

# **LOYOLA ACADEMY DEGREE & PG COLLEGE, ALWAL**

**(An Autonomous and re-accredited with 'A' Grade by NAAC)**

**MCA (II semester) Examination, September 2014**

**Sub : Management Information System**

**Sub. Code : MCA 10203**

**Exam Time : 3 hrs**

**Max. Marks : 100**

**Answer the following questions**

**5 x 20 M = 100 M**

## **UNIT-I**

1. Explain different levels of MIS. (20)  
**(OR)**
2. a) Define system, subsystem and system boundaries. (10+10)  
b) What is reengineering? What are the principles of reengineering?

## **UNIT-II**

3. Explain accounts and finance information system and production information system. (20)  
**(OR)**
4. Explain HRIS and Marketing Information System. (20)

## **UNIT-III**

5. Explain BSP and Ends / Means Analysis. (20)  
**(OR)**
6. a) Explain about portfolio approach to project management. (10+10)  
b) Explain cost-benefit analysis.

## **UNIT-IV**

7. Explain components, benefits and risks in DSS. (20)  
**(OR)**
8. a) Explain the models for GDSS. (12+8)  
b) Explain the role of knowledge work in the organizations.

## **UNIT-V**

9. a) Explain the Ethical issues of information system. (12+8)  
b) Distinguish between centralized and distributed data process.  
**(OR)**
10. a) What are the common threats and common controls for DBMS. (12+8)  
b) Define the terms Risks and Vulnerability.

# LOYOLA ACADEMY DEGREE & PG COLLEGE, OLD ALWAL

(An Autonomous and Re-accredited with 'A' Grade by NAAC)

M.C.A II Semester Final Examination, September- 2014

Subject : Comp .prog & problem solving (C, C++)

Exam Time: 3 hrs

Subject Code: MCA 10103

Max Marks: 100

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**Answer the following questions .Each question carries equal marks.**

**(5\*20=100M)**

1 a) Explain about system development

(10M)

b) Write a program to find Sum of digits of a number. (Ex: 234=2+3+4=9)

(10M)

**(OR)**

2 a) Explain the categories of operators supported by C?

(10M)

b) Write a program to check whether given character is vowel or consonent?

(10M)

3 a) Differentiate between pass by value and pass by reference with suitable examples?

(10M)

b) Write a program to implement selection sort?

(10M)

**(OR)**

4 a) Write about string functions?

(8M)

b) Write a program to multiply two matrices?

(12M)

5 a) Write a "C" program to copy contents of a text file into another file.

(10M)

b) Explain about (i) type def      (ii) unions

(10M)

6 a) Define File? Explain about file opening modes?

(10M)

b) Write short notes on character Input /output functions?

(10M)

7 a) What is function overloading? Explain with suitable example?

(10M)

b) What is function template? Explain with an example?

(10M)

**(OR)**

8 a) Explain about various parameter passing mechanisms with an example?

(10M)

b) Explain the features of Object Oriented programming?

(10M)

9 a) Explain the following terms:

(10M)

i) Encapsulation      ii) Constructors      iii) Data Abstraction

b) Write a program to add two complex numbers by overloading + operator.

(10M)

**(OR)**

10 a) Discuss in detail about dynamic polymorphism with an example?

(10M)

b) What is exception handling? Explain with an example?

(10M)

*Supple*

**LOYOLA ACADEMY DEGREE & PG COLLEGE, ALWAL**

(An Autonomous and re-accredited with 'A' Grade by NAAC)

MCA (II semester) Examination, September 2014

**Sub : Modern Economic Analysis**

**Exam Time : 3 hrs**

**Sub. Code : MCA 10105**

**Max. Marks : 100**

**Answer the following questions**

**5 x 20 M = 100 M**

**UNIT-I**

1. Managerial Economics is the application of Economic theory. Explain.  
(OR)
2. Define Managerial Economics and explain its nature & scope.

**UNIT-II**

3. Explain the law of demand and its exceptions with suitable examples.  
(OR)
4. Define the term Elasticity and what the different kinds if elasticity are?

**UNIT-III**

5. What is production function? Explain the law of variable proportions.  
(OR)
6. Write an essay on Long Run Cost Analysis.

**UNIT-IV**

7. Explain the different methods of measurement of national Income.  
(OR)
8. In India Five year plans have played an important role in economic development. Discuss.

**UNIT-V**

9. Write a note on term lending financial institutions.  
(OR)
10. What are the qualitative and quantitative measures followed by RBI in India.

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**MCA (II semester) Examination, September 2014**

<b>Sub</b>	<b>: Management Information System</b>	<b>Exam Time : 3 hrs</b>
<b>Sub. Code</b>	<b>: MCA 10203</b>	<b>Max. Marks : 100</b>
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**(An-Autonomous and Re-accredited with 'A' Grade by NAAC)**

**M.C.A II Semester Final Examination, September- 2014**

**Subject : Value Education  
Subject Code: MCA 10206**

**Exam Time : 3 hrs  
Max Marks: 100**

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**Answer the following questions:**

## **UNIT-I**

- 1(a) What are the objectives of Value Education? Why value Education is necessary for college students ? - 10M  
(b) What are the uses of Value Education? Explain how this subject is useful in character formation? - 10M

**(OR)**

2. Describe in detail dimensions of Human Development. (Physical, Intellectual, Emotional, Moral, Spiritual and Social) - 20M

## **UNIT-II**

3. Explain values revealed and lived in religious of India. - 20M  
(OR)  
4. Explain Human Existence, Limitation, Fate, Destiny and Experience of God. - 20M

## **UNIT-III**

5. Describe the Concept "Towards a New Society". - 20M  
(OR)  
6(a) What are the aspects that divide the Society into poor and rich? Comment on it? - 10M  
(b) Explain the Causes behind the Social Inequality - 10M

## **UNIT-IV**

- 7 (a) Explain fundamental Rights and duties of every Indian Citizen? - 10M  
(b) State and explain your ideas to develop Indian Economy - 10M  
(OR)  
8. Political rights and duties must be known to every citizen to bring about a new order.Why? -20M

## **UNIT-V**

9. What does "Mass Media "refer to? What are its values? -20M  
(OR)  
10. Write a brief note on man made ecological imbalance in developing and advanced nations. -20M

**LOYOLA ACADEMY DEGREE & PG COLLEGE, ALWAL**

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**MCA (II semester) Examination, September 2014**

Sub : Principles of Object Oriented Prog. Using Java  
Sub. Code : MCA 10202

Exam Time : 3 hrs  
Max. Marks : 100

**Answer the following questions**

**5 x 20 M = 100 M**

**UNIT-I**

1. a) Explain object oriented concept. 15M  
b) Explain data types in Java 05M  
(OR)  
2. a) Give the benefit of object oriented development 08M  
b) Explain inheritance with examples. 12M

**UNIT-II**

3. Explain exception handling in detail. 20M  
(OR)  
4. Explain string handling methods in Java. 20M

**UNIT-III**

5. a) Explain collection classes. 10M  
b) Explain collection interfaces. 10M  
(OR)  
6. Explain about calendar and date class with example. 20M

**UNIT-IV**

7. a) Explain byte classes in detail. 10M  
b) Explain steam classes in detail. 10M  
(OR)  
8. Describe in detail about serialization with example. 20M

**UNIT-V**

9. a) What is event delegation model. 05M  
b) Explain event listener interfaces. 15M  
(OR)  
10. Explain mouse events with example. 20M

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# **LOYOLA ACADEMY DEGREE & PG COLLEGE, ALWAL**

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**MCA (II semester) Examination, September 2014**

**Sub : Data Structures Using C++**

**Exam Time : 3 hrs**

**Sub. Code : MCA 10204**

**Max. Marks : 100**

**Answer the following questions**

**5 x 20 M = 100 M**

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## **UNIT-I**

1. a) Write an algorithm for insertion and deletion in a linear list. (12+8)  
b) Write a short notes on circular linked lists.  
(OR)
2. Write a C++ program for implementing doubly linked lists. (20)

## **UNIT-II**

3. a) Discuss about sparse matrices. (10+10)  
b) What are the applications of Queues?  
(OR)
4. a) Write a C++ program for stack operations. (10+10)  
b) Write a C++ program for Queue operations.

## **UNIT-III**

5. Write a C++ program for implementing Binary Tree Traversal. (20)  
(OR)
6. a) Explain the operations on AVL Trees. (10+10)  
b) Explain the operation on B-Trees.

## **UNIT-IV**

7. a) Write a C++ program for Binary search. (15+5)  
b) Discuss about Hashing in detail.  
(OR)
8. a) Write a C++ program to perform quick sort. (10+10)  
b) Explain Heap sort with an example.

## **UNIT-V**

9. Explain the applications of Graphs with an example. (20)  
(OR)
10. Explain Graph Traversals with an example. (20)

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# LOYOLA ACADEMY DEGREE & PG COLLEGE, ALWAL

(An Autonomous and re-accredited with 'A' Grade by NAAC)

MCA (II semester) Examination, September 2014

Sub : Accounting & Financial Management  
Sub. Code: MCA 10201

Exam Time : 3 hrs  
 Max. Marks : 100  
 $5 \times 20 M = 100 M$

Answer the following questions

## UNIT-I

- Explain accounting concepts & conventions.  
 (OR)
- Prepare Trading Account, Profit & Loss Account and Balance sheet of Premier and Co.

Debit	Credit
Plant & Machinery	120000
Rent	20000
Sales returns	30000
Freight	4000
Account receivables	70000
Opening inventory	120000
Purchases	230000
Discount	5000
Interest on bank loan	5000
Salaries	70000
Cash in hand	5000
Legal charges	500
General expenses	8000
Cash at bank	20000
	<u>707500</u>
	<u>707500</u>

### Additional information

- Closing stock 1,20,000/-.
- Provide for bad & doubtful debts 5% on account receivables.
- Interest on bank loan outstanding Rs.7,000/-
- Provide depreciation on plant @ 10%.
- Outstanding salaries 10,000/-.

## UNIT-II

- Explain the advantages & limitations of radio analysis.

(OR)

- From the following particulars extracted from the financial statements of XYZ ltd. Compute
 

a) Current Ratio	b) Liquid Ratio	c) Inventory Turnover ratio
------------------	-----------------	-----------------------------

Opening stock	47000	Debtors	42000
Closing stock	53000	Cash	10000
Net sales	252000	Bank	8000
Provision for bad debts	2000	Bills receivables	15000
Creditors	32000	Provision for tax	15000
Loose tools	4000	Bills payables	29000
Purchases	180000	Marketable securities	8000

### UNIT-III

5. Prepare funds flow statement from the following Balance Sheets of AB & Co.

<b>Liabilities</b>	<b>2011</b>	<b>2012</b>
Equality capital	450000	500000
General reserve	40000	70000
P & L account	30000	48000
Proposed dividend	42000	50000
Creditors	55000	83000
Bills payables	20000	16000
Provision for tax	40000	50000
	<b>670000</b>	<b>817000</b>

<b>Assets</b>	<b>2011</b>	<b>2012</b>
Goodwill	115000	90000
Land & Buildings	200000	17000
Plant	80000	200000
Debtors	160000	200000
Stock	77000	109000
Cash in hand	15000	10000
Cash at bank	10000	8000
Bills receivables	20000	30000
	<b>670000</b>	<b>817000</b>

(OR)

6. What is adjusted profit & loss account? How will you prepare it? Explain.

### UNIT-IV

7. Write an essay on Capital Budgeting Techniques.

(OR)

8. A company has to select one of the following two projects. Advise the management on the basis of IRR method.

	<b>A</b>	<b>B</b>
Cost	22,000	20,000
CIF's	1 Yr    12,000	2,000
	2 Yr    4,000	2,000
	3 Yr    2,000	4,000
	4 Yr    10,000	20,000

### UNIT-V

9. Define the term budget. Explain various budgets.

(OR)

10. From the following details calculate P/V ratio, fixed cost, variable cost & MOS ratio.

	<b>2012</b>	<b>2013</b>
Sales	24,00,000	30,00,000
Total cost	21,80,000	26,00,000

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Discount	5000
Interest on bank loan	5000
Salaries	70000
Cash in hand	5000
Legal charges	500
General expenses	8000
Cash at bank	20000
	<u>707500</u>
	<u>707500</u>

**Additional information**

- a) Closing stock 1,20,000/-.
- b) Provide for bad & doubtful debts 5% on account receivables.
- c) Interest on bank loan outstanding Rs.7,000/-
- d) Provide depreciation on plant @ 10%.
- e) Outstanding salaries 10,000/-.

## UNIT-II

3. Explain the advantages & limitations of radio analysis.

(OR)

4. From the following particulars extracted from the financial statements of XYZ ltd. Compute

- a) Current Ratio
- b) Liquid Ratio
- c) Inventory Turnover ratio
- d) Debtors & Creditors turnover ratio.

Opening stock	47000	Debtors	42000
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6. What is adjusted profit & loss account? How will you prepare it? Explain.

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	<b>A</b>	<b>B</b>
Cost	22,000	20,000
CIF's	1 Yr      12,000	2,000
	2 Yr      4,000	2,000
	3 Yr      2,000	4,000
	4 Yr      10,000	20,000

### UNIT-V

9. Define the term budget. Explain various budgets.

(OR)

10. From the following details calculate P/V ratio, fixed cost, variable cost & MOS ratio.

	<b>2012</b>	<b>2013</b>
Sales	24,00,000	30,00,000
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# **LOYOLA ACADEMY DEGREE & PG COLLEGE, ALWAL**

**(An Autonomous and re-accredited with 'A' Grade by NAAC)**

**MCA (II semester) Examination, September 2014**

**Sub : Computer Architecture**

**Exam Time : 3 hrs**

**Sub. Code : MCA 13205**

**Max. Marks : 100**

**Answer the following questions**

**5 x 20 M = 100 M**

## **UNIT-I**

1. a) Simplify the Boolean function using 3-variable k-map  $F(x, y, z) = \sum(0, 2, 3, 4, 6)$ .  
b) What is a register? Draw the logic diagram of 4-bit register with parallel load.  
(OR)
2. a) Explain various Flip-Flops and construct a 4-bit shift register using Flip-Flop.  
b) Explain about Multiplexers?

## **UNIT-II**

3. a) Discuss about Arithmetic Micro operations?  
b) Explain the functions of the timing & control circuits in a computer?  
(OR)
4. a) With the help of flow chart explain about instruction cycle.  
b) Explain memory reference instructions.

## **UNIT-III**

5. What is an assembles? Explain about first pass and second pass of assembles with the help of flow charts.  
(OR)
6. a) What is control memory? Explain about micro programmed control.  
b) Write an assembly language program to add two numbers.

## **UNIT-IV**

7. a) What are addressing nodes? Explain with examples.  
b) Explain stack organization.  
(OR)
8. a) Explain instruction pipeline & RISC pipeline.  
b) Explain the Booth's multiplication algorithm with an example.

## **UNIT-V**

9. a) Explain about input-output processor?  
b) With the help of block diagram explain about DMA controller?  
(OR)
10. a) What is memory Hierarchy? Explain it with diagram.  
b) What is Cache memory? Explain the mapping techniques?

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MCA (II semester) Examination, September 2014

**Sub : Computer Architecture**  
**Sub. Code : MCA 13205**

**Exam Time : 3 hrs**  
**Max. Marks : 100**  
**5 x 20 M = 100 M**

**Answer the following questions**

**UNIT-I**

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**MCA (II semester) Examination, September 2014**

**Sub : Data Structures Using C++**

**Exam Time : 3 hrs**

**Sub. Code : MCA 10204**

**Max. Marks : 100**

**Answer the following questions**

**5 x 20 M = 100 M**

## **UNIT-I**

1. a) Write an algorithm for insertion and deletion in a linear list. (12+8)  
b) Write a short notes on circular linked lists.

**(OR)**

2. Write a C++ program for implementing doubly linked lists. (20)

## **UNIT-II**

3. a) Discuss about sparse matrices. (10+10)  
b) What are the applications of Queues?

**(OR)**

4. a) Write a C++ program for stack operations. (10+10)  
b) Write a C++ program for Queue operations.

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**(OR)**

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**(OR)**

10. Explain Graph Traversals with an example. (20)