

Total No. of Questions : 5]

SEAT No. :

**P6003**

[Total No. of Pages : 2

**[6144]-301**

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

**CA - 301 : DIGITAL MARKETING**

**(2019 Pattern) (Semester - III)**

*Time : 2½ Hours]*

*[Max. Marks : 70*

*Instructions to the candidates:*

- 1) *All questions are compulsory.*
- 2) *Neat diagram 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 blogging?
- b) What is digital marketing in E-commerce?
- c) What is Resource planning?
- d) What is digital marketing.
- e) What is CRM?
- f) What is upload and download?
- g) Name the tools of social media marketing.
- h) What is web analytics?
- i) What is Internet marketing?
- j) What is Search Engine Results Pages (SERP)

**Q2)** Attempt any Four of the following :

**[4×4=16]**

- a) Explain structure of website.
- b) Explain E-Marketing plan?
- c) Explain the SWOT Analysis?
- d) Write advantages of E-mail marketing?
- e) Explain digital marketing and list its advantages.

**P.T.O.**

**Q3)** Attempt any Four of the following :

**[4×4=16]**

- a) Write advantages and disadvantages of CRM?
- b) Write phases in content management lifecycle?
- c) Write 5 D's of digital marketing?
- d) What is social media marketing?
- e) What is difference between SEO & SEM.

**Q4)** Attempt any Four of the following:

**[4×4=16]**

- a) What is SEO Content?
- b) Describe the steps to do Cost Control.
- c) Write the difference between Digital Marketing and Traditional Marketing.
- d) Write CRM platform in detail?
- e) Write on types of SEO?

**Q5)** Write a short note on Any Two of the following:

**[2×3=6]**

- a) KPI
- b) Target audience
- c) Pay-Per-Click



Total No. of Questions : 5]

SEAT No. :

P-6004

[Total No. of Pages : 3

[6144]-302

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

CA - 302 : DATA STRUCTURE

(2019 Pattern) (Semester-III)

*Time : 2½ Hours]*

*[Max. Marks : 70*

*Instructions to the candidates :*

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

**Q1)** Attempt any Eight of the following.

**[8 × 2 = 16]**

- a) What is data structure?
- b) What is sorting? State the techniques of sorting.
- c) What is non-primitive data structure?
- d) What is searching?
- e) Mention the features of ADT.
- f) What are the types of linked list?
- g) List down the applications of list.
- h) What is polynomial? How is it represented?
- i) Differentiate array & structure.
- j) What are the applications of stack?

**P.T.O.**

**Q2)** Attempt any Four of the following.

**[4 × 4 = 16]**

- a) Explain different types of Dynamic Memory Allocation functions.
- b) Explain Linear Data structure with examples.
- c) What is stack? Explain different operations used in stack.
- d) What is algorithm? Explain its characteristics.
- e) Explain selection sort technique with example.

**Q3)** Attempt any Four of the following.

**[4 × 4 = 16]**

- a) Write a function to create & display singly linked list.
- b) Write a function to insert an element into a queue, in which the queue is implemented as array.
- c) Explain BFS traversing technique with an example.
- d) Write a function to preorder traversal of the tree.
- e) Write an algorithm to convert infix expression to postfix expression.

**Q4)** Attempt any Four of the following:

**[4 × 4 = 16]**

- a) Construct an AVL tree of following data.  
20, 10, 30, 5, 15, 25, 35, 13, 17
- b) Construct Binary search tree for following data.  
78, 95, 2, 57, 13, 29, 61, 10
- c) Sort the following data by using selection sort  
12, 11, 13, 5, 6
- d) Write a C- program to display a linked list in Reverse order.
- e) What is Graph? Explain its representation techniques in detail.

**Q5)** Attempt any two of the following :

**[2 × 3= 6]**

a) Convert the following expression into prefix

i)  $A+B/C*(D-A)^F^H$

ii)  $A*(B*C+D*E)+F$

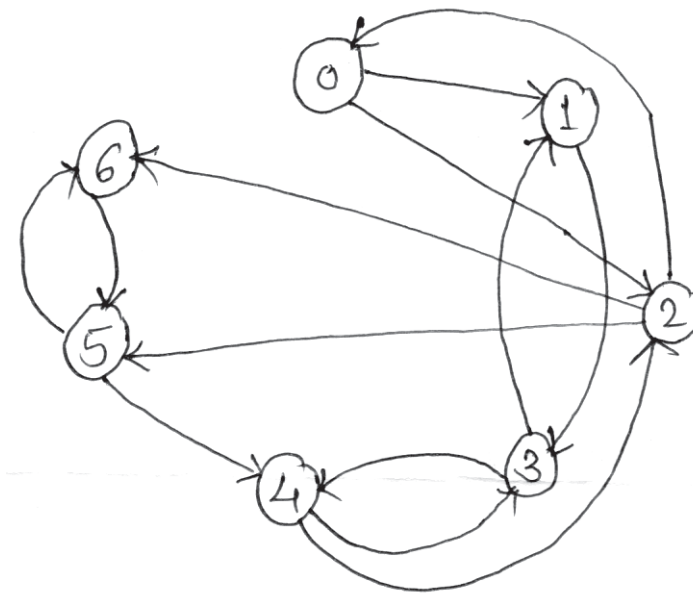
b) Define the following terms

i) Parent Node

ii) Sub tree

iii) Directed Graph

c) What is degree of vertex? Find indegree & outdegree of the following graph for each vertex.



Total No. of Questions : 5]

SEAT No. :

**P6005**

**[6144]-303**

[Total No. of Pages : 2

**S.Y.B.B.A.**

**CA - 303 : SOFTWARE ENGINEERING  
(2019 Pattern) (Semester - III)**

*Time : 2½ Hours]*

*[Max. Marks : 70*

*Instructions to the candidates:*

- 1) *All questions are compulsory.*
- 2) *Neat diagram 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 system Analyst?
- b) Define data dictionary.
- c) What is SRS?
- d) Define an Entity.
- e) Define unit testing.
- f) State the principles of software testing?
- g) Define open and closed system.
- h) What is prototype?
- i) What is system?
- j) What is feasibility study?

**Q2)** Attempt any FOUR of the following:

**[4×4=16]**

- a) Draw first level DFD for Online Food order system.
- b) Define software process and software product. Distinguish between them.
- c) What is SDLC? Describe its phases?
- d) Discuss different fact finding techniques.
- e) Define software maintenance. Explain types of software maintenance.

***P.T.O.***

**Q3) Attempt any FOUR of the following:**

**[4×4=16]**

- a) Draw decision table for the following case. A company gives discount on the purchase of goods depending on the sales 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 < 10,000 or payment is not done within 8 days.
- b) Define module. Explain types of modules.
- c) Draw ER-Diagram for “Hospital Management System”.
- d) What is Decision Table? Need of Decision table.
- e) Explain elements of Data flow diagrams?

**Q4) 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 Tree for the above case.
- b) Differentiate between forward and reverse engineering.
- c) What is Data Flow Diagram? Explain its Advantages & Disadvantages.
- d) Explain spiral model in detail.
- e) Design a screen I/P layout for employee’s Profile.

**Q5) Write a short note on Any TWO of the following:**

**[2×3=6]**

- a) System Testing.
- b) McCall’s quality factors.
- c) Requirement Gathering.



Total No. of Questions : 5]

SEAT No. :

**P-6006**

[Total No. of Pages : 2

**[6144]-304**  
**B.B.A. (CA)**  
**CA-304 : ANGULAR JS**  
**(2019 Pattern) (Semester - III)**

*Time : 2½ Hours]*

*[Max. Marks : 70*

*Instructions to the candidates:*

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

**Q1) Answer the following (Any Eight) :**

**[8 × 2 = 16]**

- a) Write any two advantages of AngularJS?
- b) Write name of any two Editors used for Angular JS.
- c) Explain two-way data binding.
- d) What is controller?
- e) Explain ng-app directive.
- f) What is Dependency Injection.
- g) Write the use of ng-show.
- h) Write short note on \$scope.
- i) Explain ng-if directive.
- j) What are form events?

**Q2) Attempt any FOUR of the following:**

**[4 × 4 = 16]**

- a) Explain ng-model in detail with example.
- b) Write any three directives used in AngularJS.
- c) What are the advantages of creating modules?
- d) Write an AngularJS program to enter two numbers in two text boxes and display multiplication result of them.
- e) Write an AngularJS program to showcase the use of ng-click.

**P.T.O.**



**Q3) Attempt any FOUR of the following :**

**[4 × 4 = 16]**

- a) Give the difference between \$rootScope and \$scope.
- b) What are the purposes of AngularJS services? Name any two services.
- c) Explain MVC architecture in detail.
- d) Write a program to demonstrate the use of ng-controller.
- e) Write a simple program to show the use of \$scope.

**Q4) Attempt any FOUR of the following :**

**[4 × 4 = 16]**

- a) Write and explain any four methods of \$Scope object.
- b) Explain the working of uppercase and lowercase filters with an example.
- c) Explain \$document service, \$log-service and \$root service in detail.
- d) Write an AngularJS program to create a service to find whether the entered number is prime or not.
- e) Write a program that can generate numbers after an interval of every 1000 ms.

**Q5) Attempt any TWO of the following :**

**[2 × 3 = 6]**

- a) SPA
- b) Explain ng-model, ng-required.
- c) Validation in AngularJS.



Total No. of Questions : 5]

SEAT No. :

**P-6007**

[Total No. of Pages : 2

**[6144]-305**  
**S.Y. B.B.A.**  
**CA-304 : PHP**  
**(2019 Pattern) (CBCS) (Semester - III)**

*Time : 2½ Hours]*

*[Max. Marks : 70*

*Instructions to the candidates:*

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

**Q1)** Attempt any EIGHT (out of TEN)

**[8 × 2 = 16]**

- a) What is indexed array?
- b) What is difference between “echo” and “print”?
- c) Explain Krsort() function in PHP.
- d) What is the use of Sticky form in PHP?
- e) Explain setcookie () function in PHP.
- f) What is \$\_SESSION in PHP?
- g) Explain var\_dump function in PHP.
- h) What is Ternary operator in PHP?
- i) Explain array\_slice function in PHP.
- j) Explain mysqli\_connect() in PHP.

**Q2)** Attempt any FOUR (out of FIVE) :

**[4 × 4 = 16]**

- a) What are the features of PHP.
- b) Write a PHP script to find the sum of digits of a number.
- c) Explain for loop and foreach loop with example.
- d) Explain cookies in PHP.
- e) Explain any two Built-in Array functions in PHP.

**P.T.O.**

**Q3)** Attempt any Four (out of FIVE) :

**[4 × 4 = 16]**

- a) Write a PHP script to display table of a number?
- b) Write any two Built-in functions of String with example.
- c) Write a code in PHP which accepts two strings from user and displays them after concatenation.
- d) Write a PHP program to calculate factorial of a number.
- e) Write a PHP script to check whether a number is prime or not.

**Q4)** Attempt any Four of the following. (out of FIVE)

**[4 × 4 = 16]**

- a) Explain the concept of sticky form with suitable example.
- b) Explain Email id validation in PHP through regular expression.
- c) Write PHP program for arsort() function.
- d) Write a PHP program to display record of employee with fields(empid,empname,salary,dept).
- e) Write a PHP program to create login page and welcome user on next page.

**Q5)** Write a short note on any two (out of THREE) :

**[2 × 3 = 6]**

- a) Form and Form elements.
- b) Assignment operators in PHP.
- c) List different php MySQLi functions.



Total No. of Questions : 5]

SEAT No. :

**P6008**

[Total No. of Pages : 2

**[6144]-306**

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

**CA - 305 : BIG DATA**

**(2019 CBCS Pattern) (Semester -III)**

*Time : 2½ Hours]*

*[Max. Marks : 70*

*Instructions to the candidates:*

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

**Q1)** Attempt any EIGHT of the following:

**[8×2=16]**

- a) What is predictive analytics?
- b) What are the applications of Association Rule Mining?
- c) What is WEKA?
- d) Write any two advantages of Big Data.
- e) Define Regression Analysis.
- f) Write four applications of Data Science.
- g) Write any two needs of Machine Learning.
- h) Write two disadvantages of EM algorithm.
- i) What is R?
- j) Enlist any four tools used for Big Data.

**Q2)** Attempt any FOUR of the following.

**[4×4=16]**

- a) Explain the advantages and disadvantages of Apriori algorithm.
- b) Explain four data types in R.
- c) Explain four types of Correlation.
- d) Explain Statistical Inference with suitable diagram.
- e) Differentiate between structured and Unstructured Data.

**P.T.O.**

**Q3)** Attempt any FOUR of the following :

**[4×4=16]**

- a) Explain 5V's of Big Data.
- b) Explain the phases of Data Analytics Life Cycle.
- c) Explain *for* loop in R programming with syntax and example.
- d) Explain Naive Bayes Algorithm in detail.
- e) Explain Head ( ) and Tail ( ) functions in *dplyr* package.

**Q4)** Attempt any FOUR of the following :

**[4×4=16]**

- a) Explain four applications of Big Data.
- b) What is population? Explain different types of population.
- c) Write an R program to sort a Vector in ascending and descending order.
- d) Write an R program to create a simple bar plot of five subject's marks.
- e) Write an R program to calculate Multiplication Table.

**Q5)** Write a short note on any TWO of the following :

**[2×3=6]**

- a) Advantages of SVM algorithm.
- b) Statistical Modeling.
- c) Data Analysis.



Total No. of Questions : 5]

SEAT No. :

**P6009**

[Total No. of Pages : 2

**[6144]-307**  
**S.Y.B.B.A. (C.A.)**  
**CA - 305 : BLOCKCHAIN**  
**(2019 Pattern) (Semester -III)**

*Time : 2½ Hours]*

*[Max. Marks : 70*

*Instructions to the candidates:*

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

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

**[8×2=16]**

- a) Define Block and Chain.
- b) Define Database.
- c) What is hyperledger?
- d) What is chain code?
- e) What is public key?
- f) What is mining?
- g) What is proof of Stake?
- h) What happen when someone loses the private key of his wallet.
- i) What is nonce?
- j) What is Cryptography?

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

**[4×4=16]**

- a) What are the uses of SHA algoritham?
- b) Explain different layers of Blockchain.
- c) What is Gas and Gas limit?
- d) What is DAO? Explain in details.
- e) Explain public and private blockchain.

**P.T.O.**

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

- a) What are the advantages of Hyperledger Fabric for blockchain networks.
- b) What are consensus algorithms in blockchain?
- c) What is Blockchain? What the Features Blockchain.
- d) What are the advantages of DApps?
- e) Which are the components of blockchain?

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

- a) What are the Advantages of practical Byzantine Fault Tolerance (pBFT).
- b) Explain the layered architecture of blockchain.
- c) Write are the advantages of Hyperledger Fabric for blockchain networks.
- d) Explain the Types of Ethereum Clients.
- e) Define transaction and explain its structure.

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

- a) Write a short note on Crypto wallet.
- b) Write a short note on Evolution of blockchain.
- c) Write a short note on actors of Blockchain.

