Seat No.	

[5567]-1001

M.C.M. (I Sem.) EXAMINATION, 2019

101 : FUNDAMENTALS OF INFORMATION TECHNOLOGY

(2013 PATTERN)

Time : 2½ Hours　　　　　　　　　　**Maximum Marks : 50**

N.B. :— (*i*) Question Nos. **1** and **6** are compulsory.

(*ii*) Solve any *three* questions from the remaining.

(*iii*) Figures to the right indicate full marks.

1. (*a*) Discuss various generations of computer. [5]

(*b*) Explain various pointing input devices of computer in brief. [5]

2. (*a*) Give difference between Windows and Open Source operating System. [5]

(*b*) Discuss the use of Speciality Processor. [5]

3. (*a*) Discuss various secondary storage devices in brief. [5]

(*b*) Explain Process Management in Operating System. [5]

4. (*a*) Convert the following numbers (any *two*): [5]

   (*i*) $(152)_{10} = (?)_2$

   (*ii*) $(111100)_2 = (?)_{10}$

   (*iii*) $(AD)_{16} = (?)_2$

   (*b*) Explain various computer languages. [5]

5. Define computer network and give difference between LAN and WAN. [10]

6. Write short notes on (any *two*) : [10]

   (*a*) ASCII

   (*b*) Network Topology

   (*c*) Audio output devices.

Seat No.	

M.C.M. (First Semester) EXAMINATION, 2019

102 : C PROGRAMMING AND DATA STRUCTURE

(2013 PATTERN)

Time : 2½ Hours　　　　　　　　　　**Maximum Marks : 50**

N.B. :— (*i*)　Question No. **1** is compulsory.

(*ii*)　Solve any *four* from the remaining.

(*iii*)　Figures to the right indicate full marks.

1.　(A)　Trace the output and justify the answer. Assume suitable header files.　　　　　　　　[6]

(*i*)　
```
void fun(int *,int *);
void main( )
{
int i=7,j=4;
fun(&I,&j);
printf ("\ti=%d and j=%d",I,j);
}
void fun(int * I,int *j)
```

```
        {
        *i=*I  +  *I;
        *j=*j  +  *j;
        }
(ii)    #define  SQR(x)  x*x
        void  main( )
        {
        int  x=6;
        printf("\n  Result  is=%d",  SQR(x-1));
        }
```

(B)   Explain the following (any *two*) :   [4]

   (*a*)   Queues

   (*b*)   Recursive function

   (*c*)   Dynamic Memory allocation.

2.   WAP to display the following pattern using nested loops :   [10]

ABCD

  BCD

    CD

3.   WAP to accept multiline text from the user ended by character '9' and the program should display :   [10]

   (1)   no of tab spaces

   (2)   no of blank spaces

   (3)   no of lines

   (4)   no of alphabets.

in a given text.

4. Write a recursive function which receives the number and return the factorial value that number. [10]

5. Write a program to accept itcode, desc, rate and qty of 30 items. Display all the records in tabular form. [10]

6. Write a program to accept the two file names from the user and append the contents of first file to the second file. [10]

7. Write a program to accept the 10 numbers and display the lowest, highest and average value from these nos. [10]

Total No. of Questions—**5**]

[Total No. of Printed Pages—**3**

Seat
No.

[5567]-1003

M.C.M. (I Semester) EXAMINATION, 2019

103 : SOFTWARE ENGINEERING WITH UML

(2013 PATTERN)

Time : 2½ Hours

Maximum Marks : 50

N.B. :— (*i*) Question No. **1** and **5** are compulsory.

(*ii*) Answer any *two* from the remaining.

(*iii*) Mention assumptions made for solving case study.

(*iv*) Neat diagrams carry marks.

1. 'Manasi' - a well-known restaurant wants to start home delivery of food. Following information has been gathered by System Analyst :

   – Customer places order by phone or in person.

   – Reception Clerk fills the order form in duplicate, one is given to Kitchen Manager and other is retained as an office copy.

   – Kitchen Manager prepares KON (Kitchen Order Note) in triplicate sending two to the kitchen and third to Account Department.

   – Kitchen prepares food as per the order, sends it to the reception along with signed copy of KON.

   – Account Department prepares the bill in duplicate, sending one to reception and other is retained as office copy.

   – Delivery boy delivers the food and bill to the customer.

P.T.O.

– Customer pays the bill in cash after receiving food.

– Cash is submitted to Account Department by delivery boy at the end of day.

(*a*) Draw 1st Level DFD. [7]

(*b*) Design suitable report layout of daily cash received and daily order booking. [7]

2. (*a*) Explain Functional and Non-functional requirements in detail. [6]

(*b*) Explain various Fact-finding Methods or Techniques. [6]

3. (*a*) Explain Decision Tree and Decision Table ? Draw the Decision Table for the following :

Admission of MBA (IT) course follows below given procedural rules :

– Student must have minimum 50% in any degree from any recognized university.

– Must have Math's/Stat subject in 12th or degree.

– For reserved category exemption of 5% is given.

– CET Score should be minimum 50%. [6]

(*b*) Distinguish between SSAD and OOAD ? [6]

4. (*a*) Draw a state transition diagram for Bank Safety Locker System which consists of a sensor and the system has following facilities :

   (1)   Sensing the Intruders

   (2)   Taking their Photographs

   (3)   Scanning their Finger Prints

   (4)   Alarm System

   (5)   Auto Dialing to the Authorities   [6]

   (*b*)   Explain Aggregation and Association with suitable example. [6]

5.   Write short note (any *three*) :   [12]

   (*i*)   Spiral Model of SDLC

   (*ii*)   Input and Output Design

   (*iii*)   RUP

   (*iv*)   Role of System Analyst.

Seat No.	

[5567]-1004

M.C.M. (I Sem.) EXAMINATION, 2019
104 : DATABASE MANAGEMENT SYSTEM
(2013 PATTERN)

Time : 2½ Hours   **Maximum Marks : 50**

***N.B.* :—** (*i*) Q. Nos. **1** and **5** are compulsory. Solve any *two* questions from the remaining.

    (*ii*) Figures to the right indicate full marks.

1. (*a*) Normalize the following layout upto 3NF :   [10]

<table>
<tr><td colspan="6" align="center">Service Call Report
XYZ Home Appliances</td></tr>
<tr><td colspan="6">Customer Code .... Customer Name ....</td></tr>
<tr><td colspan="6">Customer Address ....</td></tr>
<tr><td colspan="6">Date of Call ..../........./........   Time of Call ....</td></tr>
<tr><td>Sr. No.</td><td>Machine Name</td><td>Problem</td><td>Spares Used</td><td>Qty</td><td>Amount</td></tr>
<tr><td></td><td></td><td></td><td></td><td>Total</td><td></td></tr>
<tr><td colspan="6">Service Charge ....   Grand Total ....</td></tr>
<tr><td colspan="6">Engineer Code and Name ....</td></tr>
<tr><td colspan="6" align="right">Customer Sign</td></tr>
</table>

(*b*)   Explain aggregation and generalization with examples.   [5]

2.   Explain Codd's rule.   [10]

3.   Explain the time stamp based protocol.   [10]

4.   Explain the fundamental oeprations of relational algebra.   [10]

5.   Write short notes on (any *three*) :   [15]
   (1)   ACID properties
   (2)   Data mining
   (3)   Data independance
   (4)   Access control mechanism
   (5)   Database users.

<table>
<tr><td>Seat
No.</td><td></td></tr>
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[5567]-2001

MCM (Second Semester) EXAMINATION, 2019

201 : BUSINESS APPLICATION AND ERP TOOL

(2013 PATTERN)

Time : 2½ Hours　　　　　　　　　　　　　**Maximum Marks : 50**

Instructions to the Candidate:

1. Solve any Five
2. Figures to the right indicate full marks

Q.1.A] Define ERP? Explain the importance of ERP with respect to manufacturing company?[10]

　　　　OR

　　B] Explain post implementation review of ERP package with respect service industry? [10]

Q.2. A] Explain steps involved in customer order processing system with the help of context level DFD. Draw format of any three reports generated from the system. [10]

　　　　OR

　　B] What do you mean by BOM? Draw the layout of BOM? [10]

Q.3. A] What is Product? Explain the PLC with diagram? [10]

　　　　OR

　　B] Explain FIFO and LIFO methods with examples? [10]

Q.4. A] Define Market Segments. Specify Different Market Segments. Explain how different market segment boost sales. [10]

　　　　OR

　　B] Design a quotation for the following items. Consider you as sales manager of Arena Multimedia,Mumbai. [10]

Sr.No.	Particular	Quantity
1	Laptop	3
2	Keyboard	6
3	Web camera	3
4	Printer	2
5	Speaker	5

P.T.O.

Q.5. A] Explain the procedure to prepare Profit and Loss A/c along with it's format
for any small scale company who engaged in automobile sector.   [10]

   B] What is ratio Analysis? Describe how the Financial Raio Analysis supports Management to
make Decisions?   [10]

Q.6. A] What is Payroll? Draw the layout of Pay Slip & Explain all Income and Deduction heads? [10]
         OR
   B] Define recruitment? Explain the Sources of Recruitment?   [10]

Q.7. A] Explain barriers in ERP implementation in brief?   [10]
         OR
   B] Write a short notes on (any two)   [10]
         a) Material Requisition
         b) E-Banking
         c) MRP

Seat
No.

M.C.M. (II Semester) EXAMINATION, 2019

202 : PRINCIPLES AND PRACTICES OF MANAGEMENT AND ORGANIZATIONAL BEHAVIOUR

(2013 PATTERN)

Time : 2½ Hours　　　　　　　　　　　　**Maximum Marks : 50**

N.B. :— (*i*) *All* questions are compulsory.

　　　　(*ii*) *All* questions carry equal marks.

1. Define management. Explain managerial functions in detail.

　　　　　　　　　　　　　Or

　Differentiate between line and staff manager.

2. To enhance the productivity and co-ordination between employees and management, how administrative theory is applicable.

　　　　　　　　　　　　　Or

　Explain system approach to the management.

3. ABC retailer venture of Mr. Garry was closed their few mall across India. If they want to come back again in the same domain. How decision-making process can be used in the given scenario ?

　　　　　　　　　　　　　Or

　(A) Explain process of organizing.

　(B) Expalin need and importane of OB.

4. What is ego state. Explain transactional analysis in detail.

Or

Define group. Explain group formation process in detail.

5. Define team. Explain team building process in detail.

Or

Explain theory X, Y in detail.

Seat
No.

[5567]-2003

M.C.M. (II Sem.) EXAMINATION, 2019

203 : ADVANCED RDBMS USING ORACLE

(2013 PATTERN)

Time : 2½ Hours　　　　　　　　　　　　　　**Maximum Marks : 50**

Q.1　**Player** (P_id, Name, Strike rate, Average, Country, Age, Category,　　**(20)**
　　　Career_start_date, No_of_wkts, No_of_centuries)
　　　Category contain –Baller, Batsman, All rounder

　　　Match (matchId, Date, Target, City, Type (Test/20-20/One-day)
　　　Match_played (matchId, palyerid, Wickets, Runs, man_of_the_match (yes/no))

　　　Consider the above tables to solve following queries. (Solve Any 10)
　　　　1.　Create Player table with appropriate constraints
　　　　2.　Display the name of players who played 20-20 matches
　　　　3.　Count the total number of matches played by "Virat Kohli"
　　　　4.　Display the details of player who won Man of the match title maximum times.
　　　　5.　Display details of match that are played on Sunday
　　　　6.　List the country name which has youngest player.
　　　　7.　Display the match a detail in which century was made by 'Suresh Raina'.
　　　　8.　Display the name of player who had not played test match yet.
　　　　9.　Display the number of players in each category.
　　　　10.　Display the player details whose name contain 'sing'
　　　　11.　Display the details player who score zero

Q.2　**Explain with appropriate example following functions**
　　　　1.　Substr()
　　　　2.　Decode()
　　　　3.　Nvl()
　　　　4.　To_char()
　　　　5.　User ()

Q.3 **Write a Package as follows-**
      1.   Function which accept string from user and returns the reverse string.
      2.   Procedure which display prime numbers from 1 to 100
         Also write calling PL.

Q.4   Write a trigger which does not allowed access to player table on Sunday.   **(10)**

Q.5 **Write a short note on (Any 2)**   **(10)**
      1.   Sequence
      2.   Data Types
      3.   Date Functions
      4.   Exception

Total No. of Questions—5]	[Total No. of Printed Page—1

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[5567]-2004

M.C.M. (Sem. II) EXAMINATION, 2019
204 : JAVA PROGRAMMING
(2013 PATTERN)

Time : 2½ Hours	**Maximum Marks : 50**

N.B. :— (*i*) Question Nos. **1** and **5** are compulsory.

(*ii*) Solve any *two* questions from remaining.

1. Solve the following :	[15]
    (*a*) AWT
    (*b*) Use of Super keyword in Java
    (*c*) Use of Final keyword in Java
    (*d*) Basic OOP concept
    (*e*) Method overloading.

2. Explain life cycle of Thread in Java.	[10]

3. Write a program to swap the content of two data files.	[10]

4. Write an application to accept the name and age of an employee through command line. If age of user is less than 20 years throw user defined exception "Invalid Age Exception".	[10]

5. Write short notes on (any *three*) :	[15]
    (*a*) Adapter classes
    (*b*) Vector
    (*c*) Applet life cycle
    (*d*) Constructors
    (*e*) Swing components.

[5567]-2004

Total No. of Questions—**5**]

[Total No. of Printed Pages—**2**

Seat No.

[5567]-3001

M.C.M. (III Sem.) EXAMINATION, 2019

301 : INFORMATION SECURITY AND AUDIT

(2013 PATTERN)

Time : 2½ Hours **Maximum Marks : 50**

N.B. :— *All* questions are compulsory.

1. Explain the importance of physical security and biometric controls for protecting information security assets. [10]

Or

What do you mean by Computer Crime ? Elaborate different types of Crimes.

2. What is Firewall ? Explain its types in detail. [10]

Or

What are the Security Threats in the E-commerce Environment ?

3. Explain the concept of Digital signature and Copy right. [10]

Or

How Encryption and Decryption helps to maintain security ?

4. Describe the role of Database Administrator in Audits and Asset Management. [10]

Or

Discuss SSE-CMM model in detail.

5. Explain the security of electronic mailing systems. [10]

Or

Explain the security of virtual private networks.

Total No. of Questions—**6**] [Total No. of Printed Page—**1**

Seat No.	

[5567]-3002

M.C.M. (Third Semester) (Specialization) EXAMINATION, 2019

302-NT : BASICS OF NETWORK TECHNOLOGIES

(2013 PATTERN)

Time : 2½ Hours **Maximum Marks : 50**

N.B. :— (*i*) Solve any *five* questions.

(*ii*) *All* questions carries equal marks.

1. Explain Microsoft .NET Framework.

2. Explain Bus, Star and Ring Topologies.

3. Explain various types of servers—Standard Server, Enterprise Server, Data Center.

4. Explain various partitions and purposes in Linux.

5. What is Internet Service Provider ? Explain various types of ISP.

6. Write short notes on (any *two*) :

(*a*) Network load Balancing

(*b*) Storage Management

(*c*) Virtual Private Network (VPN) Server.

Total No. of Questions—**6**]   [Total No. of Printed Pages—**2**

Seat
No.

[5567]-3003

M.C.M. (Third Semester) (Specialization) EXAMINATION, 2019

B : 302-ST : SOFTWARE QUALITY ASSURANCE

(2013 PATTERN)

Time : 2½ Hours   **Maximum Marks : 50**

N.B. :— (*i*) Solve any *five* questions.

(*ii*) Figures to the right indicate full marks.

1. What is Software Project Management ? Explain different phases
    of Project life cycle.   [10]

2. What is IEEE 1012 standard ? Explain it in detail.   [10]

3. (*a*) What is CASE Tool ?   [5]

    (*b*) Distinguish between Verification and Validation.   [5]

4. Define Software quality. Describe errors, fault and failure with proper
    justification.   [10]

5. What is risk management ? Explain risk management in detail. [10]

6. Write short notes on (any *two*) : [10]

    (*a*)   Staff training

    (*b*)   Impact of Case Tools

    (*c*)   Release and version control.

Seat
No.

[5567]-3004

M.C.M. (Third Semester) EXAMINATION, 2019

SOFTWARE AND DEVELOPMENT SPECIALIZATION

(302-SD : Program and Design with ASP.NET)

(2013 PATTERN)

Time : 2½ Hours   **Maximum Marks : 50**

N.B. :— (*i*) Q. No. **1** is compulsory.

   (*ii*) Solve any *four* from the remaining.

1. Draw and explain dot NET framework architecture.   [10]

2. Design a form and write code to :   [10]

   (*a*) Add new record

   (*b*) Delete sllected record

   (*c*) Edit selected record

   Name of table—Student (sid, sname, sadd, sphone)

3. Explain regular expression and required field validator control in detail.   [10]

4. Explain steps to create master pages.   [10]

5. Explain the concept of exception handling with suitable example.   [10]

P.T.O.

6. Explain the following controls (any *two*) : [10]

    (*a*)   Panel and Placeholder

    (*b*)   Label

    (*c*)   Image.

7. Write short notes on (any t*wo*) : [10]

    (*a*)   Web services

    (*b*)   Data types

    (*c*)   Crystal report.

Total No. of Questions—**6**]   [Total No. of Printed Pages—**1**

Seat
No.

[5567]-3005

M.C.M. (III Semester) EXAMINATION, 2019
303NT : SERVER AND DESKTOP TECHNOLOGIES
(2013 PATTERN)

Time : 2½ Hours   **Maximum Marks : 50**

N.B. :— Solve any *five* questions.

1.   Explain all types of addressing modes in detail.   [10]

2.   What is meant by pipelining ? Explain different types of pipelining
     in detail.   [10]

3.   What is Memory ? What is RAM ? Explain different types of
     RAM.   [10]

4.   Explain the stepwise process of installing Windows XP.   [10]

5.   Explain with block diagram the 64 bits Pentium Dual Core
     Architecture.   [10]

6.   Discuss the process of hardware installation in Windows XP and
     Bluetooth configuration in Windows 7.   [10]

Seat
No.

[5567]-3006

M.C.M. (III Semester) EXAMINATION, 2019

303 ST : SOFTWARE TESTING PROCESSES AND DOCUMENTATION

(Software Testing Specialization)

(2013 PATTERN)

Time : 2½ Hours　　　　　　　　　　　**Maximum Marks : 50**

N.B. :— (*i*)　Solve any *five* questions.

(*ii*)　Each question carries **10** marks.

1.　Define Defect ? Discuss how to reduce the frequency of defects in software development. [10]

2.　Explain Functional and Structural Testing. [10]

3.　Differentiate between Black Box and White Box Testing. [10]

4.　Explain Tester's Workbench. Explain various test tools required during complete test work process. [10]

5.　Discuss Internal controls of Software Testing. Explain Internal Control Models. [10]

6. Write short notes on (any *two*) : [2×5=10]

    (*a*)   COTS Software Test Process

    (*b*)   Incremental Testing

    (*c*)   Penetration Point Matrix.

Total No. of Questions—**6**]

[Total No. of Printed Page—**1**

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[5567]-3007

M.C.M. (Third Semester) EXAMINATION, 2019

303-SQ : MOBILE PROGRAMMING USING ANDROID

(2013 PATTERN)

Time : 2½ Hours　　　　　　　　　**Maximum Marks : 50**

N.B. :—Solve any **5** out of **6**.

1. Explain building block of android.　　　　　　　　　[10]

2. Explain the method to store raw audio file.　　　　　[10]

3. Explain service life cycle in android.　　　　　　　[10]

4. Explain use of SQLite database in android with example.　[10]

5. Explain the use of theme in android application.　　　[10]

6. Explain the use of content provider for SQlite in android application.　　　　　　　　　　　　　　　　　[10]

[5567]-3007

Total No. of Questions—6]   [Total No. of Printed Pages—1

Seat
No.

[5567]-3008

M.C.M. (III Semester) EXAMINATION, 2019
304-NT : SYSTEM ADMINISTRATION AND SERVER INTEGRATION
(2013 PATTERN)

Time : 2½ Hours   Maximum Marks : 50

N.B. :— (*i*) Q. No. **6** is compulsory.
         (*ii*) Answer any *three* questions from the remaining.
         (*iii*) Figures to the right side indicate full marks.
         (*iv*) Draw neat diagram wherever necessary.

1. What are the features of Windows Server 2008 ? Also explain its
    functionality.   [10]

2. Explain Services in Linux. How are services selected for startup
    in Linux.   [10]

3. Explain installation steps of Fedora Operating System.   [10]

4. Explain in detail Installation procedure of Windows 2003 Server.[10]

5. Explain File Management and Print Management Command in
    Linux.   [10]

6. Write short notes on (any *four*) :   [10]
    (*a*) Windows 2003 Server Role
    (*b*) Linux Apache Server
    (*c*) Distributed Operating System
    (*d*) Windows 2003 Server Role
    (*e*) Package Management.

Total No. of Questions—6]   [Total No. of Printed Pages—1

Seat
No.

[5567]-3009

M.C.M. (IT) (III Semester) EXAMINATION, 2019
304 ST : SOFTWARE TEST PLANNING AND DOCUMENTATION
(2013 PATTERN)

Time : 2½ Hours   Maximum Marks : 50

N.B. :— (i)   Solve any 5 questions.

(ii) All questions carry equal marks.

1. Explain use cases. Write down use cases for android based on line
    college admission system.   [10]

2. Discuss various Tools used to prepare test report.   [10]

3. Explain functional and structural test cases.   [10]

4. Discuss the role of various tools in testing.   [10]

5. Explain User Acceptance Testing.   [10]

6. Write short notes (any two) :   [10]
    (a) Test Matrix
    (b) Regression Analysis
    (c) Test plan standards.

Seat No.	

[5567]-3010

M.C.M. (III Semester) EXAMINATION, 2019
304 SD : ADVANCED JAVA
(2013 PATTERN)

Time : 2½ Hours　　　　　　　　　**Maximum Marks : 50**

N.B. :— (*i*)　Q. No. **1** is compulsory.

(*ii*)　Solve any *four* questions from Q. Nos. **2** to **6**.

1.　Answer the following (any *five*) :　　　　　　　　　　[10]

(*a*)　Different ways to create socket.

(*b*)　Method signature of service of in servlet.

(*c*)　URL class.

(*d*)　Differentiate between <JSPinclude> and <JSP:forward>.

(*e*)　Prepared Statement

(*f*)　JSTL tags.

2.　What a client server chat application.　　　　　　　　[10]

3.　Write a JDBC code to insert a record in faculty table.　　[10]

4.　Write JSP code to accept empno and delete the record.　　[10]

5.　Write a servlet to register students for alumni assume suitable structure.　　　　　　　　　　　　　　　　　　　　[10]

6.　Write short notes (any *two*) :　　　　　　　　　　　[10]

(*a*)　RMI architecture

(*b*)　Types of JDBC drivers

(*c*)　Servlet life-cycle.

Seat
No.

[5567]-4001

M.C.M. (IV Semester) EXAMINATION, 2019
401 : CURRENT TRENDS IN IT
(2013 PATTERN)

Time : 2½ Hours　　　　　　　　　　　　　**Maximum Marks : 50**

N.B. :— (*i*)　Q. Nos. **1** and **6** are compulsory.

　　　　(*ii*)　Attempt any *two* from the remaining.

　　　　(*iii*)　Support your answers with relevant examples and diagram.

　　　　(*iv*)　Figures to the right indicate full marks.

1. An autonomous management institute has started distance learning PGDBM programme for working management professional. Institute is interested in conducting online admission process, online dispatch of study material, virtual teaching and exam. As a IT consultant suggest various models of e-learning and justify your suggestion. [15]

2. Explain e-Learning Tools and Techniques with appropriate example. [10]

3. Explain the Deployment model in brief. [10]

4. Social Networking sites are making impact on latest generations. Explain it. [10]

5. Explain m-commerce in brief with appropriate example. [10]

6. Write short notes on (any *three*) : [10]
　(*i*)　Paypal
　(*ii*)　Virtual School System
　(*iii*)　Instant Messanger
　(*iv*)　m-wallet.