

Total No. of Questions : 5]

SEAT No. :

PD1716

[Total No. of Pages : 2

[6433]-101

First Year M.B.A. (IT)

101 Core : C PROGRAMMING & DATA STRUCTURE

(Revised 2020 Pattern) (Semester -I)

Time : 2½ Hours]

[Max. Marks : 50

Instructions to the candidates:

- 1) *All questions are compulsory.*
- 2) *Figures to the right indicates full marks.*

Q1) Solve any five. [10]

- a) Getch () & Getchar ()
- b) Ternary operator
- c) Static keywords
- d) Call by Reference
- e) Stack
- f) Malloc () & Free ()
- g) Storage classes
- h) Union

Q2) Answer the following questions. (any two) [10]

- a) List out Bitwise operator. Explain any one Bitwise operator with example.
- b) Explain Array with an suitable example.
- c) Explain the role of arithmetic expression and built in operators in C-programming.

Q3) Answer the following questions. (any one) [10]

- a) Write a program to find factorial of a number using recursion.
- b) Write a C program to accept marks of 10 students of a class in an array calculate and print average marks.

P.T.O.

Q4) Answer the following questions. (any one) **[10]**

- a) Write a C program to accept 50 students record in an array of structure with fields Roll-No, Name, Marks. Print student name who is having highest marks.
- b) Create a C program that demonstrates the use of f flush () to clear the input buffer after reading user input.

Q5) Answer the following questions. (any one) **[10]**

- a) Write a program in C to swap two numbers using pointers.
- b) Write a C program to create a text file and write a string to it using F open (), F puts () and F close ().



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SEAT No. :

PD1717

[6433]-102

[Total No. of Pages : 2

First Year M.B.A. (IT)

SOFTWARE ENGINEERING WITH UML

**102 Core : Software Engineering and Data Structures
(Revised 2020 Pattern) (Semester-I)**

Time : 2½ Hours]

[Max. Marks : 50

Instructions to the candidates:

- 1) *All Questions are compulsory.*
- 2) *Draw neat labeled diagrams wherever necessary.*
- 3) *All questions carry equal marks.*

Q1) Solve any Five (Each 2 marks) :

[5×2=10]

- a) Explain spiral model.
- b) Define nature of software.
- c) Write any four roles of users in SDLC.
- d) Distinguish RAD and prototyping model.
- e) Explain Rational unified process.
- f) Explain basic system development life cycle.
- g) Explain software development approach with SSAD.
- h) Define the basic characteristics of software systems.

P.T.O.

Q2) Write short note on (any 2) :

[2×5=10]

- a) OOAD Aggregation and composition.
- b) OOAD Abstraction and Encapsulation.
- c) OOAD Inheritance and Polymorphism.

Q3) Prepare Software Requirement Specification (SRS) document for managing a restaurant's table reservation and food ordering. **[10]**

OR

Explain Decision Tables and Decision Trees. Draw decision table for the following. To design Poultry Farming System (PFS). This system having below functionalities as -

- a) Poultry details registration onto in rural area and not in urban.
- b) Daily eggs production should be 80% of total capacity of poultry.
- c) Water and Food supply expected more than 90% of required.

Q4) Demonstrate use-case driven object oriented analysis for BHIM UPI transaction processing system. **[10]**

OR

Draw class diagram and Activity diagram for providing student feedback on teaching faculty and infrastructure facilities of the Institute.

Q5) Design user interface for online booking of movie tickets for metro multiplex. **[10]**

OR

Explain eight golden rules for GUI design with suitable example.



Total No. of Questions : 5]

SEAT No. :

PD-1718

[Total No. of Pages : 2

[6433] - 103

M.B.A. (Information Technology)

103 Core: DATA BASE MANAGEMENT SYSTEM (DBMS)

(2020 Revised) (Semester - I)

Time : 2½ Hours]

[Max. Marks : 50

Instructions to the candidates:

- 1) *All questions are compulsory.*
- 2) *Figures to the right indicate full marks.*

Q1) Answer of any five:

[10]

- a) What is DBMS security?
- b) What is crash recovery in DBMS?
- c) List out Database users.
- d) Explain Data definition in SQL.
- e) Define Cardinality.
- f) Define non volatile storage.
- g) Explain storage structure.
- h) Explain three characteristics of DBMS.

Q2) Solve any two:

[10]

- a) List the various data models and advantages of each data model.
- b) Explain object based data model. Discuss concept of transaction.
- c) Explain the Generalization with example.

Q3) A university registrar's office maintains data about the following entities: courses, including number, title, credits, syllabus, and prerequisites; Course offerings, including course number, year, semester, section number, instructor(s), timings, and classroom; students, including student-id, name, and program; and instructors, including identification number, name, department and title. Further, the enrollment of students in courses and grades awarded to students in each course they are enrolled for must be appropriately modeled: Construct an E-R diagram for the registrar's office. Document all assumptions that you

P.T.O.

make about the mapping constraints and instructor. The entity set course-offering is a weak entity set dependent on course. The assumptions made are: **[10]**

- a) a class meets only at one particular place and time. This E-R diagram cannot model a class meeting at different places at different times.
- b) there is no guarantee that the database does not have two classes meeting at the same place and time.[Take suitable assumption if necessary]

OR

Consider the following schedule of transactions T1, T2, and T3:

T1: R(A),W(A)

T2: W(A),R(B)

T3: W(B),R(A)

Determine whether the given schedule is serializable or not,

Q4) How does SQL implement entity integrity constraints of the relational data model? **[10]**

OR

Write SQL statements for following tables:

Student(Enrno, name, course Id, email Id, cellno)

Course(course Id, course_nm, duration)

- A. Add a column city in student table.
- B. Find out list of students who have enrolled in “computer” course.
- C. List name of all courses with their duration.
- D. List name of all students start with “a”.

Q5) Consider a relation scheme $R = (A, B, C, D, E, H)$ on which the following functional dependencies hold: $\{A \rightarrow B, BC \rightarrow D, E \rightarrow C, D \rightarrow A\}$. Write the candidate keys of R? **[10]**

OR

Demonstrate the concept of BCNF in database systems giving suitable example.



Total No. of Questions : 5]

SEAT No. :

PD1719

[Total No. of Pages : 2

[6433]-104

First Year M.B.A.(IT)

**104 Core : PRINCIPLES OF MANAGEMENT AND
ORGANIZATIONAL BEHAVIOUR**

(Revised 2020 Pattern) (Semester - I)

Time : 2½ Hours]

[Max. Marks : 50

Instructions to the candidates:

- 1) *All questions are compulsory.*
- 2) *Each questions carries 10 marks.*

Q1) Answer any 5 out of 8. (2 marks each).

[10]

- a) Define planning.
- b) Explain the ego state.
- c) Define contingency Approach.
- d) What is structured decisions.
- e) List out the functions of management.
- f) What is term of organization.
- g) Define the concept of conflict.
- h) Explain the term team building.

Q2) Solve any 2 out of 3. (5 marks each).

[10]

- a) Johari window.
- b) Bureaucratic leadership.
- c) Non-programmable Decisions.

P.T.O.

Q3) Solve any one **[10]**

- a) Explain the Theory X or Theory Y and Theory Z.
- b) Elaborate the advantages and disadvantages of group decisions.

Q4) Solve any one **[10]**

- a) Define the concept of motivation? Give a brief descriptions on different motives?
- b) What is leadership? Explain the types of leadership?

Q5) Solve any one **[10]**

- a) Transactional Analysis helps in understanding the individual behavior. Do you agree with the statement?
- b) Elaborate the concept of Team and benefits from team? Also explain types of Teams?

* * *

Total No. of Questions : 5]

SEAT No. :

PD1720

[Total No. of Pages : 2

[6433]-105

First Year M.B.A. (I.T)

**105 (CORE) : FUNDAMENTALS OF INFORMATION
TECHNOLOGY**

(Revised 2020 Pattern) (Semester - I)

Time : 2 ½Hours]

[Max. Marks : 50

Instructions to the candidates:

- 1) *All questions are compulsory.*
- 2) *Figuers to right indicate marks for questions / Sub questions.*

Q1) Answer the following (any 5).

[5×2=10]

- a) What are the types of network topologies?
- b) What is primary storage?
- c) Explain types of computer?
- d) What is ASCII?
- e) Define operating system.
- f) What is microprocessor?
- g) Define software.
- h) What are types of language convertor?

Q2) Answer the following (any 2).

[2×5=10]

- a) Explain input and output devices with examples.
- b) Explain multiprocessing and multiprogramming.
- c) Explain Android and IOS operating system.

Q3) Convert the following.

[1×10=10]

a) i) $(278)_{10} = (?)_2$

ii) $(536)_8 = (?)_{16}$

OR

b) i) $(10010110)_2 = (?)_8$

ii) $(3EC)_{16} = (?)_8$

P.T.O.

Q4) Solve any one.

[1×10=10]

a) Explain difference between Windows & Open Source Os.

OR

b) Draw digital block diagram of computer and write function of memory.

Q5) Solve any one.

[1×10=10]

a) Explain computer network and its benefits.

OR

b) Explain ISO model with seven layers.



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SEAT No. :

PD1721

[6433]-106

[Total No. of Pages : 2

First Year M.B.A. (Information Technology)

106 Core : DIGITAL MARKETING

(2020 Revised Pattern) (Semester - I)

Time : 2½ Hours]

[Max. Marks : 50

Instructions to the candidates:

- 1) All questions are compulsory.*
- 2) Figures to the right indicate full marks.*
- 3) Draw neat, labelled diagram whenever necessary.*
- 4) Assume Suitable data if necessary.*

Q1) Solve any Five.

[10]

- a) Define marketing tool.
- b) What do you mean E commerce?
- c) What is marketing?
- d) What is online advertisement?
- e) State any 2 examples of digital marketing.
- f) What is Email marketing?
- g) What is mobile marketing?
- h) State any two advantages of digital marketing.

Q2) Solve any Two.

[10]

- a) Explain the concept of Content Marketing.
- b) State the approach of Social Media Marketing in brief.
- c) Explain the elements of E-commerce.

Q3) Solve any One.

[10]

- a) What are SEO and explain the characteristics of SEO?
- b) Explain the features and channels of Digital Marketing.

P.T.O.

Q4) Solve any One.

[10]

- a) Explain the advantages of Email Marketing in details.
- b) Explain in Details Search engine Marketing.

Q5) Solve any One.

[10]

- a) Discuss the critical strengths and applications of digital marketing.
- b) Explain the marketing strategies for the digital world.



Total No. of Questions : 5]

SEAT No. :

PD1722

[6433]-107

[Total No. of Pages : 2

First Year M.B.A. (I.T.)

107 - UL : E-COMMERCE

(Revised 2020 Pattern) (Semester-I)

Time : 2 Hours]

[Max. Marks : 50

Instructions to the candidates:

- 1) All questions are compulsory.*
- 2) Draw neat labelled diagrams, wherever required.*
- 3) Assume suitable data, if necessary.*

Q1) Solve any Five (2 Marks each) :

[10]

- a) Define E-Commerce.
- b) Elaborate the concept of Enterprise 2.0.
- c) Define Digital Economy?
- d) List any two characteristics of successful E-tailing?
- e) Enlist most commonly used online booking agencies?
- f) Memorize any two application of Web 2.0.
- g) Name any two benefits of e-recruitment method?
- h) Define virtual community.

P.T.O.

Q2) Solve any two (5 Marks each) :

[10]

- a) Describe the advantages of E-Commerce for customers?
- b) Explain the term Intermediation & Disintermediation?
- c) Discuss the different types of E-Commerce Models.

Q3) Solve any one :

[10]

- a) E-business rapidly growing Industry - Justify this statement.
- b) What is E-catalogue? Discuss the objectives of E-catalogues.

Q4) Solve any one :

[10]

- a) What do you mean by Social Business Networks? Discuss the types of social business networks with examples.
- b) Discuss how IoT has impacted on different sectors of society.

Q5) Solve any one :

[10]

- a) Summarise in detail the advantages of E-employment with reference to job seeker and employer.
- b) Discuss with a neat diagram E-Commerce activities and mechanism? Describe the online purchasing process?



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SEAT No. :

PD-3923

[Total No. of Pages : 2

[6433]-108R

F.Y. M.B.A. (IT)

108 - UL : WEB DESIGNING

(2020 Revised) (Semester - I)

Time : 2 Hours]

[Max. Marks : 50

Instructions to the candidates:

- 1) *All questions are compulsory.*
- 2) *Each questions having 10 marks.*

Q1) Solve any five.

[10]

- a) Define WWW and W3C.
- b) What is image mapping?
- c) What is the difference between logical and physical HTML tags?
- d) Define JavaScript functions.
- e) What are control structures in JavaScript?
- f) Define arrays in VB Script.
- g) What is form validation?

Q2) Solve any 2 out of 3.

[10]

- a) Discuss HTML Frame with suitable Example
- b) Explain number and string functions in JavaScript.
- c) Demonstrate all comparison operators in VB Script.

Q3) Solve any 2 .

[10]

- a) Write HTML code for creating a registration form.
- b) Describe in detail how arrays work in JavaScript with example.
- c) Write a VB Script program to calculate the factorial of a number.

Q4) Solve any 2 .

[10]

- a) Explain collections in DOM with suitable example.
- b) Write JavaScript code for validating user input in a login form.
- c) Describe the structure of an HTML document using a template.

P.T.O.

Q5) Solve any 2 .

[10]

- a) Explain table tags and attributes in HTML with code.
- b) Describe VB Script functions with examples.
- c) Compare JavaScript and VBScript in terms of form handling.



Total No. of Questions : 5]

SEAT No. :

PD1724

[6433]-109

[Total No. of Pages : 2

First Year M.B.A. (I.T.)

109 UL : CYBER SECURITY

(Revised 2020 Pattern) (Semester-I)

Time : 2 Hours]

[Max. Marks : 50

Instructions to the candidates:

- 1) *All questions are compulsory.*
- 2) *Each question carries 10 marks.*

Q1) Solve any five.

[10]

- a) Define Cryptography.
- b) Define internet.
- c) How many types of firewall are there?
- d) Define topology.
- e) Define Virus.
- f) What is botnet?
- g) What is https?
- h) What is WAP?

Q2) Answer any two.

[10]

- a) Explain the types of cyber attack.
- b) Explain security in VPN.
- c) Explain topologies.

Q3) Answer any one.

[10]

- a) Explain transmission media in detail.
- b) Explain encryption in detail.

P.T.O.

Q4) Answer any one.

[10]

- a) How security works for E-commerce?
- b) What are the different standards and laws for security.

Q5) Answer any one.

[10]

- a) Explain risk management in cyber security.
- b) Explain the steps to setup a firewall.



Total No. of Questions : 5]

SEAT No. :

PD1725

[Total No. of Pages : 2

[6433]-201

First Year M.B.A. (Information Technology)

201 SD : JAVA PROGRAMMING

(2020 Revised Pattern) (Semester -II)

Time : 2½ Hours]

[Max. Marks : 35

Instructions to the candidates:

- 1) *All questions are compulsory.*
- 2) *Figures to the right indicate full marks.*

Q1) Solve the following:

[10]

- a) What is market interface?
- b) What are Abstract classes?
- c) Give the importance of super keyword in java.
- d) What is static modifier?
- e) What is garbage collection?
- f) What is a final method?
- g) Explain primitive data types.
- h) What is Interface?

Q2) Solve any 2

[10]

- a) Write an application to accept data of 10 students rollno, name, course, marks. Display one by one each of them.
- b) Explain Exception with an example.
- c) Explain string class with methods using examples.

Q3) Solve the following programs (any one)

[10]

- a) Write a Java application to accept a number from the user and find if its is a prime number. If so display an exception "Primenumber Exception".
- b) Write a Java program to show method overloading.

P.T.O.

Q4) Write a Java code for the following program: (any one) **[10]**

- a) Write a Java program that accepts lower case characters from command line and counts the number of characters from it.
- b) Write a program to display factorial of a number.

Q5) Solve the following (any 1) **[10]**

- a) Write a Applet to change the background color.
- b) Explain Applet life cycle.



Total No. of Questions : 5]

SEAT No. :

PD1726

[Total No. of Pages : 2

[6433]-202

First Year M.B.A. (IT)

201 NT : BASICS OF NETWORKING

(Revised 2020 Pattern) (Semester -II)

Time : 2½ Hours]

[Max. Marks : 50

Instructions to the candidates:

- 1) *All questions are compulsory.*
- 2) *All questions carry equal marks.*
- 3) *Figures to the right indicate full marks.*

Q1) Define the following terms (any 5)

- a) IP
- b) SMTP
- c) Computer network
- d) Firewall
- e) Topology
- f) Internet
- g) IPv 4 and IPv 6
- h) Intranet

Q2) Answer any two

- a) Discuss network protocol TCP/IP in brief
- b) Define Networking? Explain the different types of network
- c) Differentiate between Host terminal network and client server network

Q3) a) Describe role of DHCP. Explain steps configuring the DHCP server for windows server 20012

OR

- b) What are different types of network components

P.T.O.

Q4) a) Define Active Directory? Explain steps for configuring the Active Directory and Domain controller in windows server - 2012

OR

b) Write the installation steps for windows server-2008 operating system.

Q5) a) Give brief description of user management and Group management in windows server 20012.

OR

b) Explain features of various types of windows server-2008



Total No. of Questions : 5]

SEAT No. :

PD1727

[Total No. of Pages : 2

[6433]-203

First Year M.B.A. (Information Technology)

SOFTWARE TESTING

201-ST : Introduction to Software Testing Life Cycle (STLC)

(Revised 2020 Pattern) (Semester -II)

Time : 2½ Hours]

[Max. Marks : 50

Instructions to the candidates:

- 1) All questions are compulsory.*
- 2) Each questions having 10 marks.*
- 3) Figures to the fight indicate full marks.*

Q1) Define the following terms (Any Five)

- a) Testing
- b) Verification
- c) Functional Testing
- d) Requirements Tracing
- e) Testbed
- f) Smoke Testing
- g) Test Execution
- h) Contracted software

Q2) Answer any two of the following.

- a) What is Software Bug?
- b) What is the Level of Testing?
- c) What is Test Report? What does it include?

Q3) Answer any one of the following.

- a) Explain Bug Life Cycle?
- b) Explain why is software testing necessary?

P.T.O.

Q4) Answer any one of the following.

- a) How to build a Penetration Point Matrix? Give suitable example?
- b) Describe the Tester's role in a software development organization?

Q5) Answer any one of the following.

- a) Explain Internal Control and its component?
- b) How to build steps to better Application Security Strategies?



Total No. of Questions : 5]

SEAT No. :

PD1728

[6433]-204

[Total No. of Pages : 2

First Year M.B.A. (Information Technology)
202SD : MOBILE PROGRAMMING USING ANDROID
(2020 Revised Pattern) (Semester-II)

Time : 2½ Hours]

[Max. Marks : 50

Instructions to the candidates:

- 1) All Questions are compulsory.*
- 2) All questions carry equal marks.*
- 3) Each Questions having 10 marks.*

Q1) Solve any Five of the following :

- a) Enlist various versions of Android.
- b) What is SDK?
- c) List important files and folders in Android list components of Android application.
- d) What is fragment?
- e) What are attributes of Textview?
- f) Define Toast in Android.
- g) What role does Linux Kernel plays in Android devices?
- h) Explain attributes “Wrap_content” and “match_parent” with respect to view group.

P.T.O.

Q2) Write short notes on (Any Two) :

- a) Manifest.xml File.
- b) R.Java file.
- c) SQLite Database.

Q3) Solve any one of the following :

- a) What is Intent? Explain the types of Intents.
- b) What is activity? Explain activity life cycle.

Q4) Solve any one of the following :

- a) Explain Android architecture in detail.
- b) State and explain the steps for publishing Android App to Google market.

Q5) Solve any one of the following :

- a) Design an activity to display video from SD card.
- b) Write a java code file for displaying list view of array values.



Total No. of Questions : 5]

SEAT No. :

PD1729

[6433]-205

[Total No. of Pages : 2

First Year M.B.A. (IT)

202 - NT - Core : SERVER AND DESKTOP TECHNOLOGIES

(Revised 2020 Pattern) (Semester-II)

Time : 2½ Hours]

[Max. Marks : 50

Instructions to the candidates:

- 1) *All Questions are compulsory.*
- 2) *Each Questions having 10 marks.*
- 3) *Figures to the right indicate full marks for individual questions.*

Q1) Give the answers in short (Solve any 5) :

[5×2=10]

- a) What is the role of Time space diagram?
- b) Explain the types of ports on the PC.
- c) Explain the SD-RAM.
- d) What is SMPS?
- e) What is a virus?
- f) What do you mean by an Interrupts?
- g) Define the term BlueTooth.
- h) Explain Ethernet.

P.T.O.

Q2) Solve any two of the following :

[2×5=10]

- a) What is Master Boot Record (MBR)?
- b) Explain the different units of 8 bit processor architecture.
- c) Draw and explain CPU building blocks.

Q3) Solve any one of the following :

[10]

- a) Explain the types of hardware interrupts.
- b) How to rectify booting problems? With examples.

Q4) Solve any one of the following :

[10]

- a) Explain with block diagram the Pentium microprocessor Architecture.
- b) Explain the steps to install new Windows 10.

Q5) Write descriptive note on any two :

[2×5=10]

- a) Disk Management techniques.
- b) Explain steps to install network printer.
- c) Software diagnostic tool.



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SEAT No. :

PD1730

[6433]-206

[Total No. of Pages : 2

First Year M.B.A. (IT)

202ST : SOFTWARE QUALITY ASSURANCE

(2020 Revised Pattern) (Semester-II)

Time : 2½ Hours]

[Max. Marks : 50

Instructions to the candidates:

- 1) All Questions are compulsory.*
- 2) Each Question having 10 marks.*
- 3) Figures to the right indicate full marks.*

Q1) Give the answers in short (Solve any 5 each having 2 Marks) : **[5×2=10]**

- a) List models of software development process.
- b) Define Software error.
- c) List the causes of software faults.
- d) Explain walkthrough process.
- e) List quality management standards.
- f) Who performs a contract review?
- g) What are reviews?
- h) Define validations.

P.T.O.

Q2) Solve any two (each of 5 Marks) :

[2×5=10]

- a) Explain SQA objectives.
- b) Elaborate various software maintenance components.
- c) Explain the term software testing.

Q3) Solve any one of the following :

[10]

- a) Draw the SQA architecture and explain six classes of components.
- b) Explain contract review process.

Q4) Solve any one of the following :

[10]

- a) Explain Capability Maturity Models (CMM/CMMI).
- b) What are the three factor categories belonging to McCall's factor model?

Q5) Write descriptive note on any two :

[2×5=10]

- a) ISO 9001 guiding principles.
- b) Explain Software configuration.
- c) CASE Tools.



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SEAT No. :

PD-1731

[Total No. of Pages : 2

[6433]-207

M.B.A. (I.T.)

203: BUSINESS PROCESS DOMAIN

(Rev.2020 Pattern) (Semester - II)

Time : 2½ Hours]

[Max. Marks : 50

Instructions to the candidates:

- 1) *All questions are compulsory.*
- 2) *Draw neat, labelled diagram wherever necessary.*
- 3) *Figures to the right indicate full marks.*
- 4) *Assume Suitable Data in necessary.*

Q1) Solve the Following (Any five)

[10]

- a) What are Products?
- b) What is Market?
- c) What is BOM?
- d) What is E-OSCM?
- e) What are Sales?
- f) What is E-HR?
- g) What is Outlet?
- h) What is Quotation?

Q2) Answer the following (Any Two) :

[10]

- a) What is the Elements of Products life cycle?
- b) State the 4 Ps in Manufacturing?
- c) Explain the areas of Market segments?

Q3) Answer the following : (Any Owo).

[10]

- a) State the Employee Appraisal in HR?
- b) Explain Leave Management in HR?

P.T.O.

4) Answer the following : (Any One). **[10]**

- a) What are the Ledger and Journal Entries?
- b) Explain in Details Balance Sheet with Example?

Q5) Answer the following : (Any One) **[10]**

- a) What is a SCM and explain in detail scope and advantages of SCM?
- b) Explain the Demand Forecasting with example?



Total No. of Questions : 5]

SEAT No. :

PD1732

[Total No. of Pages : 2

[6433]-208

First Year M.B.A. (I.T.)

204 (Core) : ORACLE

(Revised 2020 Pattern) (Semester - II)

Time : 2½ Hours]

[Max. Marks : 50

Instructions to the candidates:

- 1) All questions carry equal marks.*
- 2) Each question having 10 marks.*
- 3) Figures to the right indicate full marks.*

Q1) Consider the following table to solve ANY FIVE the following SQL queries:[10]

Candidate(seat_no,candidate_name,age,post_graduation,admin_date,subject_code) Subject(subject_code,sub_name,specialization)

- a) Create tables with appropriate constraints.
- b) Add column prn_number and stream column into candidate table.
- c) Print the name of candidate of 'Management' stream.
- d) Display number of candidates admitted in each stream.
- e) Display average age of candidates.
- f) Display number of students per subjects.
- g) Delete the records whose subject name starts with 'O' character.
- h) Display length of candidate names in candidate table. Don't show the name of candidate.

Q2) Write short notes on (ANY TWO)

[10]

- a) Sequence
- b) DDL and DML
- c) Nested query

P.T.O.

Q3) Solve any ONE of the following.

[10]

- a) Explain different types of Join operations with example.
- b) What is meant by constraints? Explain different types of constraints available in Oracle.

Q4) Solve any ONE of the following.

[10]

- a) What is mean by Cursor? Explain different types of Cursor available in Oracle.
- b) Explain different Group functions available in oracle.

Q5) Solve any ONE of the following.

[10]

- a) Write a Cursor to display first five records of Candidate table.
- b) Write a Function Display_info() to accept the seat_no and display its following details of that candidate:
(seat_no, candidate_name,admin_date,post_graduation)

* * *

Total No. of Questions : 5]

SEAT No. :

PD1733

[Total No. of Pages : 1

[6433]-209

First Year M.B.A. (IT)

**205 CORE: CLOUD INFRASTRUCTURE & SERVICES
(Revised 2020 Pattern) (Semester - II)**

Time : 2½ Hours]

[Max. Marks : 50

Instructions to the candidates:

- 1) *All questions are compulsory.*
- 2) *Each question having 10 marks.*
- 3) *Figures to the right indicate full marks.*

Q1) Define the following terms. (any five)

- a) Multicloud.
- b) Communication protocols.
- c) Resource pool.
- d) Grid computing.
- e) Virtual firewall.
- f) Cloud load balancing.
- g) Demilitarized Zone in Network level.
- h) PaaS.

Q2) Answer any two of the following.

- a) What is cloud storage & its types?
- b) Why data security is important to business?
- c) How does hypervisor work in virtualization?

Q3) Answer any one of the following.

- a) How to find the right computing platform for your requirement?
- b) Explain block level storage and file level storage in SAN?

Q4) Answer any one of the following.

- a) Explain cloud infrastructure management nad service creation tools?
- b) How would your secure data for transport in cloud?

Q5) Answer any one of the following.

- a) How to assume the phase's strategy for migration to cloud?
- b) How cloud computing has changed the Economics of IT?



Total No. of Questions : 5]

SEAT No. :

PD1734

[6433]-210

[Total No. of Pages : 2

First Year M.B.A. (Information Technology)
206 Core : SOFTWARE PROJECT MANAGEMENT
(2020 Revised Pattern) (Semester - II)

Time : 2½ Hours]

[Max. Marks : 50

Instructions to the candidates:

- 1) All questions are compulsory.*
- 2) All questions carry equal marks.*
- 3) Each questions having 10 marks.*

Q1) Solve any FIVE of the following.

- a) What is mean by Software Project Management?
- b) What are different types of risks in software project?
- c) What are different techniques for software quality assurance?
- d) What is strategic and technical assessment in project planning?
- e) What are different key attributes of quality software?
- f) What is role of Project Manager in project management?
- g) What is mean by software configuration management?
- h) What is mean by dynamic system development?

Q2) Write short notes on (ANY TWO)

- a) Cost benefit analysis
- b) Extreme programming
- c) Defect management

Q3) Solve any ONE of the following.

- a) Explain the steps done in project evaluation done in software project management.
- b) Explain COCOMO model with an example.

P.T.O.

Q4) Solve any ONE of the following.

- a) Explain different types of contracts in software project management.
- b) What is difference between software engineering and SPM?

Q5) Solve any ONE of the following.

- a) Discuss Capability Maturity Model (CMM) in detail.
- b) Describe the factors the influence the quality of software product.



Total No. of Questions : 5]

SEAT No. :

PD1735

[6433]-211

[Total No. of Pages : 2

First Year M.B.A. (Information Technology)

207 - UL : CURRENT TRENDS IN IT

(Revised 2020 Pattern) (Semester-II)

Time : 2 Hours]

[Max. Marks : 50

Instructions to the candidates:

- 1) *All Questions are compulsory.*
- 2) *Draw neat diagrams wherever necessary.*
- 3) *Every Question carries 10 marks.*

Q1) Answer any Five out of Eight (2 Marks Each) :

[10]

- a) Explain the use of MS-Team.
- b) Explain the most popular cloud storage apps.
- c) Explain AIOT.
- d) Explain Blockchain.
- e) Explain the Virtual Classroom.
- f) Explain the Twitter and Insta.
- g) Explain Point of Sales.
- h) Explain RTGS.

P.T.O.

Q2) Answer any two out of Three (5 Marks each) :

[10]

- a) Explain the need of Social Networking Sites for this Era.
- b) What are the limitations in IT infrastructure management?
- c) Explain the Content Management tool with “Canva” as an example.

Q3) a) “Differentiate E-commerce Vs m-Commerce”. Explain in brief. **[10]**

OR

- b) Explain the B2C and B2B models of E-Commerce.

Q4) a) “IOT is a smart solution for this digital era”. Explain the statement.**[10]**

OR

- b) “IT sector is now believed on hybrid (Physical and Work from home) working mode”. Explain the statement.

Q5) a) Explain e-Learning Models: WBT, CBT in brief.

[10]

OR

- b) Explain online payment method with mobile wallets tool.



Total No. of Questions : 5]

SEAT No. :

PD1736

[Total No. of Pages : 2

[6433]-212

M.B.A.-I (Information Technology)

208 UL : BASICS OF BUSINESS ANALYTICS

(Revised 2020 Pattern) (Semester -II)

Time : 2 Hours]

[Max. Marks : 50

Instructions to the candidates:

- 1) *All questions are compulsory.*
- 2) *Every question carries 10 marks.*
- 3) *Every question has internal option.*

Q1) Define the below given terms (any 5)

[5×2=10]

- a) Information
- b) Knowledge
- c) Descriptive Analytics
- d) Big Data
- e) HR Analytics
- f) Data Science
- g) Business Intelligence
- h) Hadoop Echosystem.

Q2) Answer any two questions

[2×5=10]

- a) Differentiate between Data Analyst Vs Business Analyst.
- b) Explain the importance of data in business analytics.
- c) Explain the skills of good business analyst.

Q3) Answer any one question.

[10]

- a) Define Analytics & elaborate the evolution of analytics.
- b) Elaborate the stages of data maturity model in detail.

P.T.O.

Q4) Answer any one question.

[10]

- a) Explain the types of analytics in detail.
- b) Describe Hadoop streaming & Hadoop echo system.

Q5) Answer any one question.

[10]

- a) Explain the role of analytics in web & social media.
- b) Explain the use of Unix tools & Hadoop in analysing data.



Total No. of Questions : 5]

SEAT No. :

PD1737

[6433]-213

[Total No. of Pages : 2

First Year M.B.A. (IT)

209 UL : INFORMATION SECURITY AUDIT

(Revised 2020 Pattern) (Semester-II)

Time : 2 Hours]

[Max. Marks : 50

Instructions to the candidates:

- 1) *All questions are compulsory.*
- 2) *Each question carries 10 marks.*

Q1) Answer in short (any 5)

[10]

- a) What is information security audit?
- b) What is internet?
- c) What is firewall?
- d) What is global information system?
- e) Define copyright.
- f) What is a threat?
- g) What is ciphertext.
- h) Objectives of IT audit?

Q2) Solve any two.

[10]

- a) What are the responsibilities of internal auditor?
- b) Explain information systems & their evolution.
- c) What is encryption?

Q3) Solve any one.

[10]

- a) Explain risk management in IS.
- b) Explain role of internet an world wide web.

P.T.O.

Q4) Answer any one.

[10]

- a) How does cryptography help in security?
- b) What is VPN? What are the security aspects?

Q5) Answer any one.

[10]

- a) Explain disaster recovery and business continuity planning.
- b) Explain the need of security audit in organisation.



Total No. of Questions : 5]

SEAT No. :

PD1738

[6433]-301

[Total No. of Pages : 2

S.Y. M.B.A. (IT)

301 - SD - Core : PROGRAM AND DESIGN WITH ASP.NET

(Revised 2020 Pattern) (Semester-III)

Time : 2½ Hours]

[Max. Marks : 50

Instructions to the candidates:

- 1) *All Questions are compulsory.*
- 2) *Draw neat, labelled diagram whenever necessary.*
- 3) *Figures to the right indicate full marks.*
- 4) *Assume suitable data if necessary.*

Q1) Answer the following (any 5) :

[10]

- a) What is instance?
- b) What is oops?
- c) What is dynamic?
- d) What is methods?
- e) What are Interface?
- f) What are Modifiers?
- g) What is object?
- h) What is Constant?

P.T.O.

Q2) Answer the following (Any two) : **[10]**

- a) What is Files Handling and explain its details?
- b) Explain static and dynamic Webpage in details.
- c) Explain the overriding process in detail.

Q3) Answer the following (Any One) : **[10]**

- a) State the Overloading Methods in detail.
- b) Explain in detail File upload control.

Q4) Answer the following (Any One) : **[10]**

- a) Design a Form of and write code to
 - i) Dept_name & Dept_id
 - ii) Display in checkbox list
 - iii) Add & Updates a record
- b) Explain in view & multi view in detail.

Q5) Answer the following (Any One) : **[10]**

- a) What is a Single Master Page? Create themes in VS code.
- b) What is Crystal report in asp?



Total No. of Questions : 5]

SEAT No. :

PD1739

[6433]-302

[Total No. of Pages : 2

S.Y. M.B.A. (IT)

301 - NT : ADVANCED COMPUTER NETWORKS

(Revised 2020 Pattern) (Semester-III)

Time : 2½ Hours]

[Max. Marks : 50

Instructions to the candidates:

- 1) *All Questions are compulsory.*
- 2) *Each Question having 10 marks.*
- 3) *Figures to the right indicate full marks.*

Q1) State the functions of the following protocol (any 5) :

[10]

- a) SMTP
- b) SIP
- c) RTSP
- d) TFTP
- e) RSVP
- f) WAP
- g) TELNET
- h) P2P

P.T.O.

Q2) Solve any 2 : **[10]**

- a) Explain mobility in cellular networks.
- b) Using hybrid form of network explain network application architectures.
- c) Explain briefly switching and types of switching fabrics.

Q3) Answer the following (any 1) : **[10]**

- a) Describe the elements of Application protocols.
- b) Discuss the importance of Mobility management in Wireless LAN.

Q4) Solve (Any 1) : **[10]**

- a) Illustrate the Challenges to Remove Jitter and Packet Loss during Continuous Playback of Streamed Video Data.
- b) Elaborate the differences between Integrated Services and Differentiated Services.

Q5) Solve (Any 1) : **[10]**

- a) Enlist the authentication protocols and their characteristics.
- b) Evaluate the effectiveness of different routing protocols in dynamic network environments.



Total No. of Questions : 5]

SEAT No. :

PD1740

[6433]-303

[Total No. of Pages : 2

Second Year M.B.A. (I.T.)

301 - ST : SOFTWARE TEST PLANNING & DOCUMENTATION

(Revised 2020 Pattern) (Semester-III)

Time : 2½ Hours]

[Max. Marks : 50

Instructions to the candidates:

- 1) *All Questions are compulsory.*
- 2) *Each Question carries 10 marks.*

Q1) Answer in short (any 5) :

[10]

- a) What is testing?
- b) List the phases of testing.
- c) What is structural test case?
- d) What is test plan?
- e) What is erroneous test case?
- f) What is latent defect?
- g) What is test coverage?
- h) What is a bug?

P.T.O.

Q2) Answer any two :

[10]

- a) What are run charts?
- b) What are tools for preparing test report?
- c) What is functional & non functional test cases?

Q3) Answer any one :

[10]

- a) What is a bug report? Explain lifecycle of bug.
- b) How is masked defect different that latent defect?

Q4) Answer any one :

[10]

- a) What is test matrix? What is requirement traceability matrix?
- b) Explain penetration testing & system testing.

Q5) Answer any one :

[10]

- a) What is TMM? Explain in detail.
- b) Explain the process of risk assessment and risk management.



Total No. of Questions : 5]

SEAT No. :

PD1741

[Total No. of Pages : 1

[6433]-304

S.Y.M.B.A.(IT)

302 SD : ADVANCED JAVA

(Revised 2020 Pattern) (Semester - III)

Time : 2½ Hours]

[Max. Marks : 50

Instructions to the candidates:

- 1) All questions are compulsory.
- 2) Each question carries 10 marks.

Q1) Answer any five. [10]

- a) Explain JDBC.
- b) What is the tag c: out.
- c) Resultset.
- d) Explain Get & Post method.
- e) Java bean.
- f) What is connection pooling?
- g) Explain JSP actions.
- h) Explain URL.

Q2) Answer any two. [10]

- a) Write a java program to print the string in revenue from the client side entered text.
- b) Explain servlet life cycle.
- c) Explain the steps in JDBC.

Q3) Answer any one . [10]

- a) Write a java code to accept a name from client and display message 'Hello and welcome "name" ' on the server.
- b) Explain the types of JDBC drivers.

Q4) Answer any one. [10]

- a) Explain JSTL tags with examples.
- b) Write a servlet program to accept user name and display 'Hello User'.

Q5) Answer any one. [10]

- a) Write a JSP application to accept product name and display details of that product(Assume suitable table)
- b) Explain session management in detail.



Total No. of Questions : 5]

SEAT No. :

PD1742

[Total No. of Pages : 1

[6433]-305

S.Y.M.B.A. (IT)

**302 NT Core : PARALLEL COMPUTING
(Revised 2020 Pattern) (Semester - III)**

Time : 2½ Hours]

[Max. Marks : 50

Instructions to the candidates:

- 1) *All questions are compulsory.*
- 2) *Each Question is of 10 marks.*
- 3) *Figures to the right indicate marks for individual questions.*

Q1) Give the answers in short (Solve any 5) [5×2=10]

- a) Define high performance computing.
- b) Define Tightly Couple System.
- c) What is Pipeline?
- d) Explain Data Hazards.
- e) Elaborate Virtual Machine.
- f) Task dependency in Parallel Computing.
- g) What is MISD?

Q2) Solve any two. [2×5=10]

- a) List recent parallel programming models.
- b) Explain parallelism based on Grain size?
- c) Explain classification of pipeline processor.

Q3) Solve any one of the following. [10]

- a) What are disadvantages of data parallelism?
- b) Explain the Flynn's classification in parallel computing?

Q4) Solve any one of the following. [10]

- a) What are the advantages of parallel computing over sequential computing?
- b) What is the difference between scalar and vector processing?

Q5) Write descriptive note on any two. [2×5=10]

- a) Hyper Threading Technology (HTT)
- b) Superscalar processing.
- c) Multiple Instruction Multiple Data.



Total No. of Questions : 5]

SEAT No. :

PD1743

[Total No. of Pages : 1

[6433]-306

S.Y.M.B.A. (IT)

SOFTWARE TESTING

**302 ST Core :Agile Model & Methodology
(Revised 2020 Pattern) (Semester - III)**

Time : 2½ Hours]

[Max. Marks : 50

Instructions to the candidates:

- 1) All questions are compulsory.***
- 2) Each question having 10 marks.***

Q1) Define the following terms (Any five)

- a) What is Agile process?
- b) What is Scrum?
- c) What is Velocity?
- d) What do you mean by Daily standup meeting?
- e) What is Iterative Development?
- f) What is Customer Collaboration?
- g) What are the key values of agile?
- h) What are burn down charts in agile?

Q2) Answer any two of the following.

- a) Discuss user stories and backlog management.
- b) What are the principles of agile testing and what qualities an agile tester should have?
- c) What is agile feature driven development?

Q3) Answer any one of the following.

- a) What is agile risk management?
- b) Explain the product management?

Q4) Answer any one of the following.

- a) What are the agile tools? Explain in details?
- b) Explain agile architecture?

Q5) Answer any one of the following.

- a) What are the acceptance criteria assumption?
- b) What is the agile process in global software development?



Total No. of Questions : 5]

SEAT No. :

PD1744

[Total No. of Pages : 2

[6433]-307

S.Y. M.B.A. (IT)

303 Core : MANAGEMENT INFORMATION SYSTEM

(Revised 2020 Pattern) (Semester - III)

Time : 2½ Hours]

[Max. Marks : 50

Instructions to the candidates:

- 1) *All questions are compulsory.*
- 2) *Draw neat, labelled diagram whenever necessary.*
- 3) *Figures to the right indicate full Marks.*
- 4) *Assume Suitable Data if necessary.*

Q1) Solve the Following (Any five):

[10]

- a) What is System?
- b) What is DB?
- c) What is star Topology?
- d) What is warehouse?
- e) What is Data Analytics?
- f) What is FIS?
- g) What is Data?
- h) What is Information System?

Q2) Answer the following. (Any two) :

[10]

- a) Explain the application of MIS with example?
- b) Explain characteristics of MIS in details?
- c) Describe the Waterfall model in detail?

P.T.O.

Q3) Answer the following. (Any One) : **[10]**

- a) Explain Traditional SDLC Phases in detail?
- b) Explain Spiral Model in detail?

Q4) Answer the following. (Any One) : **[10]**

- a) What is Data? Explain the need of maintenance of data in detail?
- b) Explain various Component of MIS in detail?

Q5) Answer the following. (Any One): **[10]**

- a) What is ERP? Explain with example?
- b) What are Financial package in detail?



Total No. of Questions : 5]

SEAT No. :

PD1745

[Total No. of Pages : 1

[6433]-308

S.Y. M.B.A. (Information Technology)

304 : DATA MINING

(Revised 2020 Pattern) (Semester - III)

Time : 2½ Hours]

[Max. Marks : 50

Instructions to the candidates:

- 1) All questions are compulsory.
- 2) All questions carry equal marks.
- 3) Figures to the right indicate full marks.
- 4) Draw diagram wherever necessary.

Q1) Define the following terms (any five). [10]

- a) DBMS [2]
- b) Data Mining [2]
- c) Data Query [2]
- d) Sample Size [2]
- e) Population [2]
- f) BI [2]
- g) OLTP [2]
- h) OLAP [2]

Q2) Answer the following questions (any two). [10]

- a) What are the applications of data mining? [5]
- b) What do you mean by data cleaning? [5]
- c) List data mining tools. [5]

Q3) Answer the following questions (any one). [10]

- a) Write short note on Neural Network. [10]
- b) Differentiate between Database Management System and Data Mining. [10]

Q4) Answer the following questions (any one). [10]

- a) What is web mining? Explain in brief web structure mining. [10]
- b) What do you mean by risk management? Explain how to manage it using data mining tool. [10]

Q5) Answer the following questions (any one). [10]

- a) What do you mean by market basket analysis? State and explain the data mining technique used for market basket analysis. [10]
- b) List and explain the phases of data collection and processing for preparing exit poll. [10]



Total No. of Questions : 5]

SEAT No. :

PD1746

[Total No. of Pages : 2

[6433]-309

M.B.A. - II (I.T.)

306 - CORE : INTRODUCTION TO ANIMATION

(Revised 2020 Pattern) (Semester - III)

Time : 2½ Hours]

[Max. Marks : 50

Instructions to the candidates:

- 1) *All questions are compulsory.*
- 2) *Assume Suitable Data if necessary.*
- 3) *Draw neat, labelled diagram whenever necessary.*
- 4) *Figures to the right indicate full Marks.*

Q1) Solve the Following. (Any five).

[10]

- a) What is hardware?
- b) What is types of software?
- c) What is cam scanner?
- d) What is Render?
- e) What is database?
- f) What is Maya?
- g) What is storyboard?
- h) Name any one software use in animation with examples?

Q2) Answer the following. (Any two).

[10]

- a) What are the Elements of design Art?
- b) Explain in details basic types of form?
- c) Explain the any one elements of Design in 3D objects?

P.T.O.

Q3) Answer the following. (Any One). [10]

- a) State the Rules for Design Art with example?
- b) Explain in detail display devices in animation?

Q4) Answer the following. (Any One). [10]

- a) What are the basic hardware and Software of computer Graphics?
- b) Explain in various types of Operating system used in Design?

Q5) Answer the following. (Any One). [10]

- a) What is a Storyboard and script writing in detail?
- b) Explain the 3DS Max work flow?



Total No. of Questions : 5]

SEAT No. :

PD1747

[Total No. of Pages : 2

[6433]-310

S.Y. M.B.A. (IT)

307UL - DATA WAREHOUSING

(Revised 2020 Pattern) (Semester - III)

Time : 2 Hours]

[Max. Marks : 50

Instructions to the candidates:

- 1) *All questions carry equal marks.*
- 2) *Each question having 10 marks.*

Q1) Solve any FIVE of the following.

- a) What is data warehousing?
- b) What is mean by Fact Table?
- c) What is mean by Dimension Table?
- d) What is mean by ETL?
- e) What is mean by Data Mart?
- f) What are different characteristics of Datawarehouse?
- g) What is key difference between star schema & snowflake schema?
- h) What is mean by OLAP?

Q2) Write short notes on (ANY TWO).

- a) ROLAP
- b) Data transformation techniques in ETL process
- c) Slice & Dice operations

P.T.O.

Q3) Solve any ONE of the following.

- a) Explain ETL process in detail.
- b) What is schema? Explain different types of schemas in data warehouse.

Q4) Solve any ONE of the following.

- a) Explain data warehouse architectures in detail.
- b) What is metadata? Explain different categories of Metadata in data warehouse.

Q5) Solve any ONE of the following.

- a) Explain data loading techniques in ETL process of data warehouse.
- b) How is a data warehouse different from a database?



Total No. of Questions : 5]

SEAT No. :

PD-1748

[Total No. of Pages : 2

[6433]-311

M.B.A. (IT)

308 UL : OOPS WITH CPP

(Rev. 2020) (Semester - III)

Time : 2 Hours]

[Max. Marks : 50

Instructions to the candidates :

- 1) *All questions are compulsory.*
- 2) *Each question having 10 marks.*
- 3) *Figures to the right indicate full marks.*

Q1) Solve any Five :

[10]

- a) What is namespace conflict? How is it handled in C++?
- b) What is genetic program? How it is implemented in C++?
- c) What is container? Explain the types of containers.
- d) What is distructor? Give an example.
- e) Explain a prototyping function? How it can be implemented?
- f) What is the friend function?
- g) What is Run time type identification?
- h) What is function overloading?

Q2) Solve any Two :

[10]

- a) Explain Static member function and static data member.
- b) What is the need for virtual base classes? Give an example to illustrate the need for a virtual base class.
- c) Explain with example, conversion from class type to built-in-type?

P.T.O.

Q3) Answer the following :

[10]

- a) Write a program to create a template class circular queue to implement insertion and deletion operations.
- b) Write a program to overload [] and != operators.

Q4) Solve any One :

[10]

- a) Write a program to read the records from "Bank. txt" file & delete records of customers who balance is less than 1000.
- b) A class contain following information as PRN, student name PER-marks. Write a program to perform following operation is the file.
 - i) Add record
 - ii) Display all record
 - iii) Modify record

Q5) Solve any One :

[10]

- a) A company has following details of their employees is the file "emp.dat".
 - i) EMP ID
 - ii) Emp Name
 - iii) Emp Address
 - iv) Emp Dept (Admin/Sales/Production/IT)
 - v) Emp Phone
 - vi) Emp Age

Write a paragraph to read the above file. Create new files such as Adm. dat, sal. dat, pro.dat, IT.dat respectively, to store the employee details according to their department Email Security.

- b) Write a program to display the size of a file by accepting a filename as a command line argument.



Total No. of Questions : 5]

SEAT No. :

PD1749

[Total No. of Pages : 1

[6433]-312

S.Y. M.B.A. (IT)

309-UL : E-GOVERNANCE AND FRAMEWORK OF ICT

(Revised 2020 Pattern) (Semester - III)

Time : 2 Hours]

[Max. Marks : 50

Instructions to the candidates:

- 1) *All questions are compulsory.*
- 2) *Each questions carries 10 marks.*

Q1) Answer in short (any 5) : **[10]**

- a) Define utility computing
- b) Explain smart city
- c) What are 4 pillars of e-Governance
- d) What is RFP
- e) What is e-commerce
- f) What is ewaste
- g) What is telemedicine
- h) What is JAM

Q2) Solve any two : **[10]**

- a) Explain maturity model of e-governance.
- b) Explain risk management.
- c) What is the importance of ICT governance.

Q3) Solve any one : **[10]**

- a) Explain the life cycle of e-governance
- b) Explain NeGP in detail.

Q4) Solve any one : **[10]**

- a) Elaborate on OWASP.
- b) Explain the issues in e-governance.

Q5) Solve any one : **[10]**

- a) What are the benefits of telemedicine.
- b) What are the demerits of e-governance.



Total No. of Questions : 5]

SEAT No. :

[Total No. of Pages : 2

PD3931

[6433]-401R

S.Y. M.B.A. (IT)

401 : ENTERPRISE RESOURCE PLANNING

(Revised 2020 Pattern) (Semester-IV)

Time : 2½ Hours]

[Max. Marks : 50

Instructions to the candidates:

- 1) All Questions are compulsory.*
- 2) Each Questions having 10 marks.*
- 3) Figures to the right indicate full marks.*

Q1) Define the following (any 5) :

[10]

- a) Oracle AIM Methodology
- b) Features of ERP systems
- c) Stevens Model of SCM
- d) SOA in ERP
- e) CRM Evolution
- f) MRP
- g) ERP Package

P.T.O.

Q2) Solve (any 2) : **[10]**

- a) Why is enterprise modeling critical for successful ERP implementation?
- b) Explain various types of ERP architecture with advantages and limitations.
- c) Compare BPR tools used in the past vs. current AI-enabled tools.

Q3) Answer the following (any 1) : **[10]**

- a) Describe in detail the general ERP implementation methodology including pre and post-implementation steps.
- b) Explain Vanilla Implementation and its differences from customized ERP implementation with business risks.

Q4) Solve (Any 1) : **[10]**

- a) Discuss SAP modules and their role in enterprise-wide operations.
- b) Write a critical note on Oracle Fusion Modules and their interoperability in hybrid environments.

Q5) Solve (Any 1) : **[10]**

- a) A logistics firm wants to reduce delivery delays and customer dissatisfaction. How can ERP - integrated CRM and SCM help?
- b) Elaborate on the benefits and risks of integrating SCM with ERP using a real industry case.



Total No. of Questions : 5]

SEAT No. :

PD1751

[Total No. of Pages : 1

[6433]-402

Second Year M.B.A. (IT)

402 Core : MULTIMEDIA AND ANIMATION

(Revised 2020 Pattern) (Semester - IV)

Time : 2½ Hours]

[Max. Marks : 50

Instructions to the candidates:

- 1) *All questions are compulsory.*
- 2) *Draw neat, labelled diagram whenever necessary.*
- 3) *Figures to the right indicate full marks.*
- 4) *Assume Suitable data if necessary.*

Q1) Solve the following (Any Five) [10]

- a) What is Multimedia network?
- b) Define networking?
- c) What is CAN, MAN network?
- d) What is image?
- e) Define Text?
- f) What is Gift?
- g) What is Frame?
- h) What is Digitization in Multimedia?

Q2) Answer the following. (Any two) [10]

- a) Explain the digital Audio in multimedia?
- b) What is the Redundancy of Image?
- c) What is the Characteristic of image?

Q3) Answer the following. (Any one) [10]

- a) What is compression principle in detail with example?
- b) Explain Encoding principle and application in details?

Q4) Answer the following. (Any one) [10]

- a) What is Huffman coding? and explain in Huffman coding Text compression in detail?
- b) State the LZW Text compression?

Q5) Answer the following. (Any one) [10]

- a) What is audio compression with type PCM, DPCM, ADPCM?
- b) What is video Compression? With I-frame, B-frame, D-frame with example?



Total No. of Questions : 5]

SEAT No. :

PD1752

[6433]-403

[Total No. of Pages : 2

S.Y.M.B.A. (I.T.)

404 UL : OPEN SOURCE IOT PLATFORM

(Revised 2020 Pattern) (Semester-IV)

Time : 2 Hours]

[Max. Marks : 50

Instructions to the candidates:

- 1) *All questions are compulsory.*
- 2) *Each question carries 10 marks.*

Q1) Answer any five of the following.

[10]

- a) What is web technology?
- b) Define IoT.
- c) Mention 2 IoT application.
- d) What is the need of IoT (any 2).
- e) What is M2M?
- f) What is the vision of IoT?
- g) What is sensor technology?
- h) What is smart surveillance?

Q2) Answer any two.

[10]

- a) Explain IoT architecture.
- b) Differentiate between IoT & M2M.
- c) Explain components of IoT.

Q3) Answer any one.

[10]

- a) What is future factory? Explain in detail.
- b) Explain functional and deployment view in IoT.

P.T.O.

Q4) Answer any one.

[10]

- a) Explain IoT applications.
- b) Explain FP7 projects in IoT.

Q5) Answer any one.

[10]

- a) What is bigdata & IoT.
- b) Explain security measures in IoT.



Total No. of Questions : 5]

SEAT No. :

PD1753

[Total No. of Pages : 2

[6433]-404

S.Y. M.B.A. (IT)

**405 UL : DEBUGGING OF APPLICATION PROGRAMMING (IOT)
(Revised 2020 Pattern) (Semester - IV)**

Time : 2 Hours]

[Max. Marks : 50

Instructions to the candidates:

- 1) *All Questions are compulsory.*
- 2) *Each Question having 10 marks.*
- 3) *Figures to the right indicate full marks.*

Q1) Define the following terms (Any Five)

- a) List IoT devices in daily use.
- b) Is IoT powerful and persuasiveness. Comment
- c) Define IoT workflow.
- d) Define data structure.
- e) What is device management?
- f) What is firmware update?

Q2) Answer any two of the following. (any 2)

- a) Explain IoT architecture in detail.
- b) Explain Structures and unions in C language.
- c) Explain the concepts of Deep dive and Dry Run.

Q3) Answer any one of the following. (any 1)

- a) Explain how to setup IoT platform 1 and 2?
- b) What is preprocessor directive, Recursion operators and project environment?

P.T.O.

Q4) Answer any one of the following. (any 1)

- a) Describe Injection Engine, Rules Engine, application service.
- b) Explain Visualization and IoT Analytics.

Q5) Answer any one of the following. (any 1)

- a) Explain performance and Security in IoT w. r. t. MQTT and HTTP performance.
- b) What is Security? State the various security considerations and design guidelines in IoT.

