# Surkhet, Nepal <br> End-Semester Examination-2080 <br> Bachelor of Business Studies (BBS) <br> Semester - II 

Subject: Business Statistics -I
Course Code: MGMT 421/321
Time: 3: 00 Hours
You are required to answer in your own words as far as applicable. Figures in the margins indicate full marks.

## SECTION A: VERY SHORT ANSWER QUESTIONS (10 X $1=10$ MARKS)

Answer ALL the questions.

1. What are the limitations of statistics?
2. Find the median of $8,6,2,15,12,4,10,18$.
3. The average marks of 70 boys in a class is 75 and that of 30 girls is 65 then find the average marks of all students.
4. Find the standard deviation if: $\mathrm{N}=50, \Sigma \mathrm{fd}^{\prime}=-6, \sum \mathrm{ff}^{\prime^{2}}=54, \mathrm{~h}=5$.
5. If the correlation coefficient between X and Y is 0.6 , the probable error of $r$ is 0.0432 , what will be the value of $n$ ?
6. The regression coefficient of $x$ on $y$ is 0.32 and that of $y$ on $x$ is 0.73 , find the correlation coefficient.
7. Find 5 AB , if $\mathrm{A}=\left(\begin{array}{cc}2 & 1 \\ -3 & 0\end{array}\right)$, $\mathrm{B}=\left(\begin{array}{ccc}0 & 2 & 3 \\ 1 & -1 & 0\end{array}\right)$.
8. Evaluate: $\left|\begin{array}{lll}43 & 1 & 6 \\ 35 & 7 & 4 \\ 17 & 3 & 2\end{array}\right|$
9. If $n(U)=100, n(A)=75, n(B)=40, n(A \cup B)=80$. Find $n(A-B)$
10. A card is drawn from a pack of 52 cards. Find the probability that it is a queen of red colour.

## SECTION B: SHORT ANSWER QUESTIONS ( $\mathbf{3} \times 8$ = $\mathbf{2 4}$ MARKS)

Answer any THREE questions.
11. From the information given below, find:

|  | Factory A | Factory B |
| :--- | :--- | :--- |
| No. of wage earners | 250 | 200 |
| Average daily wages | Rs. 45 | Rs. 47.5 |

i. Which factory pays larger amount as given below?
ii. What is the average daily wage for the workers of the two factories taken together?
12. The score of two golfers for 10 rounds each are:

| Golfer A | 58 | 59 | 60 | 54 | 65 | 66 | 52 | 75 | 69 | 52 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Golfer B | 84 | 56 | 92 | 65 | 86 | 78 | 44 | 54 | 78 | 68 |

Which may be regarded as more consistent player?
13. Following series are the marks secured by 10 students in a class test in Mathematics and Statistics.

| Marks in math | 45 | 70 | 65 | 30 | 90 | 40 | 50 | 75 | 85 | 60 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Marks in Stat. | 35 | 90 | 70 | 40 | 95 | 40 | 60 | 80 | 80 | 50 |

i. Find the Karl Pearson's coefficient of correlation.
ii. Calculate probable error and test for the significance of the result.
14. Solve the problem graphically.

Maximize $Z=4 x+3 y$
Subject to the constraints,

$$
\begin{aligned}
& 2 x+y \leq 10 \\
& x+y \leq 6 \\
& x, y \geq 0
\end{aligned}
$$

15. i) If $A=\left[\begin{array}{ll}1 & 2 \\ 3 & 1\end{array}\right]$, show that $A^{2}-2 A-5 I=0$, where 0 is the $2 \times 2$ null matrix and $I$ be an identity matrix of order 2.
(ii) Solve the following equation by using Cramer's rule: $3 x+6 y=30,6 x+3 y=42$.

## SECTION C: LONG ANSWER QUESTIONS (2 X 13 = 26 MARKS)

## Answer any TWO questions.

16. The followings are the weekly production in units (output) of 60 workers of a factory.

| 72 | 23 | 48 | 51 | 64 | 82 | 12 | 33 | 50 | 39 | 57 | 35 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 88 | 77 | 25 | 39 | 52 | 48 | 64 | 49 | 52 | 41 | 72 | 62 |
| 49 | 32 | 54 | 67 | 46 | 55 | 57 | 82 | 44 | 75 | 56 | 51 |
| 63 | 59 | 69 | 53 | 42 | 75 | 85 | 68 | 55 | 52 | 45 | 40 |
| 57 | 20 | 75 | 46 | 51 | 50 | 16 | 62 | 56 | 54 | 40 | 55 |

The management has decided to give the bonus of Rs. 5000, Rs. 6000, Rs. 7000, Rs. 8000 and Rs. 9000 to each worker in the respective output group 40 to 50,50 to 60 and so on.
Find:
i. Mean output of all the workers
ii. Average bonus received by the workers
iii. Standard deviation of bonus.
17. Lives of two models of refrigerators in a recent survey are:

| Life (no. of years) | Numbers of refrigerators |  |
| :--- | :--- | :--- |
|  | Model A | Model B |
| $0-2$ | 5 | 2 |
| $2-4$ | 16 | 7 |
| $4-6$ | 13 | 12 |
| $6-8$ | 7 | 19 |
| $8-10$ | 5 | 9 |
| $10-12$ | 4 | 1 |

In which distribution do you think that mean is more representative?
18. A consumer products company wants to measure the effectiveness of different types of advertising media in the promotion of its product. Specifically, the company is interested in the effectiveness newspaper advertising. A sample 69 cities with approximately equal populations is selected for study during a test period of one month. The data of sales of the product and newspaper advertising media expenditure is given below.

| Advertising <br> expenditure | Sales of the product |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :---: |
|  | $0-500$ | $500-1000$ | $1000-1500$ | $1500-2000$ | $2000-2500$ |  |
| $200-400$ | 2 | 6 | - | - | - |  |
| $400-600$ | - | 18 | 4 | 2 | 1 |  |
| $600-800$ | - | 4 | 7 | 3 | - |  |
| $800-1000$ | - | 1 | - | 2 | 1 |  |

Now you are required to find
i. Correlation coefficient.
ii. Estimate the total sales of product when the advertising expenditure is Rs. 1200.

# Surkhet, Nepal <br> End-Semester Examination-2080 <br> Bachelor of Business Studies (BBS) <br> Semester - II 

## SECTION A: VERY SHORT ANSWER QUESTIONS (10 X 1 = 10 MARKS)

Answer ALL the questions.

1. What are the two basic features of macroeconomics?
2. When the consumption expenditure of a country is Rs. 6000 million and saving of the country is Rs. 2000 million what will be the disposable income of a country?
3. What do you mean by double counting in national income accounting?
4. Write four assumptions of classical theory of employment.
5. How much will be the value of MPC, if MPS is 0.15 ?
6. If the value of investment multiplier is 10 , calculate the value of MPC.
7. Find the equilibrium interest rate with the given equations;

IS schedule $\mathrm{Y}=600-200 \mathrm{i}$
LM schedule $Y=100 i$
8. Distinguish between inflation and deflation.
9. Which inflation gives the positive effect in an economy?
10. List the quantitative instruments of monetary policy.

## SECTION B: SHORT ANSWER QUESTIONS ( $3 \times 8$ = 24 MARKS)

Answer any THREE questions.
11. Define microeconomics and macroeconomics. Distinguish between microeconomics and macroeconomics.
12. Define employment. Explain the labour market equilibrium in classical theory of employment.
13. Calculate the GDPmp,GNPmp, NNPmp, NI and PCI with the help of the following schedule;

$$
[4+1+1+1+1]
$$

| Items | Amount (Rs in Crore) |
| :--- | :--- |
| 1. Compensation of employees | 2000 |
| 2. Profit | 800 |
| 3. Mixed income from self employed | 5000 |
| 4. Dividends | 200 |
| 5. Interest | 600 |
| 6. Net factor income from abroad | 250 |
| 7. Rent | 400 |
| 8. Consumption of fixed capital | 300 |
| 9. Indirect taxes | 1200 |
| 10. Subsidies | 500 |
| 11. Population | 200 |

14. Discuss the Keynesian psychological law of consumption.
15. Explain the different instruments of fiscal policy to stabilize the economy.

## SECTION C: LONG ANSWER QUESTIONS ( $2 \times 13=26$ MARKS)

Answer any TWO questions.
16. How equilibrium level of income is determined in four sector economy? Consider the four sector economy with following behavioural equation:

$$
\begin{array}{ll}
\mathrm{C}=300+\mathrm{bYd} & \mathrm{~T}=120+0.2 \mathrm{Y} \\
\mathrm{I}=100 \text { million } & \mathrm{G}=200 \text { million } \\
\mathrm{M}=20+0.1 \mathrm{Y} & \mathrm{X}=30 \\
\mathrm{~b}=0.6 & \mathrm{Gt}=50 \text { million }
\end{array}
$$

a. Compute equilibrium national income.
b. Calculate total import.
c. Calculate trade balance.
17. Explain the general equilibrium with the help of IS-LM model in three sector economy.
18. What do you mean by inflation? Discuss the different types of inflation on the basis of speed, inducement, time, government reaction and scope.
$[1+3+3+2+2+2]$

## THE END

# Surkhet, Nepal <br> End-Semester Examination-2080 <br> Bachelor of Business Studies (BBS) <br> Semester - II 

Subject: Introduction to Finance - I
Course Code: MGMT 423/323
Full Marks: 60 Pass Marks: 30
Time: 3: 00 Hours
You are required to answer in your own words as far as applicable. Figures in the margins indicate full marks.

## SECTION A: VERY SHORT ANSWER QUESTIONS (10 X $1=10$ MARKS)

Answer ALL the questions.

1. What is agency problem?
2. List out the managerial functions of financial management.
3. Write the two DuPont equations.
4. Differentiate between the discounting and compounding methods of time value of money.
5. Find the present value of Rs. 400 per year for 10 years at 10 percent (ordinary annuities).
6. A company's common stock has a beta of 1.4. If the risk-free rate is $6 \%$ percent and the expected rate of return on the market is $10 \%$, Calculate the cost of equity.
7. Write the formula of weighted average cost of capital.
8. What is crossover rate?
9. The Himalaya Herbal Company has an inventory conversion period of 40 days. Receivable conversion period is 30 days and the payable deferral period is 20 days. Calculate the cash conversion cycle of the company.
10. The annual requirements of materials to produce the product is 400,000 units, the purchase price of material is Rs. 5 per unit, cost of placing order is Rs 25, and carrying cost of one unit is $20 \%$ of material value. Calculate the economic order quantity.

## SECTION B: SHORT ANSWER QUESTIONS ( $\mathbf{3} \times 8=\mathbf{2 4}$ MARKS)

Answer any THREE questions.
11. Differentiate between the profit maximization and the wealth maximization objectives of financial management.
12. Complete the balance sheet and the sales information in the table that follows Mechi Pottery Industries using the following financial data:
Debt ratio $=50 \%$
Quick ratio $=0.8$ times
Total assets turnover ratio $=1.5$ times
DSO $=36$ days
Gross profit margin $=25 \%$
Inventory turn-over $=5$ times
Balance sheet

| Assets | Amount Rs. | Capital \& liabilities | Amount Rs. |
| :--- | :--- | :--- | :--- |
| Cash | $?$ | Notes payable | $?$ |
| Account Receivable | $?$ | Long Term debt | 60000 |
| Inventories | $?$ | Common stock | $?$ |
| Plant and equipment | $?$ | Retained earning | 97,500 |
| Total assets | Rs. 300,000 | Total liabilities \& capital | $?$ |
| sales | $?$ | Cost of goods sold | $?$ |

13. Bank A pays 8 percent interest compounded quarterly on its money market account. The manager of bank B wants its money market account equal to bank A's effective annual rate, but the interest is to be compounded on a monthly basis. What simple rate (Nominal rate) must bank B set?
14. State and explain the factors affecting the size of working capital of a manufacturing company.
15. Hulas Industry was recently formed to manufacture a new product. It has the following capital structure in the market value terms:

| Debenture | Rs. 6000,000 |
| :--- | :--- |
| Preferred stocks | Rs. 2000,00 |
| Common stocks | Rs. 8000,000 |
| Total | Rs. 16000,000 |

The company has a marginal tax of 40 percent. The cost of common equity is about 17 percent, cost of debt capital is 13 percent and the preferred stock has a cost of capital of 12 percent. Calculate the weighted average cost of capital of Hulas Industry.

## SECTION C: LONG ANSWER QUESTIONS ( $2 \times 13$ = 26 MARKS)

Answer any TWO questions.
16.
a. Explain the limitations of financial ratio analysis.
b. Describe the components of credit standard.
17. Prepare the cash flow statement of the following balance sheet as on December 2022 (Rs in ' 000 '):

| Assets | 2021 | 2022 | Liabilities\&Equity | 2021 | 2022 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Cash | 84 | 98 | Account payable | 312 | 344 |
| Account Receivable | 165 | 188 | Notes payable | 231 | 196 |
| Inventories | 393 | 422 | Long term debt | 531 | 463 |
| Net fixed assets | 2731 | 2880 | Shareholders' equity | 500 | 550 |
|  |  |  | Retained earnings | 1799 | 2035 |
| Total | 3373 | 3588 | Total | 3373 | 3588 |

Income Statement for the year ended December 2022 (Rs in '000')

| Sales | 2311 |
| :--- | :--- |
| Cost of goods sold | $(1344)$ |
| Depreciation | $(276)$ |
| EBIT | 691 |
| Interest paid | $(135)$ |
| Taxable income | 312 |
| Tax at 44\% | $(244)$ |
| Net income | 312 |
| Dividend paid | 76 |
| Addition to retain earning | 236 |

18. Your company is considering two mutually exclusive projects, A and B, whose costs and cash flows are as below:
$[5+5+3]$

| Year | 0 | 1 | 2 | 3 | 4 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Project A (Rs) | $(14,000)$ | 8,000 | 6,000 | 2,000 | 3,000 |
| Project B (Rs) | $(22,840)$ | 8000 | 8,000 | 8,000 | 8,000 |

The projects are equally risky and their cost of capital is 12 percent. You must make the recommendation which project should be purchased. To determine which project is more appropriate, compute the NPV and IRR of each project.

## THE END

# Surkhet, Nepal <br> End-Semester Examination-2080 <br> Bachelor of Business Studies (BBS) <br> Semester - II 

| Subject: Computer in Management | Course Code: MGMT 424/324 |
| :--- | :---: |
| Full Marks: 60 | Pass Marks: 30 |

You are required to answer in your own words as far as applicable. Figures in the margins indicate full marks.

## SECTION A: VERY SHORT ANSWER QUESTIONS (10 X 1 = 10 MARKS)

Answer ALL the questions.

1. Define computer system.
2. Explain the scope of system software.
3. What is primary memory?
4. State the importance of artificial intelligence in modern life.
5. How does email work?
6. Enumerate one difference between internet and intranet?
7. Write any two uses of networking in an organization.
8. What are B2B and B2C in e-commerce?
9. What is data mining?

10 . What is the difference between data and information?

## SECTION B: SHORT ANSWER QUESTIONS (3 X 8 = 24 MARKS)

Answer any THREE questions.
11. Define operating system. Mention the different functions performed by an operating system. [2+6]
12. Write any six differences between e-commerce and e-business. [4+4]
13. Explain, in brief, the concept of Data Management System. List out its importance and types in brief.
14. Suppose you are the supervisor of your company. Write an essay to be presented to the employee of your company on the change in working lifestyle and the role computer and internet play in everyday work.
15. Write short notes on any two:
i. Random Access Memory
iii. Browser
ii. TCP/IP

## SECTION C: LONG ANSWER QUESTIONS (2 X 13 = 26 MARKS)

Answer any TWO questions.
16. Describe the characteristic features of computer system. What are the scopes of computer in the different sectors of the country?
17. Explain Network Topology. Mention any four types of networks and explain them in brief with a suitable diagram. $[1+3+3+3+3]$
18. Define generation of computer. Mention any three generations of computer with their special features.

## THE END

# Surkhet, Nepal <br> End-Semester Examination-2080 <br> Bachelor of Business Studies (BBS) <br> Semester - II 

| Subject: Agri-Business Management | Course Code: MGMT 425/325 |
| :--- | :---: |
| Full Marks: 60 | Pass Marks: 30 |

You are required to answer in your own words as far as applicable. Figures in the margins indicate full marks.

## SECTION A: VERY SHORT ANSWER QUESTIONS (10 X 1 = 10 MARKS)

Answer ALL the questions.

1. Define Agri-business.
2. Write about the unorganized traditional source related to agriculture finance.
3. List out any four dimensions of agricultural quality parameter.
4. What is floriculture?
5. Write any two factors that should be considered for maintaining chick quality.
6. What is crisis management in poultry industry?
7. What is horticulture?
8. Write about the waste management in related with poultry industry.
9. List out any two reasons for storage of Agri product.
10. Write any two objectives of fruits processing.

## SECTION B: SHORT ANSWER QUESTIONS ( $\mathbf{3} \times 8$ = 24 MARKS)

Answer any THREE questions.
11. Discuss the important problems relating to farm or agriculture supplies.
12. Describe the needs and applications of bio-technology for agricultural uses and benefits in Nepal.
13. Write the objectives of diseases surveillance on agriculture sector in Nepal.
14. Mention the general and economics importance of floriculture.
15. Describe the government policy and incentives for domestic and global trade of fruit business.

## SECTION C: LONG ANSWER QUESTIONS (2 X 13 = 26 MARKS)

## Answer any TWO questions.

16. What are the recent changes and emerging trends on agribusiness sector in Nepal. Explain.
17. What is poultry industry? Explain the role of management in poultry industry. Also discuss the economic role of poultry industry for nation.
18. Mention the considering factors on packing, branding and storage of fruits.
