Total No. of Questions : 5]

SEAT No. : ____

PC1154

[Total No. of Pages : 2

[6317]-101

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

CA-301 : DIGITAL MARKETING

(2019 CBCS 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 wherever necessary***

Q1) Attempt any Eight of the following. **[8×2=16]**

a) What is digital Marketing in E-commerce?

b) What is Internet Marketing?

c) What is Search Engine Results Pages (SERP)

d) Which are the types of hyperlink on website?

e) What is Resource planning?

f) What is CRM?

g) What is web analytics?

h) What is SEO.

i) Define cost budgeting?

j) What is upload and download?

Q2) Attempt any Four of the following. **[4×4=16]**

a) Describe the steps to do Cost Control.

b) What is difference between SEO & SEM?

c) Explain digital marketing and list its advantages.

d) What is social media marketing?

e) Explain the SWOT Analysis?

P.T.O.

Q3) Attempt any Four of the following. **[4×4=16]**

a) Write the difference between Digital Marketing and Traditional Marketing.

b) Write phases in content management lifecycle?

c) Write 5 D's of digital marketing?

d) Explain structure of website.

e) Write advantages of E-mail marketing?

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

a) Explain E-Marketing plan?

b) Write CRM platform in detail?

c) Write Video sharing-youtube?

d) Explain the concept SEO optimization.

e) What is Web analytics? Describe the levels.

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

a) Facebook.

b) URL.

c) E-marketing.

Total No. of Questions : 5]

SEAT No. : ____

PC-1155

[Total No. of Pages : 2

[6317]-102
S.Y. B.B.A.
COMPUTER APPLICATION
CA - 302 : Data Structure (CBCS)
(2019 Pattern) (Semester - III)

Time : 2½ Hours] ***[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 (out of Ten):** **[8 × 2 = 16]**

a) What is an abstract data type?

b) What are the different types of tree?

c) What are the different operations performed on stack?

d) List out different types of Linked List.

e) What are different types of sorting?

f) What is pointer to pointer.

g) What is self referential structure?

h) Define Data structure.

i) Explain typedef keyword with syntax or example.

j) What is a complete binary tree.

Q2) **Attempt any four of the following (out of Five):** **[4 × 4 = 16]**

a) What is height-balanced tree? Explain LL and LR rotations with an example.

b) Explain insertion sort technique with an example.

c) What is queue? Explain different operations performed on queue.

d) What is Graph? Explain adjacency list of graph.

e) Write an algorithm to convert given infix expression to postfix expression.

P.T.O.

Q3) **Attempt any Four of the following (out of Five):** **[4 × 4 = 16]**

a) Write a function to create and display circular singly linked list.

b) Explain different types of AVL rotations with an example.

c) Write a function to traverse a graph using DFS technique.

d) Write a function to insert a node in linked list at given position

e) Write a function to check whether a given siring is palindrome or not (use Stack)

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

a) Sort the following data by using selection sort. 35, 20, 40, 100, 3, 10, 15.

b) Construct Binary search tree of following data. 15, 30, 20, 5, 10, 2,7.

c) Write a function to search the element from the array using binary search.

d) What is a circular queue? Explain it with an example.

e) Write a 'C' Program to count the number of nodes from singly link list.

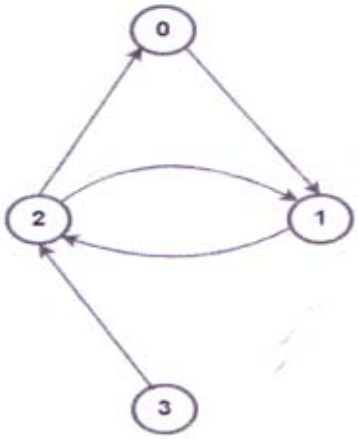
Q5) **Write any two of the following :** **[2 × 3 = 6]**

a) Evaluate the following postfix expressions where A=2, B=10, C=4, D=1

i) AB-CD*/ ii) ABC*+

b) Define the following terms. i) bridge ii) Cyclic graph iii) Pendant vertex

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



Total No. of Questions : 5]

SEAT No. :

PC-1156

[Total No. of Pages : 2

[6317]-103
S.Y. B.B.A. (CA)
CA - 303 : Software Engineering
(2019 Pattern) (Semester - III) (CBCS)

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 wherever necessary.***

Q1) **Attempt any Eight of the following:** **[8 × 2 = 16]**

a) Define software engineering.

b) Name McCall's quality factors.

c) Define the term "Software Testing.'

d) What is reverse engineering?

e) What is a Data Dictionary?

f) Define the term "Software Development Life Cycle" (SDLC).

g) What is coupling in software design?

h) Define 'SRS'.

i) Define open and closed system.

j) Define operational feasibility.

Q2) **Attempt any four of the following:** **[4 × 4 = 16]**

a) Discuss different types of software testing and explain how they are performed.

b) Describe the concept of Software Maintenance and Software Re-Engineering.

c) Explain the stages of the V&V Model and the activities carried out in each stage.

d) Explain why understanding user requirements is crucial in software development. Describe two methods used to gather these requirements.

P.T.O.

e) Explain advantages and disadvantages of Waterfall Model.

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

a) Explain Prototyping Model in detail.

b) What is Data Dictionary? Explain its various elements.

c) Explain characteristics of software.

d) What are the requirement gathering techniques? List out all the techniques and explain any two in detail.

e) Draw Decision Tree for following:

A Co-operative bank grants loan under following conditions.

i) If customer has account with bank and has no loan outstanding loan will be granted.

ii) If customer has account but some amount is outstanding from previous loans, loan will be granted under special management approval.

iii) Reject loan applications in all other cases.

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

a) Draw First Level DFD for ATM Management System.

b) Design Screen Layout for creating user account on internet. (With personal details, User-id, Password, save, cancel etc.)

c) Maxwell is trading company which sells various consumables to its dealers, On receiving enquiry from dealers, the company sends quotation to dealer. The dealer then sends order to company. If stock is available then the order acceptance is sent to dealer.

- Draw E-R Diagram.

d) Define software process and software product. Distinguish between them.

e) Define software maintenance. Explain types of software maintenance.

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

a) Structured Chart

b) Types of Cohesion

c) Validation and Verification Testing.

Total No. of Questions : 5]

SEAT No. : ____

PC-1157

[Total No. of Pages : 2

[6317] - 104
S.Y. B.B.A. (CA)
CA-304: ANGULARJS
(CBCS) (2019 Pattern) (Semester - III)

Time : 2½ Hours] ***[Max. Marks : 70***

Instructions to the candidates:

1) ***Questions Total number of questions is 5.***
2) ***Neat diagram must be drawn wherever necessary.***
3) ***Figures to the right indicate full marks.***

Q1) **Attempt any Eight of the following (Out of ten) :** **[8 × 2 = 16]**

a) What is AngularJs?

b) Define scope in AngularJs.

c) What are directives?

d) What is $http Service?

e) Explain ng-if directives with an example

f) How to create controller in AngularJs?

g) What are main features of AngularJs?

h) Explain date filter with syntax &example.

i) What are services in AngularJs?

j) Enlist four built in filters.

P.T.O.

Q2) **Attempt any Four of the following (Out of Five) :** **[4 × 4 = 16]**

a) What are the advantages and disadvantages of using AngularJs?

b) What is module? Write advantages of modules.

c) What are AngularJs Forms? Explain its elements.

d) Write AngularJs program to calculate simple interest using three text fields which will bound with three ng- model directives.

e) Write an AngularJs program to create service for finding factorial of given number.

Q3) **Attempt any Four of the following (Out of Five) :** **[4 × 4 = 16]**

a) Explain AngularJs Data Binding?

b) Explain scope hierarchy in detail.

c) Write an AngularJs program to find multiplication of two numbers.

d) Explain custom filter with an example.

e) Write an AngularJs program for ng-keyup and ng-keydown event.

Q4) **Attempt any Four of the following (Out of Five) :** **[4 × 4 = 16]**

a) Write short note on SPA.

b) Write an AngularJS program to demonstrate ng-init directive that initializes variable of string, number, array and object.

c) Why are expressions used in AngularJS?

d) Explain functions of AngularJs directive lifecycle?

e) Distinguish between factory, service and provider.

Q5) **Write a short note on any two (out of Three) :** **[2 × 3 = 6]**

a) MVC

b) Event Handling.

c) Dependency Injection.

Total No. of Questions : 5]

SEAT No. :

PC1158

[Total No. of Pages : 2

[6317]-105

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

CA-304 : PHP

(2019 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.***
3) ***Figures to the right side indicate full marks.***

Q1) Attempt any Eight of the following (Out of Ten) **[8×2=16]**

a) Give important features of PHP.

b) What are the different types of operators available in PHP?

c) How to declare variable in PHP?

d) What is cookie?

e) List different print functions used in PHP.

f) Explain PHP implode() function.

g) List array stack functions.

h) Explain validation in PHP.

i) What are the databases supported by PHP?

j) What is the use of<fieldset> tag?

Q2) Attempt any FOUR of the following (Out of Five) **[4×4=16]**

a) What is Array? Explain all types of array in PHP.

b) Explain the difference between while and do. .while loop in PHP.

P.T.O.

c) Write PHP program to check whether given number is palindrome or not.

d) What is the difference between GET and POST Method.

e) Explain passing value by reference with example.

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

a) Explain relational operators in PHP.

b) Explain the role of phpMyAdmin?

c) Explain session in PHP.

d) Write a php program to count total number of vowels from the given string.

e) Write PHP script to define an interface which has methods area(), volume(). Create a class cylinder which implements this interface and calculate area and volume.

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

a) What is variable? Explain its scope with example.

b) Explain array sort functions with example

c) Write a PHP program to find maximum of three numbers.

d) Write a PHP script to accept two strings from the user. Find the first occurrence and the last occurrence of the small string in the large string.

e) Give and explain syntax of Mysql functions used in PHP

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

a) Class and Object

b) Form and Form elements

c) Conditional Statements

Total No. of Questions : 5]

SEAT No. :

PC1159

[Total No. of Pages : 2

[6317]-106
S.Y.B.B.A. (Computer Application)
CA-305 : BIG DATA
(2019 Pattern) (Semester-III)

Time : 2½ Hours] *[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. **[16]**

a) What is big data?

b) What is Apriori algorithm?

c) Enlist data types in R?

d) Enlist the stages of data science?

e) Define EM algorithm.

f) Define SVM?

g) What is Machine Learning? Enlist type of Machine Learning.

h) Define market basket analysis

i) What is Sample and Population?

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 Correlation with its type.

d) Explain functions included in "dplyr" package.

e) Explain applications of big data.

P.T.O.

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

a) What is histogram? Explain with example in R.

b) Explain Data frame with example.

c) Explain types of regression models.

d) What is digital data? Explain its type.

e) Explain Naive Bayes with the help of example.

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

a) Explain Association rule mining.

b) Write an R program to find out number is positive or negative.

c) Write an R program to find the maximum and the minimum value of a given vector.

d) Write an R Program to print Multiplication Table of 2.

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) Loops in R.

c) Applications of Machine Learning.

Total No. of Questions : 5]

SEAT No. :

PC1160

[Total No. of Pages : 2

[6317]-107

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

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) Answer the following: (any-8) **[8×2=16]**

a) What is a Ledger?

b) Define Block in case of blockchain.

c) What is Byzantine Fault Tolerance?

d) What is required to be solved for proof of work?

e) Define wallet.

f) What is Solidity?

g) Give examples of cryptocurrency.

h) Define Hyperledger.

i) Which are the three basic steps of digital signature?

j) Define Nonce.

Q2) Answer the following: (Any - 4) **[4×4=16]**

a) Explain Consensus in blockchain.

b) Compare Proof of Work and Proof of Stake in blockchain.

c) Draw a labelled diagram to explain Ethereum Virtual Machine.

d) Explain the working of blockchain.

e) Create a contract using solidity to display the message, “Hello Blockchain”.

P.T.O.

Q3) Answer the following: (any-4) **[4×4=16]**

a) Draw a labelled diagram to explain the Life Cycle of Blockchain.

b) Draw a labelled diagram to explain the structure of Block.

c) Explain the benefits of blockchain.

d) What is mining in blockchain ? Explain 'pool mining' and 'mining alone'.

e) Write a function using Solidity to calculate Hash Code for the transaction.

Q4) Answer the following: (Any - 4) **[4×4=16]**

a) Explain P2P Payment Gateway.

b) Explain the double spending problem and its solution.

c) Explain the Actors in case of blockchain.

d) Explain blockchain network.

e) Explain distributed ledger technology with a labelled diagram.

Q5) Answer the following: (Any - 2) **[2×3=6]**

a) State the uses of Hyperledger.

b) Explain Public Key Infrastructure

c) Explain Decentralised Autonomous Organizations (DAO)