

Total No. of Questions : 5]

SEAT No. :

PA-1966

[Total No. of Pages : 2

[5954]-301

B.B.A. (CA) (Semester - III)

CA-301 : DIGITAL MARKETING

(2019 Pattern)

Time : 2½ Hours]

[Max. Marks : 70

Instructions to the candidates :

- 1) *All questions are compulsory.*
- 2) *Neat diagrams must be drawn wherever necessary.*

Q1) Answer the following (Any Eight) :

[8 × 2 = 16]

- a) What is digital marketing?
- b) What is email marketing?
- c) Define the term Real Marketing.
- d) What is Content Management?
- e) Define web design.
- f) What is CRM platform?
- g) What is Social Media?
- h) Define YouTube Analytics.
- i) What is Resource Planning?
- j) What is Blogging?

P.T.O.

Q2) Attempt the following (Any Four) :

[4 × 4 = 16]

- a) Explain the search engine optimization.
- b) Describe Digital Marketing channels.
- c) Explain the concept SEO optimization.
- d) Explain CRM models in detail.
- e) Describe Digital Display Marketing.

Q3) Answer the following (Any Four) :

[4 × 4 = 16]

- a) How to understand Social Media Marketing?
- b) What is Social Media? Explain Blogging in detail.
- c) What is Web analytics? Describe the levels.
- d) Explain the concept of cost budgeting.
- e) Explain MS Expression Web.

Q4) Answer the following (Any Four) :

[4 × 4 = 16]

- a) Explain the visual identity of a facebook page.
- b) Explain the analyzing vision on Linkdin.
- c) What is email marketing? How to keep up with the conversion?
- d) Explain the concept Google Ads.
- e) How to create business account on YouTube?

Q5) Write a short note on (Any Two) :

[2 × 3 = 6]

- a) Optimization of Instagram profile.
- b) Social Networking.
- c) SWOT Analysis.



Total No. of Questions : 5]

SEAT No. :

PA-1967

[Total No. of Pages : 2

[5954]-302

S.Y. B.B.A. (Computer Application)

CA - 302 : DATA STRUCTURE

(2019 Pattern) (Semester - III)

Time : 2½Hours]

[Max. Marks : 70

Instructions to the candidates:

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

Q1) Attempt any EIGHT of the following.

[8×2=16]

- a) How to measure performance of an algorithm?
- b) What is polynomial? How is it differ from structure?
- c) What is balance factor? How is it calculated?
- d) What are Abstract Data types?
- e) What is Ancestor of Node?
- f) State the types of graph.
- g) Differentiate array and structure.
- h) What is space and time complexity?
- i) What is pointer to pointer?
- j) What is spanning tree?

Q2) Attempt any FOUR of the following.

[4×4=16]

- a) Explain Insertion sort technique with an example.
- b) What is circular queue? How it is differ from static queue?
- c) What is stack? What are the various applications of stack. List operations performed on stack.
- d) Explain different types of AVL rotations with an example.
- e) Explain various types of Dynamic Memory Allocation functions.

Q3) Attempt any FOUR of the following.

[4×4=16]

- a) Write a function to create and display doubly link list.
- b) Write a recursive functions to traverse a tree by using inorder (), preorder () and postorder traversing functions.

P.T.O.

- c) Write a function to delete first node from singly linked list.
- d) Write a function to reverse a string using stack.
- e) Write a 'C' Program for evaluation of polynomial.

Q4) Attempt any FOUR of the following.

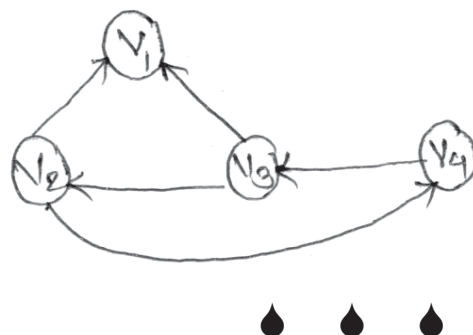
[4×4=16]

- a) Construct an AVL tree for following sequential data:
Jan, Feb, Apr, May, July, Aug, June.
- b) Use merge sort technique on following data:
45, 85, 96, 78, 34, 12, 49, 38, 18.
- c) Write a 'C' program to create link list with given number in which data part of each node contains individual digits of the numbers.
- d) What is circular queue? Explain it with example.
- e) Construct Binary search tree of following data:
RAM, SITA, AMIT, JOEL, IVAN, ASHA

Q5) Attempt any TWO of the following.

[2×3=6]

- a) Define the following terms:
 - i) Directed graph
 - ii) Strict binary tree
 - iii) Cyclic graph
- b) Convert the following expression into postfix
 - i) $A/B \ \$ \ CD \ * \ E - A \ * \ C$
 - ii) $(A + B \ * \ C - D) / E \ \$ \ F$
- c) What is degree of vertex? Find the indegree and outdegree of following graph of each vertex:



Total No. of Questions : 5]

SEAT No. :

PA-1968

[Total No. of Pages : 2

[5954]-303

**S.Y. B.B.A. (Computer Application)
CA - 303 : SOFTWARE ENGINEERING
(2019 CBCS Pattern) (Semester - III)**

Time : 2½ Hours]

[Max. Marks : 70

Instructions to the candidates:

- 1) All questions are compulsory.*
- 2) Neat diagrams must be drawn wherever necessary.*

Q1) Attempt any EIGHT of the following.

[2×8=16]

- a) What is system?
- b) Define software?
- c) Define RAD.
- d) What is SRS.
- e) State the principles of Software Testing?
- f) What is software Reengineering?
- g) State advantages of Waterfall model.
- h) State any two types of coupling.
- i) Define an Entity.
- j) What is Pseudocode?

Q2) Attempt any four of the following.

[4×4=16]

- a) Explain various types of system.
- b) Explain different McCall's quality factors.
- c) Explain spiral model in detail.
- d) Discuss different fact finding techniques.
- e) Differentiate between White - Box and Black-Box Testing.

Q3) Attempt any four of the following.

[4×4=16]

- a) Material is issued to the department by considering whether the Material Requisition Note (MRN) is signed or not. It contains valid items or not and it is given within 8 hours or not. Draw decision table for the above case.

P.T.O.

- b) Design a Input screen layout for creating user account on Internet (with personal details, user-id and password, save, cancel commands etc).
- c) Draw decision tree for the following case:
A company gives discount on the purchase of goods depending on the sale and duration of payment:
 - i) 5% discount if order amount > 50,000.
 - ii) 3% discount if order amount between 25,000 and 50,000
 - iii) No discount if order amount < 10,000 or payment is not done within 8 days.
- d) Design an screen layout for employees salary slip.
- e) Draw ER-Diagram for “College Admission System”.

Q4) Attempt any Four of the following.

[4×4=16]

- a) Draw first level DFD for Hospital Management system in which the hospital has Inpatient Department (IPD), outpatient Department (OPD) the system maintains patient records and bills of the patient.
- b) Identify all entities of online shopping system.
- c) Draw context level diagrams for online shopping system.
- d) Draw first level DFD for customer Order system.
- e) Explain elements of Data flow diagrams?

Q5) Write a short note on any Two of the following.

[3×2=6]

- a) Types of Cohesion
- b) Validation and Verfication Testing.
- c) Feasibility study.



Total No. of Questions: 5]

SEAT No. :

PA-1969

[5954]-304

[Total No. of Pages : 2

Second Year B.B.A. (C.A.)
CA - 304 : ANGULAR JS
(2019 Pattern) (Semester-III)

Time : 3 Hours]

[Max. Marks : 70

Instructions to the candidates:

- 1) All questions are compulsory.*
- 2) Neat diagrams must be drawn wherever necessary.*
- 3) Figures to the right indicate full marks.*

Q1) Attempt any EIGHT of the following.

[8×2=16]

- a) What is SPA?
- b) Explain ng-controller directive
- c) Write any two features of AngularJS.
- d) Explain two-way data binding.
- e) What is Controller?
- f) Explain \$http Services.
- g) Explain uppercase filter.
- h) What is Dependency Injection?
- i) Explain \$timeout Service.
- j) Explain Customer Validation.

Q2) Attempt any Four of the following.

[4×4=16]

- a) Explain most common directives used in AngularJS.
- b) Explain MVC architecture in detail.
- c) Explain built-in Services of AngularJS.
- d) Write an AngularJS program to create Service for finding factorial of a number.
- e) Write an AngularJS program for using \$filter service.

Q3) Attempt any Four of the following:

[4×4=16]

- a) Give difference between AngularJS and Javascript.
- b) Explain the ways to implement custom directives in AngularJS.
- c) Write advantage of creating Modules.
- d) Write a Program that Can show the use of ng-repeat.
- e) Write a program to demonstrate use of factory function.

P.T.O.

Q4) Attempt any Four of the following. **[4×4=16]**

- a) What is the difference between \$Scope and Scope?
- b) Write a program to create a Service to calculate are of a circle.
- c) Explain life cycle of a Module.
- d) Write a Program to display name, qualification and address using MVC architecture.
- e) Explain \$document service, \$logservice and \$root service in brief.

Q5) Write short note on any Two of the following. **[2×3=6]**

- a) Data binding.
- b) Ng new, ng upadate.
- c) angular. module.



Total No. of Questions: 5]

SEAT No. :

PA-1970

[5954]-305

[Total No. of Pages : 2

B.B.A. (Computer Application)

PHP

(2019 Pattern) (Semester-III) (CA-304)

Time : 2 ½ Hours

[Max. Marks : 70

Q1) Attempt any EIGHT of the following (out of Ten)

[8×2=16]

- List the types of array.
- What are different arithmetic operators in PHP?
- What is abstract class in PHP?
- Define sticky form.
- What is validation?
- What is use of array-slice () in PHP?
- What are the databases supported by PHP?
- what is the use of session?
- Which attribute is used for multiple selections in select tag?
- What is the purpose of break statement?

Q2) Attempt any Four of the following (out of Five).

[4×4=16]

- Explain multidimensional array in PHP with example.
- Write a PHP Program to check whether given year is leap year or not (use if else)
- Write a PHP script to define an interface which has methods area () volume (). Define constant PI. Create a class cylinder which implements this interface and calculate area and volume
- What are the built in functions of string?
- Write a PHP program to reverse an array

Q3) Attempt any FOUR of the following (out of FIVE)

[4×4=16]

- What is variable in PHP? Explain its scope with example.
- What is the difference between for and for each in PHP?
- Write a PHP Program to display reverse of a string.
- How to create cookies? Give an example.
- Explain passing values by reference with an example.

P.T.O.

Q4) Attempt any four of the following (out of Five) **[4×4=16]**

- a) What is array? Explain different types of array in PHP.
- b) What is the difference between a while loop and do while loop in PHP.
- c) Write a PHP program to find the sum of digit of a given number.
- d) Write a PHP program to use multiple checkbox to select hobbies
- e) List various MYSQL Queries with their Syntax.

Q5) Write a short note on Any Two of the following (out of Three) **[2×3=6]**

- a) Explain advantages of PHP built in functions
- b) Explain GET Method
- c) List Advantages of PHP.



Total No. of Questions : 5]

SEAT No. :

[Total No. of Pages : 2

PA-1971

[5954]-306

S.Y. B.B.A. (C.A.)

CA- 305 : BIG DATA

(2019 CBCS Pattern) (Semester-III)

Time : 2½ Hours]

[Max. Marks : 70

Instruction to the candidates:

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

Q1) Attempt any EIGHT of the following.

[16]

- a) What is big data?
- b) What is data manipulation?
- c) What is data science?
- d) What is statistical Inference?
- e) Enlist the stages of data science?
- f) Define Machine Learning.
- g) Define SVM?
- h) What is the use of histogram?
- i) What is data analysis?
- j) What is the use of themes?

Q2) Attempt any FOUR of the following.

[16]

- a) Explain different types of data analytics.
- b) Give advantages and Disadvantages of Machine Learning.
- c) Explain the process of data analysis.
- d) Explain probability distribution modeling.
- e) Explain applications of big data.

P.T.O.

Q3) Attempt any FOUR of the following. **[16]**

- a) State advantages and disadvantages of SVM.
- b) Explain Data frame with example.
- c) Explain types of regression models.
- d) What is histogram? Explain with example in R.
- e) Explain functions included in “dplyr” package

Q4) Attempt any FOUR of the following. **[16]**

- a) Explain Naive Bayes with the help of example.
- b) What is data visualization? Explain with example in R.
- c) Write a R program to accept temperatures in Fahrenheit (F) and print it in Celsius (C).
- d) Accept three dimensions length (l), breadth (b) and height (h) of a cuboid and print its volume.
- e) Write a R program accept any year as input and check whether the year is a leap year or not.

Q5) Write a short note on Any TWO of the following. **[6]**

- a) Tools used in Big Data.
- b) Advantages of Big data.
- c) Advantages and Disadvantages of EM algorithms.



Total No. of Questions : 5]

SEAT No. :

PA-1972

[Total No. of Pages : 2

[5954]-307

S.Y. B.B.A. (Computer Application)

CA-305 : BLOCK CHAIN

(2019 Pattern) (Semester-III)

Time : 2½ Hours]

[Max. Marks : 70

Instruction to the candidates:

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

Q1) Attempt any EIGHT of the following (Out of TEN).

[8×2=16]

- a) What is proof of Stake?
- b) Define hashing.
- c) What is truffle in Ethereum?
- d) Define Digital Signature.
- e) Define Cryptography.
- f) What is currency?
- g) What is cryptocurrency?
- h) What is smart contract?
- i) Define Database.
- j) What is fork?

Q2) Attempt any FOUR of the following (Out of FIVE).

[4×4=16]

- a) Explain Components of Blockchain.
- b) What is Ethereum network? Explain with diagram.
- c) What is DAO? Explain in detail.
- d) Explain life cycle of Blockchain.
- e) What is Hyperledger Fabric? Give Benefits of Hyperledger Fabric.

P.T.O.

Q3) Attempt any FOUR of the following (Out of FIVE). **[4×4=16]**

- a) What is blockchain? Explain its Importance?
- b) What is block? Explain its structure diagrammatically.
- c) Explain types of network.
- d) Explain Actors of Blockchain
- e) What is gas? Why it is important in Ethereum?

Q4) Attempt any FOUR of the following (Out of FIVE). **[4×4=16]**

- a) Describe DApps in details.
- b) With the help of diagram describe EVM.
- c) Explain Web3 in details.
- d) What is an EVM in blockchain? Explain EVM with example.
- e) What are the advantages of Hyperledger Fabric for blockchain networks.

Q5) Write a short note on Any TWO of the following. (Out of THREE). **[2×3=6]**

- a) Differentiate between private key and public key.
- b) Explain working of smart contracts.
- c) Give Limitations of Blockchain.



Total No. of Questions : 5]

SEAT No. :

PA-1973

[Total No. of Pages : 2

[5954]-401

S.Y. B.B.A. (C.A.)

CA - 401 : NETWORKING

(2019 Pattern) (CBCS) (Semester - IV)

Time : 2½ Hours]

[Max. Marks : 70

Instructions to the candidates :

- 1) *All questions are compulsory.*
- 2) *Neat diagrams must be drawn wherever necessary.*

Q1) Attempt any three of the following :

[3 × 5 = 15]

- a) Define Network Topology? Explain different types of topologies.
- b) Explain function of each layer of ISO-OSI reference Model.
- c) What is wireless transmission? Explain any two media in detail.
- d) Define the bridge? Explain the types of bridge.

Q2) Attempt any three of the following :

[3 × 5 = 15]

- a) Define Computer Network? Explain goals of Computer Network.
- b) Explain different types of Addresses.
- c) Explain propagation methods in detail.
- d) Explain Firewall and its Security Features.

Q3) Attempt any three of the following :

[3 × 5 = 15]

- a) Draw TCP/IP model and state the function of each layer.
- b) Compare connection oriented and connectionless services.
- c) What is Router? Explain its components.
- d) What is Ethernet? What are its types? Explain any one in detail.

P.T.O.

Q4) Attempt any three of the following :

[3 × 5 = 15]

- a) Explain IEEE standards 802-11 in detail.
- b) Compare ISO-OSI reference model and TCP/IP model.
- c) What is cryptography? Explain encryption and decryption process.
- d) Explain Fiber optic cable in detail.

Q5) Write notes on (Any Two) :

[2 × 5 = 10]

- a) Modes of Communication.
- b) Bluetooth Architecture.
- c) MAC sublayer with it's Frame Format.
- d) Copyright.



Total No. of Questions : 5]

SEAT No. :

PA-1974

[Total No. of Pages : 3

[5954]-402

S.Y. B.B.A. (Computer Application)

CA - 402 : OBJECT ORIENTED CONCEPTS THROUGH CPP

(2019 Pattern) (Semester - IV)

Time : 2½ Hours]

[Max. Marks : 70

Instructions to the candidates:

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

Q1) Attempt any EIGHT of the following (out of TEN).

[2×8=16]

- a) What is Encapsulation?
- b) Define the following terms
 - i) Early Binding
 - ii) Late Binding
- c) What is Inline function?
- d) Explain get() and put () function.
- e) What is stream?
- f) Define Friend function.
- g) Explain the use of new operator, state the syntax.
- h) State the need of virtual keyword.
- i) State user defined data types in C++.
- j) Explain the use of Scope Resolution operator.

Q2) Attempt any FOUR of the following (out of FIVE).

[4×4=16]

- a) List different types of constructor. Explain any one constructor with example.
- b) What is function overloading? Explain with suitable example.
- c) Describe different types of inheritance.
- d) Explain virtual base class with suitable diagram.
- e) Describe file manipulators with their syntaxes.

P.T.O.

Q3) Attempt any FOUR of the following (out of FIVE). **[4×4=16]**

- a) Write a C++ program to copy contents of one file to another file.
- b) Write a program to calculate area and circumference of a circle using inline function.
- c) Declare a class of vehicle. Derived classes are two wheeler, three wheeler and four wheeler. Display the properties of each type of vehicle using member functions of class.
- d) Write a C++ program to use setfile () and setiosflags () manipulator.
- e) Write a C++ program to compare two strings using overload operator “==”.

Q4) Attempt any FOUR of the following (out of FIVE). **[4×4=16]**

- a) Trace the output of the following program and explain it. Assume there is no syntax error.

```
#include <iostream.h>
int i,j;
Class sample
{
Public:
    Sample (int a = 0, int b = 0)
    {
        i = a;
        j = b;
        show ( );
    }
    Void show ( )
    {
        Cout <<j <<“ ”;
    }
};
Void main ( )
{
    Sample (5, 10);
    Int & x = i;
    int & y = j;

    i++;

    Cout << x - - << “ ” << ++y;
}
```

- b) Explain try, catch and throw in exception handling.
- c) Design C++ class which contain function display (). Write a program to count number of times display () function is called (Use static data member)
- d) What is Destructor? State the importance of destructor with example.
- e) What is tokens in C++? Explain in detail.

Q5) Write a short note on any TWO of the following (out of THREE) **[3×2=6]**

- a) Call - by - value and call-by-reference
- b) Data abstraction
- c) Default Argument



Total No. of Questions : 5]

SEAT No. :

PA-1975

[Total No. of Pages : 3

[5954]-403

S.Y. B.B.A. (Computer Application)

CA - 403 : OPERATING SYSTEM

(2019 Pattern) (Semester - IV)

Time : 2½ Hours]

[Max. Marks : 70

Instructions to the candidates:

- 1) *All questions are compulsory.*
- 2) *Neat diagrams must be drawn wherever necessary.*

Q1) Attempt any Eight of the following.

[2×8=16]

- a) Define the term operating system.
- b) Define system program.
- c) Which scheduler controls the degree of multiprogramming?
- d) What is Turn-Around Time?
- e) What is meant by Deadlock?
- f) What is demand paging?
- g) List any four attributes of files.
- h) What do you mean by seek Time in Disk Scheduling.
- i) What does FIFO and MFU stand for?
- j) Define Rollback?

Q2) Attempt any four of the following.

[4×4=16]

- a) List and explain services provided by the operating system.
- b) Explain Process Control Block (PCB) with diagram.
- c) Explain 'Dining Philosopher' Synchronization problem.
- d) What is Fragmentation? Explain types of its in detail.
- e) Describe I/O Hardware with its type of I/O devices.

Q3) Attempt any four of the following.

[4×4=16]

- a) Explain various types of system programs.
- b) Explain Indexed Allocation in detail.

P.T.O.

- c) The request queue is as follows:

15, 27, 137, 18, 150, 65, 194.

Number of tracks = 0 to 199

Starting position or current head position = 128. Find total head movement by applying SSTF (Shortest Seek Time First) disk scheduling algorithm.

- d) List any two types of Multiprocessor.

- e) Consider the following set of processes with length of CPU Burst time and arrival time in milliseconds.

Process	Arrival	Time Burst Time
P ₁	0	3
P ₂	2	6
P ₃	4	4
P ₄	6	5
P ₅	8	2

Calculate turn around time, waiting time, average waiting time and average turn around time using preemptive SJF scheduling algorithm.

Q4) Attempt any Four of the following.

[4×4=16]

- a) Consider the following snapshot of the system.

Process	Allocation				Max				Avaliable			
	A	B	C	D	A	B	C	D	A	B	C	D
P ₀	0	0	1	2	0	0	1	2	1	5	2	0
P ₁	1	0	0	0	1	7	5	0				
P ₂	1	3	5	4	2	3	5	6				
P ₃	0	6	3	2	0	6	5	2				
P ₄	0	0	1	4	0	6	5	6				

Is the system safe? Justify?

If yes give safe sequence

- b) Explain different methods for recovery from deadlock?

- c) Consider a reference string 4, 7, 6, 1, 7, 6, 1, 2, 7, 2 the number of frames in the memory is 3. Find out number of page Faults respective to
 - i) FIFO
 - ii) LRU
- d) Explain advantages and disadvantages of linked allocation methods.
- e) Define the term:
 - i) Logical Address
 - ii) Physical Address

Q5) Write short note on any Two of the following.

[2×3=6]

- a) What is Interrupts.
- b) What is medium term scheduler.
- c) Explain semaphores and its types in detail.



Total No. of Questions: 5]

SEAT No. :

PA-1976

[5954]-404

[Total No. of Pages : 2

SY B.B.A. (C.A.)

CA - 404 : NODE JS

(2019 Pattern) (Semester-IV)

Time : 2 ½Hours]

[Max. Marks : 70

Instructions to the candidates:

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

Q1) Answer the following (any Eight):

[8×2=16]

- a) What is the command to initialize node package manager (NPM)? write it's syntax.
- b) What is REPL?
- c) List any four core modules of node. JS.
- d) List any two methods included under path module of node. JS.
- e) For which tasks a File System module is used for?
- f) Write a command to add dependency "express" using NPM.
- g) Write a command to install MYSQL Package by using NPM.
- h) Write down steps to handle http requests while creating web server using node. JS.
- i) Write any two advantages of node. JS.
- j) Write any two functions of Buffer used in node. JS.

Q2) Answer the following (any Four)

[4×4=16]

- a) Write a Program to update table records using node. JS and MySQL database.
- b) Explain Node.JS Process Model with the help of diagram.
- c) How does Node.JS handles a file request.
- d) What is the Purpose of object module experts in node.JS?
- e) Explain LC. readfile () method for all Possible ralves of options?

P.T.O.

Q3) Answer the following (any four)

[4×4=16]

- a) Write a Program which uses addlistener () method of Event Emmitter class.
- b) Write a short note on NPM.
- c) Write a Program to delete table records using node.JS and MySQL database.
- d) How do you install Packages locally using NPM. Explain with an example.
- e) Compare Traditional web. server model and Node.JS Process model.

Q4) Answer the following (any four)

[4×4=16]

- a) Write a Program to use SoL SELECT very to show data from a table using node. JS and MySoL database.
- b) Explain steps to install Node.JS on windows.
- c) Write a Program to write to a file in node.JS
- d) How to add dependency into Package JS on?
- e) Write a Program to calcolate factorial of given number using function.

Q5) Answer the following (any two)

[2×3=6]

- a) Explain the meaning, purpose, steps to execute and output of below program:

```
var http = require ('http');  
http. create server (function (req, res){  
  res. write head (200, { 'content - Type' : 'text/htm' });  
  res. end ('Hello world');  
}) listen (8080);
```

- b) Explain working of writeHead ()
- c) Explain Inheriting events with suitable example.



Total No. of Questions : 4]

SEAT No. :

[Total No. of Pages : 2

PA-1977

[5954]-405

S.Y.B.B.A. (CA)

CA-404 : ADVANCED PHP

(2019 CBCS Pattern) (Semester - IV)

Time : 2½ Hours]

[Max. Marks : 70

Instructions to the candidates:

- 1) *All questions are compulsory.*
- 2) *Draw neat diagram wherever necessary.*

Q1) Attempt any Eight of the following.

[8×2=16]

- a) State the purpose of Extend Keyword.
- b) What is Class?
- c) What is \$_REQUEST variable?
- d) What is Serialization?
- e) What is Document object Model in PHP?
- f) Describe any two content management system software.
- g) What is \$_SERVER variable?
- h) State the purpose of Final Keyword?
- i) What is meaning of Self Processing form?
- j) What is AJAX Script?

Q2) Attempt any Four of the following.

[4×4=16]

- a) Explain features of Joomla/Drupal.
- b) What is SOAP? Explain in detail.
- c) Explain XML MVC framework.
- d) Difference between GET and POST method.
- e) How to create object in PHP? Explain with example.
- e) Write a simple PHP program which implements AJAX for addition of two numbers.s

P.T.O.

Q3) Attempt any Four of the following.

[4×4=16]

- a) Create a form to accept Customers Details and Display it on Next Page.
- b) Write a PHP script to Design a form to accept a number from the user to check whether number is palindrome or not. (Use the concept of self processing page).
- c) Write XML script to print the names of the students present in “Student.xml” file.
- d) Define a class Employee having private member id, name, salary, dept. Define parametrised constructor. Create object and display details fo employee having maximum salary.
- e) Write a simple PHP program which implements AJAX for addition of two numbers.s

Q4) Attempt any Four of the following.

[4×4=16]

- a) Explain the structure of WSDL.
- b) Explain XML Parser.
- c) Write a PHP script to display server information in table format (Use \$_SERVER).
- d) What are the advantages of AJAX?
- e) Write a PHP Script to read book. XML and print book details in tabular format using simple XML. (Content of book. XML are (bookcode, bookname, author, year, price).

Q5) Write a short note on any two of the following.

[2×3=6]

- a) Web services communication models.
- b) Sticky Forms.
- c) Encapsulation.

