Roll No. | | | | | | | | | | | | | Total No. of Pages : 02

Total No. of Questions : 09

MCA (2013 and 2014 Batch) (Sem.–1)

TECHNICAL COMMUNICATION

Subject Code : MCA-105

M.Code : 26046

Time : 3 Hrs. Max. Marks : 100

INSTRUCTION TO CANDIDATES :

1. **SECTIONS-A, B, C & D contains TWO questions each carrying TWENTY marks each and students has to attempt any ONE question from each SECTION.**
2. **SECTION-E is COMPULSORY consisting of TEN questions carrying TWENTY marks in all.**

SECTION-A

1. Elaborate internal functions of communication.

2. Discuss different theories of communication.

SECTION-B

3. Write a paragraph on any one of the following :

   VALUE OF DISCIPLINE or HAVE WE BECOME SLAVES TO GADGETS.

4. Draft a business letter requesting dealers of your company to promote sales of different products of the company. Imagine details.

SECTION-C

5. Draft your resume in response to an advertisement for the post of a system analyst.

6. (a) As GM, draft an email to all the data entry operators of your company asking them to be careful about compiling data as mistakes are being detected regularly. Invent details.

   (b) Draft a notice inviting all the Assistant Managers for a meeting. Imagine details yourself.

12

SECTION-D

7. Elaborate in detail what should be kept in mind while appearing in an interview.

8. Discuss presentation techniques which make presentations effective.

SECTION-E

9. **Write briefly :**

a) What is the importance of flow in communication?

b) Define non-verbal communication.

c) List important things to be kept in mind while making a precis.

d) Define a memo.

e) What are references? Cite an example.

f) Discuss how to plan meetings.

g) Define technical description. List its some features.

h) Differentiate between a descriptive and an imaginative paragraph.

i) Give a brief account of barriers to communication.

j) Give some features of MS-Word.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.

May – 2019

Roll No. | | | | | | | | | | | | |

Total No. of Pages : 02

Total No. of Questions : 09

MCA (2015 & Onwards) (Sem.–1)

OBJECT ORIENTED PROGRAMMING IN C++

Subject Code : MCA-102

M.Code : 72708

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. SECTIONS-A, B, C & D contains TWO questions each carrying TEN marks each and students has to attempt any ONE question from each SECTION.
2. SECTION-E is COMPULSORY consisting of TEN questions carrying TWENTY marks in all.
3. Use of non-programmable scientific calculator is allowed.

SECTION-A

1. What is the advantage of using OOP over functional programming? Explain.

2. a. WAP to print minimum of 3 integers using conditional operator.

   b WAP to compute sum of 1+2+....+n for input integer n.

SECTION-B

3. What is passing by constant reference? Explain with suitable example.

4. a. WAP to traverse an array using pointers.

   b. WAP to pass an array to a function that returns the same.

SECTION-C

5. What is the difference between multiple and multi-level inheritance? Explain with examples.

6. Differentiate between the use of constructor and destructor with examples.

11

SECTION-D

7. What is polymorphism? How to implement using virtual function? Explain with an example.

8. a. WAP to overload assignment operator.

   b. WAP to read and write to text file.

SECTION-E

9. **Write briefly :**

   a. What is type definition?

   b. Explain use of Get function.

   c. What is use of inheritance in OOP?

   d. Explain Class template.

   e. Explain Pure virtual function.

   f. Explain Abstract class.

   g. What is deference operator?

   h. Differentiate between new and delete operator.

   i. What is Enumeration Datatype?

   j. Explain use of Goto statement.

NOTE : Disclosure of identity by writing mobile number or making passing request on any page of Answer sheet will lead to UMC against the Student.

May – 2019

Roll No. | | | | | | | | | | | | |

Total No. of Questions : 09

Total No. of Pages : 02

MCA (2015 & Onwards) (Sem.–1)

COMPUTER ORGANIZATION AND ASSEMBLY LANGUAGE

Subject Code : MCA-103

M.Code : 72709

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. SECTIONS-A, B, C & D contains TWO questions each carrying TEN marks each and students have to attempt any ONE question from each SECTION.
2. SECTION-E is COMPULSORY consisting of TEN questions carrying TWENTY marks in all.

SECTION-A

Q1. What is the significance of Computer Organization? Discuss the following:

a) General Register Organization

b) Stack Organization.

Q2. Differentiate the following :

a) Memory Reference Instructions and Register reference Instructions

b) Two address and Three address Instructions.

SECTION-B

Q3. What are the benefits of parallel processing? Discuss the role of :

a) Arithmetic Pipeline

b) Instruction Pipeline

Q4. Discuss the functionality of the following :

a) DMA Controller

b) Interrupt Cycle

13

SECTION-C

Q5. Describe the use of the following types of mapping techniques :

a) Associative Mapping

b) Direct Mapping

Q6. a) What is meant by cache coherence? Explain.

b) What is the need of page replacement in memory management? Explain.

SECTION-D

Q7. Explain different characteristics of time shared common bus and crossbar switch.

Q8. a) What are hypercube interconnections? Elaborate interprocessor communication in hypercube.

b) Discuss various data transfer instructions available in Assembly language programming.

SECTION-E

Q9. Write briefly :

a) What is control word?

b) Define Instruction Format.

c) Name two properties of Pipelining.

d) List few Vector processing operations.

e) What is Priority Interrupt controller?

f) How address mapping is carried out in set associative mapping?

g) Define Multiport Memory.

h) Why register addressing mode is faster than other addressing modes?

i) Discuss the purpose of having switching networks in multiprocessor systems.

j) List various I/O instructions used in Assembly level programming.

NOTE : Disclosure of Identity by writing Mobile No. or Marking of passing request on any paper of Answer Sheet will lead to UMC against the Student.

May – 2019

Roll No. | | | | | | | | | | | | |

Total No. of Pages : 03

Total No. of Questions : 09

MCA (2015 & Onwards) (Sem.–1)

ACCOUNTING & FINANCIAL MANAGEMENT

Subject Code : MCA-104

M.Code : 72710

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. SECTIONS-A, B, C & D contains TWO questions each carrying TEN marks each and students has to attempt any ONE question from each SECTION.
2. SECTION-E is COMPULSORY consisting of TEN questions carrying TWENTYmarks in all.

SECTION-A

1. "*Accounting concepts are like scientific rule, which are time tested and applicable universally across the boundaries and in different situations, where as conventions are certain accounting policies and procedures which are followed as a matter of practice is the business organizations*". Discuss.

2. From the following Trial Balance of RadheShyam Trading and Profit and Loss A/c for the year ending 31st December, 2010 and Balance Sheet as on that date. The Closing Stock on 31st December, 2010 was valued at Rs.2,50,000.

Debit Balances	Amount (Rs.)	Credit Balances	Amount (Rs.)
Stock (1-1-2010)	2,00,000	Sundry Creditors	1,50,000
Purchases	7,50,000	Purchases Return	30,000
Sales Return	80,000	Sales	25,00,000
Freight and Carriage	75,000	Commission	33,000
Wages	3,65,000	Capital	17,00,000
Salaries	1,20,000	Interest on Bank Deposit	20,000
Repairs	12,000	B/P	62,000
Trade Expenses	40,000		
Rent and Taxes	2,40,000		
Cash in Hand	57,000		
B/R	40,000		
	5,50,000		
Plant and Machinery	16,00,000		
Withdrawals (Drawings)	1,66,000		
Bank Deposit	2,00,000		
	44,95,000		**44,95,000**

(S6)-2003

(10)

SECTION-B

3. Define the concept of finance. Discuss in detail relationship of financial management to economics and accounting. What forces are prodding companies in India to accord greater importance to the goal of shareholder wealth maximization? Comment on the emerging role of financial manager in India.

4. The following is the position of Current Assets and Current Liabilities of M Ltd.

Particulars	2006 Rs.	2007 Rs.
Provision for Bad Debts	1,000	3,000
Short-term Loan	10,000	19,000
Creditors	15,000	10,000
Bills Receivable	20,000	40,000

The company incurred a loss of Rs.45,000 during the year. Calculate the Net Cash Flows from the Operating Activities by Indirect Method. Discuss in detail advantage and limitations of cash flow statement.

SECTION-C

5. A Company producing two products X and Y faces the problem of labour shortage. Maximum labour hours available in a month are 10,000 hours. The following other information is available:

	Product X (Rs.)	Product Y (Rs.)
Material Cost	6.00	6.00
Direct Labour Cost		
10 hour @ Rs. 1.00	10.00	
5 hours @ Rs. 1.00		
Variable Overheads	4.00	2.00
Fixed overheads	5,000	5,000
Selling price	30.00	20.00

Show which product is more profitable. Give proof in support of your answer.

6. The following data is obtained from the books of manufacturing concern :

	Men	Women
Number in the standard gang	24	14
Standard rate per hour	Rs. 8	Rs. 7
Number in the actual gang	18	16
Actual rate per hour	Rs. 9	Rs. 6

During a week, 2 hour were lost due to power failure and work was actually done for 40 hours. Calculate labour mix variance and idle time variance.

Nov- 2019

Roll No. | | | | | | | | | | | | |

Total No. of Pages : 03

Total No. of Questions : 09

M.Sc.(IT)/MCA/PGDCA (2019 Batch) (Sem.–1)

MATHEMATICS

Subject Code : PGCA-1901

M.Code : 76971

Time : 3 Hrs.

Max. Marks: 70

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION - B & C. have FOUR questions each.
3. Attempt any FIVE questions from SECTION B & C carrying TEN marks each.
4. Select atleast TWO questions from SECTION - B & C.

SECTION-A

1. Solve the following :

a) Perform indicated operation $\frac{3-2/3}{5+5/6}$.

b) Solve $\frac{3\sqrt{2}-4\sqrt{3}}{4\sqrt{2}+3\sqrt{3}}$

c) Write the solution set of the equation $2x^2 + 3x - 2 = 0$ in roster form.

d) If R is the set of real numbers and Q is the set of rational numbers, then what is R – Q?

e) Write the subsets of the set $\{a, b\}$.

f) Find negation of "At least 10 inches of rain fell today in Mumbai"

g) Show that $a \wedge b = b \wedge a$.

h) Find components of the statement "The number 100 is divisible by 3, 11 and 5".

i) Define Transpose and Scalar matrices

j) Evaluate $\begin{bmatrix} 1 & -3 & 5 \\ 4 & 6 & 0 \\ 8 & -2 & 3 \end{bmatrix} \begin{bmatrix} 1 \\ 3 \\ 0 \end{bmatrix}$.

(9)

SECTION-B

2. a) Expand $(1+\sqrt{2})(3-\sqrt{2})$.

   b) Simplify $\sqrt[3]{12}.\sqrt[3]{36}+\frac{4-\sqrt{3}}{5\sqrt{3}}$.

3. a) Define Natural number, Real numbers and Irrational numbers with examples.

   b) If $X = \{a, b, c, d\}$ and $Y = \{f, b, d, g\}$, find (i) X – Y, (ii) Y – X, (iii) $X \cap Y$.

4. a) Show that $(A \cap B)^c = A^c \cup B^c$.

   b) Which of the following sets are equal ?

   $A = \{x : x^2 - 4x + 3 = 0\}$, $B = \{x : x \in N, x < 3\}$, $C = \{x : x \in N, x \text{ is odd} < 5\}$

5. a) Show that $(A \cup B) - (A \cap B) = (A - B) \cup (B - A)$.

   b) Determine which of the following statement is true or false.

   i) $A \cup P(A) = A$

   ii) $A - P(A) = A$

   iii) $A \cap P(A) = A$

   iv) $\{A\} \cap P(A) = A$

SECTION-C

6. a) Show that $\sim (p \vee q)$ and $\sim p \wedge \sim q$ are equivalent.

   b) Use truth table to prove $\sim (p \vee q) \equiv (\sim p \wedge \sim q)$.

7. a) Show that $(p \wedge q) \rightarrow r$ and $(p \rightarrow r) \wedge (q \rightarrow r)$ are not equivalent.

   b) Determine whether $(\sim q \wedge (p \rightarrow q)) \rightarrow \sim p$ is a tautology.

8. a) If $A = \begin{bmatrix} 1 & 5 \\ 7 & 12 \end{bmatrix}$ and $B = \begin{bmatrix} 9 & 1 \\ 7 & 8 \end{bmatrix}$, find matrix C such that $3A + 5B + 2C$ is null matrix.

b) Show that matrix addition is commutative *i.e.* $A + B = B + A$, where A and B and *mxn* matrices.

9. a) Find value of x such that $[1 \quad x \quad 1]\begin{bmatrix} 1 & 3 & 2 \\ 2 & 5 & 1 \\ 15 & 3 & 2 \end{bmatrix}\begin{bmatrix} 1 \\ 2 \\ x \end{bmatrix} = 0$.

b) Show that if $A = \begin{bmatrix} 1 & 0 \\ -1 & 7 \end{bmatrix}$, and $I = \begin{bmatrix} 1 & 0 \\ 0 & 1 \end{bmatrix}$, find k so that $A^2 = 8A + kI$.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.

Nov-2019

Roll No. | | | | | | | | | | | | |

Total No. of Questions : 09

Total No. of Pages : 02

MCA (2015 to 2018) (Sem.–1)

ACCOUNTING & FINANCIAL MANAGEMENT

Subject Code : MCA-104

M.Code : 72710

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. SECTIONS-A, B, C & D contains TWO questions each carrying TEN marks each and students have to attempt any ONE question from each SECTION.
2. SECTION-E is COMPULSORY consisting of TEN questions carrying TWENTY marks in all.

SECTION-A

1. What is an Accounting? Explain its Principles, Concepts and conventions of Accounting. Write a brief note on double entry system of an Accounting.

2. Redraft the incorrect trial balance :

Name of Account	Debit	Credit
Capital		30,000
Furniture		3000
Deposit with bank	22,500	
Interest Received	1,125	
Miscellaneous Receipts	2,250	
Sundry Creditors		3,750
Sundry Debtors	10,500	
Discount Allowed		750
Discount Received	600	
Purchases	90,000	
Sales		1,20,000
Return inwards	1,500	
Return outwards		2,250
Carriage inwards	2,250	
Carriage outwards		1,500
Salaries	4,500	
Wages	3,000	
Miscellaneous Exp		3,000
Cash in hand	375	
Opening stock	17,100	
Closing stock	8,550	
	1,64,250	**1,64,250**

(S6)-1296

7

SECTION-B

3. Bring out the difference between cash flow statement and a fund flow statement.

4. What is financial Management? Discuss in Brief scope, nature, role and advantages of financial management.

SECTION-C

5. What is Marginal costing? Discuss its nature, scope and importance.

6. What are standard costing? Explain the nature, importance and variances of standard casting.

SECTION-D

7. Discuss the advantages of computerised Accounting.

8. What are the sub modules of computerised accounting system?

SECTION-E

9. **Write short note on :**

a) What is ratio analysis?

b) Budgetary Control

c) Profit and loss A/C

d) What is operating activities?

e) Features of trial balance

f) Define Capital Expenditure. Given examples.

g) Difference between Fixed assets and current assets.

h) Money measurement concept

i) Sole proprietary concern

j) Computer program for accounting

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.

NOV - 2019

Roll No. | | | | | | | | | | | | | Total No. of Pages : 03

Total No. of Questions : 09

MCA (2014 Batch) (Sem.–1)

ACCOUNTING & FINANCIAL MANAGEMENT

Subject Code : MCA-104

M.Code : 26045

Time : 3 Hrs. Max. Marks : 100

INSTRUCTION TO CANDIDATES :

1. SECTIONS-A, B, C & D contains TWO questions each carrying TWENTY marks and students has to attempt any ONE question from each SECTION.
2. SECTION-E is COMPULSORY consisting of TEN questions carrying TWENTY marks in all.

SECTION-A

1. Explain in brief sole Proprietary concern and partnership with example.
2. From the following balances, prepare the profit and loss account and balance sheet of IS Traders as on 31, 2013.

Particular	Debit Balance	Particular	Credit Balance
Drawings	6,300	Capital	1,55,000
Cash at Bank	14,000	Discount Received	3,150
Bills Receivables	1,900	Loans	10,000
Land & Building	42,600	Purchase Return	2,500
Furniture	5,140	Sales	2,90,000
Discount Allowed	4,000	Reserve for Bad debts	5,650
Bank charges	200	Creditors	18,670
Salaries	6,520		
Purchases	2,05,000		
Stock Opening	60,000		
Sales Return	1,910		
Carriage	5,190		
Rent & Taxes	7,750		
General Expenses	3,610		
Plant & Machinery	31,700		
Book debts	82,480		
Bad debts	1,460		
Insurance	4,850		
	4,84,970		**4,84,970**

Closing Stock is Rs. 70,000

SECTION-B

3. Define Financial Statement. Describe in brief various functional areas of financial Management.

4. Given below in the Balance sheet of a limited company as on 31st March 2007.

Balance Sheet			
Liability	**Amt**	**Assets**	**Amt**
30,000 Equity shares of Rs. 100 each fully paid	30,00,000	Goodwill at Cost	10,00,000
15,000, 6% pref. Shares of Rs. 100 each fully Paid	15,00,000	Land & Building	43,00,000
Reserve fund	15,00,000	Plant & Machinery	40,00,000
Dividend equilation fund	5,00,000	Stock in Trade	20,00,000
5% Debentures	40,00,000	Sundry Debtors	15,00,000
Current Liabilities	10,00,000	Cash at Bank	3,50,000
		Accured Income	1,50,000
	1,15,00,000		1,15,00,000

Find out :

a) Debt. Equity Ratio

b) Solvency Ratio

c) Currents Assets to Net worth Ratio

d) Proprietary Ratio

e) Fixed Assets to net worth ratio

f) Total Assets to debt Ratio

SECTION-C

5. What is Costing? Explain its Characteristics and types of Relevant Costs and what Cost are considered for decision-Making?

6. Define Standard Costing. Discuss its advantages, and applications.

Nov-2019

Roll No. | | | | | | | | | | | | | Total No. of Pages : 02

Total No. of Questions : 09

M.Sc.(IT)/MCA/PGDCA (2019 Batch) (Sem.–1)

TECHNICAL COMMUNICATION

Subject Code : PGCA-1905

M.Code : 76975

Time : 3 Hrs. Max. Marks : 70

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION - B & C. have FOUR questions each.
3. Attempt any FIVE questions from SECTION B & C carrying TEN marks each.
4. Select atleast TWO questions from SECTION - B & C.

SECTION-A

1. **Answer the following :**

   a. What is an extempore?

   b. Define an E-mail.

   c. Write two barriers to effective communication.

   d. Define Technical Writing.

   e. What is research paper?

   f. What are Memos?

   g. What is dissertation?

   h. Explain the difference between reference and bibliography.

   i. Define Instruction Manuals.

   j. What is Adobe frame maker?

5

SECTION-B

2. Define Communication. Explain Weaver's model of communication.

3. What is a non-verbal communication? Explain with the help of an example. Discuss th different barriers of communication.

4. Explain the essential and important parameters of paragraph writing. Explain descriptiv and imaginative paragraph writing with suitable examples.

5. Write a paragraph using imaginative writing skills. Explain the importance of precis writing, reading and comprehension.

SECTION-C

6. Write the (**atleast two**) difference between the following:

   a. Circular and notices

   b. Resume writing and technical proposals

7. Write a technical proposal to government of India for new business set up. (Create inde references and bibliography).

8. How presentation techniques are useful in verbal communication? Explain in context extempore and conferences.

9. What is verbal communication? Write the significance of verbal communication technical communication. How it is useful for meetings? Justify your answer wi suitable example.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.

Nov-2019

Roll No. | | | | | | | | | | | | |

Total No. of Pages : 02

Total No. of Questions : 09

M.Sc.(IT)/MCA/PGDCA(2019 Batch) (Sem.–1)

RELATIONAL DATABASE MANAGEMENT SYSTEMS

Subject Code : PGCA-1904

M.Code : 76974

Time : 3 Hrs.

Max. Marks : 70

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION - B & C. have FOUR questions each.
3. Attempt any FIVE questions from SECTION B & C carrying TEN marks each.
4. Select atleast TWO questions from SECTION - B & C.

SECTION-A

Q1. Answer briefly :

a) List some popular RDBMS Packages.

b) Use COUNT aggregate function.

c) Explain Domain integrity.

d) Explain the role of DBA in database.

e) What is the other name of Equi Join and where it is used?

f) Syntax for Embedded SQL.

g) Functional Dependency.

h) Database Schema.

i) SQL Example of UPDATE command.

j) Use of GRANT and REVOKE commands.

SECTION-B

Q2. Explain the Architecture of DBMS with diagram shows different levels of abstraction in detail.

Q3. Differentiate between function and procedure using suitable examples.

Q4. Explain different types of Triggers and write a trigger for salary update.

Q5. What do you understand by authorization, how it's used on different users? Elaborate.

SECTION-C

Q6. Explain an ER model with suitable example.

Q7. What is Normalization, define and explain first, second and third normal form?

Q8. What are the different concurrency problems discuss in detail?

Q9. What are the different Security issues in database?

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.

Nov-2019

Roll No. | | | | | | | | | | | | | Total No. of Pages : 02

Total No. of Questions : 09

M.Sc.(IT)/MCA/PGDCA (2019 Batch) (Sem.–1)

OPERATION SYSTEM

Subject Code : PGCA-1903

M.Code : 76973

Time : 3 Hrs. Max. Marks : 70

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION - B & C. have FOUR questions each.
3. Attempt any FIVE questions from SECTION B & C carrying TEN marks each.
4. Select atleast TWO questions from SECTION - B & C.

SECTION-A

Q1. Explain the following :

a) PCB

b) LRU

c) Paging

d) DMA

e) Trashing

f) Scheduling

g) System call

h) Throughput

i) Deadlock

j) Fragmentation

(3)

SECTION-B

Q2. Define Operating Systems and its types.

Q3. Find waiting and turnaround time for the given processes using FCFS and SCF algorithms.

Process	Arrival Time (ms)	Burst Time (ms)
P1	1	5
P2	2	4
P3	2	7
P4	3	2

Q4. Differentiate between preemptive and non-preemptive scheduling.

Q5. What is round robin scheduling? Explain it with help of an example.

SECTION-C

Q6. Discuss basic memory management techniques and their advantages and dis-advantages.

Q7. Differentiate between LRU and optimal replacement algorithms with help of example.

Q8. What is a page fault? Also describe locality of reference.

Q9. Explain various levels of RAID structure.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.

Nov-2019

Roll No. | | | | | | | | | | | | |

Total No. of Questions : 09

Total No. of Pages : 02

M.Sc.(IT)/MCA/PGDCA (2019 Batch) (Sem.–1)

FUNDAMENTALS OF COMPUTER AND PROGRAMMING IN PYTHON

Subject Code : PGCA-1902

M.Code : 76972

Time : 3 Hrs.

Max. Marks : 70

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION - B & C. have FOUR questions each.
3. Attempt any FIVE questions from SECTION B & C carrying TEN marks each.
4. Select atleast TWO questions from SECTION - B & C.

SECTION-A

Q1. Explain the following :

a) Hardware

b) Port

c) OCR

d) Plotter

e) Cache

f) IoT

g) Indentation

h) Loops

i) Scope

j) Module

SECTION-B

Q2. What are various functional units of Computer? Explain.

Q3. Convert to binary

467_8 63819_{10} 12345_{10} $ABCD_{16}$ $FE963_{16}$

Q4. What is an operating system? Why it is termed as resource allocator?

Q5. What are various data types in Python? How the type conversion is done?

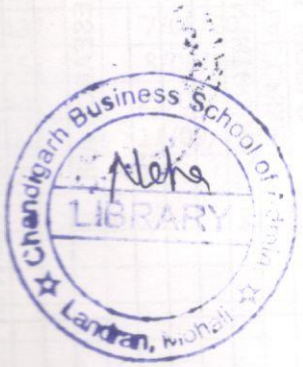
SECTION-C

Q6. Differentiate between built-in and user defined function.

Q7. Write a note on module reloading and standard modules.

Q8. How exceptions are defined in Python?

Q9. Explain the concept of OOPS in Python.



NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.

Nov-2019

Roll No. | | | | | | | | | | | | |

Total No. of Questions : 09

Total No. of Pages : 02

MCA (2015 to 2018) (Sem.–1)

OBJECT ORIENTED PROGRAMMING IN C++

Subject Code : MCA-102

M.Code : 72708

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. SECTIONS-A, B, C & D contains TWO questions each carrying TEN marks each and students has to attempt any ONE question from each SECTION.
2. SECTION-E is COMPULSORY consisting of TEN questions carrying TWENTY marks in all.

SECTION-A

1. Discuss any five characteristics of Object Oriented Programming.

2. a) Describe the working of breaking control statement.

   b) Explain various operators available in C++.

SECTION-B

3. a) What is recursion? Explain by taking example.

   b) Explain the working of Union.

4. Write a program for demonstrating functions and arrays.

SECTION-C

5. a) Describe the concept of dynamic memory allocation by taking an example.

   b) What are nested classes? Discuss the use of nested classes in OOP.

6. What is meant by multiple-Inheritance? Write a code snippet in C++ demonstrating multiple-inheritance.

SECTION-D

7. What is meant by operator overloading? Why is it required in OOP? Explain.

8. a) Define Virtual Function.

   b) Discuss file handling using IO streams.

SECTION-E

9. **Write briefly :**

   a) Comment on iostream.h

   b) Define the term abstraction.

   c) What is meant by data hiding?

   d) Define the term enumeration.

   e) What are destructors?

   f) Discuss briefly about late binding.

   g) What is single inheritance?

   h) What is the use of keyword "Throw"?

   i) "*Can constructor be overloaded*"? Comment.

   j) What is the use of keyword "*Static*"?

NOTE : Disclosure of identity by writing mobile number or making passing request on any page of Answer sheet will lead to UMC against the Student.