

Total No. of Questions : 5]

SEAT No. :

**P-1905**

[Total No. of Pages : 2

**[6034]-301**

**B.B.A. (C.A.)**

**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 upload and download?
- b) Name the tools of social media marketing.
- c) What is web analytics?
- d) What is Internet marketing?
- e) What is Search Engine Results Pages (SERP)?
- f) What is blogging?
- g) What is digital marketing in E-commerce?
- h) What is cost estimation?
- i) What is digital marketing.
- j) What is CRM?

**P.T.O.**

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

**[4 × 4 = 16]**

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

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

**[4 × 4 = 16]**

- a) What is difference between SEO & SEM.
- b) Write advantages and disadvantages of CRM?
- c) Write phases in content management lifecycle?
- d) How to analyze visitation on LinkedIn?
- e) What is social media marketing?

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

**[4 × 4 = 16]**

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

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

**[2 × 3 = 6]**

- a) URL.
- b) E-marketing.
- c) Pay-Per-Click.

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SEAT No. :

**P1906**

[Total No. of Pages : 2

**[6034]-302**

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

**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.*

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

**[8×2=16]**

- a) What are the advantages of linked list over an array?
- b) How to measure performance of an algorithm?
- c) What is adjacency of Matrix?
- d) What is pointer to pointer?
- e) What is complete binary tree?
- f) What is polynomial? How is it differ from structure?
- g) What is Priority queue?
- h) State the difference between stack & linked list.
- i) What is the need for the header?
- j) What is balance factor? How is it calculated?

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

**[4×4=16]**

- a) What is height-balanced tree? Explain RR and RL rotations with an example.
- b) What is linked list? Explain its types in detail.
- c) Explain different types of asymptotic notation in detail.
- d) Explain insertion sort technique with an example.
- e) Differentiate array and structure.

**P.T.O.**

**Q3)** Attempt any four of the following : **[4×4=16]**

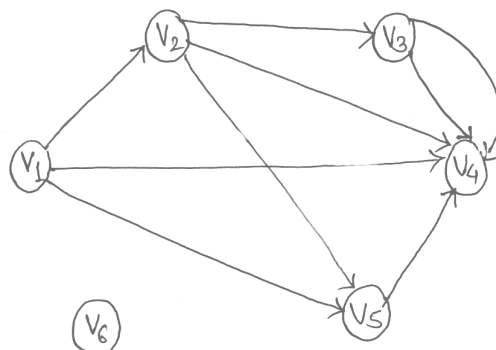
- a) Write a function to create & display circular singly linked list.
- b) Write a function to insert an element into a circular queue, in which the queue is implemented as an array.
- c) Write a function for in order traversal of the tree.
- d) Write a function to delete first node from singly linked list.
- e) Write a function to search the element from array using binary search.

**Q4)** Attempt any four of the following : **[4×4=16]**

- a) Construct an AVL tree for given data :  
WED, TUE, MON, SAT, THUR, FRI
- b) For given data, construct a binary search tree :  
15, 30, 20, 5, 10, 2, 7
- c) Sort the following data by using quick sort.  
10, 5, 75, 62, 49, 58
- d) Write a C-program to traverse the linked list.
- e) What is Dequeue? Explain its operation with example.

**Q5)** Attempt any two of the following : **[2×3=6]**

- a) Convert the following expression into postfix.
  - i)  $(A + B) * C - D$
  - ii)  $A + B * C - D/E * F$
- b) Define the following terms :
  - i) Degree of node
  - ii) Child node
  - iii) Path
- c) What is degree of vertex? Find in degree & out degree of each vertex for the following graph.



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SEAT No. :

P-1907

[Total No. Of Pages : 2

**[6034]-303**  
**B.B.A.(C.A.)**  
**CA - 303: SOFTWARE ENGINEERING**  
**(Semester-III) (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.*
- 3) *Figures to the right indicate full marks.*

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

**[ 8 × 2 = 16 ]**

- a) Define Economical feasibility.
- b) What is system Analyst?
- c) Define data dictionary.
- d) State advantages of Waterfall Model.
- e) Define an Entity.
- f) Define unit testing.
- g) State the principles of software testing?
- h) Define open and closed system.
- i) What is prototype?
- j) What is module?

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

**[ 4 × 4 = 16 ]**

- a) Draw first level DFD for Hospital Management System.
- b) Explain spiral model in detail.
- c) Define software process and software product. Distinguish between them.
- 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) A ABC Foods Pvt. Ltd. Company is offering certain discount on the total amount of purchase. If the purchasing amount is more than 5,000 and the customer is making the payment within 5 days, then company 5% discount on invoice. If the purchase amount is between 3,000 to 5,000 and the customer is making the payment within 5 days, then company offers 3% discount. If the amount is less than 3,000 and customer is making the payment within 5 days, then no discount offered and customer has to pay full amount. If customer is not able to pay within 5 days, then no discount is given. Draw decision table.
- b) Define module. Explain types of modules.
- c) Draw ER-Diagram for "Food order 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) What is SDLC? Describe its phases?
- 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) Prototype Model
- b) Structured Chart
- c) Requirement Gathering.



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SEAT No. :

[Total No. of Pages : 2

**P1908**

**[6034]-304**

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

**CA - 304 : ANGULAR JS  
(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 side indicate full marks.*

**Q1)** Answer the following (any EIGHT)

**[8×2=16]**

- a) What is controller?
- b) Explain ng - click.
- c) What is currency filter?
- d) Explain Two - way data binding.
- e) What is Angular view?
- f) Explain \$http Services.
- g) What is AJAX?
- h) What is Dependency Injection?
- i) Explain \$ timeout service.
- j) What is SPA?

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

- a) How MVC works in AngularJS? **[4×4=16]**
- b) What is difference between Angular JS Expression and JavaScript Expression?
- c) What is scope hierarchy? Explain with example.
- d) Write an AngularJS program to create service for finding factorial of a number.
- e) Write an AngularJS script to display list of games stored in an array on click of button using ng - click.

**P.T.O.**

**Q3) Attempt any FOUR of the following :** **[4×4=16]**

- a) Give the difference between AngularJS and JavaScript
- b) What are the most common directives used in AngularJS Applications.
- c) What is module life cycle?
- d) Write a program that can show the use of ng - repeat.
- e) Using Angular JS display the 10 student details in Table format (using ng- repeat directive use Array to store data).

**Q4) Attempt any FOUR of the following :** **[4×4=16]**

- a) What are the disadvantages of AngularJS.
- b) Distinguish between factory, service and provider.
- c) What are the different types of form events?
- d) Explain \$ document service, \$ log service and \$ root service in brief.
- e) Explain custom filter with example.

**Q5) Attempt any TWO of the following :** **[2×3=6]**

- a) Explain data filter with example.
- b) What is model binding ?
- c) Explain custom validation.





Total No. of Questions : 5]  
**P1909**

SEAT No. :   
[Total No. of Pages : 2

**[6034]-305**  
**S.Y.B.B.A.(C.A. )**  
**CA 304 : PHP**  
**(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 ( Out of TEN)

**[8×2=16]**

- a) Explain difference between static and dynamic website.
- b) How to declare variable in PHP?
- c) What is the use of count ( ) in PHP?
- d) What is a session ?
- e) What is cookie?
- f) Explain PHP explode ( ) function.
- g) How to concatenate two strings in PHP?
- h) What is PHP?
- i) Explain \$ - SERVER
- j) Describe echo statement in PHP.

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

**[4×4=16]**

- a) What are differences between PHP constant and variable ?
- b) Explain the syntax for each loop with example.
- c) What are the different types of arrays in PHP?
- d) Explain methods to submit form.
- e) What is a session in PHP? Explain it.

**P.T.O.**

**Q3) Attempt any FOUR (out of FIVE)**

**[4×4=16]**

- a) Explain if ...else statement in PHP using example.
- b) Explain difference between client side scripting and server side scripting
- c) Write a PHP program to calculate area of circle and triangle.
- d) Write a note on relational operators in PHP.
- e) Explain Respons and request objects in PHP.

**Q4) Attempt any FOUR (out of FIVE)**

**[4×4=16]**

- a) Explain introspection in PHP.
- b) Explain function with default parameter in PHP using example.
- c) Write a PHP script to accept user's name and display in on next page.
- d) Write a PHP program to display following operations on string :
  - i) String concatenation
  - ii) String comparison
- e) Write a PHP program to display multiplication table of entered value.

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

**[2×3=6]**

- a) Radio button and checkbox
- b) Superglobals in PHP
- c) Class and object



Total No. of Questions : 5]

SEAT No. :

**P-1910**

[Total No. of Pages : 2

**[6034]-306**  
**S.Y. B.B.A. (CA)**  
**CA-305 : BIG DATA**  
**(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.*

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

**[8 × 2 =16]**

- a) What is population?
- b) What is operators in R?
- c) Define array in R?
- d) Define sample.
- e) What is machine learning?
- f) Define data frame.
- g) Define market basket analysis.
- h) What is data analytics?
- i) Define head() and tail().
- j) Enlistdata types in R?

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

**[4 × 4 = 16]**

- a) Explain probability in details.
- b) Explain the types of Analytics.
- c) Explain correlation with its type.
- d) Explain the application of big data..
- e) Explain Machine learning.

**P.T.O.**

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

**[4 × 4 = 16]**

- a) How Naive Bayes algorithm works.
- b) Explain Decision tree with example.
- c) Explain support vector machine with example.
- d) Explain digital data with its types.
- e) Explain Association rule mining.

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

**[4 × 4 = 16]**

- a) What is regression? Explain with its type.
- b) Write an R program to find out number is positive or negative.
- c) Write an R program to sort a Vector in ascending and descending order.
- d) Write an R Program to print Multiplication Table of 2.
- e) Write an R program to check number is Armstrong or not.

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

**[2 × 3 = 6]**

- a) Data manipulation functions.
- b) Any 5 types of data visualisation.
- c) Loops in R.



Total No. of Questions : 5]

SEAT No. :

**P-1911**

[Total No. of Pages : 2

**[6034]-307**  
**S.Y. B.B.A. (CA)**  
**CA-305 : BLOCK CHAIN**  
**(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.*

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

**[8 × 2 =16]**

- a) Enlist types of Block chain.
- b) What is hashing?
- c) Define distributed p2p network.
- d) Define Digital Signature.
- e) What is wallet?
- f) Enlist types of forking.
- g) What is ledger?
- h) What is proof of Stake?
- i) What is Ethereum network?
- j) Define ICO.

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

**[4 × 4 = 16]**

- a) What is blockchain? Give Limitations of Blockchain.
- b) What is public and private blockchain?
- c) What are benefits of immutable ledger in blockchain.
- d) Which are the components of blockchain?
- e) Explain advantages of smart contract.

**P.T.O.**

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

- a) Define transaction and explain its structure.
- b) Explain the task of miners.
- c) What is Ethereum network? Explain with diagram.
- d) Explain Hybrid Blockchain in details.
- e) What is fork? Explain with Diagram.

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

- a) Explain Byzantine fault tolerance (BFT) in details.
- b) What is nonce? Explain with Diagram.
- c) What is hash function? Explain its working?
- d) Explain the layered architecture of blockchain.
- 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) Write a short note on Cryptographic puzzle.
- b) Write a short note on DApps.
- c) Write a short note on Evolution of blockchain.

