MID-WESTERN UNIVERSITY
EXAMINATIONS MANAGEMENT OFFICE
FINAL EXAMINATION 2076
BACHELOR OF BUSINESS STUDIES (BBS)
SEMESTER -II

Subject: Business Statistics-I
Full Marks: 60

Course Code: MGMT 321
Time: 3 Hours

You are required to answer in your own words as far as applicable. The figures in the margin indicate full marks.

## SECTION A: CRITICAL THINKING QUESTIONS (10 X $1=10$ MARKS)

## Answer ALL questions:

Q1. Define mailed questionnaire method of primary data collection.
Q2. The average wage of the 90 male workers working in a factory is Rs. 70 and the average wage of 40 female workers is Rs. 60. Find the average wage of all the workers taken together.
Q3. The mean and coefficient of variation of certain data set are 12 and $25 \%$ respectively. Calculate the value of standard deviation.
Q4. The correlation coefficient between $X$ and $Y$ is 0.5 , their covariance is 25 and the variance of $Y$ is 9 . Find the standard deviation of X .
Q5. If $\mathrm{X}=4 \mathrm{Y}+5$ and $\mathrm{Y}=\mathrm{kX}+4$, are the regression equation of X on Y and Y on X respectively, then prove that $4 \mathrm{k} \leq 1$.
Q6. What do you mean by objective function?
Q7. If $\mathrm{A}=\left(\begin{array}{cc}4 & -1 \\ -7 & 2\end{array}\right)$ and $\mathrm{B}=\left(\begin{array}{ll}2 & 1 \\ 7 & 4\end{array}\right)$, then prove that $\mathrm{AB}=\mathrm{BA}$.
Q8. Evaluate: $\left|\begin{array}{cc}a+b & 2 b \\ -b & a-b\end{array}\right|$
Q9. If $U=\{1,2,3,4,5,6,7,8,9,10,11,12\}, A=\{2,6,8,12\}, B=\{1,3,5,7,9,11\}, C=\{5,6,7,8,9,10\}$, then prove that: $A-(B \cup C)=(A-B) \cap(A-C)$.
Q10. A die is rolled once. Find the probability of getting a number greater than or equals to 3 .

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

## Answer any THREE questions:

Q11. The modal marks for a group of 24 students are 24 . Find the missing frequencies from the given table. 8

| Marks | $0-10$ | $10-20$ | $20-30$ | $30-40$ | $40-50$ |
| :--- | :--- | :--- | :--- | :--- | :--- |
| No. of students | 3 | - | 8 | 5 | - |

Q12. An analysis of monthly wages paid to workers in two firms A and B, belonging to the same industry, gives the following results:

|  | Firm A | Firm B |
| :--- | :--- | :--- |
| No. of workers | 500 | 600 |
| Average Wage | 1500 | 1550 |
| Variance of distribution of <br> wage | 100 | 121 |

Find (i) Which firm pay larger wage bill? (ii) In which firm is there greater variability in individual wages? (iii) The average wage and variance of wage of all the workers of firm A and B taken together. $2+3+3$

Q13. Solve the following LP problem graphically:
Maximize: $Z=4 x+3 y$
Subject to the constraints
$2 \mathrm{x}+\mathrm{y} \leq 10$
$x+y \leq 6$
$x, y \geq 0$
Q14. The demand and supply function of two commodities are given below:
$\mathrm{D}_{\mathrm{A}}=5 \mathrm{P}_{\mathrm{A}}-6 \mathrm{P}_{\mathrm{B}}-10$
$S_{A}=2 P_{A}-4 P_{B}-9$
$\mathrm{D}_{\mathrm{B}}=4 \mathrm{P}_{\mathrm{A}}+5 \mathrm{P}_{\mathrm{B}}-6$
$S_{B}=3 P_{A}+P_{B}-3$

Where, $\mathrm{P}_{\mathrm{A}}$ and $\mathrm{P}_{\mathrm{B}}$ denote the price of commodities A and B respectively. find the equilibrium price by using Cramer's rule.
Q15. Two fair dice is rolled at the same time. What is the probability that the faces turn up to show (i) a sum of 7 (ii) a sum of 8 or 9 (iii) a sum less than 6 (iv) face of 5 in the first die.

## SECTION C: LONG ANSWER QUESTIONS ( $\mathbf{2} \times \mathbf{1 3}=\mathbf{2 6}$ MARKS $)$

## Answer any TWO questions:

Q16. A sample of 60 cars of two makes $P$ and $Q$, is taken and their average running life in years is recorded as follows:

| Life <br> (Year <br> s) | $0-2$ | $2-4$ | $4-6$ | $6-8$ | $8-10$ |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Make P | 8 | 12 | 22 | 14 | 4 |
| Make Q | 10 | 14 | 19 | 12 | 5 |

a. Find the mean life of each make.
b. Which make shows greater consistency in performance and why?

Q17. The following 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 bonus of Rs. 5000, 6000, 7000, 8000 and 9000 to each worker in the respective output group of 40 to 50,50 to 60 and so on. Find
a. Mean output of all the workers
b. Average bonus received by the workers
c. Standard deviation of bonus.

Q18. The data in sales and promotion on a newly launched product is given below:

| Sales (Rs, 000) | 16 | 20 | 18 | 24 | 20 | 22 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Promotion expenses (Rs. 000) | 4 | 4 | 6 | 10 | 10 | 12 |

a. Calculate two regression coefficients from the above data of sales and expenses.
b. Find the correlation coefficients between sales and expenses.
c. Test the significance of correlation coefficient.
d. Find the expected sales if promotional an expense is Rs.20, 000.

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FINAL EXAMINATION 2076
BACHELOR OF BUSINESS STUDIES (BBS)
SEMESTER -II

Subject: Macro Economics
Course Code: MGMT 322
Full Marks: 60
Time: 3 Hours
You are required to answer in your own words as far as applicable. The figures in the margin indicate full marks.

## SECTION A: CRITICAL THINKING QUESTIONS (10 X $1=10$ MARKS)

## Answer ALL questions:

Q1. What are the two applications of macroeconomics?
Q2. Define voluntary unemployment.
Q3. Distinguish between GDP and GNP.
Q4. Write the different kinds of inflation on the basis of speed.
Q5. Write any two assumption of the principle of effective demand.
Q6. Find out saving function when $\mathrm{C}=20+0.5 \mathrm{Y}$.
Q7. Find the investment multiplier when investment increased by Rs. 200 million causes an increase in income by Rs 600 million.
Q8. If money demand (MD) is Rs. 8000 billion where money demand for transition (MT) is Rs. 4000 billion, find the money demand for speculative motive (MSP).
Q9. Point out any four function of Central Bank.
Q10. Define deficit financing.

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

## Answer any THREE questions:

Q11. What are the basic issues of macroeconomics for business management?
Q12. Complete the following schedule and answer the given questions:

| Y | C | S | APC | MPC | APS | MPS |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 0 | 200 |  |  |  |  |  |
| 500 | 600 |  |  |  |  |  |
| 1000 | 1000 |  |  |  |  |  |
| 1500 | 1400 |  |  |  |  |  |
| 2000 | 1800 |  |  |  |  |  |

a. From the above table explain the relationship between APC and MPC.
b. Does this example satisfy three propositions of psychological law of consumption?

Q13. Explain the fundamental concept of Say's Law of market. 8
Q14. Explain the principle of demand pull and cost push inflation. 4+4
Q15. Discuss the process of budget formulation.

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

## Answer any TWO questions:

Q16. Discuss the concept of paradox of thrift. If the saving function of an economy is estimated to be $S=-200+0.2 Y$ where income, saving and investment are measured in billion. Autonomous investment in the economy is 1000 billion.
a) Find the equilibrium level of income, consumption and saving.
b) If saving increased by 100 billion, what is the new level of equilibrium income, consumption and saving?
c) Dose it reflect the notion of paradox of thrift?

Q17. How the national income and expenditure is circulated in three and four sector economy? Show with the help of chart.
Q18. Explain the classical theory of employment. What are its criticisms?

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SEMESTER -II

Subject: Introduction to Finance -I
Course Code: MGMT 323
Full Marks: 60
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 questions.

Q1. Define the cash flow time line.
Q2. What is agency relationship?
Q3. Give the concept of time value of money.
Q4. Write the formula of weighted average cost of capital.
Q5. Khanal Traders has networking of Rs 150,000 , and the current liabilities of Rs 50,000 . Find current ratio of Khanal Traders.
Q6. Find the present value of Rs. 400 per year for 5 years at $0 \%$ interest rate. (assuming ordinary annuity)
Q7. Write the Du-Pont equation of ROA and ROE.
Q8. Differentiate between independent and mutually exclusive project.
Q9. Define net present value method of capital budgeting.
Q10. List out the types of profitability ratio.

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

Answer any THREE questions.
Q11. What is financial management? Explain the nature and functions of financial management.
Q12. Differentiate between profit maximization and wealth maximization objectives of financial management.
Q13. If you have a choice of receiving Rs. 20,000 six years from now or Rs. 40,000 twelve from now. At what implied compound interest rate should you be indifferent between the two contracts?
Q14. Nepal Battery has total annual sales (all credit) of Rs 400000 and a gross profit margin of $20 \%$. Its current assets are Rs. 80000 , Current liabilities Rs 60,000 , inventories Rs. 30000 and cash Rs10,000.
a. How much average inventory should be carried if management wants the inventory turnover to be 4 x ?
b. How rapidly must accounts receivable be collected if management wants to have an average of Rs. 50000 invested in receivable? Assuming days in a year 360 ?
Q15. a. The Stock of Timber Corporation has beta of 0.75 . The market risk premium is $5 \%$ and the risk-free rate is $5 \%$. Find the cost of equity.
b. Assume that Timber's last dividend was Rs 1.50 per share, and the dividend is expected to grow at $8 \%$ indefinitely. The stock currently sells for Rs 40 per share. What is Timber's cost of equity?

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

## Answer any TWO questions.

Q16. What is working capital? State and explain the factors affecting the size of working capital of a firm.

Q17. Prepare the cash flow statement from following Balance Sheet of XYZ company for the Year 2008. Net income for the year is Rs 330,000 .

| Assets | 2007 | 2008 | Liabilities | 2007 | 2008 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Cash | 3,500 | 15,000 | Accounts payable | 9,000 | 7,500 |
| Marketable securities | 0 | 5,500 | Notes payable | 1,500 | 7,500 |
| Bills receivable | 15,000 | 11,000 | Other current liabilities | 7,500 | 3,500 |
| Inventories | 26,500 | 30,000 | Long term debt | 4,000 | 12,000 |
| Gross fixed assets | 37,500 | 62,500 | Common stock | 14,500 | 28,500 |
| Less: Accumulated |  |  | Retained earnings | 33,500 | 47,500 |
| depreciation | 12,500 | 17,500 |  |  |  |
|  |  |  |  |  |  |
| Total |  |  |  | 70,000 | 106,500 |

Q18. Bheri Engineering is considering to purchase the two pieces of equipment, $A$ and $B$, in this year's capital budget. The projects are not mutually exclusive. The cash outlay for the A is Rs. 17,500, and that include for the B is Rs. 22,430. The firm's cost of capital is 14 percent. After tax cash flows including depreciation are as follows:

| Year | 1 | 2 | 3 | 4 | 5 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| A (Rs) | Rs 5100 | 5100 | 5100 | 5100 | 5100 |
| B (Rs) | Rs 7500 | 7500 | 7500 | 7500 | 7500 |

Calculate the internal rate of return and the net present value of each project, and indicate the correct/ reject decision for each.

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SEMESTER -II

| Subject: Computers in Management | Course Code: MGMT 324 |
| :--- | ---: |
| Full Marks: 60 | Time: 3 Hours |

You are required to answer in your own words as far as applicable. The figures in the margin indicate full marks.

## SECTION A: CRITICAL THINKING QUESTIONS (10 X $1=\mathbf{1 0}$ MARKS)

Answer ALL questions:
Q1. Define computer system.
Q2. Explain scope of application software.
Q3. State the importance of cache memory.
Q4. What is TCP/IP?
Q5. List the importance of internet.
Q6. How does email work?
Q7. What is input unit?
Q8. What is artificial intelligent?
Q9. Enlist two uses of social networking sites.
Q10. What is search engine?

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

## Answer any THREE questions:

Q11. Explain in brief any four features and uses of computer.
Q12. Write notable differences between e-commerce and e-business.
Q13. Elaborate the concept Data Management System. List out and define its types.
Q14. Explore the relation between internet, intranet and extranet.
Q15. Suppose you are the program coordinator of a company. Prepare a speech on the topic "Importance of internet and email for the effective and efficient communication in an organization."

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

## Answer any TWO questions:

Q16. Describe the term LAN, MAN and WAN. Explain each of them with their special features.
Q17. Define Network Topology. Mention its types with suitable diagram.
Q18. Define generation of computer. Mention each generation with their special features.

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SEMESTER -II

| Subject: Agri-Business Management | Course Code: MGMT 325 |
| :--- | :---: |
| Full Marks: 60 | Time: 3 Hours |

You are required to answer in your own words as far as applicable. The figures in the margin indicate full marks.

## SECTION A: CRITICAL THINKING QUESTIONS (10 X $1=10$ MARKS)

## Answer ALL questions:

Q1. What is agriculture marketing?
Q2. Enlist the source of agriculture finance.
Q3. Define bio-technology.
Q4. Mention any four quality parameters of agro- product.
Q5. Define horticulture.
Q6. What do you mean by floriculture?
Q7. What is hatchery industry?
Q8. List out any two methods of cooling.
Q9. Clarify the meaning of bio-security.
Q10. Enlist the two objectives of fruit processing.

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

## Answer any THREE questions:

Q11. Point out and elaborate the problem and prospects with respect to domestic market. 4+4
Q12. Explain the good health, housing and feeding management. 8
Q13. Define the handling of hatchings eggs. Explain the basic consideration factors for handling of hatchings eggs. $2+6$
Q14. What is agricultural quality and productivity? Explain measures for productivity a quality increases in agricultural industry. 3+5
Q15. Discuss out the recent changes in agri- business sector of Nepal. 8
Q16. "Agri-business is an evergreen business "give your opinion with highlighting this statement. 8

## SECTION C: LONG ANSWER QUESTIONS ( $\mathbf{2} \times \mathbf{1 3}=\mathbf{2 6}$ MARKS $)$

## Answer any TWO questions:

Q17. What are the management factors for growing and lying management of chicks? Also explain the crises and waste management with its components.
Q18. Explain agri-business management roles, problems and measures for solving the problem. 4+4+5
Q19. Explain importance and measurement dimensions of agricultural productivity and quality increases in agricultural industry. 7+6

