

# POKHARA UNIVERSITY

Level: Bachelor

Semester: Spring

Year: 2020

Programme: BBA/BI/TT

Full Marks: 70

Course: Business Mathematics II

Pass Marks: 31.5

Time: 2 hrs.

*Candidates are required to answer in their own words as far as practicable. The figures in the margin indicate full marks.*

## **Group 'A': Attempt all questions (5×10=50)**

1. a) Evaluate:  $\lim_{x \rightarrow \infty} \sqrt{x}(\sqrt{x} - \sqrt{x-a})$ .  
b) Find  $\frac{dy}{dx}$  if  $\log y = (x + \sqrt{x^2 + a^2})$
2. A big farm invests for the production of food made by rice and wheat. The function expressing the relationship between the product is given by  $Z = 2000x + 5000y - 20x^2 - 10y^2 - 50xy$ . Where  $Z$  equals the number of units sold annually,  $x$  equals the amount spent on rice and  $y$  equals the amount spent on wheat (later two variables are in Rs. 1000). The farm is presently allocating Rs. 50,000 to rice and Rs. 30,000 to wheat.
  - a) What are the annual sales equal?
  - b) Using partial derivatives, analyze the effect on annual sales if an additional Rs. 1000 is invested to rice only.
  - c) Using partial derivatives, analyze the effect on annual sales if an addition Rs. 1000 is invested to wheat only.
  - d) Give your view for the better investment of Rs. 1000.

## **OR**

- a) Find the general and particular solution of the differential equation.  
$$\frac{d^2y}{dx^2} = 4x^2 - 9x + 3 \quad f'(2) = 10, f(1) = 20$$
- b) The demand and supply function under perfect competition are  $P_d = 16 - x^2$  and  $P_s = 2x^2 + 4$  respectively. Find the market price consumer's surplus and producer's surplus.
3. a) Find the location and value of global maximum and minimum for the function  $f(x) = \frac{x^3}{3} - \frac{7x^2}{2} + 6x + 5$  where  $2 \leq x \leq 10$   
b) Deduce the relation  $\frac{d}{dq}(AC) = \frac{1}{q}[MC - AC]$ , where MC is marginal cost, AC is average cost and  $q$  is quantity. Verify for the relation  $C(q) = 100 + q + 2q^2$

4. If the marginal revenue function is  $MR = \frac{mn}{(ax+b)^2} - c$ ,
- Find the revenue function.
  - Show that the demand law is  $P = \frac{mn}{b(ax+b)} - c$ .
5. A company has to produce two brands of products X and Y. Each one has to go through two processes A and B respectively. Each X has to spend 3 hours in A and 9 hours in B. Also each of Y has to spend 4 hours in A and 4 hours in B. The time available for A and B are 36 hours and 60 hours respectively. The profits in X and Y are Rs. 50 and Rs. 60 respectively. Formulate the LP problem and solve it to find the number of brands X and Y to produce in order to maximize the profit. Analyze the effect of slack variable on the system of the solution.

**Group 'B': Problem-solving/case studies (1×20=20)**

6. Metal Containers, Inc. is reviewing the way it submits bids on U.S. Army contracts. The army often requests open-top boxes, with square base and of specified volumes. The army also specifies the materials for the boxes, and the base is usually made of a different material than the sides. The box is assembled by reverting a bracket at each of the eight corners. For Metal Containers, the total cost of producing a box is the sum of the cost of the materials for the box and the labor costs associated with affixing each bracket.

Instead of estimating each job separately, the company wants to develop an overall approach that will allow it to cost out proposals more easily. To accomplish this, company managers need you to devise a formula for the total cost of producing each box and determine the dimensions that allow a box of specified volume to be produced at minimum cost.

Use the following notation to help you solve this problem.

Cost of the material for the base = A per square unit

Cost of the material for the sides = B per square unit

Cost of each bracket = C

Cost to affix each bracket = D

Length of the sides of the base =  $x$

Height of the box =  $h$

Volume specified by the army =  $V$

- Write an expression for the company's total cost in terms of these quantities.

- b) At the time an order is received for boxes of a specified volume, the costs of the materials and labor will be fixed and only the dimensions will vary. Find a formula for each dimension of the box so that the total cost is a minimum.
- c) The army requests bids on boxes of 48 cubic feet with base material costing the container company \$12 per square foot and side material costing \$8 per square foot. Each bracket costs \$5, and the associated labor cost is \$1 per bracket. Use your formulas to find the dimensions of the box that meet the army's requirements at a minimum cost. What is this cost?

# POKHARA UNIVERSITY

Level: Bachelor	Semester: Spring	Year : 2020
Programme: BBA/BI/BCIS/BHCM/BHM/TT		Full Marks : 70
Course: English II		Pass Marks: 31.5
		Time : 2 hrs.

*Candidates are required to give their answers in their own words as far as practicable.*

*The figures in the margin indicate full marks.*

## Group 'A'

Attempt all questions.

(5×10=50)

1. The stories 'Third Thoughts' and 'The Great Answer' make different point of views about 'riddle of business' and 'riddle of life' respectively. How do they differ from each other? Whom do you agree with?

## OR

Anton Chekhov's story 'The Lady with the Dog' and James Joyce's Story 'A painful Case' make different views about extramarital affairs. How do they differ from each other? Whom do you agree with?

2. Why is Max Kelada called 'Mr. Know-All' by other people in the story 'Mr. Know-All'? Do you agree with this nick-name? What incident made the narrator change his mind regarding with?
3. Anton Chekhov in his story "Who was to Blame" presents an argument about learning. State the argument and illustrate it by giving examples from the story.
4. Imagine that you have just returned after participating three days long seminar. Share your experience about it with your colleagues including the information like, places you visited, people you met, and programmes you participated.
5. What are the global issues that may affect company nowadays? Discuss some of the criteria to assess a company performance.

## Group 'B'

Problem-solving/case studies

(20)

6. Suppose you have been running a successful business company. You are highly competitive in the market and adopting every new trends and technology. Now, answer the following questions being based

on the described frame work.

- a) What new ideas are you adopting in the company? Explain.
- b) Do you organize any corporate entertainment? Explain with an example.
- c) What strategies are you following for advertising and marketing?
- d) How does your company benefit from the tele-work during pandemic situation like Covid 19?

# POKHARA UNIVERSITY

Level: Bachelor

Semester: Spring

Year: 2020

Programme: BBA/BI/BCIS/TT

Full Marks: 70

Course: Financial Accounting I

Pass Marks: 31.5

Time: 2 hrs.

*Candidates are required to answer in their own words as far as practicable. The figures in the margin indicate full marks.*

## **Group 'A': Attempt all questions (5×10=50)**

1. Financial accounting is not only concern with recording financial transactions but also force to do ethical business. Justify this statement with accounting principles.
2. ABC Company was registered on 1<sup>st</sup> Jan. 2019 by a group of professionals to provide short term management training. Following transactions are taken:
  - Jan. 1 Received contributions of Rs. 25000 from each of the six partners in exchange for shares of stock.
  - Jan. 4 Purchased a computer and printer for a total of Rs. 35000 with a down payment of Rs. 15000 and the balance due in 10<sup>th</sup> of Feb.
  - Jan. 9 Sign a two years promissory note at the bank and cash received Rs. 900.
  - Jan. 10 Paid Rs. 400 for wages earned by employees for the first week of the month.
  - Jan. 12 Paid a Rs. 1200 bill for the advertising from.
  - Jan. 15 Collected Rs. 80,000 in cash for the credit analysis and management training.
  - Jan. 18 Paid commission of Rs. 500 to the local agents.
  - Jan. 22 Paid Rs. 4000 rent for the month of January and Rs. 8000 for the month of February and March in advance.

### **Required:**

- a) Journal entries for the transactions of January. [5]
- b) T-account [3]
- c) Trial balance. [2]
3. The following trail balance is available for Tesco Trading Company on June 30, 2020.

Name of the Accounts	Debit (Rs)	Credit (Rs)
Cash	5000	-
Receivable	2000	-
Inventories	3000	-
Prepaid expenses	1500	-

Property and Equipment	30000	
Accumulated depreciation	-	3000
Brand and trademark	20000	-
Other assets	5000	-
Notes payable	-	4000
Account payable	-	5000
Accrued payable	-	3000
Advance on sales	-	6000
Other current liabilities	-	5000
Long term debt	-	10500
Other non-current liabilities	-	9500
Preferred stock	-	5000
Common stock	-	10000
Retained earning	-	6000
Additional paid in capital	-	1000
Sales	-	20000
Cost of goods sold	15000	-
Office and selling expenses	1500	-
Interest expenses	1000	-
Gain on sale of machine	-	1000
Income taxes	1000	-
Cash dividends	4000	-
<b>Total</b>	<b>89,000</b>	<b>89,000</b>

**Required:**

- a) Multi-stepped Income Statement. [5]
  - b) Classified Balance Sheet. [5]
4. A trial balance on Dec. 31<sup>st</sup>, 2019, before recording any adjusting entries, provided as follows:

**Unadjusted Trial Balance**

<b>Particular</b>	<b>Debit</b>	<b>Credit</b>
Cash	17000	
Prepaid insurance	18000	
Supplies	15000	
Plant	46120	
Accumulated depreciation on plant		4000
Accounts payable		11800
Notes payable		2000
Capital stock		50000
Retained earning		24140
Dividends	8400	
Revenue		46850

Debtors	2850	
Salaries expenses	19420	
Utility expenses	12000	
<b>Total</b>	<b>1,38,790</b>	<b>1,38,790</b>

**Adjustments:**

- a) The prepaid insurance of Rs. 6000 was expired during the year.
- b) Supplies on hand on 31<sup>st</sup> Dec. 2019, amount to Rs. 2500.
- c) The annual depreciation on office equipment is to be charged under straight line method. Life is 10 years and salvage value is expected to be Rs. 6120.
- d) Salaries outstanding Rs. 1200 at the end of the month of December.

**Required:**

- i. Prepare 10-column work sheet. [7]
  - ii. Prepare necessary closing entries. [3]
5. On July 31, 2020, Fenton Company had a cash balance per books of Rs. 6140. The statement from Bank on that date showed a balance of Rs. 7695.80. A comparison of the bank statement with the cash account revealed the following facts.
- a) The bank service charge for July was Rs. 25.
  - b) The bank collected a note receivable of Rs. 1500 for Fenton Company on July 15, plus Rs. 30 of interest. The bank made a Rs. 10 charges for the collection. Fenton has not accrued any interest on the note.
  - c) The July 31 receipts of Rs. 193.30 were not included in the bank deposits for July. These receipts were deposited by the company in a night deposit vault on July 31.
  - d) Company cheque no. 0121 issued to H. Coby a creditor for Rs. 384 that cleared the bank in July was incorrectly entered in the cash payments journal on July 10 for Rs. 348.
  - e) Cheque outstanding on July 31 totaled Rs. 980.10.
  - f) On July 31 the bank statement showed an NSF charge of Rs. 690 for a check received by the company from P. Mart a customer, on account.

**Required:**

- i. Prepare the bank reconciliation statement. [5]
- ii. Prepare the necessary adjusting entries. [4]
- iii. How much cash balance to be reported on the Balance sheet? [1]

**OR**

What is the difference between comparability, and consistency as they relate to the use of accounting information? Explain.



**Group 'B': Problem-solving/case studies (20)**

6. The comparative balance sheets and income statement of Pokhara Textiles as follows:

<b>Particulars</b>	<b>2020</b>	<b>2019</b>
Cash	101,000	100,000
Account receivables	35,000	50,000
Inventory	110,000	60,000
Prepaid rent	50,000	40,000
Total current assets	296,000	250,000
Plant and equipment	1000,000	800,000
Accumulated depreciation	(125,000)	(100,000)
Land	510,000	425,000
Total long-term Assets	1385,000	1125,000
<b>Total Assets</b>	<b>1681,000</b>	<b>1375,000</b>
Accounts payable	148,000	155,000
Bank overdraft	230,000	270,000
Income tax payable	10,000	8,000
Total current liabilities	388,000	433,000
Bonds Payable	150,000	200,000
Common stock	600,000	400,000
Retained earning	543,000	342,000
Total shareholder's equity	1293,000	942,000
<b>Total liabilities and shareholders' equity</b>	<b>1681,000</b>	<b>1375,000</b>

**Income statement  
For the year ending 2020**

<b>Particulars</b>	<b>Amount</b>
Sales revenue	1200,000
Less: Cost of goods sold	700,000
Gross profit	500,000
Less: Operating expenses	
Administrative and distribution expenses	60,000
Depreciation expenses	45,000
Interest expenses	10,000
Premium on redemption of bonds	5,000
Net profit before other incomes	380,000
Add: Gain on sale of Plant (Cost Rs. 100,000, accumulated Depreciation 60,000)	10,000
Interest revenue	5,000
Net income before tax	395,000
Less: Tax paid	150,000
<b>Net income after tax</b>	<b>245,000</b>

**Required:**

- a) Prepare a statement of cash flow for 2020 using the direct method in the operating activities section of the statement. [12]
- b) Comment on the difference between net income of income statement and net cash flows from operating activity. [3]
- c) The president of the company has asked you some question about the year's result. He is a bit impressed with the profit margin but he is bothered however, by the not increase enough balance of cash during the year. In this regard write a paragraph to the president to explain why cash balance is not increase as much as net profit earned during the year. [5]

# POKHARA UNIVERSITY

Level: Bachelor

Semester: Spring

Year: 2020

Programme: BBA/BI/BCIS/BHCM/TT

Full Marks: 70

Course: Introductory Macroeconomics

Pass Marks: 31.5

Time: 2 hrs.

*Candidates are required to answer in their own words as far as practicable. The figures in the margin indicate full marks.*

## **Group 'A': Attempt all questions (5×10=50)**

1. State and explain the scope of macroeconomics.

**OR**

Given the data of the disposable income (Yd) and amount of consumption at the initial level of income (Rs. 100). Assuming that marginal propensity to consume is 50 percent, complete the following table:

Yd	C	S	APC	MPC	APS	MPS
Rs 100	Rs 150					
Rs 200						
Rs 300						
Rs 400						
Rs 500						
Rs 600						

2. Economists and policymakers monitor both the GDP deflator and the consumer price index to gauge how quickly prices are rising. However, these two statistics may not always tell the same story. Discuss some important differences that can cause them to diverge.
3. Suppose a structural model of a three sector economy is given as follows:  
 $C = 200 + 0.8(Y - T)$   
 $I = \text{Rs } 100 \text{ million}$   
 $G = \text{Rs } 150 \text{ million}$   
 $T = 50 + 0.2Y$   
Find:
  - a) National Income Equilibrium.
  - b) What happens to the national income if government expenditure decreased to Rs 100 million and investment increased to Rs 150 million.
4. Most of the developing countries like Nepal are facing unemployment in all sectors. Being a student of economics, how many types of unemployment do you know? Which types of unemployment that Nepal is facing?

5. Define trade cycle. Explain the prosperity of trade cycle.

**Group 'B': Problem-solving/case studies**

6. *Read the case situation given below and answer the questions that follow:*

Saving is a virtue or a vice. There is debate among economists about the role of saving in the macro economy. In some situation, increasing saving increases the capital formation rate that increases the income and employment. But in another situation, increasing saving decreases aggregate demand as a result the income and employment decreases. Classical economists argued that individual saving are transferred automatically into investment via interest rate flexibility that ultimately increases income in economy. To Keynesians, saving depends upon income and increased savings in the economy are possible only when the total income of the economy increases. But the increased saving means less expenditure and hence less of effective demand that leads to reduction in income in the economy. They call this situation as the 'paradox of thrift'.

Nepal is suffering from capital deficiency in economic development. Saving is the basis of capital formation. About 55 percent Nepali household receive remittances. According to Economic Survey (2016/17), Nepal received Rs.450 billion remittances which is about 30 percent of GDP. According to the World Bank date 2016, the share of gross domestic savings in GDP is 3.8 percent in Nepal while its average value in develop country is 22.2 percent. Due to lack of capital, mega-infrastructures are hindering in Nepal.

**Questions:**

[6+6+8=20]

- Saving is a virtue or vice. Justify with suitable example.
- Is the 'paradox of thrift' relevant for Nepal? Give your arguments.
- What could be the cause that Nepal is suffering from capital deficiency?
- What type of fiscal measures would you suggest to overcome the problems of low saving and capital deficiency faced by Nepalese economy?

# POKHARA UNIVERSITY

Level: Bachelor Semester: Spring  
Programme: BBA/BI/BCIS/BHCM/BHM/TT  
Course: Principles of Management

Year: 2020  
Full Marks: 70  
Pass Marks: 31.5  
Time: 2 hrs.

*Candidates are required to answer in their own words as far as practicable. The figures in the margin indicate full marks.*

## **Group 'A': Attempt all questions (5×10=50)**

1. Compare and contrast Maslow's and Herzberg's theories of motivation. Why is it so that the Herzberg's approach has been more popular with practicing managers? Explain.

**OR**

Differentiate between efficiency and effectiveness. Why are they called twin pillars of managerial success? Explain.

2. ABC is a multinational company having 30 branches in more than 14 countries. It produces more than 20 types of product which are mostly electronic, food and textiles. It is rapidly expanding its business in other countries too. If you were a manager of this company, which organizational structure would you prefer? Discuss along with its benefits.
3. "Planning is an intellectual process, conscious determination of courses of action, the basis of decisions on purpose, facts and considered estimates". Comment on the statement highlighting the planning process.
4. 'Control is a management function that focuses on the process of monitoring activities to ensure that they are being accomplished as planned.' As a manager of an organization, discuss the process and types of control system that you recommend for achieving planned results?
5. 'Normally employees have the tendency to resist changes but as a manager you know that the only constant thing in the world is change.' With regards to this statement what possibly could be the reason behind employees' resistance to change and what are the ways to overcome such resistance to changes?

## **Group 'B': Problem-solving/case studies**

6. *Read the case situation given below and answer the questions that follow:*

### **Nike Inc.**

Nike, Inc. is an American multinational corporation that is engaged in the design, development, manufacturing and worldwide marketing and selling of footwear, apparel, equipment, accessories and services. At

present, Nike Inc. not only manufactures and distributes athletic shoes at every marketable price point to a global market, but over 40% of its sales come from athletic apparel, sports equipment, and subsidiary ventures. Nike has contracted with more than 800 shops around the world and has offices located in 45 countries outside the United States. Most of its factories are located in Asia, including Indonesia, China, Taiwan, India, Thailand, Vietnam, Pakistan, Philippines, and Malaysia. Phillips H. Knight, Chairman and Chief Executive Officer, is the co-founder of Nike Inc. he has been the driving force behind Nike's success since its very inception in 1964. He has been an innovative and visionary leader in the footwear and apparel industry. He has personally shaped Nike's innovation process. To facilitate this process, he established a multi-disciplinary opinion leaders group representing a cross-section of Nike's stakeholders. His efforts have helped to established Nike as an industry leader in both national and international markets. Knight's managerial mode is one that is characterized by strategic planning. This mode is representative of an open-minded CEO, one willing to take calculated risks and make decisions based on careful analysis of external and internal environments.

Knight is not hesitant to make unilateral decisions, but prefer to look to his management teams for their insight and ideas before choosing a course of action. Knight created some unique corporate culture rich with employee loyalty and team spirit. He neither gives guidance to his managers nor questions them about the product details. Nike has always been one of the unique companies in its managerial approach.

At the organizational level, Knight is careful to keep the distance between himself and the teams to a minimum by keeping the number of levels in the organizational hierarchy to a minimum. Moreover, he designed Nike's structure around these teams and decentralized authority to each team to give it maximum autonomy and freedom to be creative and to take risks.

Phil Knight, the legendary CEO of Nike, now wants to retire and hand over the reins to the new CEO.

### **Questions:**

- a) How would you analyze Knight's managerial approach at Nike Inc.? What would be an advantage of this kind of decentralized approach? [10]
- b) After the retirement of Knight, what managerial challenges do you think the new CEO of Nike Inc. is likely to face? What suggestion would you give to be more competitive in the market? [10]