

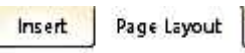


**Model Question 2023**  
**TRIBHUVAN UNIVERSITY**  
**FACULTY OF MANAGEMENT**  
Office of the Dean

**Full Marks: 40**  
**Pass Marks: 20**  
**Time: 2 Hr.**

**BBA/BIM/BBM/ Third Semester / STT 201: Business Statistics (Lab)**

*Candidates are required to answer all the questions using MS-Excel. The figures in the margin indicate full marks.*

**Important instructions**

1. Write your name and roll number in question paper.
2. Create new folder on the desktop and rename it with your symbol number.
3. Click on **Page Layout** of  of the **Ribbon**, then click on both of  of **Gridlines** and **Heading**. Set up **Scale**  at 75%.

Click on middle one icon of view i.e.  After clicking on Click to add header, type your symbol number so that your answer sheet won't be misplaced.

4. Save your spreadsheet (your file) with your symbol number in the folder (named with your symbol number).
5. Make sure that you should not write beyond the column of the spreadsheet set under 75%.
6. For each and every calculation, don't forget to press **Ctrl + S** to save your essential work.
7. You should submit your hard copy (print) with your signature.

**Practical Exam Questions Using MS-Excel**

- 1) Draw a pie-chart from the following information: **[4]**

Items	Food	Rent	Cloth	Education	Health	Misc.
Percent	45	20	15	10	10	5

- 2) The following table shows the marks in Economics and Statistics 10 students of a campus: **[5]**

Economics	47	67	40	35	42	55	50	32	57	45
Statistics	42	38	48	37	39	31	46	44	52	43

- a. Find correlation coefficient between marks in Economics and Statistics.
- b. Find the expected marks of Statistics when marks in Economics is 55.

- 3) Fit binomial distribution to the following data : [5]

Values of X	0	1	2	3	4
f	10	20	40	25	15

- 4) A random sample of 100 students is found to have a mean weight of 55 kg and a standard deviation of 5 kg. Test hypothesis that the mean height of the population is 52 kg at 5% level of significance. [5]
- 5) A random sample of 50 gave a mean of 7.5 kg and standard deviation of 1.5 kg. Find 95% confidence limits for the population mean. [5]

- 6) The following table gives the length of life of 150 light bulbs: [5]

Life(00 hours)	No of light bulbs
10-12	10
12-14	15
14-16	30
16-18	60
18-20	20
20-22	10
22-24	5
Total	150

Find mean and standard deviation of the distribution.

- 7) Find the value of median from the following distribution: [5]

Class	0-10	10-20	20-30	30-40	40-50	50-60
Frequency	10	25	40	15	6	9

- 8) The following information shows the daily wages of workers of certain locality of Kathmandu valley. Calculate coefficient of kurtosis and interpret the data. [6]

Daily wages (Rs 00)	5-6	6-7	7-8	8-9	9-10	10-11	11-12
Workers	10	14	18	24	16	12	6

# TRIBHUVAN UNIVERSITY

## Faculty of Management

Office of the Dean

### Model Question

#### BIM 3<sup>rd</sup> Semester / IT237: Web Technology I

##### Group "A"

###### Brief answer questions:

Attempt all questions.

(10 X 1=10)

1. What is DNS?
2. What is dynamic web page?
3. What is the use of <iframe> tag in HTML?
4. What do you mean by HTML events?
5. Why is the use of CSS?
6. Define responsive web design.
7. Define cookies.
8. Why do we need AJAX?
9. What is jQuery?
10. What is XML DTD?

##### Group" B"

###### Short Answers Questions

Attempt any five questions.

(5 × 3 = 15)

11. Explain HTTP request message in brief.
12. Explain structure of an HTML file with example.
13. How do you insert external style sheet in an HTML page?
14. How do you handle errors in JavaScript?
15. Explain structure of a JSON file? How do you convert a JSON file into JavaScript object?
16. Explain structure of XML file with example.

##### Group" C"

###### Long Answer Questions

Attempt any three questions.

(3× 5= 15)

17. Design an HTML form to provide user input for Name, Address, and Gender. The

form should also contain submit button for submitting the form data.

18. What is CSS box model? Create a box model that wraps around `<div>` tag with margins, borders, padding, and actual content.
19. How do you set and get cookie values in JavaScript? Write a simple JavaScript code to set cookie values for username and password.
20. Explain XML schema with example. What is DTD?

### **Group "D"**

#### **Comprehensive Questions**

**Attempt all questions.**

**(2 × 10 = 20)**

21. Explain different ways of inserting CSS in an HTML document? What is pseudo-class selector?
22. Create an HTML form with fields username, password, and country. The username field should be textbox type, password field should be password type, and the country should be a drop-down list. Now write a JavaScript function to validate this form. The function should validate the username to be of length 8, password should start with digit and should be alphanumeric, and the country field should be selected.

# TRIBHUVAN UNIVERSITY

## Faculty of Management

### Model Question

#### BIM 3<sup>rd</sup> Semester/ACC 201: Financial Accounting

Full Marks: 100

Pass Marks: 50

#### Group "A"

#### Brief Answer Questions (Attempt all questions)

(10 × 2 = 20)

1. Define accounting standards.
2. What is intangible asset?
3. What do you mean accounting period concept?
4. Write about cash basis of accounting.
5. What are the different types of cheque?
6. The following transaction are given:
  - a. Cash of Rs.160,000 and furniture of Rs.140,000 invested in the business as capital.
  - b. Commission received Rs.42,000 including advance commission of Rs.6,000

**Required:** Accounting equation

7. The following particulars are provided to you:

Profit for the year	Rs.10,000
Loss on revaluation	Rs.9,000
Gain from cash flow hedges	Rs.13,000
Gain on sale of investment	Rs.12,000

**Required:** Statement of Other Comprehensive Income as per NFRS

8. You are given the following information of a Company:  
Share capital and net profit on 1<sup>st</sup> January 2021 was Rs.500,000 and Rs.100,000 respectively and preliminary expenses was Rs.10,000. On 1<sup>st</sup> July 2021, the company issued 3,000 additional shares of Rs.100 each at 10% premium. Net profit earned by the company during the year amounting Rs.80,000 out of which the company paid dividend Rs.20,000 to its shareholders.

**Required:** Statement of Changes in Equity at the end of 2021

9. KK Company purchased a micro bus at the cost of Rs. 840,000 on 1<sup>st</sup> Baisakh 2077. The estimated life of the micro bus is 80,000 KMs with salvage value of Rs.40,000. During 2077 and 2078, the micro bus was run for 12,000 KM and 14,000 KM respectively.

**Required:** Depreciation for the year 2077 and 2078

10. The following are the revenue and capital items:

- Carriage on new machine purchased
- Repair costs of second hand bike purchased
- White wash of old building
- Salary paid

**Required:** The revenue and capital items

#### Group " B "

#### Shorts Answer Questions (Attempt any SIX questions)

(6 × 5 = 30)

11. Who are the users of accounting information?
12. Differentiate between accounting and accountancy.
13. What is ledger? Why it is prepared?

14. Following are the information of assets of a Company:

Particulars	2077	2078
Plant and Machinery	200,000	350,000
Building	300,000	450,000
Investment	100,000	250,000
Trademarks	50,000	75,000
Cash and bank	70,000	35,000
Inventory	60,000	90,000
Account Receivable	50,000	30,000

**Required:** Comparative or Horizontal Analysis

15. The bank statement of ABC Traders shows a balance of Rs.32,000 on 31<sup>st</sup> Ashadh 2079. However the company balance showed a different balance of Rs.20,000. On the investigation, the following differences were noticed:

Outstanding cheque Rs.12,000

Deposit in transit Rs.6,000

A customer's cheque of Rs.2,000 was return with the bank statement marked NSF.

Collection of notes receivable for Rs.2,500 and interest on investment Rs.1,500

Bank charge Rs.500 for the service provided by the bank

A cheque of Rs.2,500 was paid by the bank. However, the company recorded Rs.7,000 in its statement.

**Required:** Bank reconciliation statement

16. The following information is provided to you:

Sales Rs.600,000

Material consumed Rs.100,000

Carriage on purchase Rs.40,000

Administrative and selling expenses Rs.50,000

Wages and salaries Rs.40,000

Interest on loan Rs.10,000

Dividend received Rs.20,000

Depreciation on office equipment Rs.30,000

Income tax paid Rs.15,000

**Required:** a. Value added statement and b. Net profit for the year

17. The following transactions are given:

1<sup>st</sup> January 2019 Machinery purchased Rs. 400,000.

30<sup>th</sup> June 2020 Additional machinery purchased Rs. 300,000.

30<sup>th</sup> June 2021 Machinery purchased on 1<sup>st</sup> January was sold for Rs. 280,000.

Additional Information:

• Depreciation is to be provided at the rate of 15% per annum on the basis of reducing balance method.

• Accounts are closed on 31st December, each year.

**Required:** Machinery account from 2019 to 2021

### Group "C"

**Long Answer Questions (Attempt any THREE questions)**

**(3 × 10 = 30)**

18. "Accounting is the language of business", discuss.

19. What is accounting standard? Also explain the needs and limitations of accounting standards. (4+6=10)

20. The Trial balance of KK Company as on 31st December 2021 is given below:

Particulars	Debit (Rs.)	Credit in (Rs.)
Equity share capital .....	—	400,000
Building .....	300,000	—
Goodwill ... ..	20,000	—
10% Bank loan .....	—	120,000
Revenue from operations/sales .....	—	400,000
Purchase .....	200,000	—
Salaries expenses .....	33,000	—
Cash at bank .....	37,000	—
Investment.....	100,000	—

Account payable .....	–	70,000
Account receivable .....	40,000	–
Commission received .....	–	30,000
Prepaid insurance.....	24,000	–
Office rent .....	36,000	–
Equipment.....	200,000	–
Promotional expenses .....	30,000	–
<b>Total .....</b>	<b>1,020,000</b>	<b>1,020,000</b>

**Adjustments:**

- i. Closing stock Rs.30,000
- ii. Depreciation rate of building 5% and equipment 25%
- iii. Salary to be paid Rs.3,000
- iv. Prepaid insurance expired Rs.18,000

**Required:**

- a. Profit and loss statement for the year ending 31<sup>st</sup> December 2021 as per NFRS.
- b. Statement of financial position as on 31<sup>st</sup> December 2021 as per NFRS. (5+5)

21. The ABC Company's Statement of Profit and Loss account and Statement of Financial Position for two years have been given below:

**Statement of Profit and Loss for the year 2021**

Particulars	Amount (Rs.)
Revenue from operation	1,000,000
Less: Cost of sales	(600,000)
<b>Gross margin</b>	<b>400,000</b>
Add Other income (including dividend received of Rs.7,000 and interest received Rs.3,750)	60,000
<b>Total</b>	<b>460,000</b>
Less: Distribution expenses	(100,000)
Less: Administrative expenses (including depreciation on equipment Rs.90,000; write-off of goodwill Rs.10,000 and bad debts of Rs.9,000)	(260,000)
<b>Operating Profit</b>	<b>100,000</b>
Less: Finance cost	(15,000)
<b>Net profit before tax</b>	<b>85,000</b>
Less: Provision for tax	(21,250)
<b>Net profit after tax</b>	<b>63,750</b>
Less: Dividend paid	(5,000)
<b>Retained Earnings</b>	<b>58,750</b>

**Statement of Financial Position of a company for 2020 and 2021**

Assets	2020	2021
Non-Current Assets:		
Property, plant and equipment	500,000	600,000
Intangible assets (Goodwill)	30,000	20,000
Investments	40,000	110,000
<b>Total Non-Current Assets</b>	<b>570,000</b>	<b>730,000</b>
Current Assets:		
Inventories/Stock	30,000	50,000
Cash and cash equivalents	30,000	40,000
Account receivables	40,000	50,000

Trade and Other receivables	40,000	30,000
<b>Total Current Assets</b>	<b>140,000</b>	<b>170,000</b>
Fictitious Assets	-	-
<b>Total Assets (Total Non-current and Current Assets)</b>	<b>710,000</b>	<b>900,000</b>
<b>Equity:</b>		
Share capital @Rs.100 each	500,000	590,000
Reserve/Retained earnings	40,000	98,750
Non-controlling interests	-	-
<b>Total Equity</b>	<b>540,000</b>	<b>688,750</b>
<b>Liabilities</b>		
Non-Current Liabilities:		
10% Loans and borrowings	100,000	150,000
<b>Total Non-Current Liabilities</b>	<b>100,000</b>	<b>150,000</b>
Current Liabilities:		
Trade and other payable	30,000	40,000
Income tax liabilities	-	21,250
Provisions	40,000	-
<b>Total Current-Liabilities</b>	<b>70,000</b>	<b>61,250</b>
<b>Total Liabilities (Total Non-current and Current)</b>	<b>170,000</b>	<b>211,250</b>
<b>Total Equity and Total Liabilities</b>	<b>710,000</b>	<b>900,000</b>

**Required:** Statement of Cash Flow under NFRS

(4+2+2+2 = 10)

#### Group "D"

#### Comprehensive Answer Question

(1 × 20 = 20)

22. The MM Company's Statement of Profit and Loss account and Statement of Financial Position for two years have been given below:

#### Statement of Profit and Loss for the year 2021

Particulars	Amount (Rs.)
Revenue from operation	1,200,000
Less: Cost of sales	(800,000)
<b>Gross margin</b>	<b>400,000</b>
Add Other income	40,000
<b>Total</b>	<b>440,000</b>
Less: Distribution expenses	(120,000)
Less: Administrative expenses	(230,000)
<b>Operating Profit</b>	<b>90,000</b>
Less: Finance cost	15,000
<b>Net profit</b>	<b>75,000</b>

#### Statement of Financial Position of a company for 2020 and 2021

Assets	2020	2021
Non-Current Assets:		
Property, plant and equipment	400,000	500,000
Intangible assets	20,000	15,000
Investments (long term)	90,000	110,000
<b>Total Non-Current Assets</b>	<b>510,000</b>	<b>625,000</b>
Current Assets:		
Inventories/Stock	40,000	60,000
Cash and cash equivalents	50,000	60,000
Account receivables	40,000	30,000



Trade and Other receivables	30,000	40,000
<b>Total Current Assets</b>	<b>160,000</b>	<b>190,000</b>
Fictitious Assets	-	-
<b>Total Assets (Total Non-current and Current Assets)</b>	<b>670,000</b>	<b>815,000</b>
<b>Equity:</b>		
Share capital @Rs.100 each	400,000	450,000
Reserve/Net Profit	90,000	165,000
Non-controlling interests	-	-
<b>Total Equity</b>	<b>490,000</b>	<b>615,000</b>
<b>Liabilities</b>		
Non-Current Liabilities:		
10% Loans and borrowings	120,000	150,000
<b>Total Non-Current Liabilities</b>	<b>120,000</b>	<b>150,000</b>
Current Liabilities:		
Trade and other payable	30,000	50,000
Income tax liabilities	-	-
Provisions	30,000	-
<b>Total Current-Liabilities</b>	<b>60,000</b>	<b>50,000</b>
<b>Total Liabilities (Total Non-current and Current)</b>	<b>180,000</b>	<b>200,000</b>
<b>Total Equity and Total Liabilities</b>	<b>670,000</b>	<b>815,000</b>

**Required for 2021:**

- a. Current ratio (2:1)
- b. Acid test ratio (1:1)
- c. Debt to total capital ratio (less than 40%)
- d. Stock turnover ratio (at least 8 times)
- e. Total assets turnover ratio (more than 1 time)
- f. Net profit margin (at least 12%)
- g. Return on equity (at least 7%)
- h. Return on assets (at least 5%)
- i. Average sales period (45 days or less than 45 days)
- j. Account receivable turnover ratio (at least 8 times)
- k. Comment on the results

(10x1.5+5)

# TRIBHUVAN UNIVERSITY

## Faculty of Management

Office of the Dean

### Model Question

**BIM 3<sup>rd</sup> Semester / IT236: Microprocessor and Computer Architecture**

#### Group "A"

##### **Brief answer questions:**

Attempt all questions.

**(10 X 1=10)**

- 1.What is instruction cycle?
- 2.What do you mean by Data and Address Bus?
- 3.Define DMA.
- 4.Explain about SAP2.
- 5.What do you Operation Code?
- 6.Define Instruction Format.
- 7.What do you mean by Shift Microoperations.
- 8.Define CISC architecture.
- 9.What do you mean by Memory Hierarchy?
10. Define Data Dependency.

#### Group "B"

##### **Short Answers Questions**

Attempt any five questions.

**(5 × 3= 15)**

11. Differentiate between the microprocessor and Computer Architecture.
  12. Discuss the Intel 8085 Instructions.
  13. Explain the Arithmetic Microoperations with example.
  14. Discus the Symbolic Microinstructions
  15. Explain the Control Unit of Basic Computer.
  16. Explain I/O Processor with example.
- .

### **Group "C"**

#### **Long Answer Questions**

Attempt any three questions. (3× 5= 15)

17. Explain the memory mapping function with example.
18. Multiply  $-7 \times 8$  using Booth multiplication algorithm.
19. Explain with example of Arithmetic Pipeline.
20. Describe the Data Transfer instruction.

### **Group "D"**

#### **Comprehensive Questions**

Attempt all questions.

**(2 × 10 = 20)**

21. Explain the main purpose of addressing mode techniques use in the computers? Mention the different types of addressing modes and compare them.
22. Differentiate between restoring and non restoring division. Divide  $7/3$  using non restoring division.

**Model Question 2023**  
**TRIBHUVAN UNIVERSITY**  
**FACULTY OF MANAGEMENT**  
Office of the Dean

**Full Marks: 60**  
**Pass Marks: 30**  
**Time: 3 Hr.**

<b>BIM Third Semester / STT 201: Business Statistics</b>
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**GROUP'A'(10X1=10)**

**Brief Answer Question (Attempt all questions)**

- 1) In a moderately asymmetric distribution, the values of mean and median are 16 and 20 respectively. Compute the value of mode.
- 2) If the values of lower and upper quartiles are 40 and 70 respectively, then calculate the quartile deviation.
- 3) Calculate combined mean from the following information:

	Group A	Group B
Mean	120	130
Number of observation	20	15

- 4) The coefficient of correlation between two variates X and Y is 0.8. Their covariance is 20. The variance of X is 16. Find the standard deviation of Y.
- 5) If quartile deviation of a distribution is 2 and their 90<sup>th</sup> and 10<sup>th</sup> percentiles are 24 and 16 respectively then find the value of kurtosis.
- 6) Calculate the Pearson's coefficient of skewness when mean, mode and standard deviation are 65 , 62 and 5 respectively.
- 7) Given that  $P(A \cap B)=0.2$ ,  $P(A)= 0.5$  and  $P(B)= 0.4$ ,then findout the value of  $P(A \cup B)$ .
- 8) The mean of Poisson distribution  $(\lambda) = 2$ , find  $P(x=2)$ .
- 9) Calculate the standard error of mean when population size (N) = 500, sample size (n) =50 and standard deviation  $(\sigma)=5$ .
- (10) List out the types of random sampling techniques.

**GROUP'B' (5X3=15)**

**Short Answer Question (Attempt any FIVE questions)**

11) Find missing frequencies when mean value is 35 and total number of workers is 60.

Wage(Rs)	0-10	10-20	20-30	30-40	40-50	50-60
Workers	4	6	-	20	-	10

12) Systolic blood pressure of a sample of 400 males was taken. A sample mean blood pressure was found to be 128 mm and standard deviation 13 mm. Find 95% confidence limits of blood pressure within which the population mean would lie?

13) Find coefficient of quartile deviation from the following income table.

Monthly income (Rs)	Number of persons
Below 1000	50
1000-1999	500
2000-2999	555
3000-3999	100
4000-4999	300
5000 and above	15

14) The following information was obtained from two brand of cars A and B:

	A	B
No. of cars	50	60
Average life in years	11	12
Standard deviation	5	6

Which of the two brands shows greater consistency in its performance regarding to their life?

15) The following table shows the marks distribution of students in a campus.

Marks	0-10	10-20	20-30	30-40	40-50	50-60
frequency	10	20	45	15	8	3

Compute mode value of the marks distribution..

16) From the following distribution of marks of 500 students of a campus, find the lowest marks of the top 10% students.

Marks	No. of students
0-20	50
20-40	100
40-50	150
50-60	90
60-80	60
80-100	50

**GROUP 'C'(3X5=15)**

**Long Answer Questions (Attempt any THREE questions)**

17) From the following distribution of marks of 500 students of a campus, calculate the coefficient of skewness. Also, interpret the results.

Marks	No. of students
0-20	50
20-40	100
40-50	150
50-60	90
60-80	60
80-100	50

18) From the following distribution, find the percentile coefficient of kurtosis. Also comment the result.

Monthly income (Rs 000)	Number of workers
Below 100	5
100-199	50
200-299	55
300-399	10
400-499	30
500 and above	10

19) Daily expenditure on lunch of the staff of a bank of 400 employees was found to be normally distributed with mean of Rs 120 and standard deviation of Rs 20. Find the probability of employees having expenditure (a) between Rs 105 to Rs 140 (b) between Rs 125 to Rs 150.

20) A random sample of 100 students is found to have a mean weight of 65 kg and standard deviation of 20 kg. Test the hypothesis that at 5% level of significance the mean weight of the population is 60 kg.

**GROUP'D'(1X20=20)**

**Comprehensive Answer Question**

21) Following table shows the income and expenditure of people of certain locality of small town city of Nepal.

Expenditure in Rs	Income in Rs				
	0-5000	500-1000	1000-1500	1500-2000	2000-2500
0-4000	12	6	8	-	-
400-800	12	18	4	5	1
800-1200	-	8	10	2	4
1200-1600	-	1	10	2	1

1600-2000	-	-	1	2	3
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Find out

- (a) Equation of two regression lines.
- (b) Correlation coefficient.
- (c) Probable error and hence comment the result of correlation coefficient.
- (d) Estimate the expenditure of a person whose income is Rs. 4000. [10+3+5+2=20]

# TRIBHUVAN UNIVERSITY

## Faculty of Management

Office of the Dean

### Model Question

#### BIM 3<sup>rd</sup> Semester / IT238: Data Structure and Algorithms

#### Group "A"

**Brief answer questions:**

**Attempt all questions.**

**(10 X 1=10)**

1. Define abstract data type.
2. What are the advantages of doubly linked list over single linked list?
3. Define skip list.
4. List the applications of stack?
5. Which is more efficient a binary search or a linear search? Justify your answer on the basis of time complexity.
6. What is tail recursion?
7. List out the practical applications of tree data structure?
8. Define max heap with example.
9. What do you mean by adjacency matrix?
10. What is shortest path problem?

#### Group "B"

**Short Answers Questions**

**Attempt any five questions.**

**(5 × 3= 15)**

11. Write an algorithm or function for pop operation in stack.
12. Write a function or an algorithm for enqueue operation in circular queue.
13. How linked list can be considered as an abstract data type?
14. Write an algorithm or function for selection sort.
15. Write a recursive algorithm or function to compute gcd of any two positive integers.
16. Convert the following infix expression to equivalent postfix expression:  
(A\*B) + (C\*D).

#### Group "C"

**Long Answer Questions**

**Attempt any three questions.**

**(3× 5= 15)**

17. Why computational complexity is performed? Illustrate the concept of big Oh notation with pictorial representation.



18. Define doubly linked list. Write an algorithm or function to delete a last node of doubly linked list.
19. Sort the following data values using the concept of quick sort:  
11,13,8,15,20,22,4,3,26,2.
20. List out the collision resolution technique and explain how linear probing is used to resolve the hash collision.

### Group "D"

#### Comprehensive Questions

Attempt all questions.

(2 × 10 = 20)

21. Why it is necessary to balance the binary search tree? Differentiate between binary search tree and multiway search tree? Construct B-tree of order 5 for following data values:  
20,40,80,30,120,90,50,140,110,60,100,200,190,250,60,130,220,170.
22. List out the application of minimum spanning tree. How Kruskal's algorithm differ from Prim's algorithm? Find the shortest path from node a to node t from following graph by using Dijkstra algorithm.

