POKHARA UNIVERSITY

Level: Bachelor
Programme: BCA
Course: Applied Economics

Semester: Fall

Year : 2018
Full Marks: 100
Pass Marks: 45
Time: 3hrs.

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

The figures in the margin indicate full marks.

Attempt all the questions.

1. a) Define Micro and Macro Economics. Show three differences between them. 7

   b) Explain and illustrate the consumer's equilibrium with the help of Indifference Curve Analysis. 8

2. a) Define an opportunity cost. Given the following TVC schedule and TFC is Rs. 200. Compute AFC, AVC, ATC, MC and TC. 8

Quantity (in kg)	1	2	3	4	5	6	7
TVC (in Rs.)	90	150	190	215	255	330	450

   b) Define total, average and marginal revenue. Show the relationship among, average and marginal revenue curve under imperfect competition market. 7

3. a) Define Cobb-Douglas production function. Explain its properties. 7

   b) What is market equilibrium? Show the effect of tax and subsidy upon market equilibrium and price. 8

4. a) Define factor pricing. Explain the modern theory of factor pricing. 8

   b) Define national income. Explain how national income is measured by expenditure method. 7

5. a) How the level of employment and output is determined according to Keynesian principle of effective demand? Illustrate with diagram. 8

   b) What is Propensity to save? Explain the Concept of Paradox of Thrift. 7

6. a) Explain the concept of privatization, liberalization and globalization in the context of Nepalese economy. 7

b) What is adjustable 'Peg' system? How the rate of foreign exchange is determined under floating exchange system? Explain. 8

7. Write short notes on **any two**: 2×5

a) Objectives of monetary policy.

b) Phases of Business Cycle.

c) SAFTA

POKHARA UNIVERSITY

Level: Bachelor
Programme: BCA
Course: Applied Economics

Semester –Fall

Year : 2017
Full Marks: 100
Pass Marks: 45
Time : 3hrs.

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

The figures in the margin indicate full marks.

Attempt all the questions.

1. a) How does microeconomics help macroeconomics? What are the limitations of macroeconomics? 7

   b) Indifference curve is a tool of measuring ordinal utility,why? Decompose the price effect in to substitution effect and income effect with the help of indifference curve in the case of normal good. 8

2. a) Define price elasticity of demand. Calculate it for the fall in price from Rs 80 to Rs 60 from the following table. 8

Price (Rs)	100	80	60	40	20
Quantity demand(Kg)	100	200	300	400	500

   b) Define opportunity cost. Given the short run total cost function, TC = $200+5Q-0.04Q^2+0.001Q^3$. Find TFC, AFC, AVC, , AC , and MC. 7

3. a) "Producer gets equilibrium in long run in terms of cost minimization and output maximization " Explain. 7

   b) What do you mean by Linear programming? Discuss its essential components. 8

4. a) Define National Income. Explain the difficulties of national income accounting in developing country like Nepal 8

   b) Define consumption and investment functions. Explain Marginal Efficiency of capital. 7

5. a) "Foreign exchange rate is major tool of international trade "comment it. How is it determined in market? Explain. 8

   b) Suppose you are the IT manager of any commercial bank of Nepal. 7

POKHARA UNIVERSITY

Level: Bachelor
Programme: BCA
Course: Applied Economics

Semester: Spring

Year : 2017
Full Marks: 100
Pass Marks: 45
Time: 3hrs.

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

The figures in the margin indicate full marks.

Attempt all the questions.

1. a) Define micro and macro economics. Describe the importance of economic analysis in policy formulation. 7
   b) Decompose the income and substitution effect from price effect in case of normal goods. 8

2. a) The short run cost function is given as TC = 100+5Q-0.9Q^2.Find TVC, TFC, AVC, AC, and MC. Where the total cost output level is 10. 7
   b) Define total average and marginal revenue. Show relationship between them under Monopoly market. 8

3. a) Explain cob-Douglas production function. 7
   b) Explain and illustrate the effect of tax and subsidy in equilibrium of a firm under a perfect competition market. 8

4. a) Define derived demand. Explain the market demand curve for a labor in a perfect competition market. 8
   b) Define National income. Explain the difficulties of National income accounting in developing country like Nepal. 7

5. a) What is effective demand? How is it determined? 7
   b) Define multiplier. Explain the leakage and importance of multiplier. 1+7

6. a) Every year eastern part of Nepal is affected by natural disasters. There is a great effect of it in Nepali economy. What are such effects? What type of budget and programmme should be made by the government to control it? Mention your view. 8
   b) Define economic development. Explain the major challenges 7

POKHARA UNIVERSITY

Level: Bachelor
Programme: BCA
Course: Applied Economics

Semester –Fall

Year : 2017
Full Marks: 100
Pass Marks: 45
Time : 3hrs.

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

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   b) Indifference curve is a tool of measuring ordinal utility,why? Decompose the price effect in to substitution effect and income effect with the help of indifference curve in the case of normal good. 8

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Quantity demand(Kg)	100	200	300	400	500

   b) Define opportunity cost. Given the short run total cost function, $TC = 200+5Q-0.04Q^2+0.001Q^3$. Find TFC, AFC, AVC, , AC , and MC. 7

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   b) What do you mean by Linear programming? Discuss its essential components. 8

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   b) Define consumption and investment functions. Explain Marginal Efficiency of capital. 7

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   b) Suppose you are the IT manager of any commercial bank of Nepal. 7

POKHARA UNIVERSITY

Level: Bachelor
Programme: BCA
Course: Applied Economics

Semester: Spring

Year : 2016
Full Marks: 100
Pass Marks: 45
Time: 3hrs.

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

The figures in the margin indicate full marks.

Attempt all the questions.

1. a) In what respect macro-economic and micro-economics differ each other? 7
   b) Explain the consumer equilibrium with the help of in difference curve analysis 8

2. a) The short run cost function is given as $TC=200+5Q-0.04Q^2+0.001Q^3$. Calculate TFC, AVC, AFC, AC, and MC if Q=10 8
   b) What is revenue schedule? Show the relationship among TR,AR and MR under Monopoly market. 7

3. a) Define cob Douglas production Function. Explain its properties. 7
   b) Explain and illustrate, how a firm in competitive market attains equilibrium? 8

4. a) Write why the demand of an input is called derived demand. Find out the market demand curve for labor in perfect competition market. 8
   b) Define national income. Explain the product and expenditure methods computing national income. 7

5. a) What is effective demand? How is it determined? 7
   b) Saving is private virtue but public vice, Explain the statement under the concept of paradox of thrift? 8

6. a) What are the effects seen in Nepalese economy due to declaration of Nepal Rastra Bank not to use of 500 and 1000 Rs notes of Indian currency? 8
   b) Define economic development. Explain the major challenges and prospects of economic development of Nepal 7

7. Write short note on **any two:** 2×5
   a) Effects of Business cycle.
   b) Fixed exchange rates and floating exchange
   c) Liberalization

POKHARA UNIVERSITY

evel: Bachelor
rogramme: BCA
Course: Applied Economics

Semester: Spring

Year : 2016
Full Marks: 100
Pass Marks: 45
Time: 3hrs.

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

The figures in the margin indicate full marks.

Attempt all the questions.

1. a) In what respect macro-economic and micro-economics differ each other? 7
   b) Explain the consumer equilibrium with the help of in difference curve analysis 8

2. a) The short run cost function is given as $TC=200+5Q-0.04Q^2+0.001Q^3$. Calculate TFC, AVC, AFC, AC, and MC if Q=10 8
   b) What is revenue schedule? Show the relationship among TR,AR and MR under Monopoly market. 7

3. a) Define cob Douglas production Function. Explain its properties. 7
   b) Explain and illustrate, how a firm in competitive market attains equilibrium? 8

4. a) Write why the demand of an input is called derived demand. Find out the market demand curve for labor in perfect competition market. 8
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   b) Define economic development. Explain the major challenges and prospects of economic development of Nepal 7

7. Write short note on **any two:** 2×5
   a) Effects of Business cycle.
   b) Fixed exchange rates and floating exchange
   c) Liberalization

POKHARA UNIVERSITY

Level: Bachelor | Semester –Spring | Year : 2015
Programme: BCA | Full Marks: 100
Course: Applied Economics | Pass Marks: 45
Time : 3hrs.

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

The figures in the margin indicate full marks.

Attempt all the questions.

1. a) Distinguish between micro and macroeconomics? Explain the importance of microeconomics. 7
   b) Decompose the price effect into substitution effect and income effect with the help of indifference cure analysis in the case of normal commodity. 8

2. a) Given the total cost function, $TC=1000+10Q-0.9Q^2+0.004Q^3$. Find TFC, TVC, AFC, AVC, AC and MC at the output level 10 units. 8
   b) Explain and illustrate the producer's equilibrium with the help of a diagram in term of minimization cost. 7

3. a) What is market equilibrium? Show the effect of tax and subsidy upon market equilibrium and price. 8
   b) Why the demand for factor is known as derived demand? Explain the modern theory of factor pricing. 7

4. a) Define National income. Explain the various concepts of National Income. 8
   b) Explain how income and employment are determined under the Keynes principle of effective demand. 7

5. a) What is propensity to consume? Explain the relationship between propensity to consume and multiplier. 7
   b) Define fixed and floating exchange rate. Explain how the foreign exchange rate is determined in market. 8

6. a) Define monetary policy. What are the tools of the monetary policy to 7

POKHARA UNIVERSITY

Level: Bachelor
Programme: BCA
Course: Applied Economics

Semester: Fall

Year : 2015
Full Marks: 100
Pass Marks: 45
Time : 3hrs.

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

The figures in the margin indicate full marks.

Attempt all the questions.

1. a) Show the independence between micro-economic and macro-economics. 7

   b) Explain indifference curve with its properties. 8

2. a) Given the short run cost function $TC=110+20Q-6Q^2+Q^3$, find AFC, AVC, AC and MC when output is 20 units. 8

   b) Show the relationship between average revenue marginal revenue and total revenue curve for a product under perfect competition market. 7

3. a) Explain and illustrate the producer's equilibrium with the help of a diagram in term of maximization output. 7

   b) What is product pricing? State and explain the features of perfect competition market structure. 8

4. a) Why the demand of an input is called derive demand. Explain the market demand curve for labor in perfect competition market. 7

   b) Define National Income. Explain the various concepts of National Income. 8

5. a) Define investment function. Distinguish between autonomous investments and induced investment. 7

   b) Explain the different phases of business cycle. 8

6. a) Explain the concept of liberalization, privatization and globalization. 8

b) Define exchange rate. Explain how foreign exchange is determined in the market.

7. Write short notes on: (Any two)

a) Keynesian Multiplier

b) WTO

c) Fiscal policy and its objectives.

POKHARA UNIVERSITY

Level: Bachelor | Semester –Spring | Year : 2014
Programme: BCA | Full Marks: 100
Course: Applied Economics | Pass Marks: 45
Time : 3hrs.

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

The figures in the margin indicate full marks.

Attempt all the questions.

1. a) Distinguish between micro and macroeconomics? How is comparative micro static analysis different from micro static analysis? 7
   b) Distinguish income effect and substitution effect from price effect 8

2. a) Compute total cost, average variable cost, average cost and marginal cost out of the following information. The total fixed cost is 100. All costs are in the RS and quantity of production is in kg. 8

Quantity of Production	1	2	3	4	5	6	7	8
Total variable cost	40	76	106	131	261	296	336	381

   b) What is revenue schedule? Show the relationship between TR, AR and MR under monopoly market. 7

3. a) Define Cobb-Douglas production function. Explain its properties. 7
   b) Define perfect competition market. How price and output are determined in short run by a firm in this market. 8

4. a) Why the demand for factor is Known as derived demand? Explain the modern theory of factor pricing. 8
   b) What is National income? Describe the difficulties in measuring national income. 7

5. a) Explain how income and employment are determined under the Keynes principle of effective demand. 7
   b) "Saving is private virtue but public vice." Explain the statement under the concept of 'Paradox of Thrift'. 8

6. a) Distinguish between fixed exchange rate and floating exchange rate. Explain how foreign exchange rate is determined in the market.

   b) What are the various challenges for the economic development in developing countries like Nepal? Suggest some measures to grab the opportunities for economic development in Nepal.

7. Write short notes on **any two**: 2×5

   a) Phases of Business Cycle.

   b) Monetary policy

   c) SAFTA

POKHARA UNIVERSITY

Level: Bachelor
Programme:BCA
Course: Economics

Semester:Spring

Year : 2015
Full Marks: 100
Pass Marks: 45
Time: 3hrs.

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

The figures in the margin indicate full marks.

Attempt all the questions.

1. a) 'Microeconomics differs from macroeconomics.' Explain with examples. 7

   b) Define indifference curve. How is the price effect broken up into income and substitution effect in the case of normal commodity? 2+6

2. a) Calculate AC, AVC, AFC, MC from the given information: 7

Output (Q)	0	1	2	3	4	5	6	7	8
Total cost(TC)	20	25	30	35	40	45	50	44	60

   b) Define TR, AR and MR. Show the relation between AR and MR curves under monopoly market. 8

3. a) Explain producer's equilibrium in case of cost minimization and output maximization. 8

   b) What do you mean by linear programming? What are the various steps of calculating linear programming? 7

4. a) What is perfect competition market? Explain how price and output are determined under perfect competition market. 8

   b) Discuss the major difficulties of measuring national income in developing country like Nepal. 7

5. a) Define effective demand. Explain how employment is determined under Keynesian theory of employment? 8

   b) Define multiplier. Distinguish between investment multiplier and accelerator. 7

6. a) Define monetary policy. Discuss about the role of monetary policy in the development of an economy. 7

b) What are the various challenges for the economic development in developing countries like Nepal. 8

7. Write short notes on **any two:** 2×5

a) Phases of business cycle

b) Cost Benefit Analysis

c) Objectives of fiscal policy

Pokhara University
Semester – Fall

Year: 2011
Full Marks: 100
Time: 3 Hrs

Level: Bachelor
Program : BCA VII
Course: Economics

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

Attempt all the questions.

1 a. Define Micro and Macro Economics. What are the limitations of Macro Economics? 7

b. What is an indifference curve? What are its major properties? 8

2 a. Define an opportunity cost. Show the relationship among average variable cost, short run average cost and short run marginal cost curves according to the traditional theory of cost. 8

b. Define total, average and marginal revenue. Show their relationship in both markets – perfect and imperfect competition - with the help of tables. 7

3 a. What are the features of perfect competition market? Describe. 8

b. Explain and illustrate how a firm in competitive market attains its equilibrium. 7

4 a. Write why the demand of an input is called derived demand. Find out the market demand curve for labor in perfect competition market. 2+ 6=8

b. Describe the difficulties in National Income Accounting. 7

5 a. What is effective demand? How is it determined?. 7

b. What is an investment multiplier? Show how it is different from that of an accelerator. 8

6 a. Describe the types of business cycles. 7

b. Discuss the various problems of developing countries of the world. 8

7. Write short notes on any two of the followings. 5 x 2 =10

a. Cobb Douglas Production Function.
b. Average Propensity to Consume.
c. Meaning of Monetary Policy and Objectives of Fiscal Policy

POKHARA UNIVERSITY

Level: Bachelor
Programme: BCA
Course: Economics

Semester – Fall

Year : 2009
Full Marks: 100
Time : 3hrs.

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

The figures in the margin indicate full marks.

Attempt all the questions.

1. a) Define Micro and Macro Economics. Show three differences between them. 7

   b) Define an indifference curve and write any three properties of it. 8

2. a) Define an opportunity cost. Show the relationship among average variable cost, short run average cost and short run marginal cost curves according o the traditional theory of cost. 8

   b) Compute total cost, average variable cost, average cost and marginal cost out of the following information. The total fixed cost is 100. All costs are in RS and quantity of production is in Kg. 7

Quantity of production	1	2	3	4	5	6	7	8
Total variable cost	40	36	45	68	100	132	175	240

3. a) Define total, average and marginal revenue. Show the relationship between average and marginal revenue curves for a producer under the monopoly market. 8

   b) Explain and illustrate how a firm in competitive market attains its equilibrium. 7

4. a) Define a monopolistic exploitation of labour. Show this exploitation with the help of a suitable diagram. 8

   b) How do you compute Gross Domestic product (GDP) according to the output method? Write about the Difficulties in it accounting. 7

5. a) What is effective demand? Show it with the help of a suitable diagram. 7

   b) What is an investment multiplier? Show how it is different from that of an accelerator. 8

6. a) What is a business cycle? Describe its various Phases. 8

b) What are the challenges and changes and chances of fostering economic development of poor countries like Nepal? Discuss.

7. Write short notes on any two of the followings.

a) Fiscal Policy.

b) Cobb Douglas Production Function.

c) Monetary Policy.

POKHARA UNIVERSITY

Level: Bachelor
Programme: BCA
Course: Applied Economics

Semester –Spring

Year : 2014
Full Marks: 100
Pass Marks: 45
Time : 3hrs.

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

The figures in the margin indicate full marks.

Attempt all the questions.

1. a) Distinguish between micro and macroeconomics? How is comparative micro static analysis different from micro static analysis? 7

   b) Distinguish income effect and substitution effect from price effect 8

2. a) Compute total cost, average variable cost, average cost and marginal cost out of the following information. The total fixed cost is 100. All costs are in the RS and quantity of production is in kg. 8

Quantity of Production	1	2	3	4	5	6	7	8
Total variable cost	40	76	106	131	261	296	336	381

   b) What is revenue schedule? Show the relationship between TR, AR and MR under monopoly market. 7

3. a) Define Cobb-Douglas production function. Explain its properties. 7

   b) Define perfect competition market. How price and output are determined in short run by a firm in this market. 8

4. a) Why the demand for factor is Known as derived demand? Explain the modern theory of factor pricing. 8

   b) What is National income? Describe the difficulties in measuring national income. 7

5. a) Explain how income and employment are determined under the Keynes principle of effective demand. 7

   b) "Saving is private virtue but public vice." Explain the statement under the concept of 'Paradox of Thrift'. 8

6. a) Distinguish between fixed exchange rate and floating exchange rate. Explain how foreign exchange rate is determined in the market.

b) What are the various challenges for the economic development in developing countries like Nepal? Suggest some measures to grab the opportunities for economic development in Nepal. 7

7. Write short notes on **any two**: 2×5

a) Phases of Business Cycle.

b) Monetary policy

c) SAFTA

POKHARA UNIVERSITY

Level: Bachelor
Programme:BCA
Course: Economics

Semester:Spring

Year : 2015
Full Marks: 100
Pass Marks: 45
Time: 3hrs.

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

The figures in the margin indicate full marks.

Attempt all the questions.

1. a) 'Microeconomics differs from macroeconomics.' Explain with examples. 7

   b) Define indifference curve. How is the price effect broken up into income and substitution effect in the case of normal commodity? 2+6

2. a) Calculate AC, AVC, AFC, MC from the given information: 7

Output (Q)	0	1	2	3	4	5	6	7	8
Total cost(TC)	20	25	30	35	40	45	50	44	60

   b) Define TR, AR and MR. Show the relation between AR and MR curves under monopoly market. 8

3. a) Explain producer's equilibrium in case of cost minimization and output maximization. 8

   b) What do you mean by linear programming? What are the various steps of calculating linear programming? 7

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   b) Discuss the major difficulties of measuring national income in developing country like Nepal. 7

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   b) Define multiplier. Distinguish between investment multiplier and accelerator. 7

6. a) Define monetary policy. Discuss about the role of monetary policy in the development of an economy.

   b) What are the various challenges for the economic development in developing countries like Nepal.

7. Write short notes on **any two:**

   a) Phases of business cycle

   b) Cost Benefit Analysis

   c) Objectives of fiscal policy

POKHARA UNIVERSITY

Level: Bachelor
Programme: BCA
Course: Economics

Semester: Fall

Year : 2015
Full Marks: 100
Pass Marks: 45
Time : 3hrs.

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

The figures in the margin indicate full marks.

Attempt all the questions.

1. a) Explain the scope and limitations of microeconomics. 7
   b) Define indifference curve and determine consumer's equilibrium with the help of ordinal approach. 8
2. a) Distinguish between fixed and variable cost. Given the following TVC schedule and TFC is Rs.200, Compute AFC, AVC, ATC, MC and TC. 7

Quantity	1	2	3	4	5	6	7
TVC (in Rs)	90	160	210	260	330	450	600

   b) The slopes of AR and MR curve under perfect competition and Monopoly Market differ. Why? 8
3. a) Explain Cobb-Douglas production function with its properties. 8
   b) Why the demand of an input is called derived demand? Explain the market demand curve for labor in perfect competition market. 7
4. a) What is national income? Explain the expenditure method of Calculating National Income. 8
   b) The size of investment multiplier (k) varies positively with the Marginal propensity to Consume (MPC). Justify. 7
5. a) What is consumption function? Discuss about the measure to raise the propensity to consume. 8
   b) Define business cycle. Explain the remedy measures of the business cycle. 7
6. a) Explain the importance of fiscal policy for the development of the country like. Nepal. 7

b) Explain the challenges and prospects for the econom development of Nepal.

7. Write short notes on **any two:**

a) Paradox of Thrift.

b) Nature of revenue curves under perfect competition market.

c) Effective Demand.

POKHARA UNIVERSITY

Level: Bachelor
Programme: BCA
Course: Economics

Semester – Fall

Year : 2011
Full Marks: 100
Pass Marks: 45
Time : 3hrs.

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

The figures in the margin indicate full marks.

Attempt all the questions.

1. a) Define micro and macro economics and explain the interdependence between them. 8

   b) Distinguished income and substitution effect from price effect. 8

2. a) Total fixed cost is given Rs.400. Calculate AFC, AVC, AC, TC and MC from the following information: 7

Output in KG	0	1	2	3	4	5	6	7
Total variable cost in Rs	0	144	180	272	400	528	700	960

   b) Derive revenue curves under imperfect competition. 8

3. a) Explain Cobb Douglas production function. 7

   b) Explain and illustrate how a firm in competitive market attains its equilibrium. 8

4. a) Write why the demand of an input is called derived demand. Find out the market demand curve for labor in perfect competition market. 7

   b) Describe the difficulties in National Income Accounting. 7

5. a) What is effective demand? How is it determined? 8

   b) Saving is private virtue but public vice. Justify the statement. 8

6. a) Explain the phases of business cycle. 7

   b) Discuss the various problems of developing countries of the world. 2×5

7. Write short notes on **any two:**
   a) Monetary policy
   b) Fiscal policy
   c) Average propensity to consume.

POKHARA UNIVERSITY

Level: Bachelor
Programme: BCA
Course: Economics

Semester: Fall

Year : 2015
Full Marks: 100
Pass Marks: 45
Time : 3hrs.

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

The figures in the margin indicate full marks.

Attempt all the questions.

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   b) Define indifference curve and determine consumer's equilibrium with the help of ordinal approach. 8
2. a) Distinguish between fixed and variable cost. Given the following TVC schedule and TFC is Rs.200, Compute AFC, AVC, ATC, MC and TC. 7

Quantity	1	2	3	4	5	6	7
TVC (in Rs)	90	160	210	260	330	450	600

   b) The slopes of AR and MR curve under perfect competition and Monopoly Market differ. Why? 8
3. a) Explain Cobb-Douglas production function with its properties. 8
   b) Why the demand of an input is called derived demand? Explain the market demand curve for labor in perfect competition market. 7
4. a) What is national income? Explain the expenditure method of Calculating National Income. 8
   b) The size of investment multiplier (k) varies positively with the Marginal propensity to Consume (MPC). Justify. 7
5. a) What is consumption function? Discuss about the measure to raise the propensity to consume. 8
   b) Define business cycle. Explain the remedy measures of the business cycle. 7
6. a) Explain the importance of fiscal policy for the development of the country like. Nepal. 7

b) Explain the challenges and prospects for the economic development of Nepal. 8

7. Write short notes on **any two:** 2×5

a) Paradox of Thrift.

b) Nature of revenue curves under perfect competition market.

c) Effective Demand.

POKHARA UNIVERSITY

Level: Bachelor
Programme: BCA
Course: Applied Economics

Semester: Fall

Year : 2015
Full Marks: 100
Pass Marks: 45
Time : 3hrs.

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

The figures in the margin indicate full marks.

Attempt all the questions.

1. a) Show the independence between micro-economic and macro-economics. 7

   b) Explain indifference curve with its properties. 8

2. a) Given the short run cost function $TC=110+20Q-6Q^2+Q^3$, find AFC, AVC, AC and MC when output is 20 units. 8

   b) Show the relationship between average revenue marginal revenue and total revenue curve for a product under perfect competition market. 7

3. a) Explain and illustrate the producer's equilibrium with the help of a diagram in term of maximization output. 7

   b) What is product pricing? State and explain the features of perfect competition market structure. 8

   a) Why the demand of an input is called derive demand. Explain the market demand curve for labor in perfect competition market. 7

   b) Define National Income. Explain the various concepts of National Income. 8

5. a) Define investment function. Distinguish between autonomous investments and induced investment. 7

   b) Explain the different phases of business cycle. 8

6. a) Explain the concept of liberalization, privatization and globalization. 8

b) Define exchange rate. Explain how foreign exchange rate is determined in the market. 7

7. Write short notes on: (Any two) 2×5

a) Keynesian Multiplier

b) WTO

c) Fiscal policy and its objectives.

POKHARA UNIVERSITY

Level: Bachelor
Programme: BCA
Course: Applied Economics

Semester –Spring

Year : 2014
Full Marks: 100
Pass Marks: 45
Time : 3hrs.

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

The figures in the margin indicate full marks.

Attempt all the questions.

1. a) Distinguish between micro and macroeconomics? How is comparative micro static analysis different from micro static analysis? 7
   b) Distinguish income effect and substitution effect from price effect 8

2. a) Compute total cost, average variable cost, average cost and marginal cost out of the following information. The total fixed cost is 100. All costs are in the RS and quantity of production is in kg. 8

Quantity of Production	1	2	3	4	5	6	7	8
Total variable cost	40	76	106	131	261	296	336	381

   b) What is revenue schedule? Show the relationship between TR, AR and MR under monopoly market. 7

3. a) Define Cobb-Douglas production function. Explain its properties. 7
   b) Define perfect competition market. How price and output are determined in short run by a firm in this market. 8

4. a) Why the demand for factor is Known as derived demand? Explain the modern theory of factor pricing. 8
   b) What is National income? Describe the difficulties in measuring national income. 7

5. a) Explain how income and employment are determined under the Keynes principle of effective demand. 7
   b) "Saving is private virtue but public vice." Explain the statement under the concept of 'Paradox of Thrift'. 8

6. a) Distinguish between fixed exchange rate and floating exchange rate. Explain how foreign exchange rate is determined in the market. 8

b) What are the various challenges for the economic development in developing countries like Nepal? Suggest some measures to grab the opportunities for economic development in Nepal. 7

7. Write short notes on **any two**: 2×5

a) Phases of Business Cycle.

b) Monetary policy

c) SAFTA

POKHARA UNIVERSITY

Level: Bachelor | Semester –Spring | Year : 2015
Programme: BCA | Full Marks: 100
Course: Applied Economics | Pass Marks: 45
Time : 3hrs.

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

The figures in the margin indicate full marks.

Attempt all the questions.

1. a) Distinguish between micro and macroeconomics? Explain the importance of microeconomics. 7
   b) Decompose the price effect into substitution effect and income effect with the help of indifference cure analysis in the case of normal commodity. 8

2. a) Given the total cost function, $TC=1000+10Q-0.9Q^2+0.004Q^3$. Find TFC, TVC, AFC, AVC, AC and MC at the output level 10 units. 8
   b) Explain and illustrate the producer's equilibrium with the help of a diagram in term of minimization cost. 7

3. a) What is market equilibrium? Show the effect of tax and subsidy upon market equilibrium and price. 8
   b) Why the demand for factor is known as derived demand? Explain the modern theory of factor pricing. 7

4. a) Define National income. Explain the various concepts of National Income. 8
   b) Explain how income and employment are determined under the Keynes principle of effective demand. 7

5. a) What is propensity to consume? Explain the relationship between propensity to consume and multiplier. 7
   b) Define fixed and floating exchange rate. Explain how the foreign exchange rate is determined in market. 8

6. a) Define monetary policy. What are the tools of the monetary policy to 7

POKHARA UNIVERSITY

Level: Bachelor
Programme: BCA
Course: Applied Economics

Semester: Spring

Year : 2017
Full Marks: 100
Pass Marks: 45
Time: 3hrs.

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

The figures in the margin indicate full marks.

Attempt all the questions.

1. a) Define micro and macro economics. Describe the importance of economic analysis in policy formulation. 7
   b) Decompose the income and substitution effect from price effect in case of normal goods. 8

2. a) The short run cost function is given as $TC = 100+5Q-0.9Q^2$. Find TVC, TFC, AVC, AC, and MC. Where the total cost output level is 10. 7
   b) Define total average and marginal revenue. Show relationship between them under Monopoly market. 8

3. a) Explain cob-Douglas production function. 7
   b) Explain and illustrate the effect of tax and subsidy in equilibrium of a firm under a perfect competition market. 8

4. a) Define derived demand. Explain the market demand curve for a labor in a perfect competition market. 8
   b) Define National income. Explain the difficulties of National income accounting in developing country like Nepal. 7

5. a) What is effective demand? How is it determined? 7
   b) Define multiplier. Explain the leakage and importance of multiplier. 1+7

6. a) Every year eastern part of Nepal is affected by natural disasters. There is a great effect of it in Nepali economy. What are such effects? What type of budget and programmme should be made by the government to control it? Mention your view. 8
   b) Define economic development. Explain the major challenges 7

POKHARA UNIVERSITY

Level: Bachelor
Semester – Spring
Year : 2016
Full Marks: 100
Programme: BCA
Pass Marks: 45
Course: Data Communication and Computer Network
Time : 3hrs.

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

The figures in the margin indicate full marks.

Attempt all the questions.

1. a) Why and how computer networks support successful work of an enterprise? Explain. 7
   b) What do you mean by transmission impairments? Explain various causes of impairment. 8

2. a) Why do we need multiplexing? Explain frequency division multiplexing in brief. 7
   b) How OSI reference model follows horizontal approach and TCP/IP reference model follows vertical approach? Explain. 8

3. a) Explain unbounded transmission media in brief. 7
   b) Given a data word 1010011110 and the divisor 10111, 8
      i. Show the generation of codeword at sender site (using binary division)
      ii. Show the checking of codeword at receiver site (assuming no error)

4. a) Explain IPV6 in brief with a header format. 7
   b) Suppose a company has seven departments. You are given an IP address 192.168.18.0 from your ISP. Each department in your company is requiring 28 computers working with internet. As a network engineer how do you assign a unique network address to each department? Also calculate subnet mask, each network address, broadcast address and range of host IPs for each department. 8

5. a) What do you mean by static routing and dynamic routing? 7

Explain Dijkstra's shortest path routing algorithm. 8

b) What are the causes of congestion in computer network? Explain leaky bucket algorithm. 7

6. a) What do you mean by Phishing? Explain active attack and passive attack. 8

b) Discuss DHCP and PROXY in Computer Networking. 2×5

7. Write short notes on **any two:**

a) Circuit Switching

b) Hamming Code

c) Mobile IP

POKHARA UNIVERSITY

Level: Bachelor
Semester –Spring
Year : 2015
Full Marks: 100
Pass Marks: 45
Time : 3hrs.
Programme: BCA
Course: Data Communication & Computer Network

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

The figures in the margin indicate full marks.

Attempt all the questions.

1. a) What is client server model? How is it differs from peer to peer network model? 7
   b) How can you define the bandwidth of the system? What are the differences between synchronous and asynchronous transmission? 8

2. a) Why data modulation is used in computer networks? Explain different types of modulation techniques used. 7
   b) What is OSI reference model? Explain its layering function with diagram. 8

3. a) What are transmission media? Explain different types of transmission media use in computer network. 7
   b) How errors are occurred in network? Write the error detection and correction method in data link layer. 8

4. a) What is framing? Show the error correction by using CRC method on data 110110 with generated polynomial x^3+1 equation. 7
   b) What is sub netting? Calculate total number of usable IP from given IP 75.35.162.128/27. 8

5. a) Compare the frame format of IPV4 and IPV6 with diagram. 7
   b) What is adaptive routing table? Explain distance vector routing. 8

6. a) Differentiate between Virtual Circuit and Datagram with suitable example 8
   b) Define Cryptography. Explain the symmetric key algorithm and public key algorithm method. 7

2×5

7. Write short notes on **any two**:
   a) Mobile IP
   b) DNS Server
   c) Proxy server

POKHARA UNIVERSITY

Level: Bachelor Semester –Fall Year : 2014
Programme: BCA Full Marks: 100
Course: Data Communication and Computer Networks Pass Marks: 45
Time : 3hrs.

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

The figures in the margin indicate full marks.

Attempt all the questions.

1. a) Discuss the need of network protocol and its application in the modern context of computer networking. 8
   b) What are transmission impairments? Describe various causes of transmission impairments. 7
2. a) What do you mean by modulation? Explain the various switching techniques used in data communication. 8
   b) Why protocol layer is organized in stack? Draw and Explain working principle of layer N architecture. 7
3. a) Explain the bounded and unbounded transmission media with suitable example. 8
   b) Compare flow control, congestion control and error control. Differentiate the bit oriented protocol over character oriented protocol. 7
4. a) Describe the sliding window protocols with suitable example. 8
   b) Compare the frame format of IPV4 and IPV6 with a suitable diagram. 7
5. a) Consider that your institution is planning to design a network with 3 different sub-networks proposed for Students, Faculty, and Staff. Suppose that one of the assigned IP address is 172.16.1.101, determine the network address, subnet mask, total usable hosts in each subnet, and the broadcast address for each of the sub-networks. 8
   b) What are the types of routing algorithm? Explain distance vector routing algorithm with figure. 7

6. a) Differentiate POP from IMAP. Explain the use of following network protocol: HTTP, DHCP, DNS and PROXY. 8

b) What do you mean by VPN? How can you maintain the confidentiality on network? Explain with anyone suitable algorithm. 7

7. Write short notes on **any two:** 2×5

a) Web security

b) Mobile IP

c) Leaky Bucket Algorithm

POKHARA UNIVERSITY

Level: Bachelor | Semester –Spring | Year : 2014

Programme: BCA | Full Marks: 100

Course: Data Communication and Computer Network | Pass Marks: 45

Time : 3hrs.

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

The figures in the margin indicate full marks.

Attempt all the questions.

1. a) Explain the various type of transmission modes used in networking. 5
   b) Write the different between a synchronous and synchronous transmission. 5
   c) Differentiate between UTP and STP. 5

2. a) Why modulation technique is important in data communication? Explain different types of modulation technique use in network 7
   b) Define about internet protocol? Draw and explain working principle of layer N architecture. 8

3. a) What is framing? Explain CRC code for error detections with example. With diagram. 8
   b) Calculate the number of sub-network and total no of host in a sub-network for IP address 192.18.18.0/27. Also Calculate the valid Subnet mask, Network address, Broadcast address, usable host range in each sub-network. 7

4. a) What are the IPV6 header finds? Which are the fields removed as compared to IPV4. 8
   b) What is distance vector routing? Explain how the routing table entries are updated with suitable example with diagram. 7

5. a) What is congestion? Explain how leaky bucket algorithm helps to remove the problem of congestion. 8
   b) What are the elementary simplex protocols used as data link protocol? 7

Illustrate how the delayed and Lost ACK messages are handled.

6. a) Which technology is used to send & receive the mails in your mail box? Explain necessary steps. 8

   b) What the cryptography? Explain the symmetric key algorithm and public key algorithm method. 7

7. Write short notes on **any two:** 2×5

   a) Flow control and Error control

   b) Mobile IP

   c) OSI Reference model

POKHARA UNIVERSITY

Level: Bachelor | Semester – Fall | Year : 2005
Programme: BCA | Full Marks: 100
Course: Network and Data Communication | Time : 3hrs.

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

The figures in the margin indicate full marks.

Attempt all the questions.

1. a) Explain the various type of transmission mode used in networking. 5
   b) Differentiate between LAN and WAN. 5
   c) Draw the architecture of ISDN to apply in an office. 5
2. a) Describe the types of Hub used in LAN. 5
   b) What are the various advantages that we obtain after the installation of LAN. 5
   c) Differentiate between physical and logical topology. 5
3. a) "A bridge can be used to connect different networks". Explain with diagram of different layers that the bridge works on. 8
   b) What is the difference between system software and application software? Describe the features of UNIX. 2+5
4. a) Given the IP address 200.200.1.64/27. Find the network and broadcast address of the subnetwork in which the given IP address belongs. Also find the total and usable hosts in that subnetwork. 7
   b) Describe OSI reference model. 8
5. a) Explain the various classes of IPV4. 8
   b) Define Domain Name System. What are the various DNS records used in the DNS server. 7
6. a) Describe basic network management. 5
   b) Describe the various component of mail server. 5
   c) Discuss various security uses in computer network. 5
7. *Write short notes on (Any Two)* 5×2
   a) Fiber optic
   b) DHCP server
   c) Web server

15

POKHARA UNIVERSITY

Level: Bachelor | Semester – Spring | Year : 2008
Programme: BCA | Full Marks: 100
Course: Network and Data Communication | Time : 3hrs.

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

The figures in the margin indicate full marks.

Attempt all the questions.

1. a) What do you mean by Modulation? What is the significance of modulation?

   b) What is multiplexing? Explain TDM and FDM.

2. a) Define network topology? Explain various network topology with their usefulness and Limitations:

   b) What is extra, intra, and internet? Give differences between LAN and WAN.

3. a) What is the need of reference model? Explain the functions of 7 layers of OSI reference model.

   b) What do you mean by flow control? Explain stop and wait method of flow control.

4. a) Differentiate between broadband and Base band cable.

   b) Differentiate between UTP and STP.

   c) How DHCP server works in a network?

5. a) Compare and contrast link state routing and distance vector routing algorithm.

   b) Explain TCP/IP reference model with its associated protocols.

6. a) What are the advantages of IPV_6 over IPV_4.

   b) Give the difference between datagram approach and virtual circuit approach.

   c) How VPN provides a security in Network?

7. Write short notes on *(Any Two)*
   a) Optical fibre.
   b) Client – Server and Peer to Peer N/W
   c) Error Detection and correction

POKHARA UNIVERSITY

Level: Bachelor | Semester –Fall | Year : 2017
Programme: BCA | Full Marks: 100
Course: Data Communication and computer Network | Pass Marks: 45
Time : 3hrs.

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

The figures in the margin indicate full marks.

Attempt all the questions.

1. a) What is computer network? Differentiate between peer to peer network and client- server network. 7
   b) What are transmission impairments? Explain various causes of impairment. 8
2. a) Why modulation is required for data transmission? Describe briefly the terms: PWM, PPM, PAM & PCM. 7
   b) What are the logical protocols? Explain the layers of OSI reference model with its architecture. 8
3. a) What are the advantages of optical fiber? Differentiate between base band and broad band coaxial cables. 7
   b) What is the meaning of flow control and error control? Explain in detail about Stop-and –Wait ARQ mechanism for error control. 8
4. a) Describe the parity and checksum error detection methods with examples. 7
   b) Explain IPV6 in brief with header format. 8
5. a) Given IP address 156.154.81.56./26, Calculate the total IP address, usable IP address, the subnet mask, network address and broadcast address. 7
   b) What is internet multicasting? What are the differences between OSI reference model and TCP/IP model? 8
6. a) What do you mean by static routing and dynamic routing? Explain Dijkstra's shortest path routing algorithm. 7
   b) How leaky bucket algorithm help in congestion control during data transmission? 8

2×5

7. Write short notes on **any two:**

a) HTTP

b) Asymmetric key cryptography

c) Differences between hub and repeater

POKHARA UNIVERSITY

Level: Bachelor | Semester: Spring | Year : 2017
Programme: BCA | Full Marks: 100
Course: Data Communication and Computer Network | Pass Marks: 45
Time: 3hrs.

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

The figures in the margin indicate full marks.

Attempt all the questions.

1. a) What is computer network? Write down the application areas of computer network. 7
   b) Define frequency and bandwidth. Differentiate between synchronous and asynchronous transmission. 8
2. a) What is angle modulation? Differentiate among message switching, circuit switching and packet switching. 7
   b) What are protocols? Define the terms: hub, bridge, switch and repeater. 8
3. a) What is LOS communication? What are the differences between satellite and optical fiber communication? 7
   b) What is error control? Explain in detail about Go-Back-N ARQ mechanism for error control. 8
4. a) Describe the parity and checksum error detection methods with examples. 7
   b) What are the main features of IPV6? Differentiate between connection oriented and connectionless services. 8
5. a) For the given IP address 192.168.10.0/25, find the total hosts, total subnets, total usable hosts and also calculate the IP address range of all subnets. 7
   b) Explain the various classes of IPV4. 8
6. a) What do you understand by Routing? Discuss about the working of shortest path routing Algorithm. 7
   b) How leaky bucket algorithms help the congestion control in data communication? 8

2×5

7. Write short notes on **any two**:

   a) Proxy server
   b) Private key cryptography
   c) Internet protocol stack

POKHARA UNIVERSITY

Level: Bachelor
Programme: BCA
Course: Data Communication and Computer Network

Semester: Fall

Year : 2016
Full Marks: 100
Pass Marks: 45
Time: 3hrs.

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

The figures in the margin indicate full marks.

Attempt all the questions.

1. a) Define computer network. How computer networks help to reduce operation cost in organization? Explain with example. 7

   b) Define bandwidth and frequency. Briefly explain the basic impairments in data transmission. 8

2. a) Differentiate between FDM and TDM. 7

   b) How do you define layered architecture? Discuss OSI reference model in brief. 8

3. a) What is data transmission media? Explain different types of transmission media. 8

   b) What is framing? Explain the GO Back ARQ method of retransmission with diagram. 7

4. a) Compare the frame format of IPV4 and IPV6 with diagram. 7

   b) Design seven subnets from an IP 192.168.10.0. Calculate the subnet mask, number of valid hosts per network and broadcast addresses. Demonstrate the result in the tabular form like this: 8

S.N.	Subnet ID	Valid Host ID Range	Broadcast Address
1			
2			

5. a) What do you mean by connection less service? Differentiate between virtual circuit and datagrams. 7

b) What are the causes of congestion in computer network? Explain leaky bucket algorithm. 8

6. a) Discuss DHCP and DNS in Computer Networking. 8

b) What is data encryption and decryption? Explain the symmetric key cryptography for ensuring data security. 7

7. Write short note on **any two:** 2×5

a) CRC

b) Distance Vector Routing Algorithm

c) VPN

POKHARA UNIVERSITY

Level: Bachelor | Semester: Fall | Year : 2018
Programme: BCA | Full Marks: 100
Course: Organization Management | Pass Marks: 45
Time: 3hrs.

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

The figures in the margin indicate full marks.

Attempt all the questions.

1. a) What is organization? Explain formal and informal organization. 8
   b) What is organization chart? Elaborate line organization chart. 7
2. a) Define motivation. Explain the McGregor's theory of motivation. 7
   b) Explain leadership style. In your opinion, which style of leadership is most appropriate in Nepalese corporate sector? Explain your opinion. 8
3. a) Explain the traits of an effective leadership. 7
   b) What is employee grievance? Explain grievance settlement process. 8
4. a) Explain the process of finding training needs. 8
   b) What is globalization? Explain the pros and cons of Globalization. 7
5. a) What is corporate social responsibility? Describe the areas of corporate social responsibility. 8
   b) What is conflict? Explain the conflict management strategies. 7
6. Case Analysis. 15

   Bridget Jones has been the manager of the research office at her company for over a year. She is beginning to wonder if she will ever be comfortable in this role. Her employees seem dissatisfied and aren't working their hardest. Bridget leaves work most days feeling that there must be a better way to manage. Remembering the lessons of the Hawthorne studies, Bridget works hard to praise her employees regularly. The work that her employees do is relatively interesting and there are considerable opportunities for advancement and growth. Bridget holds regular staff meetings to get input from her employees before making decisions. In spite of these efforts,

Bridget's employees seem to be dissatisfied. At the company's annual meeting, she runs into Cliff Richards, her predecessor in the job. She shares her frustrations and asks Cliff for advice. Cliff tells her "Management is simple–people are naturally lazy and uncooperative. To make them productive, they must be punished for negative behavior and rewarded when they work hard." Bridget finds this hard to accept, but replies with "Thanks for the advice, Cliff. I'll think about what you've said."

1. How would Douglas McGregor categorize Cliff Richards as a manager? Be sure to support your conclusion.
2. What advice might Frederick Herzberg give Bridget about dissatisfaction among her employees?
3. How could Bridget implement Management by Objectives (MBO)?
4. What benefits might she expect from this approach?
5. What style of leadership does Bridget appear to be using? Support your conclusion.

7. Write short notes on the followings: 5×2
   a) Labor Union
   b) Recruitment

POKHARA UNIVERSITY

Level: Bachelor | Semester –Spring | Year : 2014
Programme: BCA | Full Marks: 100
Course: Organization Management | Pass Marks: 45
Time : 3hrs.

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

The figures in the margin indicate full marks.

Attempt all the questions.

1. a) What do you mean by organization management? Write the scope of management in 21st century. 8
   b) What is culture of an organization? Relate it with organization management. 7

2. a) Define motivation. Explain Theory X & Y. 8
   b) Differentiate the Maslow's theory of needs and Alderfer's ERG Theory. 7

3. a) Define industrial relationship. Explain Grievances Settlement process. 7
   b) Define Leadership. Explain how MBO is different than MBE. 8

4. a) What is performance appraisal? How training and development programs help in employee empowerment? 8
   b) What is trade union? Explain the needs of Employee Discipline in an organization? 7

5. a) What are the effects of globalization in organization management? Explain with suitable examples. 8
   b) Differentiate between on-the-job and off-the-job training. Explain the needs of effective Job analysis. 7

6. a) Define HRM. Write the functions of HRM in Organization management. 7
   b) What is negotiation? Differentiate between mediation and arbitration process. 8

7. Write short notes on **any two**: 2×5

a) Collective Bargaining

b) Corruption

c) Authority and power

POKHARA UNIVERSITY

Level: Bachelor
Programme: BCA
Course: Organization Management

Semester: Spring

Year : 2016
Full Marks: 100
Pass Marks: 45
Time: 3hrs.

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

The figures in the margin indicate full marks.

Attempt all the questions.

1. a) Define management. Explain the basic functions of management 8
   b) What is organization chart? Explain the matrix organization. 7
2. a) Maslow says, there is always room for motivating an employee. In the light of this statement, explain the hierarchy of needs theory of motivation. Elaborate it 7
   b) Explain leadership style. In your opinion, which style of leadership is most appropriate in Nepalese corporate sector? Explain your opinion 8
3. a) What is MBO? Explain its process. 7
   b) Discuss the trade union movement in Nepal. 8
4. a) Explain the functions of human resource management. 8
   b) What is globalization? Explain the forms of globalization. 7
5. a) What is corporate social responsibility? Describe the areas of corporate social responsibility. 8
   b) What are human rights? State its scope in business. 7
6. Case Analysis. 15

The McGee Cake Company

In early 2007, Doc and Lyn McGee formed the McGee Cake Company. The company produced a full line of cakes, and its specialties included cheese cake, lemon pound cake, and double-iced, double-chocolate cake. The couple formed the company as an outside interest, and both continued to work at their current jobs. Doc did all the baking, and Lyn handled the marketing and distribution. With good product quality and a sound marketing plan, the company grew rapidly. In early 2011, the company was featured in a widely distributed entrepreneurial magazine. Later that year, the company was featured in Gourmet Desserts, a leading specialty

food magazine. After the article appeared in Gourmet Desserts, sales exploded, and the company began receiving orders from all over the world.

Because of the increased sales, Doc left his other job, followed shortly by Lyn. The company hired additional workers to meet demand. Unfortunately, the fast growth experienced by the company led to cash flow and capacity problems. The company is currently producing as many cakes as possible with the assets it owns, but demand for its cakes is still growing. Further, the company has been approached by a national supermarket chain with a proposal to put four of its cakes in all of the chain's stores, and a national restaurant chain has contacted the company about selling McGee cakes in its restaurants. The restaurant would sell the cakes without a brand name.

Doc and Lyn have operated the company as a sole proprietorship. They have approached you to help manage and direct the company's growth. Specifically, they have asked you to answer the following questions.

Questions:

a) What are the advantages and disadvantages of changing the company organization from a sole proprietorship to an limited liability company?

b) What are the advantages and disadvantages of changing the company organization from a sole proprietorship to a corporation?

7. Write a short notes: 2×5

a) Theory X and Theory Y

b) Collective Bargaining

POKHARA UNIVERSITY

Level: Bachelor
Programme: BCA
Course: Organization Management

Semester: Spring

Year : 2017
Full Marks: 100
Pass Marks: 45
Time: 3hrs.

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

The figures in the margin indicate full marks.

Attempt all the questions.

1. a) Point out the principles of organization and explain any five of them. 8
   b) Employee participation is new trend for motivation in modern organizations; in the light of this statement explain various techniques of employee participation. 7
2. a) Define motivation. Explain about financial and non-financial motivation. 8
   b) Define CSR. Explain about the CSR related to environment. 7
3. a) Do you advocate managerial grid approach for modern manager? 8
   b) Define leadership. Explain about different styles of leadership? 7
4. State the meaning of Trade union. Elucidate. "The greatest obstacle to the growth of healthy Trade union movement in Nepal is the unhealthy influences of rival political parties. 15
5. a) "Mediation is an effective method for conflict resolution in organizations & in everywhere". Justify this statement. 8
   b) Define globalization. What are its effects in management? 7
6. Study the following case and answer the questions. 15

   A major international employer in Kathmandu is attempting to hire Nepalese nationals with a view to train them for future positions in higher management. It is the policy of the employer that all new members of the organization start at the bottom and gradually work their way up to more he has reached a important jobs. This policy

has been adopted because of the extreme complexity of the operation. The employer believes that a manager, even after he has reached a point where he delegates very broad powers to others, must have a fairly detailed knowledge of what needs to be done. This policy has been successful in many of the other countries in which this employer operates.

A number of the candidates interviewed in Nepal are well educated but come from groups, which have traditionally not permitted men of high calibre to perform the types of tasks required of new employees starting at the bottom. A number of those hired have refused to perform these basic tasks and have left after only short periods of employments. It is your responsibility to obtain new employees, but you cannot change the "start at the bottom" policy.

Questions:

i. Why Nepalese candidates are not interested to join at bottom level?

ii. Is there something wrong in this company's hiring policy? Yes or No?

iii. You as an expert, what would you suggest to attract and hold Nepalese nationals with University education.

iv. After completing your BCA degree you might have to face same problem in near future. So, what is your preparation to face with that type of situation? Justify your answer.

7. Write short notes on **any two**: 2×5

a) Training and development

b) MBO

c) Negotiation

POKHARA UNIVERSITY

Level: Bachelor | Semester – Spring | Year : 2015
Programme: BCA | Full Marks : 100
Pass Mark : 45
Course: Organization Management | Time : 3 Hrs

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

The figures in the margin indicate full marks.

Attempt all the questions.

1. a) Management has been defined as "getting things done through people." Comment on this statement. 7
   b) "Organization is a systematic arrangement of people brought to accomplish some specific purpose." With reference to this statement explain what organization is and highlight the major five characteristics of organization. 8
2. a) Maslow viewed human motivation as a hierarchy of five needs. Enumerate these five needs with examples. 8
   b) What are the contemporary issues of motivation in Nepalese manufacturing organization? Discuss with example. 7
3. a) Define leadership and why do you think that most of the managers nowadays follow participative management approaches. Justify. 8
   b) Explain management by objective style of leadership? 7
4. a) Who are the actors of labor relation? Describe the roles of any two actors in labor relation process. 7
   b) Define employee grievances. Discuss any three major factors of employee grievances in Nepalese organizations. 8
5. a) What do you mean by corporate social responsibility (CSR)? How do you observe common practices of CSR in Nepalese organization? Explain. 7
   b) Define globalization. What are its effects to management and leadership for Nepalese organization? Explain. 8
6. **Case Study: Gurans Engineering Company** 15

Miss Rita Lama was appointed as manager of human resource department of Gurans Engineering Company. Within a year after taking her assignment, she had to sign a wage agreement based on collective bargaining with the labour union. At that time, the union was dominated by non-technical staff. It favoured the interests of non-

technical staff in collective bargaining. The new wage agreement increased the pay of non-technical staff. Consequently, the pay of lower level grades of non-technical staff became higher than the pay of lower level grades of technical staff.

The wage agreement was signed and communicated to all the employees. This created commotion among the technical staff. They walked out of the official union and formed their separate technical staff union. They stopped working and started marching with play card that read "This is the company where gardeners get more pay than welders". The operations of the company have come to a standstill. Management is worried about the labour problem.

Question:

a) What is the main problem in the above case and what are its reasons?

b) What principles of compensation have been violated in the wage agreement?

c) If you were the human resource manager, how would you solve the problems?

7. Write short notes on **any two**: 2×5

a) Conflict Management

b) Democratic leadership style

c) Human Rights

POKHARA UNIVERSITY

Level: Bachelor | Semester –Spring | Year : 2013
Programme:BCA | Full Marks: 100
Course:Organization Management | Pass Marks: 45
Time : 3hrs.

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

The figures in the margin indicate full marks.

Attempt all the questions.

1. a) Describe system theory of management. How this theory is different from behavioral theory. 8
   b) "Contingency approach to management is one of the most practiced theory by managers at recent times." Do you agree to this statement or not. Explain this highlighting the merits and demerits of contingency approach. 7

2. a) Define organization. Describe the characteristics of an organization. 7
   b) Differentiate formal and informal organization along with its definition. 8

3. a) Management by Objectives (MBO) is a system in which specific performance objectives are jointly determined by subordinates and their superiors, progress towards objectives is periodically reviewed, and rewards are allocated on the basis of this progress. Explain this process with its advantages to the management level. 7
   b) Explain Alderfer's ERG theory and illustrate on how this can be applied as a motivational tool inside on organization. 8

4. a) Define leadership and why do you think that most of the managers nowadays follow participative management approaches. Justify. 8
   b) Differentiate Job Analysis and Job Design and also illustrate the contribution of both of them in personal management. 7

5. a) How training can be considered as one of the powerful technique of motivation? Explain. 7
   b) Define trade union. Describe about the trade union movement in Nepal. 8

6. CASE STUDY: 15

A major international employer in Kathmandu is attempting to hire Nepalese nationals with a view to train them for future positions in higher management. It is the policy of the employer that all new members of the organization start at the bottom and gradually work their way up to more until he/she has reached an important job. This policy has been adopted because of the extreme complexity of the operation. The employer believes that a manager, even after he/she has reached a point where he/she has delegates very broad powers to other, must have a fairly detailed knowledge of what needs to be done. This policy has been successful in many of the other countries in which this employer operates.

A number of the candidates interviews in Nepal are well educated but come from groups, which have traditionally not permitted men/women of high calibre to perform the types of tasks required of new employees starting at the bottom. A number of those hired have refused to perform these basic tasks and have left after only short periods of employments. It is your responsibility to obtain new employees, but you cannot change the "start at the bottom" policy.

Questions:

1. Why Nepalese candidates are not interested to join at bottom level?
2. Is there something wrong in this company's hiring policy? Yes or No?
3. You as an expert, what would you suggest to attract and hold Nepalese nationals with university education.

7. Write short notes on **any two:** 2×5

a) Health and safety issues
b) Management by Exception
c) Collective bargaining

POKHARA UNIVERSITY

Level: Bachelor | Semester: Fall | Year : 2016
Programme: BCA | Full Marks: 100
Course: Organization Management | Pass Marks: 45
Time : 3hrs.

Candidates are required to give their answers in their own words as far as practicable.
The figures in the margin indicate full marks.
Attempt all the questions.

1. a) What is the role of management in an organization? How do you justify good management is due to positive attitude of the employee in an organization? 8

   b) How do you define culture of organization? Explain various level of Management. 7

2. a) How do you justify, without motivation smooth running of organization is impractical? Explain your logics with example. Compare Maslow's hierarchy of need with Alderfer's ERG theory? 8

   b) Nepalese organization is facing problem of motivation from employee. Do you agree with this statement? Write some contemporary issues of Motivation in Nepal. 7

   a) What are the features associated to the leader to be a good leadership? Write the function of leadership. 7

   b) What do you mean by incentive program? Compare between Centralization authority and decentralization authority. 8

4. a) What is personnel management? Differentiate between job analysis and job description. 8

   b) How does job recruitment interdependent with job promotion? Is there any interdependency? 7

5. a) What is trade union movement? Explain the role of trade union on collective bargaining. 8

   b) Write causes and settlement of grievances handling in Indian and Nepalese organization. 7

6. a) What do you understand by "learning while working"? Explain the method on-the-job Training method. 5

b) Ram Sharma is the genius student of Pokhara university affiliated college. Continuously, he secured 4.0 out of 4.0 up to six semesters. He has to secure more 4.0 in coming two semesters to achieve university first position in bachelor level. Again 4.0 achieved in seven semester but unfortunately, 3.94 is graded in eight semester. Due to this reason, he has missed gold medal in bachelor level. Student blame to subject lecturer for internal mark. Lecturer claim there is no mistake in internal evaluation system. 10

i) How do you resolve this problem? Who victimize more? Student and college?

7. Write short note on **any two:** 2×5

a) Types of conflict

b) Health and safety

c) Performance appraisal

POKHARA UNIVERSITY

Level: Bachelor | Semester – Fall | Year : 2011
Programme: BCA | Full Marks: 100
Course: Organization Management | Pass Marks: 45
Time : 3hrs.

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

The figures in the margin indicate full marks.

Attempt all the questions.

1. a) Describe management. Illustrate the emerging challenges of management. 8

   b) Define organization. What are the common characteristics of organization? 7

2. a) Distinguish between functional organization and matrix organization. 8

   b) What are the assumptions of theory X and theory Y? State your reasons for agreeing or disagreeing with those assumptions? What are some misunderstanding of X and Y theories? 7

3. a) What is power and authority? Explain the four leadership styles. 7

   b) Define motivation. Differentiate between Maslow's hierarchy of needs and ERG theory of motivation. 8

4. a) What is recruitment? State the different sources of recruitment. 7

   b) What is performance appraisal? Explain the process of performance appraisal. 8

5. a) What is trade union? Briefly describe the movement of trade union in Nepal. 8

   b) What is MBO? Explain the steps in MBO process. 7

6. **Krishna Bahadur Thapa**

   Krishna B. Thapa is the manger of Zenith International. Each Ashadh, he must evaluate all of his subordinates to decide who is to receive a merit increase for the upcoming fiscal year. But each year their employees complain about how they are evaluated, how merit money is dispersed, and what criteria are used for evaluations. However, during the past two year there has been a tremendous emphasis on quality of production. A review of the merit recipients reveals that their people who the ones who

had the best quality records but many of the employees felt that quality should not be the determining factor at an employee forum, one of the senior member remarked "how can Krishna now reward quality? What has happened to production numbers?" Another employee argued and stated: "this quality game is okay for some but what about the overall production? It seems to me that if I will only be rewarded by quality then I should produce a few items but make them perfect." After hearing such criticism, Krishna was quick upset. He was not trying to change his evaluation system nor was he attempting to hurt anyone.

Required:

- What is the major problem with Krishna's evaluation system? 5
- If no changes are made in the current system that Krishna is using. What do you expect will occur regarding future production system?
- What does this case tell us about the impact of performance appraisals on employee motivation 5

7. Write short notes on **any two:** 2×5

a) Health and Safety

b) Learning Organization

c) Systems Theory

POKHARA UNIVERSITY

Level: Bachelor | Semester – Spring | Year : 2015
Programme: BCA | Full Marks : 100
Pass Mark : 45
Course: Organization Management | Time : 3 Hrs

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

The figures in the margin indicate full marks.

Attempt all the questions.

1. a) Management has been defined as "getting things done through people." Comment on this statement. 7
   b) "Organization is a systematic arrangement of people brought to accomplish some specific purpose." With reference to this statement explain what organization is and highlight the major five characteristics of organization. 8
2. a) Maslow viewed human motivation as a hierarchy of five needs. Enumerate these five needs with examples. 8
   b) What are the contemporary issues of motivation in Nepalese manufacturing organization? Discuss with example. 7
3. a) Define leadership and why do you think that most of the managers nowadays follow participative management approaches. Justify. 8
   b) Explain management by objective style of leadership? 7
4. a) Who are the actors of labor relation? Describe the roles of any two actors in labor relation process. 7
   b) Define employee grievances. Discuss any three major factors of employee grievances in Nepalese organizations. 8
5. a) What do you mean by corporate social responsibility (CSR)? How do you observe common practices of CSR in Nepalese organization? Explain. 7
   b) Define globalization. What are its effects to management and leadership for Nepalese organization? Explain. 8
6. **Case Study: Gurans Engineering Company** 15

Miss Rita Lama was appointed as manager of human resource department of Gurans Engineering Company. Within a year after taking her assignment, she had to sign a wage agreement based on collective bargaining with the labour union. At that time, the union was dominated by non-technical staff. It favoured the interests of non-

technical staff in collective bargaining. The new wage agreement increased the pay of non-technical staff. Consequently, the pay of lower level grades of non-technical staff became higher than the pay of lower level grades of technical staff.

The wage agreement was signed and communicated to all the employees. This created commotion among the technical staff. They walked out of the official union and formed their separate technical staff union. They stopped working and started marching with play card that read "This is the company where gardeners get more pay than welders". The operations of the company have come to a standstill. Management is worried about the labour problem.

Question:

a) What is the main problem in the above case and what are its reasons?

b) What principles of compensation have been violated in the wage agreement?

c) If you were the human resource manager, how would you solve the problems?

7. Write short notes on **any two**: 2×5

a) Conflict Management

b) Democratic leadership style

c) Human Rights

POKHARA UNIVERSITY

Level: Bachelor
Semester: Fall
Year : 2016
Programme: BCA
Full Marks: 100
Course: Organization Management
Pass Marks: 45
Time : 3hrs.

Candidates are required to give their answers in their own words as far as practicable.
The figures in the margin indicate full marks.
Attempt all the questions.

1. a) What is the role of management in an organization? How do you justify good management is due to positive attitude of the employee in an organization? 8
   b) How do you define culture of organization? Explain various level of Management. 7
2. a) How do you justify, without motivation smooth running of organization is impractical? Explain your logics with example. Compare Maslow's hierarchy of need with Alderfer's ERG theory? 8
   b) Nepalese organization is facing problem of motivation from employee. Do you agree with this statement? Write some contemporary issues of Motivation in Nepal. 7
3. a) What are the features associated to the leader to be a good leadership? Write the function of leadership. 7
   b) What do you mean by incentive program? Compare between Centralization authority and decentralization authority. 8
4. a) What is personnel management? Differentiate between job analysis and job description. 8
   b) How does job recruitment interdependent with job promotion? Is there any interdependency? 7
5. a) What is trade union movement? Explain the role of trade union on collective bargaining. 8
   b) Write causes and settlement of grievances handling in Indian and Nepalese organization. 7

6. a) What do you understand by "learning while working"? Explain the method on-the-job Training method. 5

b) Ram Sharma is the genius student of Pokhara university affiliated college. Continuously, he secured 4.0 out of 4.0 up to six semesters. He has to secure more 4.0 in coming two semesters to achieve university first position in bachelor level. Again 4.0 achieved in seven semester but unfortunately, 3.94 is graded in eight semester. Due to this reason, he has missed gold medal in bachelor level. Student blame to subject lecturer for internal mark. Lecturer claim there is no mistake in internal evaluation system. 10

i) How do you resolve this problem? Who victimize more? Student and college?

7. Write short note on **any two:** 2×5

a) Types of conflict

b) Health and safety

c) Performance appraisal

POKHARA UNIVERSITY

Level: Bachelor | Semester – Spring | Year : 2015
Programme: BCA | Full Marks : 100
Pass Mark : 45
Course: Organization Management | Time : 3 Hrs

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

The figures in the margin indicate full marks.

Attempt all the questions.

1. a) Management has been defined as "getting things done through people." Comment on this statement. 7
   b) "Organization is a systematic arrangement of people brought to accomplish some specific purpose." With reference to this statement explain what organization is and highlight the major five characteristics of organization. 8
2. a) Maslow viewed human motivation as a hierarchy of five needs. Enumerate these five needs with examples. 8
   b) What are the contemporary issues of motivation in Nepalese manufacturing organization? Discuss with example. 7
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   b) Define employee grievances. Discuss any three major factors of employee grievances in Nepalese organizations. 8
5. a) What do you mean by corporate social responsibility (CSR)? How do you observe common practices of CSR in Nepalese organization? Explain. 7
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6. **Case Study: Gurans Engineering Company** 15

Miss Rita Lama was appointed as manager of human resource department of Gurans Engineering Company. Within a year after taking her assignment, she had to sign a wage agreement based on collective bargaining with the labour union. At that time, the union was dominated by non-technical staff. It favoured the interests of non-

technical staff in collective bargaining. The new wage agreement increased the pay of non-technical staff. Consequently, the pay of lower level grades of non-technical staff became higher than the pay of lower level grades of technical staff.

The wage agreement was signed and communicated to all the employees. This created commotion among the technical staff. They walked out of the official union and formed their separate technical staff union. They stopped working and started marching with play card that read "This is the company where gardeners get more pay than welders". The operations of the company have come to a standstill. Management is worried about the labour problem.

Question:

a) What is the main problem in the above case and what are its reasons?

b) What principles of compensation have been violated in the wage agreement?

c) If you were the human resource manager, how would you solve the problems?

7. Write short notes on **any two**: 2×5

a) Conflict Management

b) Democratic leadership style

c) Human Rights

POKHARA UNIVERSITY

Level: Bachelor | Semester: Spring | Year : 2016
Programme: BCA | Full Marks: 100
Course: Organization Management | Pass Marks: 45
Time: 3hrs.

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

The figures in the margin indicate full marks.

Attempt all the questions.

1. a) Define management. Explain the basic functions of management 8
   b) What is organization chart? Explain the matrix organization. 7
2. a) Maslow says, there is always room for motivating an employee. In the light of this statement, explain the hierarchy of needs theory of motivation. Elaborate it 7
   b) Explain leadership style. In your opinion, which style of leadership is most appropriate in Nepalese corporate sector? Explain your opinion 8
3. a) What is MBO? Explain its process. 7
   b) Discuss the trade union movement in Nepal. 8
4. a) Explain the functions of human resource management. 8
   b) What is globalization? Explain the forms of globalization. 7
5. a) What is corporate social responsibility? Describe the areas of corporate social responsibility. 8
   b) What are human rights? State its scope in business. 7
6. Case Analysis. 15

The McGee Cake Company

In early 2007, Doc and Lyn McGee formed the McGee Cake Company. The company produced a full line of cakes, and its specialties included cheese cake, lemon pound cake, and double-iced, double-chocolate cake. The couple formed the company as an outside interest, and both continued to work at their current jobs. Doc did all the baking, and Lyn handled the marketing and distribution. With good product quality and a sound marketing plan, the company grew rapidly. In early 2011, the company was featured in a widely distributed entrepreneurial magazine. Later that year, the company was featured in Gourmet Desserts, a leading specialty

food magazine. After the article appeared in Gourmet Desserts, sales exploded, and the company began receiving orders from all over the world.

Because of the increased sales, Doc left his other job, followed shortly by Lyn. The company hired additional workers to meet demand. Unfortunately, the fast growth experienced by the company led to cash flow and capacity problems. The company is currently producing as many cakes as possible with the assets it owns, but demand for its cakes is still growing. Further, the company has been approached by a national supermarket chain with a proposal to put four of its cakes in all of the chain's stores, and a national restaurant chain has contacted the company about selling McGee cakes in its restaurants. The restaurant would sell the cakes without a brand name.

Doc and Lyn have operated the company as a sole proprietorship. They have approached you to help manage and direct the company's growth. Specifically, they have asked you to answer the following questions.

Questions:

a) What are the advantages and disadvantages of changing the company organization from a sole proprietorship to an limited liability company?

b) What are the advantages and disadvantages of changing the company organization from a sole proprietorship to a corporation?

7. Write a short notes: 2×5

a) Theory X and Theory Y

b) Collective Bargaining

POKHARA UNIVERSITY

7

Level: Bachelor
Semester – Fall
Year : 2012
Full Marks: 100
Programme: BCA
Pass Marks: 45
Course: Organization Management
Time : 3hrs.

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

The figures in the margin indicate full marks.

Attempt all the questions.

1. a) Management has been defined as "getting things done through people." Comment on this statement. 8

   b) Briefly describe the systems theory of management. 7

2. a) "Organization is a systematic arrangement of people brought to accomplish some specific purpose." With reference to this statement explain what is organization and highlight the major five characteristics of organization. 7

   b) Define matrix organization with its advantages and its limitation. 8

3. a) Define motivation. Explain the McClelland's Theory of learned needs. 8

   b) Differentiate between management by objectives and management by exception. 7

OR

Briefly explain the various kinds of incentive programs implemented inside an organization to motivate employees. 7

4. a) What is performance appraisal? Explain the process of performance appraisal. 8

   b) What is Personnel Management? Explain at least five functions of Personnel management. 7

5. a) Health and safety issues are important in today's workplace. Discuss. 8

   b) What is labour union? Explain the reasons of joining labour union. 7

OR

Define learning organization. Why are learning organizations important in the present context of management development? 7

Explain.

15

6. Case study : ORGANIZING THE ABC AIRLINES:

ABC Airlines is established with the joint efforts of few private sector entrepreneurs in Nepal. In the first 2 years of establishment the service of the Airlines was very good, flights were on time, there were no complaints from the passengers. Company was paying its loan in time on installments basis. However, science last two years, the company is not operating properly. Dissatisfaction among the workers is rising, most of the flights are delayed and complain is heard from the creditors for not paying the loan in time. Realizing this situation, the last board of director (BOD) meeting unanimously passed a resolution to make a study to assess current management problems. Mr. Mahesh Regmi is assigned to make the employee's and passenger's opinion survey in order to assess rising management problems of the company.

After making an opinion survey of the employee and passengers, the following managerial problems are identified.

- Functional managers are not acquainted with the management concepts.
- There is no interdepartmental and intradepartmental coordination while scheduling work for the next week.
- Employees are not disciplined; they don't care about their duty sincerely.
- Orders are coming from different command and therefore there is always confusion of working.
- Air crew are working for two months and getting pay only of one month.
- People are working on their own, and therefore, there is lack of coordination.
- Daily and weekly news papers are covering news about the recent activities of the company in negative way.

The report is submitted in the Board meeting and all became very much embarrassed reading it. The Director Mr. Kapil orders General Manager to solve the problem.

a) Describe the current management situation of the company. Do you think the problem is mainly managerial?

POKHARA UNIVERSITY

Level: Bachelor
Programme: BCA
Course: Organization Management

Semester –Spring

Year : 2014
Full Marks: 100
Pass Marks: 45
Time : 3hrs.

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

The figures in the margin indicate full marks.

Attempt all the questions.

1. a) What do you mean by organization management? Write the scope of management in 21st century. 8
   b) What is culture of an organization? Relate it with organization management. 7

2. a) Define motivation. Explain Theory X & Y. 8
   b) Differentiate the Maslow's theory of needs and Alderfer's ERG Theory. 7

3. a) Define industrial relationship. Explain Grievances Settlement process. 7
   b) Define Leadership. Explain how MBO is different than MBE. 8

4. a) What is performance appraisal? How training and development programs help in employee empowerment? 8
   b) What is trade union? Explain the needs of Employee Discipline in an organization? 7

5. a) What are the effects of globalization in organization management? Explain with suitable examples. 8
   b) Differentiate between on-the-job and off-the-job training. Explain the needs of effective Job analysis. 7

6. a) Define HRM. Write the functions of HRM in Organization management. 7
   b) What is negotiation? Differentiate between mediation and arbitration process. 8

7. Write short notes on **any two**: 2×5

a) Collective Bargaining

b) Corruption

c) Authority and power

POKHARA UNIVERSITY

Level: Bachelor | Semester –Fall | Year : 2014
Programme: BCA | Full Marks: 100
Course: Organization Management | Pass Marks: 45
Time : 3hrs.

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

The figures in the margin indicate full marks.

Attempt all the questions.

1. a) Define management? Describe its functions of management with examples. 7
   b) Describe contingency theory of management. How is it different from scientific theory of management? Discuss. 8
2. a) Differentiate between formal and informal organization with two examples for each. 7
   b) "There is always room for motivating an employee." In the light this statement, explain the hierarchy of needs theory of motivation. 8
3. a) Do you advocate managerial grid approach for modern manager? 7
   b) Explain leadership style. In your opinion, which style of leadership is most appropriate in Nepalese corporate sector? Explain your opinion. 8
4. a) Selection is the mechanism that determines the overall quality of an organization's human resources. In the light of the statement discuss the selection process that will ensure to get best candidates. 7
   b) How managers evaluate its employee's performance? Explain 8
5. a) State the meaning of Trade union. Elucidate. "The greatest obstacle to the growth of healthy Trade union movement in Nepal is the unhealthy influences of rival political parties. 10
   b) Differentiate between Job specification and Job description. 5

6. Read the case and answers the following questions.

Managing the Hewlett-Packard Way: Will it Continue?

William R. Hewlet and David Packard are two organization leaders who demonstrated a unique managerial style. They began their operation in a one-car garage in 1939 with $534 and eventually built a very successful company that now produces more than 10,000 products, such as computers, peripheral equipments, test and measuring instruments, and handheld calculators. Perhaps even better known than its product is the distinct managerial style preached and practiced at Hewlett-Packard (HP). It is known as the HP Way.

What is the HP Way? I feel that in general terms it is the policies and actions that flow from the belief than men and women want to do a good job, a creative job, and that if they are provided the proper environment they will do so.

Bill Hewlett, HP co-founder

The values of the founders, who withdrew from active management in 1978, still permeate the organization. The HP Way emphasizes honestly, a strong belief in the value of people, and customer satisfaction. The managerial style also emphasizes an open-door policy, which promotes team effort. Informality in personal relationships is illustrated by the use of first names. By strolling through the organization, top managers keep in touch with what is really going on in the company.

This informal organizational climate does not mean that the organization structure has not changed. Indeed, the organizational changes in the 1980s in response to environmental forces were quite painful. However, these changes resulted in extraordinary company growth in that decade.

In the 21st century, however, the fortune began to change. In the new competitive environment, HP felt it necessary to merge with another computer giant, Compaq. The merger architect, Carly Fiorina, was strongly opposed by Walter Hewlett, the son of William Hewlett. After a close vote, the merger was approved, but not without a challenge by Mr. Hewlett. Still, the merger, which was opposed by the majority of HP's employees, went through. Now the challenge begins for Ms. Fiorina not only to reestablish the morale of the HP people but also to merge the HP culture with that of Compaq. Critics predict the HP Way cannot be continued.

Questions:

Is the HP way of managing creating a climate in which employees are motivated to contribute to the aims of the organization? What is unique about the HP Way? 4

b) Would the HP managerial style work in any organization? Why or why not? What are the conditions for such a style to work? 6

c) Do you think it is possible to maintain the HP Way after the merger with Compaq, the court battle, and the damaged morale at HP? Why or why not? 5

7. Write short **notes on any two:** 2×5

a) Compensation

b) management by Exception

c) On-the-job training

POKHARA UNIVERSITY

Level: Bachelor Semester: Fall Year : 2018
Programme: BCA Full Marks: 100
Course: Fundamentals of Probability and Statistics Pass Marks: 45
Time: 3hrs.

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

The figures in the margin indicate full marks.

Attempt all the questions.

1. a) The stem-and-leaf display represents the bounced check fee for direct deposit customers. 8

Stem	Leaves
9	9 6 9
10	9 1 2 1 2 3 3 6 6 1 6 9 6 6 6 9 1
11	8 6 5 4 7
12	2 3

i. Rearrange the leaves from the given stem and leaf display.
ii. What are the two-information obtained from this stem and leaf display?
iii. What percentages of items are before 120?

b) The average electricity consumption and standard deviation of two sets of households are as follows. 7

	Set 1st	Set 2nd
Mean	56 units	62 units
S.D.	13 units	18 units
No. Of HH	90	85

Calculate Mean, Standard Deviation and Coefficient of Variation respectively when both set are combined together.

2. a) The data below represent the amount of grams of carbohydrate in a serving of breakfast in a serving of breakfast cereal. 8

11	15	23	29	19	22	21	20	15	25	17

Construct the box and whisker plot for the carbohydrate amounts and describe the shape.

b) The scores of two golfers for 10 rounds each are: 7

A: 58, 59, 60, 54, 65, 66, 52, 75, 69,52

B: 84, 56, 92, 65, 86, 78, 44, 54, 78, 68

Which golfer is more consistent player?

3. a) Shoes are produce by two machine A and B. 50% of the shoes were produced by machine A with an estimate of 10% of them being defective. 50% of the shoes were produced by machine **B** with an estimate of 20% are defective. If a shoe is taken randomly is found to be defective, what is the probability that the shoes was produced by 8

i. Machine A

ii. Machine B

b) A random variable X has the following probability function. 7

X	-2	-1	0	1	2
P (X)	0.2	K	0.4	2K	k

Find,

i. Value of K.

ii. Expected value of X and Variance of X.

iii. E(4X+5)

4. a) The mean of binomial distribution is 6 and standard deviation is 2, find the probability of at most 2 successes. 5

b) The Department of Commerce in a particular state has determined that the number of small businesses that declare bankruptcy per month is approximately a Poisson distribution with a mean of 6.4. Find the probability that more than 3 bankruptcies occur next month. 5

c) The entrance score of BCA students in PU is normally distributed with mean 65 and standard deviation of 10. What are the limits within which the middle 50% of the scores lie? 5

5. a) A rational consumer is smart enough to conduct statistical analysis. He was worried about DDC'S average filling of milk in a packet labeled. 500 ml net. He randomly sampled 10 such different packets and found the sample mean of 495 ml with a sample standard deviation of 9. Estimate the standard error of sample mean and set up a 95% confidence interval of the population mean. Also interpret the result. 8

b) Are Japanese manager being more motivated than American manager? A random selected group of each were administered the SURVEY OF ATTITUDE TOWARDS LIFE (SATL) which measure motivation for upward mobility. The SATL score are summarized below. 7

	American	Japanese
Sample size	211	100
Mean SATL score	65.75	79.83
Population S.D.	11.07	6.41

Is there a significant difference in SATL score of Japanese manager is significantly higher than average score of American manager? Use 95% confidence interval.

6. a) Calculate the coefficient of correlation for the following age of husbands and wives at the time of their marriage and interpret the result. 7

Age of husband (in yrs)	23	27	28	28	28	30	30	33	35	38
Age of wife (in yrs)	18	20	22	27	21	29	27	29	28	29

b) Ten accountants were given intensive coaching and four tests were conducted in a month. The scores of tests 1 and 4 are given below. 8

Accountants	1	2	3	4	5	6	7	8	9	10
Marks in 1st test	50	42	51	42	60	41	70	55	62	38
Marks in 4th test	62	40	61	52	68	51	64	63	72	50

Does the score from 1st to 4th test shows an improvement?

7. Write short notes on **any two**: 2×5

a) Steps in hypothesis testing

b) Primary and Secondary Data

c) Survey research

d) Bayes theorem

POKHARA UNIVERSITY

Level: Bachelor | Semester: Spring | Year : 2017
Programme: BCA | Full Marks: 100
Course: Fundamentals of Probability and Statistics | Pass Marks: 45
Time: 3hrs.

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

The figures in the margin indicate full marks.

Attempt all the questions.

1. a) From the following hypothetical data, 8

23	24	16	12	6	10	32	11	28	23
13	34	21	18	9	31	18	26	30	17
17	14	17	25	20	8	33	19	22	7
16	20	9	25	39	36	23	24	24	22
29	12	18	27	13	7	5	16	15	19
20	21	22	15	10	37				

i. Construct a grouped frequency distribution of suitable class interval.

ii. Prepare the relative frequency distribution and percentage frequency distribution for each class interval.

iii. Identify the class interval with maximum frequency.

b) The stem-and-leaf display represents the bounced check fee for a sample of 26 banks for direct deposit customers. 7

Stem	Leaves
1	6 6 9
2	1 1 1 1 2 3 3 6 6 6 6 6 6 9 9 9
3	5 6 7 8 9
4	2 3

i. What are the two information obtained from this stem and leaf display?

ii. What percentages of items are before 30?

iii. Construct the histogram assuming the class height of 10.

2. a) The average electricity consumption and standard deviation of two sets of household are as follows. 8

	Set 1st	Set 2nd
Mean	65 units	72 units
S.D.	13 units	18 units
No. Of HH	50	40

i. Which set is more consistency?
ii. Calculate the C.V. of combined set.

b) The data below represent the amount of grams of carbohydrate in a serving of breakfast cereal. 7

11	15	23	29	19	22	21	20	15	25	17

Construct the box and whisker plot for the carbohydrate amounts and describe the shape.

3. a) A factory has 3 units A, B and C. A produces 25% of its products, B produces 25% and C produces 50%. The percentage of defective items produced by these units A, B and C are 1%, 2% and 3% respectively. If one of them is selected randomly from the total and found to be defective, what is the probability that it is produced by the units A, B and C? 8

b) The number of people passing by the Kathmandu mall during any given minute between 12 noon and 1.00 pm., on a weekday is random variable X with the following probability distribution. 7

Number of people (X)	0	1	2	3	4	5
P(X)	0.3	0.2	0.2	0.1	0.1	0.1

Find the probability that in any given minute between 12 noon and 1pm, more than three people pass by the Kathmandu mall. Also find the mean and standard deviation of the random variable.

4. a) If mean of binomial distribution is 6 and S.D. is 2, find the probability of at most two successes. 5

b) Vehicles arrive at an intersection at the rate of 10 per minute. A traffic light cycle lasts 45 second. If the number of vehicles that arrive per cycle follows a Poisson distribution, what is the probability that exactly six vehicles will arrive in a cycle. 5

c) As a result of test of 20,000 electric bulbs manufactured by a company it was found that the life time of the bulb was normally distributed with an average of 2040 hrs and the S.D. of 60 hrs. On the basis of information, estimate the number of bulbs that are expected to burn for less than 1960 hrs. 5

5. a) Dr. Joshi noted economist, surveyed 150 households in a particular place and found that 63 of them were unable to bear the school fee of their children. Set up 95% confidence interval estimate for the true proportion of households who cannot actually bear the school fee of their children. 7

b) You are a financial analyst for Charles Schwab. Is there a difference in average dividend yield between stocks listed on the NYSE and NASDAQ? You have the following data: 8

	NYSE	NASDAQ
Number	15	15
Sample mean	3.27	2.53
Sample S.D.	1.3	1.16

Is there a significant difference in average yield? Use 95% confidence interval.

c) BCA students were selected by a big organization and they were given an IQ test immediately after the selection and their score out of 50 were noted. A two months training was arranged for them and on completion IQ test was given and scores recorded. 8

Students	1	2	3	4	5	6	7	8	9
Before	31	35	38	25	40	45	40	28	18
After	32	30	32	37	38	37	42	40	27

On the basis of the results can it be concluded that the training has benefited the students? Use 1% level of significance.

6. Following information given below are related with the age of husband (X) and wife (Y) for married couples living together in a sample survey. Calculate the coefficient of correlation between age of husband and that of his wife. Test the significant of calculated coefficient of correlation 'r'. 7

$N=72$, $\sum fx=3560$, $\sum fx^2=196800$
$\sum fy=3260$ $\sum fy^2=168400$ $\sum fxy=172000$

7. Write short notes on **any two**: 2×5

a) Role of statistics in decision making.
b) Survey research.
c) Steps in hypothesis testing.
d) Conditional probability.

POKHARA UNIVERSITY

Level: Bachelor | Semester –Fall | Year : 2017

Programme: BCA | Full Marks: 100

Course: Fundamentals of Probability and Statistics | Pass Marks: 45

Time : 3hrs.

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

The figures in the margin indicate full marks.

Attempt all the questions.

1. a) The steam and leaf display represent the bounced check fee for a sample of 25 banks for direct deposit customers.

Steam	Leaves
1	5 5 8 8
2	0 0 0 0 1 2 2 5 5 5 5 5 8 8 9
3	4 5 6 7 7
4	1 2

i. What are the two information obtained from this steam and leaf display?

ii. What percentage of items is before 30?

iii. Construct the relative percentage frequency distribution.

b) The lives of two models (A and B) of refrigerators in a recent survey are shown below

Life (No. of years)	No. 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

i. What is the average of each model of these refrigerators?

ii. Which model has greater uniformity?

2. a) The weights (in grams) of 10 orange picked at random form a basket are as follows: 45, 30, 75, 40, 60, 65, 70, 85, and 80. , 90

i. List the five number summary

ii. Form the box and whisker plot and describe the shape.

before and after the plan. Calculate the amount increased in percent.

Following table shows the distribution of participation of Nepalese women in economic activities in 1982 and 1992 as a percent of total economically active population. 8

Participated in	Year 1982	Year 1992
Economic activity	47	48
Labour force	36	40
Agricultural work	37	45
Non-agricultural work	18	20
Manufacturing	16	23

In which year the distribution of participation of women is variated highly?

OR

Suppose that a prospective buyer tests bursting pressure of samples of polythene bags received from two manufactures A and B. The test revealed the following results: 8

Bursting Pressure (Ibs)	5-10	10-15	15-20	20-25	25-30
Number of bags-A	2	9	29	54	6
Number of bags-B	9	15	30	32	14

Which manufacturer's bags have the higher average bursting pressure? Which of them is more uniform in bursting pressure?

b) Undergraduate student of Pokhara University does statistical analysis for an automobile racing team. Here are the fuel consumption figures in miles per gallon for the team's cars in recent races: 7

4.7	6.1	6.1	5.1	6.0	4.9	5.3	6.0
5.6	4.9	6.1	5.2	6.2	5.2	6.7	5.3

Construct the box-and-whisker plot and comment on the shape of the data regarding amount of fuel consumption.

a) An advertising executive is studying television viewing habit of married men and women during prime time hours. On the basis of past viewing during record, the executive has determined that during prime, husbands are watching television 45% of the time. When the husband is watching television, 60% of time, the wife is also watching. When the husband is hot watching television, 40% of the time the wife is watching television find the probability that 8

i. If the wife is watching television the husband is also watching T.V?

ii. The wife is watching TV in prime time?

b) A manufactured product consists of five electrical components. Each 7

of the components has a limited lifetime. The company has tested the product to determine the reliability of the components. The following table presents a probability distribution where the random variable X indicates the number of components which fail during the first 100 hours of operation.

Number of Components Failing (X)	P(x)
0	0.05
1	0.09
2	0.22
3	0.32
4	0.18
5	0.14

i. What is the mean number of components which fail during the first 100 hours of operation?

ii. What is the standard deviation of the number of failing components?

iii. If the product will continue to operate if no more than two components fail, what percentage of the manufactured parts will continue to operate during the first 100 hours?

4. a) A survey conducted in 2011 found about 40% of the Nepalese workers have been gone aboard are illegal. If in a sample of 7 Nepalese worker who had gone abroad, what is the probability that

   i. Exactly 5 are illegal.

   ii. At least 2 are legal.

   b) An actuary from the Nepal Life insurance company has determined that 0.0001 of the elderly population incure a rare disease each year. A random sample of 10,000 Medicare patient records is to be evaluated, what is the probability that

   i. None of these Medicare patients will have incurred the rare disease.

   ii. At least two of the Medicare patients will have incurred the rare disease.

   c) Assume that the mean height of the soldier be 5.5 feet with a variance of 2.5 feet. How many soldiers in the regiment of 1000 would you expect to be over six feet tall? Assume that height of the soldiers are normally distributed.

5. a) 10% of the electric bulbs manufactured by a company are defective. Find the probability that in a sample of 200 bulbs.

   i. 40 or more bulbs will be defective

   ii. Exactly 30 bulbs will be defective

   b) When a sample of 150 retail executives was surveyed regarding the

poor performance of the retail industry, 80 executive believed that the decreased sale were due to unseasonably purchase of cold weather items.

i. Estimate the standard error of this proportion.

ii. Construct a 92% confidence limit for this proportion. Interpret the interval. 5

c) A sample of 28 bulbs of a company showed an average life of 1400 hours with standard deviation of 30 hours obtained 90% confidence limits for population mean. 7

a) Grant Inc., a manufacturer of women's dress blouses, knows that its brand is carried in 20 percent of the women's clothing stores east of the Mississippi River. Grant recently sampled 90 women's clothing stores on the West Coast and found that 15.12 percent of the stores carried the brand. At the 0.07 level of significance, is there evidence that Grant has poorer distribution on the West Coast than it does east of the Mississippi? Also find p-value for this test. 8

b) The Dean of students at Institute of Medicine (IOM) is wondering about grade distributions at the school. She has heard grumblings that the average GPAs in the Business School are about 0.25 lower than those in the college of Arts and Sciences. A quick random sampling produced the following GPAs.

Business:	3.9	2.8	3.2	2.8	3.1	2.9	3.2	3.2	2.9	2.8
Arts & Sciences:	3.4	3.3	3.9	3.4	3.4	3.6	3.4	3.6	3.4	3.2

Do these data indicate that there is a factual basis for the grumblings? State and test appropriate hypothesis at $\alpha=0.05$.

Write short notes on **any two:** 2×5

a) Area property in Normal distribution

b) Critical and p-value approach in hypothesis testing

c) Sources of data

POKHARA UNIVERSITY

Level: Bachelor | Semester –Spring | Year : 2014
Programme: BCA | Full Marks: 100
Course: Fundamentals of Probability and Statistics | Pass Marks: 45
Time : 3hrs.

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

The figures in the margin indicate full marks.

Attempt all the questions.

1. a) The stem-and-leaf display represents the bounced check fee for a sample of 25 banks for direct deposit customers. 5

Stem	leaves
1	5 5 8 8
2	0 0 0 0 1 2 2 5 5 5 5 8 8 9
3	4 5 6 7 7
4	1 2

i. What are the two information obtained from this stem and leaf display?

ii. What percentages of items are before 30?

iii. Construct the relative percentage frequency distribution.

b) A Tele film production company of Nepal Television is selecting a group of artist. The ages (in years) of 20 persons who were interviewed are: 5

50, 56, 55, 49, 52, 57, 56, 57, 56, 59, 54, 55, 61, 60, 51, 59, 62, 52, 54, 49

The director of the telefilms wants artists whose average ages are not more than 55 years with standard deviation of at most 3 years. Does this group qualify the requirement of the director?

c) The weights of the players of Baltimore Bullets professional football team have a mean of 224 pounds with a standard deviation of 18 pounds, while the mean and standard deviation of weight of their Sunday Opponent the Chicago Trailblazers is 195 and 12, respectively. Which team exhibits the grater relative dispersion in 5

weights?

2. a) The table given below represents the daily wage distribution of 130 workers. Find out the range of income of the middle 60% workers. 7

Wages (Rs per weeks) more than	70	85	100	11	130	14	160	175
No. of workers	130	12	109	79	44	26	14	5

i. Find the minimum income of top 35% workers.

ii. Find the maximum income of initial 25% workers.

b) The weights (in grams) of 10 oranges picked at random from a basket are as follows: 8

45, 55, 30, 75, 40, 60, 65, 70, 85, 80

i. List the five number summary

ii. Form the box and whisker plot and describe the shape.

3. a) A husband and wife appear in an interview for two vacancies in the same post. The probability of husband's selection is 1/7 and that of wife's selection is 1/5. What is the probability that 5

i. Only one of them will be selected?

ii. None of them will be selected? 5

b) A manufacturing firm produces steel pipes in three plants with daily production volumes 500, 1000 and 2000 units respectively. According to past experience, it is known that the fraction of defective output produced by the three plants are respectively 0.005, 0.008 and 0.010, if a pipe is selected from a day's total production

i. What is probability that it is defective?

ii. If defective pipe is found, what is probability that it is come from plant 1?

c) In a certain university of Nepal 80% of the students is Hindu and remaining non Hindu. If 20% of the Hindu students are smokers while 25% of the non-Hindu are smokers. What is the probability that a randomly selected smoker student is a non-Hindu? 5

4. a) The number of hardware failures of a computer in a week of operation has the following probability mass function 5

Number of families :	0	1	2	3	4	5	6
Probability :	0.18	0.28	K	0.18	0.06	2K	0.01

i. Find the value of 'K'.

ii. Find the expected number of families in a week.

iii. Find the variances of the number of failures in a week.

b) Past history shows that 60% of college students in any college of IT prefer Linux operating system in their PC and rest prefer Window. A sample of 5 students from a college is selected. What is the probability that 5

i. Less than 2 students prefer Window operating system in their PC?

ii. More than 3 prefer Linux?

c) In average there are 2 suicides in ktm per week. Find the probability of 5

i. At least 5 suicides in a month

ii. Exactly 8 suicides in a month

5. a) In a normal distribution 31% of the items are under 45 and 8% are over 64. Find the mean and S.D. of the distribution. 7

b) Madhu, a frugal student, wants to buy a used bike. After randomly selecting 125 wanted advertisements, he found the average price of the bike to be Rs. 3250 with a standard deviation of Rs. 615. Establish an interval estimate for the average price of bike so that Madhu can be: 68.3% certain that the population mean lies in this interval. 4

c) A random sample of 500 apples was taken from a large consignment and 60 were found to be damaged. Construct 96% confidence interval for the good apples in the population. 4

6. a) The manufacturer of Shilpa electric bulbs claims that mean life of their bulb is 25 months. A random sample of 9 such bulbs gave the following values. 5

Life in months : 24, 26, 32, 28, 20, 20, 23, 27, and 34

Can you regard the manufacturer's claim to be valid at 5% level of significance?

b) A ketchup manufacturer is in the process of deciding whether to 5

produce a new extra spicy brand of ketchup, the company will produce the new spicy brand if its current brand is superior to its competitor. In a survey of 6000 households, the company's market research team found that, 3550 households would like their brand. At 2% level of significance, should the company conclude to produce a new extra spicy brand of ketchup? Use p-value approach to come in conclusion.

c) The following table gives the ages(years) of husbands and wives at the time of their marriage. 5

Age of husbands(x)	23	27	28	28	28	30	30	33	35	38
Age of wives(y)	18	20	22	27	21	29	27	29	28	29

Find the correlation coefficient between x and y. 1

7. Write short notes on **any two**: 2×5

a) Quantitative and categorical variables with at least one example of each

b) Type I and type II error

c) Coefficient of determination

5

POKHARA UNIVERSITY

Level: Bachelor
Programme:BCA
Course: Statistics

Semester –Spring

Year : 2013
Full Marks: 100
Pass Marks: 45
Time : 3hrs.

Candidates are required to give their answers in their own words as far as practicable.
The figures in the margin indicate full marks.
Attempt allthe questions.

1. a) Homer Willis, a fishing boat caption from slater path, North Carolina, believes that the break-even catch on his boats is 5000 pounds per trip. The following distribution is obtained on a sample of catches on 20 fishing trips Homer's boats have made recently: 8

Amount of catch (pounds)	Frequency
2000-3500	2
3500-5000	5
5000-6500	6
6500-8000	4
8000-9500	3

Construct an ogive that will help you answer these questions;

i. Roughly what proportion of the trips breaks even for Homer?
ii. What is the approximate middle value in the data array for Homer's boat?
iii. What catch do Homer's boats exceed 70 percent of the time?

b) The New Mexico State highway Department is Charged with maintaining all state roads in good condition. One measure of condition is the number of cracks present in each 100 feet of roadway. from the department, the following sample data were obtained 7

4	7	11	8	14	10	11	16	16	16
19	17	17	18	18	19	19	14	12	13

i. Calculate five number summaries.
ii. Construct a box-and – whisker plot and describe the shape of the above distribution.
iii. Calculate the inter-quartile range

2. a) Child- care community Nursery can continue to be supported by the county social services office as long as the average annual income of the families whose children attened the nursery is below $12500. The family incomes of the attending children are 7

$14,500	$15,600	$12,500	$8,600	$7,800	$6,500
$5,900	$10,200	$8,800	$14,300	$13,900	$14,000

i) Does Child –Care qualify now for country support?

ii) If the answer to part (a) is no, by how much the average family income fall for it to qualify?

iii) If the answer to part (a) is yes, how much can average family income raise and Child-Care still stay eligible?

b) The head chef of The flying Taco has just received two dozen tomatoes from her supplier, but she isn't ready to accept them. She knows from the invoice that the average weight of a tomato is 7.5 ounces, but she insists that all be of uniform weight. She will accept them only if the average weight is 7.5 ounces and the standard deviation is less than .5 ounce. Here are the weights of the tomatoes: 8

6.3	7.2	7.3	8.1	7.8	6.8	7.5	7.8	7.2	7.5	8.1	8.2
8.0	7.4	7.6	7.7	7.6	7.4	7.5	8.4	7.4	7.6	6.2	7.4

What is the chef's decision and why?

3. a) An inspector of the Alaska pipeline has the task of comparing the reliability of two pumping stations. Each station is susceptible to two kinds of failure: pump failure and leakage.When either (or both) occurs, the station must be shut down. The data at hand indicate that the following probabilities prevail. 6

Station	P(pump failure)	P(leakage)	P(both)
1	0.07	0.12	0
2	0.09	0.14	0.06

i) What is the probability of being shut down of station 1?

ii) What is the probability of being shut down of station 2?

iii) Which station has the higher probability of being shut down?

b) An auto insurance company charges younger drivers a higher premiumthan it does older drivers because younger drivers as a group tend to have more accidents. The company has 3 age groups: Group A includes those under 25 years old, 25%of all its policyholders. Group B includes those 25-39 years old, 40% of all 9

its policyholders, Group C includes those 40 years old and older. Company records show that in any given one- year period 11% of its Group A policyholders have an accident. The percentages for groups B and C are 15%and 12% respectively.

i. What percent of the company's policyholders are expected to have an accident during the next 12 months?

ii. Suppose Mr. X has just had a car accident. If he is one the company's policyholders, What is the probability that he is under 25?

a) A survey was conducted to know the marital status of employed women. Among them, 25% have never married. If 10 employed women are selected at random, What is the probability that 2 of the 10 women in this sample have been married? 2 or fewer have been married? 5

b) In a process for manufacturing glassware, glass stems are sealed by heating them in a flame. The temperature of the flame varies a bit. The following table shows the distribution of temperature measured in degree Celsius: 5

Temperature	540°	545°	550°	555°	560°
Probability	k	0.25	3k	0.25	0.1

Find k and determine mean and standard deviation of the temperature.

c) The Orange Country Dispute Settlement Center handles various kinds of disputes, but most are marital disputes. In fact,97 percent of the disputes handled by the DSC are of a marital nature. 5

i. What is the probability that, Out of 85 disputes handled by the DSC, exactly seven are non-marital?

ii. None are non-marital?

a) The weight of new born babies at a particular hospital have been observed to be normally distributed with a mean of 7.4 pounds and a standard deviation of 0.4 pound. What is the probability that a baby born in this hospital will weight more than 8 pounds? Less than 7 Pounds? 5

b) A manufacture of computer paper has a production process that operates continuously throughout an entire production shift. The paper is expected to have an average length of 11 inches and the standard deviation is known to be 0.01 inch. Suppose a random 5

sample of 100 Sheets and the average paper length is found to be 10.998 inches. Set up 95% confidence interval estimate of the population average paper length.

c) A political leader wants to estimate his popularity in a certain locality. A random sample of 600 persons was taken and it was found that 280 were his supports. 5

i) Estimate the percentage of his supporters in the locality at 90% confidence level.

ii) How does the width of the confidence interval change if the sample size is 800 instead?

6. a) A consumer research organization routinely selects several car models each year and evaluates their fuel efficiency. In this year's study of two similar subcompact models from two different automakers, the average gas mileage for 50 cars of brand A was 27.2 miles per gallon (mpg), and the standard deviation was 3.8 mpg. The 60 brand B cars that were tested averaged 32.1 mpg, and the standard deviation was 4.3 mpg. At $\alpha=0.05$, Should it be concluded that brand A cars have lower average gas mileage than do brand B cars? Also complete p-value for this problem error. 7

b) Multiple myeloma, or blood plasma cancer, is characterized by increased blood vessel formulation (angiogenesis) in the bone marrow that is a predictive factor in survival .one treatment approach used for multiple myeloma is stem cell transplantation with patient's own stem cell. The following data represent the bone marrow micro vessel density for patients who has a complete response to the stem cell transplant. The measurements were taken immediately prior to the stem cell transplant and at the time the complete response was determined: 8

Patients	1	2	3	4	5	6	7
Before	158	189	202	353	416	426	441
After	284	214	151	227	290	176	290

At the 0.05 level of significance, is there evidence that the mean bone marrow micro vessel density is higher before the stem cell transplant than after the stem cell transplant?

7. Write short notes on **any two:** 2×5

a) Critical and p-value approach in hypothesis testing

b) Data processing

c) Role of statistics in research

POKHARA UNIVERSITY

Level: Bachelor
Programme: BCA
Course: Statistics

Semester – Spring

Year : 2012
Full Marks: 100
Pass Marks: 45
Time : 3hrs.

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

The figures in the margin indicate full marks.

Attempt all the questions.

a) BMT manufactures performance equipment for cars used in various types of racing. It has gathered the following information on the number of models of engines in different size categories used in the racing market it serves: 8

Engine size in cubic inches	Frequency(of models)
101-150	1
151-200	7
201-250	7
251-300	8
301-350	17
351-400	16
401-450	15
451-500	7

Construct a cumulative relative frequency distribution that will help answer these questions

i. Seventy percent of the engine models available are larger than about what size?

ii. What was the approximate middle value in the original data set?

b) Given the following stem-and-leaf display 7

9	7 1 4
10	8 2 2 3 0
11	5 6 1 7 7 6 7
12	3 9 4 2 8 2
13	2 0

i. Rearrange the leaves and form the revised stem and leaf display

ii. Place the data into an ordered array

iii. Which of these two devices seems to give more information? Give reasons.

2. a) The University has decided to test three new kinds of light bulbs. They have there identical rooms to use in the experiment. Bulb I has an average life time of 1470 hours and variance of 156. Bulb II has an average life time of 1400 hours and variance of 81. Bulb III has an average lifetime of 1350 hours and a standard deviation of 6 hours. Rank the bulbs in terms of relative variability. Which has the best bulb?

b) The production manager of a press determines the Average time needed to photograph one printing plate. Using stopwatch and observing the plate markers, hecollects the following times (in seconds):

20.2	20.0	22.0	23.8	21.3	25.1	21.2	22.9	24.2	24.3
22.0	24.7	25.7	24.9	22.7	24.4	24.3	23.6	23.2	21.0

i. Construct a box and Whisker plot for the given data and determine the shape.

ii. Also describe the shape of data by comparing the values of mean and median.

3. a) The following table shows the survey results regarding the purchase behaviour of force TV's and DVD players in the last six month of 300 house hold.

Purchased Force	Purchased DVD		
	Yes	No	Total
Force TV	38	42	80
Not Force TV	70	150	220
Total	108	192	300

i. Find the probability that if a household that purchased a television set is randomly selected the television set purchased is a Force TV.

ii. Find the probability that a randomly selected household that purchase a Force TV and a DVD player.

iii. What is the probability that they purchased a Force TV or DVD player?

iv. What is the probability that a household purchased a DVD player give that household purchased a Force TV.

b) A random variable x has the following probability distribution. 7

X	-2	-1	0	1	2	3
P(X)	0.2	k	0.1	2k	k	0.3

Find k, E(X), E (4X + 5) and var (X)

4. a) The latest nationwide political pool indicate that for Americans who are randomly selected, the probability that they are conservative is 0.55, the prob. that they are liberal is 0.30 and the probability that they are middle of the road is 0.15. Assuming that these probabilities are accurate, answer the following questions. pertaining to a randomly chosen group of 10 Americans 5

i. What is the probability that four are liberal?

ii. What is probability that none are conservative?

b) On the average, 4 customers per minute at any one of the checkout counters of a grocery store. What is the probability that in the next one minute there will be no customers arriving at a checkout counter? 5

c) The breaking strength of plastic bags used for packaging produce is normally distributed with a mean of 5 pounds per square inch and a standard deviation of 1.5 pounds per inch. What proportion of the bags has a breaking strength of 5

i. At least 3.6 pounds per square inch?

ii. Between what two values symmetrically distributed around the mean will 95% of the breaking strengths fall?

5. a) 200 oranges are taken form a large consignment and 50 are found to be bad. Estimate the percentage of the bad orange and assign 80% confidence within which the percentage lies. 7

b) A random sample of boots worn by 40 combat soldiers in a desert region showed an average life of 1.08 years with a standard deviation of 0.05 8

years. Under the standard conditions the boots are known to have an average life of 1.28 years. Is there reason to assert at a level of significance of 0.05 that use in the desert causes the mean life of such boots to decrease?

6. a) Before an increase in excise duty on coffee 800 out of a sample of 1000 persons were known to be taking coffee. After the increase in the duty 800 persons are now found to be taking coffee in a sample of 1200. Do you think that there has been a significant decrease in the consumption of coffee after the increase in the excise duty? Test at 5% level of significance.

   b) A random sample of 10 pigs fed on diet A, the increase in weight (in lbs) in a certain period were 10, 17, 13, 12, 9, 8, 14, 15, 6 and 16. For another random sample of 12 pigs fed on diet B, the increase in weight in the same period were 14, 18, 8, 21, 23, 10, 17, 12, 22, 15, 7 and 13. Test whether diets A and B differ significantly as regards their effect on increase in weight.

7. Write short notes on ***any two:***

   a) Define quantitative and categorical variables with two examples of each

   b) Write short notes on criteria of good estimator

   c) Errors on hypothesis testing

POKHARA UNIVERSITY

Level: Bachelor
Programme: BCA
Course: Statistics

Semester – Spring

Year : 2011
Full Marks: 100
Pass Marks: 45
Time : 3hrs.

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

The figures in the margin indicate full marks.

Attempt all the questions.

a) Distinguish between primary and secondary data. What are the methods of collecting primary data? 7

b) The marks in statistics of 60 students are recorded in the following table: 8

68	84	75	82	82	68	90	62	88	60	96	78	89	61	76
93	73	79	88	73	58	93	71	79	75	94	77	69	74	85
75	61	65	75	87	74	62	95	78	73	57	72	67	80	63
72	66	78	82	75	75	94	77	69	65	71	73	43	63	68

i. Construct group frequency distribution with appropriate class interval.

ii. Draw histogram, frequency polygon in the same plane. Also locate modal value in the graph.

a) These data are a sample of the daily production rate of fiberglass boats from Hydro Sport, Ltd. A Miami manufacturer: 7

17 21 18 27 17 21 20 22 18 23

The company production manager feels that a standard deviation of more than three boats a day indicates unacceptable production rate variations. Should she be concerned about plant production rate?

b) Sunary Appliance Company has just completed a study of three possible assembly line configurations for producing its best selling two slice toasters. Configuration 1 has yielded a mean time to contrast a toaster of 34.8 minutes and a standard deviation of 4.8 minutes. Configuration 2 has yielded a mean time of 25.5 minutes, and a standard deviatin of 7.5minutes. Configuration 3 has yielded a mean time of 37.5 minutes and a standard deviation of 3.8 minutes, which assembly line configuration has the least relative variation in the time it 8

takes to construct a toaster?

3. a) Probability that a man will be alive 25 years hence is 0.3 and the probability that his wife will be alive 25 years hence is 0.4. Find the probability that 25 years hence

i. Both will be alive

ii. Only the man will be alive

iii. At least one of them will alive

OR

From the following 2×2 contingency table, compute the following:

	Male	Female
Smokers	48	6
Non smokers	112	34

i. Joint probability in each cell of the table.

ii. Probability of selecting males given that they are smokers.

iii. Probability of selecting females given that they are non-smokers.

b) In a college, the geographical distribution of students' enrolment is as follows: 50 % from the CDR, 30 % from EDR, 11% from MWDR, 7 % WDR, and 2 % from FWDR. The following percentages of students have black hair: 80 % of CDR, 70 % of EDR, 65 % of the MWDR, 60 % of WDR and 75 % of FWDR. If a student is selected at random

i. What is the probability that he or she has black hair?

ii. What is the conditional probability that he or she is from CDR given that he or she has black hair?

4. a) The Machhapuchere Bank has recently started a new credit program. Customers meeting certain credit requirements can obtain a credit card accepted participating area merchants that carries a discount. Past records show that 40% of all applicants for this card are rejected. If 8 applicants are selected, what is the probability that:

i. Exactly 4 will be rejected?

ii. At least two are rejected?

b) The quality control manager of certain company is inspecting a batch of chocolate chip cookies that have just been banked. If the production process is in control, the average number of chip parts per cookies is 6. What is the probability that in any particular cookies being inspected:

b) A husband and wife appear in an interview for two vacancies in the same post. The probability of husband's selection is 1/7 and that of wife's selection is 1/5. What is the probability that 8

i. Only one of them will be selection?
ii. None of them will be selected?
iii. Both will be selection?
iv. At least one of them will be selection?

3. a) The number of accident in a year attributed to taxi driver in a city is Poisson distribution with mean 3. Out of 1000 taxi driver, find approximately the number of driver with 7

i. more than 3 accidents in a year
ii. less than 2 accident

b) In a normal distribution 31% of the items are under 45 and 8% are over 64. Find the mean and S.D. of the distribution. 8

4. a) The number of accidents that occurs on an assembly line with an average of three per week, what is the probability that, 7

i. A particular week will be accident free.
ii. Exactly five accidents will occur in a week.
iii. At least three accidents in a week.

b) The mean compressive strength of two single large samples of steel is 7020 psi and 6980 psi with sample size 400 and 320 respectively. Can the samples be regarded as drown from the same population of S.D. 55 4psi. (Test at 5% level of significance) 8

5. a) A random sample of 100 students gave the mean weight of 58kg and standard deviation of 4kg. Test the hypothesis that the mean weight of all students is 60kg. 7

b) A sample of 900 members has a mean 3.5 cm and S.D. is 2.61. If the population is normal and its mean is unknown. Find the 95% and 99 confidence limit. 8

6. a) Calculate the correlation coefficient for the following height in inches of fathers (X) and their sons (Y). 7

X:	65	66	67	67	68	69	70	72
Y:	67	68	65	68	72	72	69	71

b) Find the line of best fit to the following: 8

X:	0	5	10	15	20	25
Y:	12	15	17	22	24	30

7. Write short notes on **any two:** 2×5

a) Quantitative and categorical variables
b) Sources of data
c) Characteristics of Normal distribution

POKHARA UNIVERSITY

Level: Bachelor
Programme: BCA
Course: Statistics

Semester – Fall

Year : 2012
Full Marks: 100
Pass Marks: 45
Time : 3hrs.

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

The figures in the margin indicate full marks.

Attempt all the questions.

1. a) The stem and leaf display below contains data on the number of months between the date a civil suit is filed and when the case is actually adjudicated for 25 cases heard in supreme court. 7

Stem	Leaves
1	6 6 9
2	1 1 1 1 2 3 3 6 6 6 6 6 9 9 9
3	5 6 7 8 9
4	2 3

i. What are the two information obtained from this stem and leaf display?

ii. What percentage of items are adjudicated before 30 months?

iii. Construct the relative frequency and percentage distribution

b) Before and after the implementation of an economic program to up lift the economic condition of a community following information were found. Give your answer on the basis of statistical analysis of the available data. 8

Monthly income (in Rs'000')	No. of families before the plan	No. of families after the plan
4-6	10	8
6-8	70	65
8-10	35	37
10-12	20	15
12-14	10	15
14-16	3	5
16-18	2	5

i. Is there any improvement in the community in terms of average monthly income?

ii. Indicate the highest income of poorest 40% of the population

4. a) In a process for manufacturing glassware, glass stems are sealed by heating them in a flame. The temperature of the flame varies a bit. The following table shows the distribution of temperature measured in degree Celsius. 5

Tem(^{0}c)	540	545	550	555	560
Probability	K	0.25	3K	0.25	0.1

Find K and determine mean and standard deviation of the temperature.

b) The average Number of network error experienced in a day on a local area network CS distributed with an average 2.4 what is the probability that in any given day. 5

i. Zero network error will occur?

ii. Exactly one network error will occur?

iii. At least one network error will occur?

c) Describe the general guideline to construct the questionnaire. 5

5. a) Toby's Trucking's Company determined that on an annual basis, the distance travelled per truck is normally distributed with the mean of 50 thousand miles and a standard deviation of 12 thousand miles. 7

i. What proportion of trucks can be expected to travel between 34 and50 thousand miles in a year?

ii. What proportion of trucks can be expected to travel either below 30 or above 60 thousand miles in the year?

b) The telephone company wants to estimate the proportion of households that would purchase an additional telephone line if it were made available at a substantially reduced installation cost. A random sample of 500 households is selected. The results indicate that 135 of the households would purchase the additional telephone line at a reduced installation cost. Construct a 99% confidence interval estimate of the population proportion of household that would purchase the additional telephone line. 4

c) In a sample of 25 observations from a normal distribution with mean 98.6 and standard deviation 17.2. What is the probability that sample mean lies with in 92 and 102? 4

6. a) The director of admission at Pokhara University advises of incoming students about the cost of textbook during a typical semester. A random sample of 20 students enrolled in the university indicates a sample average cost of Rs. 315 with a sample standard deviation of Rs. 43. Using a 0.05 level of significance is there evidence that the population average is above Rs. 300.

b) Cost accountants often estimate overhead based on the level of production. At a standard company, they have collected information on overhead expenses and units produced at equation to predict future overhead.

Overhead:	19.1	17.0	17.2	15.0	25.0	17.3	23.4
Units:	4.0	4.2	5.3	3.5	5.6	3.9	4.8

i. Develop the estimating equation that best describes the data.

ii. Predict overhead when 5.0 units are produced.

iii. Calculate the standard error of estimate.

7. Write short notes on **any two**:

a) Coefficient of determination

b) Risk in hypothesis testing

c) Area properties of normal distribution

POKHARA UNIVERSITY

Level: Bachelor Semester: Fall Year : 2010
Programme: BBA/BBA BI/BCA/BCIS Full Marks: 100
Course: Business Statistics Pass Marks: 45
Time : 3hrs.

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

The figures in the margin indicate full marks.

Attempt all the questions.

1. a) The owner of pets RU's interested in building a new store. The owner will build if the average number of animals sold during the first 6 months of 1995 is at least 300 and the overall monthly average for the year is at least 285. The data for 1995 are as follows : 8

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
234	216	195	400	315	274	302	291	275	300	375	450

i. What is the owner's decision and why?

ii. Plot the box and whisker.

b) The weights of a fruit were recorded for a sample of 25. The data to be the nearest grams are given 7

66	65	96	80	71	93	66	96	75	61	69	61
51	84	58	73	77	89	69	92	57	56	55	78
96											

i. Present the data in stem and leaf display.

ii. Construct the histogram

2. a) The University has decided to test three new kinds of light bulbs. They have three identical rooms to use in the experiment. Bulb 1 has an average lifetime of 1470 hours and a variance of 156. Bulb 2 has and average lifetime of 1400 hours and a variance of 81. Bulb 3 has an average lifetime of 1350 hours and a standard deviation of 6 hours. Rank the bulbs in terms of relative variability. Which was the best bulb? 8

b) The number of checks cashed each day at the five branches of the band of Orange County during the past month had the following 7

18

Write an XML schema or DTD to Validate the XML document shown below: 8

```
<?xml version= "1.0" encoding = "ISO-8859-1"?><accountInfo>
        <account type= "saving">
        <name>Bikal Paudel </name>
        <balance>100,000</balance>
        <createdDate>2005/10/11</createdDate>
        <minimumBalance>10,000</minimumBalance>
</account>
<account type= "fixed">
        <name>Adesh Khadka</name>
        <balance>150,000</balance>
        <createdDate>2007/10/11</createdDate>
        <minimumBalance>15,000</minimumBalance></account>
```

6. a) What is the API for XML? Write importance of them? 7

   b) What do you mean by XML Document Object Model (DOM)? How you can access XML document DOM, give a simple example? 8

7. Write short notes on **any two:** 2×

   a) .Net Technology

   b) SOAP

   c) DNS

POKHARA UNIVERSITY

Level: Bachelor
Programme: BCA
Course: Web Technologies II

Semester: Fall

Year : 2018
Full Marks: 100
Pass Marks: 45
Time: 3hrs.

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

The figures in the margin indicate full marks.

Attempt all the questions.

1. a) Explain HTTP request message and HTTP response message in detail. 7
   b) Explain uses of methods with suitable for methods with return type and method with parameters. 8
2. a) Explain file handling in PHP with suitable example for reading, writing and appending data. 7
   b) Write a PHP code to validate a form having controls Email, Password and Retype Password. Also insert these data into a table in a database. (HTML form is must). 8
3. a) What are servlets? Explain servlet architecture and lifecycle with help of suitable diagram. 7
   b) What are cookies? How cookies differ from sessions? Write a code to implement session using servlet. 8
4. a) Write a JSP code to make database connectivity, select all columns from a table and display them in HTML table format (make your own assumptions for table and database). 8
   b) Explain any two Java frameworks in detail. 7
5. a) Explain WSDL and UDDI in detail. 7
   b) What are different protocols used in internet? Explain in details about URL encoding and HTML encoding with reference to PHP. 4+4
6. a) Explain network and host. Also make a highlight on countermeasures for both of them. 8
   b) Explain in details the design guidelines for secure web applications. 7
7. Write short notes on **any two**: 2×5
   a) STRIDE
   b) Content Management Systems
   c) SOAP elements

POKHARA UNIVERSITY

Level: Bachelor
Programme: BCA
Course: Web Technology-II

Semester: Fall

Year : 2016
Full Marks: 100
Pass Marks: 45
Time: 3hrs.

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

The figures in the margin indicate full marks.

Attempt all the questions.

1. a) Differentiate between server side and client side scripting language with some example? 8
   b) What is global variable? Differentiate between URL encoding and HTML encoding 7
2. a) Why database is more important? Write a full code to illustrate the mailing using PHP from client to server. 8
   b) Why file handling is needed in PHP? Write a code to save uploaded file in any resources using PHP. 7
3. a) What are servlets? Explain servlet architecture and lifecycle with help of suitable diagram. 7
   b) What are cookies? How cookies differ from sessions? Write a code to implement session using servlet. 8
4. a) What is content management system? Explain in detail. 8
   b) Discuss web services and service-oriented architecture in detail. 7
5. a) What is RPC representation? Describe REST ful web services. 7
   b) What is user defined function in PHP? WAP to calculate the string palindrome using user defined function. 8
6. a) Explain network and host. Also make a highlight on countermeasures for both of them. 8
   b) Explain in details the design guidelines for secure web applications. 7

7. Write short note on **any two:** 2×5
   a) url rewriting
   b) Web programming framework.
   c) STRIDE

POKHARA UNIVERSITY

Level: Bachelor
Programme: BCA
Course: Web Technology II

Semester: Spring

Year : 2017
Full Marks: 100
Pass Marks: 45
Time: 3hrs.

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

The figures in the margin indicate full marks.

Attempt all the questions.

1. a) Differentiate between HTTP and HTTPs with some example? 8
   b) What is user defined function in PHP? Write a program to calculate factorial of given number using recursion. 7
2. a) Why database is more important? Write a full code to illustrate the mailing using PHP from client to server. 8
   b) Why file handling is needed in PHP? Write a code to uploaded file in any resources using PHP. 7
3. a) Differentiate between the session and cookies? Write a simple program to illustrate the cookie using PHP. 7
   b) Define JSP and Servlet lifecycle with necessary diagrams? What of each represents in MVC design pattern? 8
4. a) Define JDBC. Write down the method Signature to Authenticate a user is in database or not where username and password are supplied as parameter. If the user is in database that method returns true otherwise it returns false. [***Note: server: 192.168.10.20, username=admin and password = pass for database***] 8
   b) Write down the steps to write JSP / Servlet Program with Example 7
5. a) Define CMS. Write down about Laravel and Codeigniter along with its advantages. Why companies prefer to use framework to develop applications in Nepal? 8
   b) Define SOA. Briefly explain the phenomena and structure of WSDL with example having XML code. 7
6. a) Why Security is more important for web application? What is the security foundation in web application? 7
   b) Define vulnerabilities? What are the design guidelines for secure web application? 8
7. Write short notes on **any two**: 2×5
   a) Spring and Hibernate
   b) RESTFUL
   c) JSP Implicit Object

POKHARA UNIVERSITY

Level: Bachelor
Programme: BCA
Course: Web Technology-II

Semester: Fall

Year : 2016
Full Marks: 100
Pass Marks: 45
Time: 3hrs.

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

The figures in the margin indicate full marks.

Attempt all the questions.

1. a) Differentiate between server side and client side scripting language with some example? 8
   b) What is global variable? Differentiate between URL encoding and HTML encoding 7
2. a) Why database is more important? Write a full code to illustrate the mailing using PHP from client to server. 8
   b) Why file handling is needed in PHP? Write a code to save uploaded file in any resources using PHP. 7
3. a) What are servlets? Explain servlet architecture and lifecycle with help of suitable diagram. 7
   b) What are cookies? How cookies differ from sessions? Write a code to implement session using servlet. 8
4. a) What is content management system? Explain in detail. 8
   b) Discuss web services and service-oriented architecture in detail. 7
5. a) What is RPC representation? Describe REST ful web services. 7
   b) What is user defined function in PHP? WAP to calculate the string palindrome using user defined function. 8
6. a) Explain network and host. Also make a highlight on countermeasures for both of them. 8
   b) Explain in details the design guidelines for secure web applications. 7

7. Write short note on **any two:** 2×5
   a) url rewriting
   b) Web programming framework.
   c) STRIDE

POKHARA UNIVERSITY

Level: Bachelor | Semester –Spring | Year : 2014
Programme: BCA | Full Marks: 100
Course: Web Technology II (Old) | Pass Marks: 45
Time : 3hrs.

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

The figures in the margin indicate full marks.

Attempt all the questions.

1. a) What do you mean by backup? Explain data mining and data warehouse in detail. 7
   b) What is transaction? Differentiate between discrete transaction and serialization transaction. 8

2. a) How does a web developer implements Encryption/Decryption at an e-commerce website. Explain with simple example. 8
   b) Explain credit card processing with suitable diagram. How credit card processing is convenient way of payment compared to other? 7

3. a) Explain digital copyright law. Explain challenges and obstacles in enforcement of digital copyright. 8
   b) What is a database handling? How do you create and close connection in database handling? 7

4. a) Write a PHP code to authenticate a user through userid and password stored in table 'userinfo' in a database named 'signup'. 8
   b) Explain the use of XML DTD & XML Schemas. 7

5. a) What do you mean by CFML? Explain its advantages and disadvantages. 8
   b) What is XML? Explain XSLT in detail. 7

6. a) Describe about simple API for XML (SAX). Explain about how SAX read xml document. 7
   b) Discuss cloud storage as future data storage technologies. 8

7. Write short notes on **any two:** 2×5

a) Protocols used in Internet

b) SSL and VPN

c) SOAP

and prospects of economic development of Nepal.

7. Write short notes on **any two**: 2×5
   a) Impact of good service tax in Nepalese economy.
   b) Effect of Business cycle.
   c) Exchange Rate.

POKHARA UNIVERSITY

Level: Bachelor
Programme: BCA\BCIS
Course: Web Technology II

Semester – Fall

Year : 2011
Full Marks: 100
Pass Marks: 45
Time : 3hrs.

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

The figures in the margin indicate full marks.

Attempt all the questions.

1. a) What are the basic data storage issues that need to be focused in any computer system? 7
   b) What is transaction processing? What are the ACID properties of transaction? Explain. 8
2. a) What is cryptography? How we can send the secure data thorough Public Key Infrastructure. 7
   b) How gift and prepaid certificates are different from digital certificates? Explain. 8

   OR

   Explain with illustration, how electronic cheque is processed. 8
3. a) What is a session in web programming? Illustrate with sample code, how database and session are handled? 8
   b) Differentiate between server side and client side scripting language. 7

   OR

   List out five different server side scripting languages, and explain any two of them in detail. 7
4. a) Explain the advantage and disadvantage of Cold fusion and Zope. 8
   b) What do you mean by Digital Copyright? Why on-line contract law is required. 7
5. a) What is XML? What are the limitations that are eliminated by the use of XML. 7
   b) What is DTD? Explain XML Schemas. 8
6. a) What is SAX and SOAP? Explain their usage in advance web programming. 10
   b) What is VPN? Discuss the idea behind the existence of VPN. 5
7. Write short notes on **any two:** 2×5
   a) Difference between GET and POST methods
   b) Future data storage technologies
   c) Asp and .Net technologies

POKHARA UNIVERSITY

Level: Bachelor
Programme: BCA
Course: Web Technology II

Semester – Spring

Year : 2010
Full Marks: 100
Pass Marks: 45
Time : 3hrs.

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

The figures in the margin indicate full marks.

Attempt all the questions.

1. a) What do you mean by data processing? Explain about the various data backup techniques. 7

   b) What is transaction processing? In what case discrete transactions are fruitful? 8

2. a) "Authentication and authorization go one after the other". Justify with a principles of authentication and authorization. 7

   b) How credit card is processed. Explain with diagram. 8

OR

Discuss the need of payer authentication and smart authorization. 8

3. a) The following is the login user form. 8

User Name [ ]

Password [ ]

[Login] [Cancel]

The login will be success if Username is 'admin' and password is 'pokhara university'. Otherwise same form should be open to re-enter value providing message username and password invalid. Write a program for above conditions using any server-side scripting language.

   b) Why is database handling required in the web pages? Also, write the database connection string required for PHP and My SQL. 7

OR

Discuss in detail the advantages of server side scripting in 7

comparison to client side scripting.

4. a) What is tag based programming? Discuss with an implementation example of how tag based programming is facilitated by Cold Fusion. 8

   b) How digital copyright law protects the instinctual properties of the persons. 7

5. a) What is XML? Explain about the XML basics. 7

   b) What is XML schema? Discuss XSLT basics with supporting example. 8

6. a) What are the XML DOM and SOAP? Explain them with valid examples. 10

   b) In what cases serialization transaction is beneficial? Explain. 5

7. Write short notes on **any two:** 2×5

   a) Frames in HTML

   b) Phishing and implementation of SSL

   c) . NET framework and its advantage

POKHARA UNIVERSITY

Level: Bachelor
Programme: BCA
Course: Web Technology-II

Semester: Fall

Year : 2016
Full Marks: 100
Pass Marks: 45
Time: 3hrs.

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

The figures in the margin indicate full marks.

Attempt all the questions.

1. a) Differentiate between server side and client side scripting language with some example? 8
   b) What is global variable? Differentiate between URL encoding and HTML encoding 7
2. a) Why database is more important? Write a full code to illustrate the mailing using PHP from client to server. 8
   b) Why file handling is needed in PHP? Write a code to save uploaded file in any resources using PHP. 7
3. a) What are servlets? Explain servlet architecture and lifecycle with help of suitable diagram. 7
   b) What are cookies? How cookies differ from sessions? Write a code to implement session using servlet. 8
4. a) What is content management system? Explain in detail. 8
   b) Discuss web services and service-oriented architecture in detail. 7
5. a) What is RPC representation? Describe REST ful web services. 7
   b) What is user defined function in PHP? WAP to calculate the string palindrome using user defined function. 8
6. a) Explain network and host. Also make a highlight on countermeasures for both of them. 8
   b) Explain in details the design guidelines for secure web applications. 7
7. Write short note on **any two:** 2×5
   a) url rewriting
   b) Web programming framework.
   c) STRIDE

POKHARA UNIVERSITY

Level: Bachelor
Programme: BCA
Course: Web Technologies II

Semester: Spring

Year : 2016
Full Marks: 100
Pass Marks: 45
Time: 3hrs.

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

The figures in the margin indicate full marks.

Attempt all the questions.

1. a) Differentiate between server side and client side scripting language with some example. 8

   b) What is user defined function in PHP? WAP to calculate the number palindrome using user defined function. 7

2. a) Why database is more important? Write a full code to illustrate the mailing using PHP from client to server. 8

   b) Why file handling is needed in PHP? Write a code to save uploaded file in any resources using PHP. 7

3. a) Differentiate between the session and cookies? Write a simple program to illustrate the session using PHP with your own logic. 7

   b) Briefly explain the JSP life cycle with the necessary diagram. 8

4. a) Write a code for following example using Java Servlet to access value from html file to servlet file using GET method. (employee.html and bll.java file) 8

   Employee:

   Phone:

   Submit

   b) Define JDBC and Javax.sql.* package. Briefly explain the life cycle of Servlet with necessary diagram. 7

5. a) What is CMS? List out the latest framework for PHP with at least one merit. 7

   b) Define SOAP. Briefly explain the phenomena and structure of WSDL with example having XML code. 8

6. a) Why Security is more important for web application? What is the security foundation in web application? 7

b) What is attack? What are the design guidelines for secure web application? 8

7. Write a short note on **any two**: 2×:

a) HTTP

b) RPC representation

c) REQUEST and POST

2016
Spm 4

POKHARA UNIVERSITY

Level: Bachelor
Programme: BCA
Course: Web Technology II (New)

Semester –Spring

Year : 2014
Full Marks: 100
Pass Marks: 45
Time : 3hrs.

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

The figures in the margin indicate full marks.

Attempt all the questions.

1. a) Describe HTTP request and HTTP response messages in detail. 8
   b) What are cookies? How cookies differ from sessions? Write an example in PHP to illustrate working of cookie. 7

2. a) Write a server side script that can retrieve data from 'employee' Table of MYSQL Database server. Other relative Database server information are listed below: 7
   Database Name:'EMP_DB'
   User Name:'root'
   Password:'root'
   Table Name:'emloyee'
   Attributes of employee table:'empld,empName, address, joinDate,salary'
   b) What are arrays? What are different mechanisms to create array? Explain with a suitable example. 8

3. a) Describe the required steps in building a JDBC application along with the sample code. 8
   b) What do you mean by JSP Implicit Objects? Describe any two JSP Implicit objects. 7

4. a) What is java servlet? Explain its lifecycle in detail. 8
   b) Explain Java frameworks in detail. 7

5. a) What is Web Services Description Language (WSDL)? Describe some uses of WSDL into web technology. 8
   b) Write a simple servlet program which can read HTML Form's Input 7

box data.Like: FirstName, LastName.

6. a) Explain network, host and application threats. Also make a highlight on countermeasures for them. 8

   b) Explain in details the design guidelines for secure web applications. 7

7. Write short notes on **any two**: 2×5

   a) Content Management Systems

   b) SOAP elements

   c) Cryptography

2014 Spring

POKHARA UNIVERSITY

Level: Bachelor | Semester – Spring | Year : 2015
Programme: BCA | Full Marks : 100
Pass Mark : 45
Course: Web Technology II | Time : 3 Hrs

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

The figures in the margin indicate full marks.

Attempt all the questions.

1. a) Differentiate between server side and client side scripting language with some example? 8

   b) What is user defined function in PHP? Calculate the output from the following program. 7

```
<html><body>
<?php
function writeName($fname,$punctuation)
{
echo $fname . "Parajuli" . $punctuation . "<br />";
}
echo "My name is ";
writeName("Khagendra",".");
echo "My sister's name is ";
writeName("Anjali","!");
echo "My brother's name is ";
writeName("Dhirendra","?");
?>
</body></html>.
```

2. a) Explain file handing in PHP with suitable example for reading, writing and appending data. 7

   b) Write a PHP code to validate a form having controls Email, Password and Retype password. Also insert these data into a table in a database.(HTML form is must). 8

3. a) What is java servlet? Explain its lifecycle. 8

   b) What do you mean by JSP implicit objects? Briefly explain any two JSP implicit objects. 7

4. a) Describe required steps in handing JDBC application along with sample code snippet. 8

   b) What is CMS? List out the latest fromework in Java and PHP with at least one merit. 7

5. a) Define SOAP. Briefly explain the phenomena and structure of WSDL with example having XML code. 8

b) What is WSDL? Explain its uses in web technology. 7

6. a) Explain network and host. Also make a highlight on countermeasures for both of them. 8

b) Explain in details the design guidelines for secure web applications. 7

7. Write short notes on **any two**: 2×5

a) STRIDE

b) GET and POST

c) HTTP and HTTPS

POKHARA UNIVERSITY

Level: Bachelor
Programme: BCA
Course: Web Technology II (Old)

Semester –Spring

Year : 2014
Full Marks: 100
Pass Marks: 45
Time : 3hrs.

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

The figures in the margin indicate full marks.

Attempt all the questions.

1. a) What do you mean by backup? Explain data mining and data warehouse in detail. 7
   b) What is transaction? Differentiate between discrete transaction and serialization transaction. 8
2. a) How does a web developer implements Encryption/Decryption at an e-commerce website. Explain with simple example. 8
   b) Explain credit card processing with suitable diagram. How credit card processing is convenient way of payment compared to other? 7
3. a) Explain digital copyright law. Explain challenges and obstacles in enforcement of digital copyright. 8
   b) What is a database handling? How do you create and close connection in database handling? 7
4. a) Write a PHP code to authenticate a user through userid and password stored in table 'userinfo' in a database named 'signup'. 8
   b) Explain the use of XML DTD & XML Schemas. 7
5. a) What do you mean by CFML? Explain its advantages and disadvantages. 8
   b) What is XML? Explain XSLT in detail. 7
6. a) Describe about simple API for XML (SAX). Explain about how SAX read xml document. 7
   b) Discuss cloud storage as future data storage technologies. 8

7. Write short notes on **any two:**

a) Protocols used in Internet

b) SSL and VPN

c) SOAP

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POKHARA UNIVERSITY

Level: Bachelor
Programme: BCA
Course: Web Technology II (New)

Semester –Spring

Year : 2014
Full Marks: 100
Pass Marks: 45
Time : 3hrs.

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

The figures in the margin indicate full marks.

Attempt all the questions.

1. a) Describe HTTP request and HTTP response messages in detail. 8
   b) What are cookies? How cookies differ from sessions? Write an example in PHP to illustrate working of cookie. 7

2. a) Write a server side script that can retrieve data from 'employee' Table of MYSQL Database server. Other relative Database server information are listed below: 7
   Database Name:'EMP_DB'
   User Name:'root'
   Password:'root'
   Table Name:'emloyee'
   Attributes of employee table:'empld,empName, address, joinDate,salary'
   b) What are arrays? What are different mechanisms to create array? Explain with a suitable example. 8

3. a) Describe the required steps in building a JDBC application along with the sample code. 8
   b) What do you mean by JSP Implicit Objects? Describe any two JSP Implicit objects. 7

4. a) What is java servlet? Explain its lifecycle in detail. 8
   b) Explain Java frameworks in detail. 7

5. a) What is Web Services Description Language (WSDL)? Describe some uses of WSDL into web technology. 8
   b) Write a simple servlet program which can read HTML Form's Input 7

box data.Like: FirstName, LastName.

6. a) Explain network, host and application threats. Also make a highlight on countermeasures for them. 7

   b) Explain in details the design guidelines for secure web applications. 2×5

7. Write short notes on **any two**:

   a) Content Management Systems

   b) SOAP elements

   c) Cryptography

POKHARA UNIVERSITY

Level: Bachelor
Programme: BCA
Course: Web Technology II

Semester – Spring

Year : 2012
Full Marks: 100
Pass Marks: 45
Time : 3hrs.

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

The figures in the margin indicate full marks.

Attempt all the questions.

1 a) What do you mean by data processing? Write advantage and disadvantage of data warehouse. 8

b) What is transaction processing? In what case discrete transactions are fruitful as compared to serialization transaction. 7

2 a) What do you mean by security consideration in web technology? Define Encryption and Decryption Principle. 8

b) Explain credit card processing with diagram and advantages of credit card over other payment system. 7

3 a) What do you meant by digital copyright law and online contract law? Explain the challenges and obstacles to copyright enforcement. 8

b) Why is Database handling required in web page? Also, write the Database Connection string required for PHP and MYSQL. 7

4 a) Why is session handling required in web page? Explain Digital Signature with suitable diagram. 8

b) What is Cold Fusion and Cold Fusion Markup Language (CFML). Write advantage and disadvantage of cold fusion. 7

5 a) What is XML? What are the limitations that are eliminated by the use of XML? 7

b) Explain about DTD basics and XSLT basics. 8

6 a) What is the API for XML (SAX)? Why is it necessary? 7

b) What are the XML DOM and SOAP? Explain them with examples. 8

7 Write short notes on (**Any Two**) 2×5

a) Server and Client Side Programming

b) Future data storage technologies.

c) ~~Cold Fusion and CFML~~. .net technology

POKHARA UNIVERSITY

Level: Bachelor
Programme: BCA
Course: Web Technology II

Semester – Spring

Year : 2011
Full Marks: 100
Pass Marks: 45
Time : 3hrs.

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

The figures in the margin indicate full marks.

Attempt all the questions.

1. a) What is data warehouse? Write advantages and disadvantages of data warehouse. 8

   b) What is transaction processing? What is serialization of transaction? 7

2. a) What do you mean by security consideration in web technology? Define cryptography principle. 8

   b) What is an internet authentication in security system? Comment authorization with authentication process. 7

3. a) What is gift and prepaid card? Explain their working principle. 8

   b) How you can protect your intellectual property? Explain about online-contrat law. 7

4. a) Define the script based server side programming languages? Write the program to forms handling using web based programming language. 8

   b) What are the advantages of server side scripting over client side scripting language? 7

OR

Why database handling is important in web based application? Compare it with session handling. 7

5. a) What is Cold Fusion and Cold Fusion Markup Language (CFML)? Write advantages and disadvantages of Cold Fusion. 8

   b) Create a web based page to get login name, password and check the login name and password is correct as per data stored in the database. Do it by using any server side programming. 7

6. a) What is the API for XML? Why is it necessary? 7

b) What is .NET platform? Why programmers are tending towards server side programming languages like PHP, Perl, Python, ASP etc. than HTML? 8

7. Write short notes on **any two:** 2×5

a) Use of web programming

b) Implementation of XML

c) XSLT