	Write the differences between SRAM and DRAM.	7M

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Code No: M5803/R19

M. Tech. I Semester Regular/Supplementary Examinations, February-2024

BIG DATA ANALYTICS

Common to CS&E (58) and DS (88)

Time: 3 Hours **Max. Marks: 75**

Answer any FIVE Questions One Question From Each Unit
All Questions Carry Equal Marks

UNIT-I

1. a Define big data and explain how it differs from traditional data sets. Discuss the convergence of key trends that have led to the rise of big data. 8M
   b Describe the role of unstructured data in big data analytics. Provide an example of how unstructured data is used in one industry. 7M

OR

2. a Explain how big data technologies like Hadoop have revolutionized web analytics. Provide a specific example of its application. 8M
   b Discuss the impact of big data in the healthcare sector, particularly in terms of patient care and medical research. 7M

UNIT-II

3. a Describe the key differences between NoSQL and traditional relational database systems. Why is NoSQL preferred for big data applications? 8M
   b Explain the concept of aggregates in NoSQL databases. How do they affect data modeling and querying? 7M

OR

4. a Discuss the architecture and data model of Cassandra. How does it differ from other NoSQL databases? 8M
   b Describe the process of creating and managing tables in Cassandra. Include an example of table creation and data manipulation. 7M

UNIT-III

5. a Explain the architecture of the Hadoop Distributed File System (HDFS) and its role in big data analytics. 8M
   b Discuss the MapReduce architecture and its process flow. How does it handle large datasets? 7M

OR

6. a Explain how Hive facilitates big data analytics. Discuss its data types, file formats, and HiveQL. 8M
   b Describe the concepts of table partitioning and bucketing in Hive. How do these features contribute to query optimization? 7M

UNIT-IV

7. a Compare the advantages of Apache Spark over traditional Hadoop MapReduce. Why is Spark considered more efficient for certain tasks? 8M
   b Explain the concept of Resilient Distributed Datasets (RDDs) in Spark. Discuss their transformations and actions. 7M

OR

8. a Describe how Spark handles data frames and complex data types. Include an example of working with JSON data in Spark. 8M
   b Discuss the deployment of Spark in different environments. Compare its performance in Standalone Mode versus Spark on YARN. 7M

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Code No: M5803/R19

UNIT-V

9.	a	Explain the fundamentals of stream processing in Spark. How does it handle real-time data analytics?	8M
	b	Discuss the concepts of event-time processing and stateful processing in Spark Streaming. Include an example of tumbling windows.	7M

OR

10.	a	Describe the core concepts of structured streaming in Spark. How is it used in real-world data processing scenarios?	8M
	b	Explain the techniques involved in performance tuning of Spark applications. How does one optimize a Spark application for better performance?	7M

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