

(Please write your Enrollment Number)

Enrollment No. \_\_\_\_\_

End-Term Examination  
(CBCS)(SUBJECTIVE TYPE)(Offline)  
Course Name:<MBA>, Semester:<III>  
(Nov-Dec, 2022)

Subject Code: MMS-251

Time :3 Hours

Subject: KNOWLEDGE MANAGEMENT & BIG DATA

Maximum Marks :60

Note: Q. 1 is compulsory. Attempt any one question from each of the Units I, II, III & IV.

Q1

- (a) Explain different risks of Big Data. (2.5\*8=20)
- (b) Define different deployment models of cloud computing.
- (c) Briefly explain the history of knowledge management.
- (d) Briefly explain the introduction of Business Intelligence.
- (e) Differentiate between semantic analysis and predictive analysis.
- (f) Define different soft tools of knowledge management.
- (g) Briefly introduce the cloud platforms available.
- (h) Explain & Define Big Data Analytics.

**UNIT-I**

- Q2      a) Explain different technical tools of capturing data for repositories. (5)  
b) Explain different (3-4) frameworks for the knowledge management. (5)

- Q3      a) Explain how Big data and knowledge management is related to each other with example. (5)  
b) What is the relationship between data warehouse, database and knowledge management, answer with example and diagram (if required). (5)

**UNIT-II**

- Q4      a) Explain basic architecture of Database management system with diagram. (5)  
b) How basic database management system is helpful for the management of Big data. (5)
- Q5      a) Give brief history of Big Data and explain characteristics of Big Data. (5)  
b) Explain Big Data security frameworks which supports a paradigm of data centric security. (5)

**UNIT-III**  
**UNIT-IV**

- Q6      a) Define cloud computing. Explain different obstacles and opportunities for the growth of cloud computing. (5)  
b) Explain how cloud computing is dependent on data mining and data warehousing. (5)
- Q7      a) Explain different service models of Cloud computing. (5)  
b) Define and explain the relationship of cloud computing and knowledge management in the age of digitization. (5)
- Q8      a) Explain how big data and knowledge management is helpful for making business intelligent in detail. (5)  
b) "Business Innovation using Big Data analytics." Explain it with a case study. (5)
- Q9      a) Explain the role of IoT and Social Media in Business Intelligence for the organizations. (5)  
b) "Semantic technology usage is a new innovative idea for business innovation." Comment and explain. (5)

End-Term Examination  
 (CBCS)(SUBJECTIVE TYPE)(OffLine)  
 Course Name:<MBA>, Semester:<First>  
 (Nov-Dec, 2022)

Subject Code: MMS-103  
 Time :3 Hours

Subject: Financial Reporting & Analysis  
 Maximum Marks :60

Note:Q. 1 is compulsory. Attempt one question each from the Units I, II, III & IV.

**Q1**

(2.5\*8=20)

- (a) "Financial reporting is not an end in itself but a means to attain certain objectives". Discuss .
- (b) Calculate current ratio from the following data of "Zee" Ltd. Liquid ratio = 1.5 : 1, Stock = Rs. 60,000, Current Liabilities Rs. 1,20,000.
- (c) "Financial statements of a company represents its financial health". Who all are the users of financial statements?
- (d) Comment on "Derecognition criteria of an Asset under AS-10."
- (e) Pass necessary journal entries for the following-
 

Credit sales to John	Rs. 50,000
Credit Purchases from Jimmy	Rs. 20,000
- (f) Explain" accrual concept" and concept of "going concern" of financial accounting.
- (g) Define (in the light of AS-26 )
  - (1)Impairment loss
  - (2)Amortization
- (h) What are operating activities under cash flow statements?

**UNIT-I**

- Q2** a)" IND AS are in compliance with IFRS". Explain. (10)  
 b) what is the" IASB" 5+5
- Q3** A) D Ltd. Wants to seeks your advice on financial reporting, as they were not into the practice of reporting and analyzing on company's performance. What would you suggest. (10)  
 B) What are current assets and non-current assets? Explain. 5+5

**UNIT-II**

- Q4** 1)Give Journal entries of the following (10)
  - a) Goods distributed as samples worth Rs. 5000
  - b) Loss of goods by fire worth Rs. 25000
  - c) Depreciation on machinery Rs. 10,000
  - d) Provision for discount from creditors Rs. 5000
- Q5** How will you treat following in final accounts of a company (10)
  - a) Goods used by owner for personal use
  - b) Advance income
  - c) Bad debts
  - d) Closing stock

**UNIT-III**

- Q6** a)Orange Ltd. Produced 100,000 units of product X during 2021-22. Cost data is as follows: (10)
 

Material	Rs. 50
Labour	Rs.30
Other cost	Rs. 10.

 Production overheads is Rs. 50,000 where 10% is proportion of fixed overhead, rest are variables. Installed capacity of

plant is 1,20,000 units annually at 100% capacity. Number of units sold are 80,000 units during the year.

Determine value of closing stock.

b) ABC Ltd recognized quarterly interest income of Rs. 2 Lac on 30<sup>th</sup> June only on "due basis". However, interest was not received in cash. How will you treat the same under the relevant standard.

Q7 A) Write a short note on "disclosure requirement of AS-22" (10) 5+5

B) Explain "Revaluation model and cost model" under AS-10

#### UNIT-IV

Q8 The following is the balance sheet of a Company as on 31-03-22 (10)

Liabilities	Rs.	Assets	Rs.
Equity Capital	40,00,000	Land & Building	40,00,000
Reserve & Surplus	20,00,000	Plant & Machinery	40,00,000
Debenture	30,00,000	Investments	30,00,000
Long term loan	50,00,000	stock	25,00,000
Creditors	8,00,000	debtors	15,00,000
Other current liabilities	12,00,000	Other current assets	10,00,000
	1,60,00000		1,60,00000

Calculate:

- (a) Current ratio
- (b) Stock to working capital ratio
- (c) Debt-Equity ratio
- (d) Net worth ratio
- (e) Fixed Assets to net worth ratio

Q9 A) Differentiate between :  
Cash flow from financing activities and cash flow from investing activities. (10) 5+5

B) Write a note on :  
Utility of cash flow statement.

Subject Code: BMS 203

Time :3 Hours

Note:Q. 1 is compulsory. Attempt one question each from the Units I, II, III &amp; IV.

 $(2.5 \times 8 = 20)$ **Q1**

- (a) "Money has no time value". Do you agree with statement?
- (b) Compounding and discounting techniques are same. Do you agree?
- (c) Write a short note on Weighted Average Cost of Capital.
- (d) Name any three assumptions of NI approach of capital structure.
- (e) "A bird in hand is better than two in bush". Explain in terms of Gordon dividend model
- (f) Net Present Value & Profitability Index both techniques are same in capital budgeting decisions. Do you agree?
- (g) Differentiate between Gross & Net Working capital
- (h) EOQ stands for Efficient Optimal Quantity. Do you agree?

**UNIT-I**

**Q2** Financial Management is nothing but managerial decision making on asset mix, capital mix and profit allocation. Elucidate the statement (10)

**Q3** Critically examine Equity Shares as a source of finance. (10)

**UNIT-II**

**Q4** (a) ABC Ltd. and PQR Ltd. belong to risk class where the equity capitalization of 10% is considered appropriate. ABC Ltd. has raised INR 30, 00,000 while PQR Ltd. has raised INR 50, 00,000 by issue of 7% debt. Find out the value of these two firms applying the Net income (NI) approach given that both firms expect an operating profit of 6,00,000 Rs.  
 (b) Explain any five factors affecting Capital Structure of a firm.

**Q5** (a) ABC Ltd. has its equity share quoted on the stock exchange for INR 80 per share. A constant annual growth rate of 5% is expected and company has paid dividend of INR 20 per share last year. You are required to compute Cost of Equity (Ke).  
 (b) Write a note on Book Value Vs. Market Value weights in cost of capital.

**UNIT-III**

**Q6** (a) Define "Dividend Policy". Explain various types of dividend policy and state giving reasons, about which type of dividend policy a good company should follow.  
 (b) Earning per share of a company is INR 10. It has rate of return of 15% and capitalization rate of risk class is 12.5%. Using Walter model calculate optimum payout ratio of the firm.

**Q7** (a) Mona Electricals Ltd. is considering for purchase of a machine. The machine X and Y are available, each having initial cost of INR 60,000. In comparing the profitability of the machine, a discount rate of 8% is to be used. Earnings after taxation and before depreciation are expected to be as follows:

Year	Cash Inflow (X)	Cash Inflow (Y)
1	15,000	10,000
2	20,000	25,000
3	20,000	20,000
4	25,000	20,000
5	10,000	5,000

Using NPV technique, indicate which machine be a more profitable investment?

(b) Explain payback period of capital budgeting with suitable example.

#### UNIT-IV

**Q8** (a) Explain the operating cycle method of computation of Working Capital. (5+5)

(b) Prepare a Cash Budget for the period April 2021 to June 2021 from following data

Months	Sales in Rs.	Purchases in Rs.	Wages in Rs.
February	40,000	22,000	2,000
March	30,000	24,000	2,500
April	16,000	36,000	3,000
May	25,000	40,000	3,500
June	20,000	32,000	4,000

- i) All sales are made on credit. 50% of sales are realized in month following sales and remaining sales in the second month following
- ii) Creditors are paid in month following the month of purchase
- iii) Cash at bank on 1 April was 5000
- iv) Lag in payment of wages is one month

**Q9** (a) Calculate EOQ & number of orders from following information. (5+5)  
Annual consumption 2000 units. The purchase price per unit is 30 Rs.  
The carrying cost of inventory is 25% of unit cost and the cost per  
order is Rs. 1,000.  
(b) Explain EOQ and its importance.

**End-Term Examination  
(CBCS)(SUBJECTIVE TYPE)(OffLine)**  
Course Name:<BBA>, Semester:<1<sup>st</sup>>

(Feb-March, 2023)

Subject Code: BMS-103	Subject: Financial Accounting
Time :3 Hours	Maximum Marks :60
Note: Q. 1 is compulsory. Attempt one question each from the Units I, II, III & IV.	

Q1

$$(2.5 \times 8 = 20)$$

- (a) Discuss the advantages of accounting?

(b) On 1st April 2019, opening balance of cash column of cash book was 20,000. After receiving Rs 4000 from A in cash, giving cheque of Rs 6,400 to S and making payment of wages Rs 1000 in cash, balance of cash column will be?

(c) The net profit of a firm amounts to Rs 12000 before charging commission. The manager of the firm is entitled to get commission on the net profit after charging such commission @20%. Calculate the amount of commission payable to the manager.

(d) Distinguish between trade discount and cash discount?

(e) What are the functions of SEBI?

(f) Explain primary market and secondary market ?

(g) What do you mean by inflation accounting? What are its advantages and objectives?

Date	Particulars
3.1.20X1	Purchased on credit from Goyal mills-55 sarees of Rs 100 each, Less trade discount @10%.
15.1.20X1	Purchased on credit from Mittal mills-10 sarees @ Rs 260 each, Less Trade discount @10%
30.1.20X1	Purchased on credit 2 typewriters @ rs 3500 each

UNIT-I

- Q2** A) Explain Accounting Period Assumption. (5+5) (10)  
B) Explain the difference between accounting concepts and accounting conventions?

PTO

Q3 Explain the following conventions of accounting (any 2):

A) Full Disclosure

(10)

B) Materiality

C) Consistency

(5+5)

## UNIT-II

Q4 (a) Journalise the following transactions and open ledger accounts of— cash and purchases 2021

(10)

March 1. Started a business with cash by T  
15000

March 2. Bought goods for cash  
1000

March 3. Bought goods from A  
3000

March 4. Sold to B  
4000

March 5. Paid A on account  
2,000

March 6. Bought goods from P for cash  
7,000

March 7. Received from B cash in full settlement  
3880

March 8. Returned to P goods worth  
200

March 9. Paid salaries  
700

March 10. Commission received  
500

March 11. Deposited with bank  
2000

March 12. Paid rent by cheque  
100

March 13. Withdrawn for personal use goods rs  
300 and cash rs 200

PTO

- Q5** The following is the trial balance of Mr Rajan as at 31st March 2021: **(10)**

Debit balances	Amount	Credit balances	Amount
Opening stock	72,000	sales	3,50,000
Purchases	2,25,000	purchases return	1,800
Furniture	15,000	capital	5,00,000
Motor car	30,000	bills payable	56,000
Buildings	4,25,800	commission	7,500
Bills receivable	50,000		
Advertisement	22,000		
Repairs	13,000		
Insurance	7,000		
Cash in hand	3,500		
Cash at bank	6,000		
Salaries	30,000		
General expenses	16,000		
Total	9,15,300		9,15,300

#### Additional Information

1. Closing Stock as on 31.3.21 was Rs 80,000.
2. Prepaid advertisement rs 2,000
3. Interest on capital at 6%
4. Goods used for personal use rs 1,800
5. Outstanding salaries rs 3,000
6. Provide depreciation on building at 5%, furniture at 5% and motor car at 10%

Prepare trading, profit and loss account and balance sheet as on 31 March 2021.

#### UNIT-III

- Q6** A public limited company invited applications for 1,00,000 shares of rs 10 each payable as: **(10)**

On Application      rs 3 per share  
 On Allotment      rs 4 per share  
 On Call              rs 3 per share

Applications for 1,50,000 shares were received.  
 Applications for 20,000 shares were rejected outright.  
 Remaining applicants were allotted 1,00,000 shares on pro-rata basis. The excess amount on application was adjusted towards the amount due on allotment. All the shareholders paid the amount duly. Journalize the transactions.

**Q7** Khan & Co. Ltd. issued 10,000 shares of rs 10 each at rs 12 per share, payable as follows: (10)

On Application	rs 2
On Allotment	rs 5
On First Call	rs 3
On Second & Final Call	rs 2

Mr. Joseph to whom 100 shares were allotted failed to pay both the calls. His shares were forfeited consequently. Pass journal entries.

#### UNIT-IV

**Q8** Write a note on the following:

A) Human Resource accounting (10)

B) Environmental accounting (5+5)

**Q9** a) What do you mean by computer accounting? Also explain the 3 accounting softwares. (10)

b) Write a note on social responsibility accounting. (5+5)

Subject Code: MCA 209  
Time : 3 Hours

TERM-END EXAMINATION  
(December, 2017)

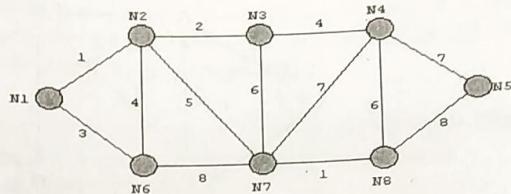
Subject: Design and Analysis of Algorithms  
Maximum Marks : 60

Q1

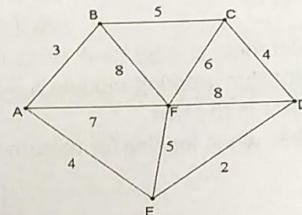
Note: Q1 is compulsory. Attempt one question each from the Units I, II, III &amp; IV.

(2x10=20)

- Describe the significance of Asymptotic notation.
- $T(n) = 4T(n/2) + n$ , solve recurrence by master method.
- If  $f(n) = a_m n^m + a_{m-1} n^{m-1} + \dots + a_1 n + a_0$ , Prove that  $f(n) = \Theta(n^m)$ .
- What is naive string matching algorithm?
- What are P and NP problems?
- What is an optimal Huffman code of numbers for the following set of frequencies :  
a : 1 b : 3 c : 5 d : 7 e : 4 f : 8 g : 11 h : 16
- Solution of  $T(n) = T(n/2) + 1$  is  $O(\lg n)$  by substitution method
- Find minimum cost spanning tree of the following graph by Prim's minimum cost spanning tree algorithm.



- Distinguish between greedy and dynamic programming algorithm.
- Represent the following graph in adjacency matrix representation.

UNIT-I

Q2

(5,5)

- Explain and analyze merge sort algorithm.
- Solve  $T(n) = T(n-1) + n$  by substitution method

Q3 Sort the following keys by quick sort. Also discuss worst and best case analysis  
5, 3, 1, 4, 8, 2, 4, 7

(10)

UNIT-II

Q4

(5,5)

- We have following set of activities with their start and finish time. Find the maximum size subset of mutually compatible activities by greedy algorithm.

$$s_i = 1, 3, 0, 5, 3, 5, 6, 8, 8, 2, 12$$

$$f_i = 4, 4, 6, 7, 8, 9, 10, 11, 12, 13, 14$$

- Find an optimal solution for the knapsack instance  $n=5$ ,  $W = 60$ ,  
 $(P_1, P_2, P_3, \dots, P_5) = (30, 20, 100, 90, 160)$  and

$$(w_1, w_2, w_3, \dots, w_5) = (5, 10, 20, 30, 40) \text{ by fractional knapsack method.}$$

Q5 Find the parenthesis of multiplication of matrices A, B, C, D having dimensions  
 $20 \times 2, 2 \times 10, 10 \times 15, 15 \times 5$  respectively. What is optimal number of scalar multiplication. (10)

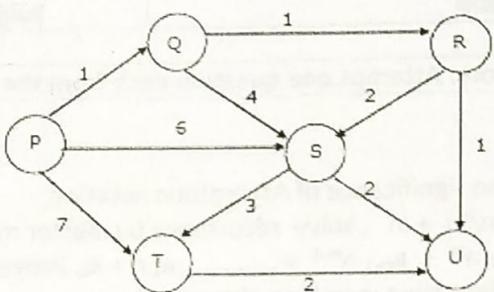
P.T.O

### UNIT-III

Q6

(5,5)

- (a) Find the shortest path in the below graph from the source vertex  $p$  to all other vertices by using Dijkstra's algorithm.

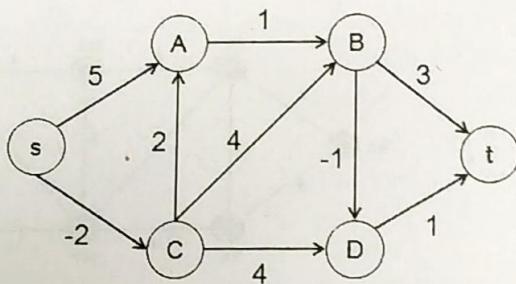


- (b) Write algorithm of Dijkstra's algorithm.

Q7

(5,5)

- (a) Find the shortest path in the below graph from the source vertex  $s$  to all other vertices by using Bellman-ford algorithm.



- (b) Write algorithm of Bellman-ford algorithm.

### UNIT-IV

Q8 Explain NP, NP completeness and NP Hard. Write the proof of NP Complete. (10)

Q9 Write Rabin-Karp algorithm working modulo  $q = 11$ , how many spurious hits does the Rabin-Karp matcher encounter in the text (10)

$T = 3141592653589793$  when looking for pattern  $P = 26$ .

## END TERM EXAMINATION

(December, 2017)

**Subject Code: MCA 303**

Time: 3 Hours

**Subject: Software Testing & Quality Management****Maximum Marks: 60****Note: Q1 is compulsory. Attempt one question each from the Units I, II, III & IV.****(5x4=20)****Q1**

- (a) What is Quality Assurance and Quality Control? Explain any two quality models
- (b) What is functional and non functional testing? Explain Software testing activities in detail.
- (c) Consider any graph and explain:
  - (i) DD graph and calculate cyclomatic complexity
  - (ii) Path testing and its significance
- (d) What is Performance and Load testing and discuss the challenges? Create Performance testing based checklist.

**UNIT-I****(5,5)****Q2**

- (a) Explain the following terms in detail-
  - i) Extended Decision table and rule count
  - ii) V Life Cycle model
- (b) What is slice based testing? Consider the program to find a number is even or not and create slices and generate test cases for it

**(5,5)****Q3**

- (a) Explain the terms in detail:
  - i) Retesting and Regression Testing
  - ii) Debugging Process
- (b) Write a program to input three numbers and print them in ascending order. Find all du-paths and identify those du-paths that are definition clear. Also find all du-paths, all-uses and all-definitions and generate test cases for these paths.

**UNIT-II****(5,5)****Q4**

- (a) Explain:
  - i) Importance of mutation testing
  - ii) Cause Effect Graph constraints with example
- (b) What are the test cases selection criteria? Write the modification algorithm which is used to minimize and prioritize test cases.

**(5,5)****Q5**

- (a) Could review and inspections be considered as part of testing? If yes, why? Also discuss and differentiate between different verification methods.
- (b) Discuss the priority category schemes for the prioritization of test cases. Also explain the following:
  - (i) Code coverage based testing
  - (ii) Regression Test case Selection

**UNIT-III****(5,5)****Q6**

- (a) What is the purpose of preparing a checklist? Discuss some of the issues related to source code reviews. How can we incorporate these issues in the source code review checklist?
- (b) How do we write use cases? Describe the basic and alternative flows in a use case. Explain the various steps for the generation of test cases from the use cases using an example.

**(10)****Q7**

- Consider the problem of Library Management system and design the following:
- (i) Use cases
  - (ii) Use case diagram
  - (iii) Basic and alternative flows in use cases
  - (iv) Test cases from use cases(for any two use case)

**UNIT-IV****(5,5)****Q8**

- (a) Define the following terms:
  - i) Measure , Measurement and Metrics
  - ii) Inheritance and size based metrics
- (b) What should we measure during testing? Explain product and process metrics in details.

**(10)****Q9**

- Write Short notes on:
- (i) Object Oriented Testing
  - (ii) Risk Analysis and Risk Matrix
  - (iii) Defect Prevention and Detection
  - (iv) Recovery and Security Testing

**END TERM EXAMINATION**  
**(December, 2017)**

Subject Code: MCA 305	Subject: Big Data and Business Analysis
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Time: 3 Hours	Maximum Marks: 60
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Note: Q1 is compulsory. Attempt one question each from the Units I, II, III & IV.	
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(5x4=20)
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**Q1.** Differentiate between:

- (a) Regression Trees vs Classification Trees.
- (b) K-Means clustering vs BFR algorithm.
- (c) Decision Support System vs Regression Analysis?
- (d) OLAP vs RTAP.

**UNIT-I**

(5,5)

**Q2.**

- (a) How is a big data based system different from a conventional transactional system.
- (b) Discuss principal component analysis in detail with an example.

(5,5)

**Q3.**

- (a) Discuss the data exploration methodologies in detail with the help of an example.
- (b) List the characteristics of a big data. Explain how can this data be analyzed efficiently?

**UNIT-II**

(5,5)

**Q4.**

- (a) Differentiate between clustering and classification with the help of an appropriate example.
- (b) What is the significance of multiple linear regression in big data analytics? Discuss in brief.

(5,5)

**Q5.**

- (a) Write the fuzzy c-means algorithm and compare it with any other non-hierarchical clustering algorithm.
- (b) Discuss KNN algorithm in brief with an example of your choice. Elaborate its advantages.

**UNIT-III**

(5,5)

**Q6.** Write short notes on:

- (a) Decision Support System Framework.
- (b) Sentiment Analysis.

(5,5)

**Q7.** Write short notes on:

- (a) Opinion Mining.
- (b) Decision Trees.

**UNIT-IV**

(5,5)

**Q8.**

- (a) Explain the need of having non-relation databases for big data. List some examples for the same.
- (b) What are web crawlers? Emphasize on the significance of their analysis.

(5,5)

**Q9.**

- (a) Discuss various document summarization techniques with examples.
- (b) Explain Hadoop and Map Reduce in detail.