Subject: Agri-Business Management   Course Code: MGMT 325
Full Marks: 100   Time: 3 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 (10X 2 = 20 MARKS)

Answer ALL questions.

Q1. List out any four roles of agri-business management in Nepalese economy.

Q2. Write in short the meaning of agriculture finance.

Q3. Write any four advantages of tissue culture for advancement of agricultural sector.

Q4. State any four dimensions for measuring quality parameters in agriculture.

Q5. Express any four importance of floriculture.

Q6. Give symbolic meaning of any four colors of flower carnation.

Q7. Write down any four factors to be considered for the chicks' transportation and delivery.

Q8. Explain free range system of housing management for poultry.

Q9. Point out any four methods of fruits storage.

Q10. Enlist any four objectives of fruit processing industry established in Nepal.

SECTION B: SHORT ANSWER QUESTIONS (6 X 8 = 48 MARKS)

Answer any SIX questions.

Q11. List out and explain the recent changes in agribusiness sector of Nepal.   [8]

Q12. Show the meaning of disease surveillance. Explain the objectives and needs of disease surveillance in the agricultural sector.   [2+3+3]

Q13. Give the meaning of ornamental plant. Explain its importance and scope in Nepal.   [2+3+3]

Q14. Explain the post-harvest changes in cut flowers.   [8]

Q15. Enlist the factors that affect hatchability for production of quality chicks and eggs. Explain each of them.   [2+6]

Q16. Write the meaning of bio-security. Describe key points for successful bio- security and farm sanitation program.   [2+3+3]

Q17. Discuss the incentives provided by government for fruit industry for domestic and global trade.   [8]

Q18. Point out and describe the pre-harvest management factors on fruits production.   [8]

SECTION C: LONG ANSWER QUESTIONS (2 X 16 = 32 MARKS)

Answer any TWO questions.

Q19. Clarify the meaning of bio-technology. How does bio-technology principle support to control and manage disease in agricultural sector? Also explain the importance of bio-technology for agricultural productivity and quality enhancement.   [3+7+6]

Q20. What do you mean by poultry and hatchery industry? Elaborate the importance of hatchery industry in Nepal. Mention the management factors that support for growing and lying management of chicks and poultry industry.   [3+5+8]

Q21. State and explain the considering factors for management of fruit production technology for market. Write the potentiality and limiting factors for fruit production development of Nepal.   [6+10]

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Subject: Business Statistics - I	Course Code: MGMT 321
Full Marks: 100	Time: 3 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 (10X2 = 20 MARKS)

*Answer **ALL** questions.*

Q1.   What do you mean by primary data and secondary data?

Q2.   Find the most repeated value by empirical relationship if mean ($\overline{X}$) = 42.2 and median = 41.9.

Q3.   Arithmetic mean of 50 terms is 98. Two items 60 and 70 were left out at the time of calculations. What is the correct mean of all items?

Q4.   The following calculation were based on the life of refrigerators of two companies:

	Company A	Company B
Average life	8 years	6 years
Standard deviation	12 years	8 years

Which company's refrigerators show greater consistency in terms of life?

Q5.   The sum of square of differences in ranks of 10 pairs of observations is 36. Find the rank correlation coefficient.

Q6.   The coefficient of correlation between 10 pairs of values of demand and supply was found to be 0.8. Test the significance of the result.

Q7.   Define Identity matrix with example.

Q8.   If A= $\begin{pmatrix} 3 & 2 \\ 5 & 7 \end{pmatrix}$ then find A^{-1}.

Q9.   Define determinant of a matrix. Write down any 3 properties of determinant.

Q10.   Evaluate: $\begin{vmatrix} a+b & a-b \\ a-b & a+b \end{vmatrix}$

SECTION B: SHORT ANSWER QUESTIONS (6 X 8 = 48 MARKS)

*Answer any **SIX** questions:*

Q11.   The modal mark for a group of 47 students is 27. Five students got marks between 0 to 10, 15 students got marks between 20-30 and 7 students got marks between 40-50. Find the number of students getting marks between 10-20 and 30-40, if the maximum mark in the test was 50.   [8]

Q12.   The combined mean and variance of salaries of 250 workers of city A and city B are 560 and 5497 respectively. The mean and variance of the salaries of 150 workers of city B are 500 and 81 respectively. Find the variance of salary of workers of city A.   [8]

Q13.   From the following data find out the missing frequencies and compute the standard deviation of the distribution if the average number of tablets to cure was 20.96.   [8]

No. of tablets	4-8	8-12	12-16	16-20	20-24	24-28	28-32	32-36	36-40	Total
No. of person cured	10	12	14	16	?	16	?	10	5	115

Q14.   While calculating the coefficient of correlation between two variables X and Y the following results were obtained:

N =25	$\sum X$ =125	$\sum Y$ = 100
$\sum X^2$ = 650	$\sum Y^2$ = 460	$\sum XY$ =508

Later it was found that two pairs of observations were wrongly entered as (6, 14) and (8, 6) instead of (8, 12) and (6, 8) respectively. Calculate the correct value of correlation coefficient.   [8]

Q15.   The coefficient of rank correlation between the debenture prices and share prices of a company was +0.8. If the sum of the squares of the difference in ranks was 33, find the value of n.   [8]

Q16. The following table shows the number of motor registration and the sales of Gorakhali motor tyres by a wholesale dealer in Kathmandu for the term of 5 years.

Year	1	2	3	4	5
No. of motor registered ('000')	60	63	72	75	80
No. of tyres sold ('000')	125	110	130	135	150

    a) Estimate the sale of tyres when expected motor registration in nest year is 90,000. [4]

    b) Also calculate the correlation coefficient and interpret the result. [4]

Q17. Prove that: $\begin{vmatrix} x^2+1 & xy & xz \\ xy & y^2+1 & yz \\ xz & yz & z^2+1 \end{vmatrix} = 1 + x^2 + y^2 + z^2$ [8]

Q18. If $A = \begin{pmatrix} 1 & 2 & -2 \\ -1 & 3 & 0 \\ 0 & -2 & 1 \end{pmatrix}$, find A^{-1} and verify that $AA^{-1} = I$ [8]

SECTION C: LONG ANSWER QUESTIONS (2 X 16 = 32 MARKS)

*Answer any **TWO** questions.*

Q19. 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, 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 [4]

    ii. Average bonus received by the workers [4]

    iii. Standard deviation of bonus. [8]

Q20. 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 expenditure	Sales of the product				
	0-500	500-1000	1000-1500	1500-2000	2000-2500
0-200	12	6	-	-	-
200-400	2	18	4	2	1
400-600	-	4	7	3	-
600-800	-	1	-	2	1
800-1000	-	-	1	2	3

Now you are required to find

    i. Coefficient of variations and correlation coefficient. [12]

    ii. Estimate the total sales of product when the advertising expenditure is Rs. 1200. [4]

Q21. Production of a certain chemical mixture should contain 80 mg of Chlorides, 28 mg of Nitrates and 36 mg of Sulphates per kilogram. The company can use two substances. Substances X contains 8mg of Chlorides, 4 mg of Nitrates and 6mg of Sulphates per gram. Substance Y contains 10 mg of Chlorides, 2mg of Nitrates and 2 mg of Sulphates per gram. Both substances cost Rs. 20 per gram. It is required to produce the mixture using substance X and Y so that the cost is minimized. Formulate the problem as LPP and solve using graphic method. [16]

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Subject: Computers in Management   Course Code: MGMT 324
Full Marks: 100   Time: 3 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 (10X 2 = 20 MARKS)

*Answer **ALL** questions.*

Q1. Why computer is called versatile machine?

Q2. Why utility program is called doctor for computers?

Q3. What is control unit?

Q4. Why feasibility study is important in system development phase.

Q5. What are the uses of Network Interface Card (NIC)?

Q6. Why MODEM is needed to connect internet through telephone line?

Q7. Which protocols are used to send and receive email message?

Q8. Differentiate between client server architecture and peer to peer architecture.

Q9. Define system software.

Q10. Write any four uses of internet.

SECTION B: SHORT ANSWER QUESTIONS (6 X 8 = 48 MARKS)

*Answer any **SIX** questions.*

Q11. How is the Fifth Generation computer different than others? Explain.   [8]

Q12. Explain system development life cycle with the help of diagram.   [8]

Q13. What is communication protocol? List out any four protocols.   [6+2]

Q14. What is web browser? Explain its types.   [3+5]

Q15. Why star topology is known as the best topology among others? Write any 3 disadvantages of star

topology.   [5+3]

Q16. How e-commerce is different than e-business? Explain.   [8]

Q17. Why search engine is basic element of internet? List out any four examples of search engine.   [6+2]

Q18. How intranet is different from internet? Justify the necessity of intranet.   [4+4]

SECTION C: LONG ANSWER QUESTIONS (2 X 16 = 32 MARKS)

*Answer any **TWO** questions.*

Q19. What is computer? Explain it with its block diagram.   [2+14]

Q20. What are the characteristics of computer? Explain them.   [16]

Q21. What are software development phases? Describe each of them.   [16]

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Subject: Macro Economics   Course Code: MGMT 322
Full Marks: 100   Time: 3 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 (10X 2 = 20 MARKS)

Answer ALL questions.

Q1.   Write any two differences between micro and macro economics.
Q2.   Find the equilibrium wage and working hours (w) in labour market with the help of following equations;
        DL = 500 - 5w and SL = 20 + 10w
Q3.   What is unemployment? What are its types?
Q4.   Write down any two main propositions of classical theory of employment.
Q5.   Compute the equilibrium level of income and consumption from the following equations;
        Consumption function (c) = 200 + 0.6Y and autonomous investment (I) = 400
Q6.   Define marginal propensity to consume (MPC) and average propensity to consume (APC).
Q7.   Show the graphical sketch of comparative macro static.
Q8.   Distinguish between inflation and deflation.
Q9.   List any four characteristics of business cycle.
Q10.   What is meant by fiscal policy?

SECTION B: SHORT ANSWER QUESTIONS (6 X 8 = 48 MARKS)

Answer any SIX questions.

Q11.   Define macroeconomics. Discuss the use of macroeconomics in business decision making.   [2+6]
Q12.   Consider the following hypothetical national income data.

Items	(Rs. in millions)
Private consumption expenditure	10,000
Gross private investment	2,000
Government expenditure	1,000
Export	500
Import	1,500
Depreciation	900
Net factor income from abroad	4,000
Indirect taxes	2,000
Subsidies	1,000

Required:

a) Calculate GDP at MP   b) Calculate GNP at MP   c) Calculate NNP at MP   [8]

Q13.   Analyze and illustrate the circular flow of income and expenditure in three sector economy.   [8]
Q14.   Explain the concept of investment multiplier. What are its leakages? Discuss.   [2+6]
Q15.   The saving function of an economy is estimated to be S = -20+0.2Y where income, saving and investment are measured in billion. Autonomous investment in the economy is 100 billion.
        a) Find the equilibrium level of income, consumption and saving.   [3]
        b) If saving increased by 10 billion, what is the new level of equilibrium income, consumption and saving?[3]
        c) Dose it reflect the notion of paradox of thrift?   [2]
Q16.   What is trade cycle? Explain the different phases of trade cycle.   [2+6]
Q17.   Explain the role of central bank to run the economic system.   [8]
Q18.   Define budget. How budget is formulated in Nepal?   [2+6]

SECTION C: LONG ANSWER QUESTIONS (2 X 16 = 32 MARKS)

Answer any TWO questions.

Q19.   Explain the Keynesian theory of employment with its assumptions. What are its criticisms?   [12+4]
Q20.   Analyze the Hicks and Hansen model of income determination with the help of IS-LM approach.   [16]
Q21.   What is inflation? Describe the various effects of inflation for economic development of Nepal.   [3+13]

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Subject: Introduction to Finance -I   Course Code: MGMT 323
Full Marks: 100   Time: 3 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 (10X2 = 20 MARKS)

*Answer **ALL** questions.*

Q1.   What is agency relationship?
Q2.   Write the formula of weighted average cost of capital.
Q3.   Give the concept of payback period.
Q4.   List out the activities involved in cash flow statement.
Q5.   Differentiate between compounding and discounting method of time value of money.
Q6.   List out any four limitations of financial ratio.
Q7.   You are given the following information of Narayan Book Stores.
          Total sales 26,000 unit, ordering cost Rs. 30, carrying cost 5% of purchase price of Rs. 50,
          Calculate EOQ and average inventory.
Q8.   The Shakti Gas Company has an inventory conversion period of 75 days, a receivable conversion period of 38
          days and a payable deferral period of 30 days. Calculate the cash conversion cycle and operating cycle.
Q9.   A perpetual bond sold at par, coupon interest rate of 8% and the tax rate 40%. Calculate after tax cost of debt.
Q10.   Write the Du-Pont equation of ROA and ROE.

SECTION B: SHORT ANSWER QUESTIONS (6 X 8 = 48 MARKS)

*Answer any **SIX** questions.*

Q11.   "Financial management is an art and science of managing money in the organization". In the light of this
          statement, describe the function of financial management.   [2+6]
Q12.   What is financial ratio? Explain briefly the various usages of financial ratio.   [2+6]
Q13.   Differentiate between profit maximization and wealth maximization objectives of financial management.
                                                                                                                                          [8]
Q14.   Complete the assets side of balance sheet and sales information in the table that follows financial data:
                                                                                                                                   [3+3+1+1]

Debt ratio	= 50%		Quick ratio	= 0.8 times
Total assets turnover	= 1.5 times		DSO	= 36 days
Gross profit margin	= 25%		Inventory turnover	= 5 times
Long term debt	= Rs. 60,000		Retained earnings	= Rs. 97,000

Cash	………..
Account receivable	………..
Inventories	…………
Fixed assets	…………
Total assets	Rs. 300,000
Sales	…………

Q15.   Surkhet Transport Company has current assets of Rs. 800,000 and current liabilities of Rs. 500,000.
          What would be the effect of following transactions on the firm's current ratio?

a) Two new trucks are purchased for a total of Rs. 100,000 in cash. [2]

b) The company borrows Rs. 100,000 on short-term basis to carry on increase in receivables of the same amount. [2]

c) Additional common stock of Rs. 200,000 is sold and the proceeds invested in the expansion of several terminals. [2]

d) The company increases accounts payable to pay a cash dividend of Rs. 40,000 out of cash. [2]

Q16. Compute the following:

a) How many years will it take to double of sum at an 8% interest rate? [4]

b) Which amount is worth more at 14%, Rs. 2,000 in hand today or Rs. 4,000 dues in 6 years? [4]

Q17. The Surya trade link's EPS was Rs. 6.50 in 2002 and Rs. 4.42 in 1997. The company pays out 40% of its earning as dividends, and the stock sells for Rs. 36.

a) Calculate the past growth rate in earnings. [3]

b) Calculate the next expected dividend per share. [2]

c) What is the cost of retained earnings for the company? [3]

Q18. Find the present value of the following ordinary annuities:

a) Rs. 400 per year for 10 years at 10%. [2]

b) Rs. 400 per years for 5 years at 0%. [2]

c) Now rework part (a) and (b) assuming that they are annuities due. [4]

SECTION C: LONG ANSWER QUESTIONS (2 X 16 = 32 MARKS)

*Answer any **TWO** questions.*

Q19. Give the concept of working capital. Explain the various factors that affect the working capital of a business organization. [4+12]

Q20. 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. [6+4+6]

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 Depreciation	12,500	17,500	Retained Earnings	33,500	47,500
Total	70,000	106,500	Total	70,000	106,500

Q21. Project S costs Rs 15,000 and it is expected to produce benefits (cash flow) of Rs. 4,500 per year for 5 years and project R costs Rs. 37,000 and it is expected to produce (cash flow) of Rs. 11,000 per year for 5 years. Calculate the NPV, IRR and payback period for each project assuming a required rate of return of 14%. If the projects are independent which project/s should be selected? [6+6+4]

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