SEMESTER - II

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

#### Answer ALL questions.

- Q1. What do you mean by statistics?
- Q2. Find the median value by empirical relationship if mean  $(\overline{X}) = 42.2$  and mode = 41.3.
- Q3. The average wage of the male workers working in a factory is Rs. 80 and the number of workers is 100. The average wage of the female workers is Rs. 70 and their number is 50. Find the average wage of all the workers taken together.
- Q4. If the sum of upper quartile and lower quartile is 20 and their difference is 10. Find the value coefficient of quartile deviation.
- Q5. An analysis of the monthly wages paid to workers in the firms A and B belonging to the same industry gives the following results.

	Average wages (Rs)	S.D. of wages (Rs)
Firm A	480	20
Firm B	475	25

Which market shows greater variation in individual wages?

Q6. For 50 pairs of observations on two variables sales (X) and pricing (Y), the following results were obtained.  $\sum X = 75$ ,  $\sum Y = 80$ ,  $\sum X^2 = 130$ ,  $\sum Y^2 = 140$ ,  $\sum XY = 120$ . Find out if there exists any relationship between sales and pricing.

Q7. For a given set of data  $\sum XY = 190$ ,  $\sum X^2 = 165$ ,  $\sum Y^2 = 220$ ,  $\sum X = 25$ ,  $\sum Y = 30$ , n = 5. Find the equation of regression line Y on X. Estimate the value of Y when X =8.

Q8. If 
$$A = \begin{pmatrix} 1 & 0 \\ 2 & -3 \end{pmatrix}$$
 and  $B = \begin{pmatrix} 1 & -1 \\ 0 & 1 \end{pmatrix}$ , Find AB

Q9. Evaluate the determinant:

|a+b a−b|

la-b a+bl

Q10. What is the probability of giving a child birth by a pregnant woman on Sunday of a week?

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

Answer any SIX questions.

Q11. Distinguish between primary and secondary data. What are the different methods of collecting secondary data? (8)

Q12.	For a certain frequency distribution of 51 households, calculate the missing frequencies if arithmetic mean is 5.	(8)
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 Size
 2
 3
 4
 5
 6
 7

 No. of households
 2
 3
 ?
 21
 ?
 5

Q13. For a group of 200 candidates, the mean and standard deviation were found to be 40 and 15 respectively. Later on it was discovered that the score 43 was misread as 53. Find the correct mean and standard deviation corresponding to the corrected figures. (8)

Q14. What do you mean by correlation coefficient between two variables? While calculating the coefficient of correlation between two variables X and Y, the following results were obtained: (2+6)

N =30	$\sum X = 120$	$\Sigma Y = 90$
$\sum X^2 = 600$	$\Sigma Y^2 = 250$	∑XY =356

Later it was found that two pairs of observations were wrongly entered as (8, 10) and (12,7) instead of (8,12) and (10,8) respectively. Calculate the correct value of correlation coefficient.

Q15. The following information regarding the expenditure on advertising and sales.

	Mean (Rs. lakh)	Standard deviation (Rs. lakh)
Advertising Expenditure (Lakhs Rs.)	Rs. 10	Rs. 3
Sales (Lakhs Rs.)	Rs. 90	Rs. 12
Correlation coefficient	0.8	

- (a) Calculate the two regression lines.
- (b) What should be advertisement expenditure if the company wants to attain sales target of Rs. 120 lakhs?

Q16. Find the matrices A and B such that:

$$A+2B = \begin{pmatrix} 3 & 2 & 0 \\ 3 & 3 & 5 \\ 4 & 4 & 6 \end{pmatrix}, 2A+B = \begin{pmatrix} 3 & 1 & 3 \\ 0 & 3 & 7 \\ 5 & 2 & 3 \end{pmatrix}$$

Q17. Solve the equation by using Cramer's rule: x + y + z = 10 2x + z = 8 y + 2z = 12

Q18. Find graphically the maximum value of : 
$$Z = 3x + 3y$$

Subject to Constraints: 
$$x + y \le 5$$
,  $x + 2y \le 8$ ,  $x, y \ge 0$ 

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

### Answer any TWO questions.

Q19.	The following are the	weekly production in u	units (output) of 60workers	of a factory.
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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) (4)
- ii. Average bonus received by the workers
- iii. Standard deviation of bonus.
- Q20. Goals scored by two teams A and B in a football season were as follows:

Number of goals scored		N	lumbers of matches
		Team A	Team B
0	27		17
1	9		9
2	8		6
3	5		5
4	4		3

Find which team may be considered to be more consistent.

Q21. A consumer product 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 prod	luct and newsp	aper advertising med	lia expenditure are	given below.	
Advertising			Sales of the p	product	
expenditure	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:

Correlation coefficient. i.

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

(12)(4)

(16)

(8)

(6) (2)

(8)

(8)

(8)

# Subject: Macro Economics Full Marks: 100

Course Code: MGMT 322 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 + 0.6 Y 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 ci	rcular flow of income and expendi	ture in three sector economy.	[8]
Q14.	Explain the concept of invest	stment multiplier. What are its leak	ages? Discuss.	[2+6]
Q15.	The saving function of an e	conomy is estimated to be $S = -20+$	-0.2Y where income, saving and	investment are
	measured in billion. Autono	mous investment in the economy i	s 100 billion.	
	a) Find the equilibrium leve	el of income, consumption and savi	ing.	[3]
	b) If saving increased by 10	billion, what is the new level of e	quilibrium income, consumption	and saving?[3]
	c) Dose it reflect the notion	of paradox of thrift?		[2]
Q16.	What is trade cycle? Explain	n the different phases of trade cycle	2.	[2+6]
Q17.	Explain the role of central b	ank to run the economic system.		[8]
Q18.	Define budget. How budget	is formulated in Nepal?		[2+6]
	SECTION C	: LONG ANSWER QUESTION	S (2 X 16 = 32 MARKS)	
Answe	r any <b>TWO</b> questions.			
Q19.	Explain the Keynesian theory	ry of employment with its assumpt	ions. 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]

Subject: Introduction to Finance -I Full Marks: 100 Course Code: MGMT 323 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.
- Q14. Complete the assets side of balance sheet and sales information in the table that follows financial data:

[3+3+1+1]

[8]

Debt ratio	= 50%	
Total assets turnover	= 1.5 times	
Gross profit margin	= 25%	
Long term debt	= Rs. 60,000	
Cash		
Account receivable		
Inventories		
Fixed assets		
Total assets	Rs. 300,000	
Sales		

	[= · -
Quick ratio	= 0.8 times
DSO	= 36 days
Inventory turnover	= 5 times
Retained earnings	= Rs. 97,000

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	n of
	several terminals.	[2]
d)	The company increases accounts payable to pay a cash dividend of Rs. 40,000 out of cash.	[2]
Co	mpute 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]
Th	e Surya trade link's EPS was Rs. 6.50 in 2002 and Rs. 4.42 in 1997. The company pays out 4	0%
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]
Fir	nd 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]
	<ul> <li>a)</li> <li>b)</li> <li>c)</li> <li>d)</li> <li>Co</li> <li>a)</li> <li>b)</li> <li>c)</li> <li>Fir</li> <li>a)</li> <li>b)</li> <li>c)</li> <li>Fir</li> <li>a)</li> <li>b)</li> <li>c)</li> </ul>	<ul> <li>a) Two new trucks are purchased for a total of Rs. 100,000 in cash.</li> <li>b) The company borrows Rs. 100,000 on short-term basis to carry on increase in receivables of same amount.</li> <li>c) Additional common stock of Rs. 200,000 is sold and the proceeds invested in the expansion several terminals.</li> <li>d) The company increases accounts payable to pay a cash dividend of Rs. 40,000 out of cash. Compute the following: <ul> <li>a) How many years will it take to double of sum at an 8% interest rate?</li> <li>b) Which amount is worth more at 14%, Rs. 2,000 in hand today or Rs. 4,000 dues in 6 years?</li> <li>The Surya trade link's EPS was Rs. 6.50 in 2002 and Rs. 4.42 in 1997. The company pays out 4 of its earning as dividends, and the stock sells for Rs. 36.</li> <li>a) Calculate the past growth rate in earnings.</li> <li>b) Calculate the next expected dividend per share.</li> <li>c) What is the cost of retained earnings for the company?</li> <li>Find the present value of the following ordinary annuities:</li> <li>a) Rs. 400 per years for 5 years at 10%.</li> <li>b) Rs. 400 per years for 5 years at 0%.</li> <li>c) Now rework part (a) and (b) assuming that they are annuities due.</li> </ul> </li> </ul>

## **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	0	5,500	Notes payable	1,500	7,500
Securities					
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	12,500	17,500	Retained Earnings	33,500	47,500
Depreciation					
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]

Subject: Computers in Management Full Marks: 100	Course Code: MGMT 324 Time: 3 Hours
You are required to answer in your own words as far as applicable. Figures in the ma	argins 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 architect	ure.
Q9. Define system software.	
Q10. Write any four uses of internet.	
SECTION B: SHORT ANSWER QUESTIONS (6 X 8 =	48 MARKS)
Answer any <b>SIX</b> 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 an	ny 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 example	les 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]
O21. What are software development phases? Describe each of them.	[16]

#### Subject: Agri-Business Management Full Marks: 100

Course Code: MGMT 325 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 X2 = 20 MARKS)

Answer ALL questions.

- Q1. Write any four problems of agriculture marketing in Nepal.
- Q2. What is Agri-business management?
- Q3. Write the full form of NARC.
- Q4. Define quality product.
- Q5. Point out any four advantages of floriculture industry in Nepal.
- Q6. What is Breed Management?
- Q7. Point out the factors to consider when chicks packing.
- Q8. What is the status of fruit export in Nepal?
- Q9. Define pre harvest of fruits.
- Q10. State any four methods of storage of fruits.

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

Answer any SIX questions.

Q11.	What is Agro processing? Discuss the policy change relating to farm supplies.	(3+5)
Q12.	What is agriculture marketing? How to improve the agriculture marketing in Nepal?	(3+5)
Q13.	. Define bio-tech industries. Discuss the needs and application of bio- technology for agriculture sector and it	
	benefit.	(3+5)
Q14.	What is disease surveillance? Explain the objectives of disease surveillance on agriculture sector.	(3+5)
Q15.	What is floriculture? Write a note on development of floriculture industry in Nepal.	(3+5)
Q16.	What is poultry industry? What are common equipment and physical facilities for hatchery industry?	(3+5)
Q17.	What is crises management? Define the major factors of crises management in poultry industry.	(3+5)
Q18.	What is post-harvest management? Distinguish between the post-harvest and pre harvest management.	(3+5)

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

Answer any TWO questions.

- Q19. What is agriculture finance? Discuss the emerging trends in agro-production and recent changes on agri-business sector in Nepal. (3+6+7)
- Q20. Define hatchery planning. Mention the factors affecting the hatchability and also explain the organizing and managing of poultry industry. (3+5+8)
- Q21. What is fruits production? Discuss the potential of fruits production development in Nepal and management of fruits production technology for domestic market. (3+5+8)