

MES Garware College of Commerce (Autonomous)
Karve Road, Pune

SYBBA-CA Semester - III
Regular Semester-End Examination
Session : October 2022

Subject : Data Structure Using 'C'

Subject Code : B4-21/301

Duration : 2.30 Hrs.

Total Marks 60

Q.1 Solve Below Given MCQ. (Any 10)

(10)

- (1) Minimum number of fields in each node of a doubly linked list is -----.
(a) 2 (b) 3 (c) 4 (d) None of the above
- (2) A graph in which all vertices have equal degree is known as -----.
(a) Complete graph (b) Regular graph
(c) Multi graph (d) Simple graph
- (3) Which of the following data structure is required to convert arithmetic expression in infix to its equivalent postfix notation?
(a) Queue (b) Linked list (c) Binary search tree (d) None of above
- (4) The number of edges in a complete graph of n vertices is -----.
(a) $n(n+1)/2$ (b) $n(n-1)/2$ (c) $n^2/2$ (d) n
- (5) Finding the location of a given item in a collection of items is called -----.
(a) Discovering (b) Finding (c) Searching (d) Mining
- (6) ----- form of access is used to add and remove nodes from a queue.
(a) LIFO, Last In First Out (b) FIFO, First In First Out
(c) Both a and b (d) None of these
- (7) The term push and pop is related to -----.
(a) Array (b) Lists (c) Stacks (d) Trees
- (8) New nodes are added to the ----- of the queue.
(a) Front (b) Rear (c) Middle (d) Both A and B
- (9) The operation of processing each element in the list is known as -----.
(a) sorting (b) merging (c) inserting (d) traversal
- (10) The situation when in a linked list $START=NULL$ is -----.
(a) Underflow (b) Overflow (c) Houseful (d) Saturated
- (11) Which of the following is non-linear data structure?
(a) Stacks (b) List (c) Strings (d) Trees
- (12) Index of arrays in C programming language starts from -----.
(a) 0 (b) 1 (c) either 0 or 1 (d) undefined

(2)

Q.2 Attempt any Four questions.

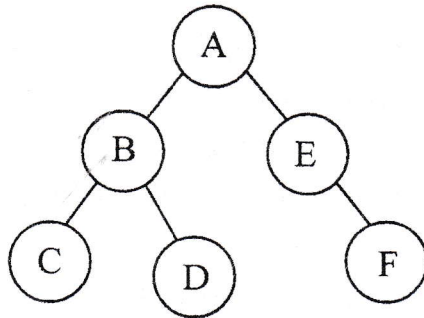
5 * 4 = 20

- (A) Construct Binary Search tree for the following data :
Mar, Dec, Jan, Sept, Jul, Oct, Feb, Aug
- (B) Convert given infix expression into postfix (using Algorithm)
 $(A + B) * C / D \% E$
- (C) Explain DFS with an Example.
- (D) Explain Bubble sort technique with an example.
- (E) Define the following terms :
(1) Abstract Data Type (2) Priority Queue

Q.3 Attempt any Four Questions.

5 * 4 = 20

(A)



Calculate Inorder, Preorder and Postorder of a tree.

- (B) What is Circular Queue? How it is different from Queue.
- (C) What is an Algorithm? Explain all its characteristics.
- (D) Explain Binary Search method with an example.
- (E) Define the following terms :-
(1) Cyclic Graph (2) Degree of Node

Q.4 Attempt any One questions.

10 * 1 = 10

- (A) Write a function to implement Queue. (static implementation)
- (B) Write a function to create and display singly link list. (static implementation)
- (C) Write a function to check whether given string is palindrome or not (using stack)

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MES Garware College of Commerce (Autonomous)
Karve Road, Pune

SYBBA-CA Semester - III
Regular Semester-End Examination
Session : October 2022

Subject : Web Technology (HTML, CSS, JS)

Subject Code : B4-21/302

Duration : 2.30 Hrs.

Total Marks 60

Note : (1) All questions are compulsory.
(2) Draw neat labelled diagram if required.

Q.1 Answer any ten of the following multiple choice question by selecting 1*10=10 correct option.

- (a) What is the smallest header in HTML by default?
(i) h1 (ii) h2 (iii) h6 (iv) h4
- (b) How to create an unordered list (a list with the list items in bullets) in HTML?
(i) (ii) (iii) (iv) <i>
- (c) Which character is used to represent the closing of a tag in HTML?
(i) \ (ii) ! (iii) / (iv) :
- (d) How to insert an image in HTML?
(i) (ii)
(iii) (iv)
- (e) In how many ways can CSS be written in?
(i) 1 (ii) 2 (iii) 3 (iv) 4
- (f) Which HTML tag is used to declare internal CSS?
(i) <style> (ii) <link> (iii) <script> (iv)
- (g) How can we select an element with a specific Class in CSS?
(i) # (ii) . (iii) ^ (iv) None of the above
- (h) Can negative values be allowed in padding property?
(i) Yes (ii) No (iii) Depend on property (iv) None of the above
- (i) Which type of JavaScript language is -----.
(i) Object-Oriented (ii) Object-Based
(iii) Assembly-language (iv) High-level
- (j) The "function" and "var" are known as :
(i) Keywords (ii) Data types (iii) Declaration statements (iv) Prototypes
- (k) Which one of the following is known as the Equality operator, which is used to check whether the two values are equal or not :
(i) = (ii) == (iii) === (iv) =====
- (l) When was JS invented ?
(i) 1995 (ii) 1985 (iii) 2005 (iv) 2015

(2)

Q.2 Attempt any Four of the following.

5*4=20

- (a) Explain Features of CSS2 and CSS3.
- (b) What is WWW.
- (c) Explain types of selectors in CSS.
- (d) What is <table> tag? Explain with example.
- (e) Write a java script program to accept a number from user and check whether it is perfect number or not.

Q.3 Attempt any Four of the following.

5*4=20

- (a) What is <frameset> tag? Explain with example.
- (b) What is Page Layout ?
- (c) What is CSS? Explain types of CSS with example.
- (d) Explain principles of effective web design.
- (e) Write a JavaScript function that checks whether a input string is palindrome or not.

Q.4 Attempt any One of the following.

10*1=10

- (a) Create HTML page to Divide the frames in to different sections as shown below and add Appropriate HTML files to each frame.

First Frame : Your Name and address		
Second Frame : Bulleted list		Third Frame : Numbered List of Cities
Fourth Frame : Scrolling Message	Fifth Frame : Blinking Reminders	Sixth Frame : Name of Countries

- (b) Create HTML web page with following specifications.
 - (i) Title should be about your College.
 - (ii) Put image in the background.
 - (iii) Place your college name at the top of page in large text followed by address in Smaller size.
 - (iv) Add names of courses offered, each in different colour, style and font.
 - (v) Add scrolling text about college.
 - (vi) Add any image at the bottom.(Use External CSS to format the webpage)

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15/10/22

MES Garware College of Commerce (Autonomous)
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SYBBA-CA Semester - III
Regular Semester-End Examination
Session : October 2022

Subject : Software Engineering

Subject Code : B4-21/303

Duration : 2.30 Hrs.

Total Marks 60

Note : (1) All questions are compulsory.
(2) Draw neat labelled diagram if required.

Q.1 Solve Below Given MCQ. (Any 10)

(10)

- (1) Software is defined as -----.
 - (a) set of programs, documentation & configuration of data
 - (b) set of programs
 - (c) documentation and configuration of data
 - (d) None of the mentioned
- (2) ----- is defined as the process of generating analysis and designing documents?
 - (a) Re-engineering
 - (b) Reverse engineering
 - (c) Software re-engineering
 - (d) Science and Engineering
- (3) What is a Functional Requirement?
 - (a) specifies the tasks the program must complete
 - (b) specifies the tasks the program should not complete
 - (c) specifies the tasks the program must not work
 - (d) All of the mentioned
- (4) Attributes of good software is -----.
 - (a) Development
 - (b) Maintainability & functionality
 - (c) Functionality
 - (d) Maintainability
- (5) What does SDLC stands for ?
 - (a) System Design Life Cycle
 - (b) Software Design Life Cycle
 - (c) Software Development Life Cycle
 - (d) System Development Life Cycle
- (6) What does the study of an existing system refer to ?
 - (a) Details of DFD
 - (b) Feasibility Study
 - (c) System Analysis
 - (d) System Planning
- (7) What does RAD stand for ?
 - (a) Rapid Application Document
 - (b) Rapid Application Development
 - (c) Relative Application Development
 - (d) None of the above

(2)

- (8) What is the major drawback of the Spiral Model ?
(a) Higher amount of risk analysis
(b) Doesn't work well for smaller projects
(c) Additional functionalities are added later on
(d) Strong approval and documentation control
- (9) Which one of the following activities is not recommended for software processes in software engineering?
(a) Software Evolution (b) Software Verification
(c) Software Testing & Validation (d) Software designing
- (10) What is the name of the approach that follows step-by-step instructions for solving a problem ?
(a) An Algorithm (b) Plan
(c) A List (d) Sequential Structure
- (11) Which of the following word correctly summarized the importance of software design ?
(a) Quality (b) Complexity (c) Efficiency (d) Accuracy
- (12) What does a data store symbol in the Data Flow Diagram Signify?
(a) Logical File (b) Physical File
(c) Data Structure (d) All of the above

Q.2 Attempt the following.

15

- (1) Consider the recruitment policy of ABC Software Ltd. If the applicant is a BE, then recruit otherwise not. If the person is from Computer Science, put him/her in the software development department and if the person is from non-computer science background put him/her in HR department. If the person is from Computer Science and having experience equal to or greater than three years take him/her as Team leader and if the experience is less than then take the person as Team member. If the person recruited is from non Computer Science background having experience less than three years, make him/her Management Trainee otherwise Manager.

Draw Decision Tree and Decision Table.

- (2) Consider a Hospital Information System. When a patient admits, his/her personal information is recorded **Layout input and output design.**
- (3) Indian Bank provides fixed deposit schemes through which people can deposit money for a certain period of time. The bank pays interest for this period and returns money when FD period is over interest rate depends upon the period. The depositor may get loan against deposits. A maximum of 75% of the deposit amount as loan amount.

Draw context level diagrams.

(3)

Q.3 Answer the following. (Any 3)

(15)

- (1) What is Software Testing ?
- (2) What is Reverse Engineering ?
- (3) Explain Feasibility Study in detail.
- (4) Explain Waterfall Model with Diagram.
- (5) What is requirement analysis?

Q.4 Answer the following. (Any 2)

(20)

- (1) Explain all types of Fact-Finding techniques.
- (2) What is Software Engineering? Explain characteristics of a Software.
- (3) Explain in detail Software Development Life Cycle with diagram.

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MES Garware College of Commerce (Autonomous)
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SYBBA-CA Semester - III
Regular Semester-End Examination
Session : October 2022

Subject : Computer Network

Subject Code : B4-21/304

Duration : 2.30 Hrs.

Total Marks 60

Note : (1) All questions are compulsory.
(2) Neat diagrams must be drawn
wherever necessary.

Q.1 Attempt any 10 questions.

1*10 = 10

- (1) ----- Networking device connects one LAN to another LAN using same protocol standards.
(a) Router (b) HUB (c) Switch (d) Gateway
- (2) In an asymmetric key-cipher, the sender uses the ----- Key.
(a) Private (b) Public (c) Either (a) or (b) (d) Neither (a) or (b)
- (3) An interconnected collection of Piconet is called -----.
(a) Micronet (b) Scatternet (c) Mininet (d) Multinet
- (4) ----- Cables consists of two insulated copper wire twisted together.
(a) Twisted (b) Coaxial (c) Fiber optic (d) None of these
- (5) In fiber optics, the signal is -----.
(a) Light (b) Radio (c) Infrared (d) Very low frequency waves
- (6) Transmission data rate is decided by -----.
(a) Network layer (b) Transport layer
(c) Physical layer (d) Data link layer
- (7) -----topology is most susceptible to failure of a cable break.
(a) Star (b) Mesh (c) Bus (d) Tree
- (8) ----- address identifies a process on a host.
(a) Logical address (b) Port address
(c) Physical address (d) Specific address
- (9) Proxy firewall filters -----.
(a) Network layer (b) Data link layer
(c) Physical layer (d) Application layer
- (10) The device that provides a central connection point for cable is -----.
(a) Router (b) Gateway (c) HUB (d) Switch
- (11) The ----- is the original message before transformation.
(a) Ciphertext (b) Plaintext
(c) Secret text (d) None of these

(2)

Q.2 Attempt any 3 questions.

3*5 = 15

- (a) What are the modes of communication? Explain each one in detail.
- (b) Explain active and passive Hub.
- (c) Compare Twisted-pair and Fiber-optic cable.
- (d) Explain star topology with its advantages and disadvantages.

Q.3 Write a short note on (Attempt any 3)

3*5 = 15

- (1) IEEE 802.4 (Token Bus)
- (2) Firewall
- (3) Repeater
- (4) Backbone network

Q.4 Explain Bluetooth architecture and its types.

1*10 = 10

OR

Draw TCP/IP model and state the function of each layer.

Q.5 Explain propagation methods in detail.

1*10 = 10

OR

Explain different types of Ethernet.

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MES Garware College of Commerce (Autonomous)
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SYBBA-CA Semester - III
Regular Semester-End Examination
Session : October 2022

Subject : Digital Marketing

Subject Code : B4-21/305A

Duration : 2.30 Hrs.

Total Marks 60

Q.1 Answer any 10 Multiple Choice Question (1 marks each) (10)

- (1) ----- means marketing products & services using the Internet & Digital media as the medium.
(a) Content Marketing (b) Digital Marketing
(c) Mobile Marketing (d) Internet Marketing
- (2) Which of the following SWOT elements are internal factors for a business?
(a) Strengths and Weakness (b) Opportunities and Threats
(c) Strengths and Opportunities (d) Weaknesses and Threats
- (3) In Content Marketing, the content should be -----.
(a) Valuable (b) Relevant (c) Consistent (d) All of the above
- (4) Segmenting the market on the basis of Gender is ----- Segmentation.
(a) Geographic Segmentation (b) Psychological Segmentation
(c) Demographic Segmentation (d) Behavioural Segmentation
- (5) ----- is a multi-channel online marketing technique focused on reaching a specific audience on their smartphones, feature phones, tablets, or any other related devices through websites, E-mail, SMS and MMS, social media, or mobile applications.
(a) Social Media Marketing (b) Multi-Channel Marketing
(c) Mobile Marketing (d) Online Marketing
- (6) Digital Analytics helps -----.
(a) For making better decisions related to the business.
(b) For generating higher revenue from the website.
(c) To define genuine customers for your business.
(d) For appealing more users to drive more traffic.
- (7) Keywords are used in -----.
(a) Tags (b) Title (c) Description (d) All of the above
- (8) Social Networks are focused primarily around -----.
(a) Brands (b) People (c) Discussions (d) Interests
- (9) What is the correct abbreviation of SERP ?
(a) Search Engine Result Page (b) System Engine Random Page
(c) Search Estimate Result Page (d) System Estimate Random Page
- (10) OLX is ----- of business model.
(a) B2B (b) B2C (c) C2C (d) C2B

(2)

- (11) The process of buying and selling of goods and services, or the transmitting of funds or data, over an electronic network, primarily the internet is called as -----.
- (a) E-Commerce (b) Web Technology
(c) Digital Marketing (d) Digital Promotion
- (12) ----- is a short video advertisement format designed to allow to reach more customers and increase awareness about brand by using a short, memorable message.
- (a) Bumper advertisement (b) Sponsored advertisement
(c) Overlay advertisement (d) Display advertisement

Q.2 Answer any 3 questions from the following. (15 marks each) (45)

- (1) What is Marketing? Explain 4 Cs of marketing with suitable example.
- (2) State the concept of Digital Marketing Analytics. Explain various applications of Digital Marketing Analytics.
- (3) What is SWOT Analysis ? Explain the SWOT with the help of suitable example.
- (4) What is digital marketing ? Explain its advantages and limitations.
- (5) What is SEO ? Explain various types of digital marketing.

Q.3 Solve any One Short Note from the following. (5 marks) (5)

- (1) State Social Media Hashtag Campaign
- (2) State various M's of Resource Planning
- (3) Explain Principles of good web design

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