Sheet1

# Second Year Model Exam 2023
# Computer Application
# Answer Key ( Unofficial )

| | **Answer any 5 questions from 1 to 6. Each carries 1 Score** | |
|---|---|---|
| 1 | Which data type in C++ represents an empty set of data? | |
| Ans | **void** | 1 |
| 2 | Which function is used to find the length of a string? | |
| Ans | **strlen()** | 1 |
| 3 | Which tag is used to partition the browser window into different frame sections in HTML | |
| Ans | **<FRAMESET>** | 1 |
| 4 | The keyword used to declare variables in JavaScript is …….. | |
| Ans | **var** | 1 |
| 5 | The custom of designing a web site suitable to work o every device and every screen size is known as …………. | |
| Ans | responsive web designing | 1 |
| 6 | Analysis and redesign of workflow within an enterprise is called ………. | |
| Ans | Bussiness Process Re-engineering ( BPR ) | 1 |
| | **Answer any 9 questions from 7 to 18. Each carries 2 Scores each** | |
| 7 | Write the basic structure of C++ program | |
| Ans | ```#include<iostream>\nusing namespace std;\nint main()\n{\n\n\n\n\n}``` | 2 |
| 8 | What are the components of a loop? | |
| Ans | **initialisation, Test expression, update statement, body of loop** | 2 |
| 9 | Name the console input and output functions for string input/output operations. | |
| Ans | **getchar()**<br>**Putchar()** | 2 |
| 10 | What is the difference between actual parameter and formal parameter? | |
| Ans | **actual parameter : argumnets in function call. Eg sum(a,b);**<br>**formal argument : arguments in function defenition. Eg int sum (int x, int y)** | 2 |
| 11 | List the mathematicalfunctions in C++. | |
| Ans | **pow(), sqrt(), abs(), fabs()** | 2 |

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| 12 | Compare container tag and emply tag | |
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| Ans | **Container tags have opening tag and closing tag. Empty tag has only opening tag.** | 2 |
| 13 | Write HTML code to display the following:<br>(a) $H_2SO_4$<br>(b) $x^3 + y^3$ | |
| Ans | (a) H <sub> 2 </sub> SO <sub> 4 </sub><br>(b) x <sup>3</sup> + y <sup>3</sup> | 2 |
| 14 | List the form controls used to collect data using HTML form. | |
| Ans | **text,password,checkbox,radio button,submit button, reset button, button, text area, dropdown list** | 2 |
| 15 | Write short notes on datatypes in JavaScript | |
| Ans | **1. Number :** all types of numbers.<br>**2. String :** text data<br>**3. Boolean** : boolean data (True/False) | 2 |
| 16 | List the users of database | |
| Ans | **Database Administrator DBA, Application Programmer, Sophisticated User, Naive User** | 2 |
| 17 | List any four aggregate functions in SQL | |
| Ans | **sum(), avg(), max(), min(), count()** | 2 |
| 18 | Write short notes on GPS | |
| Ans | **It is a satellite based navigation system that is used to locate a geographical position anywhere on earth, using its longitude and latitude.** | 2 |
| | **Answer any 9 questions from 19 to 29. Each carries 3 Scores each** | |
| 19 | (a) Define an array in C++.<br>(b) Declare an array to store 10 register numbers. | |
| Ans | **a) An array is a collection of elements of the same type placed in contiguous memory locations.** | 3 |
| | **(b) int regno[10];** | |
| 20 | Briefly explain any three string functions and their use in C++ | |
| Ans | **a. strlen() : function used to find the number of characters in a string.**<br>**strlen("Computer"); // output : 8**<br>**b. strcpy() : function used to copy one string to another.**<br>**Eg: strcpy(str1, str2); this copies the value in str2 into str1.**<br>**c. strcat() : function used to join one string to another.**<br>**Eg : strcat(str1,str2); this combines str1 and str2 and is stored in str1.**<br>**d. strcmp() : function used to compare to strings.**<br>**eg : strcmp (str1, str2)**<br>**e. strcmpi(): function used to compare to strings ignoring case.** | 3 |
| 21 | Briefly eplain any 6 text formatting tags with their use. | |

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| Ans | **\<B\> and \<STRONG\> :**To make the text bold face.<br>**\<I\> and \<EM\> :**To make the text italics or emphasis.<br>**\<U\>** : To underline the text<br>**\<S\> and \<STRIKE\>** :To strike through the text<br>**\<BIG\>** : To make the text big sized<br>**\<SMALL\> :** To make the text small sized<br>**\<SUB\>** : To make the text subscripted($X_2$)<br>**\<SUP\>** : To make the text superscripted($X^{2)}$)<br>**\<Q\>** : To enclose the text in "double quotes" | 3 |
| 22 | Compare static web page and dynamic web page | |
| Ans | **Static Webpage**<br>**Content and layout is fixed. No Database**<br>**Directly runs on browser. Easy To develop**<br><br>**Dynamic Webpage**<br>**Content and Layout changes during runtime**<br>**Database is used. Runs in sever and results send to client. Needs programming skill to develop** | 3 |
| 23 | Briefly explain the built – in functions in JavaScript. | |
| Ans | **1.alert() function This function is used to display a messagebox on the screen.**<br>**alert("Welcome to JavaScript");**<br>**2. isNaN() function : This function is used to check whether a value is a number or not. In this function, NaN stands for Not a Number. The function returns true if the given value is not a number.**<br>**3. toUpperCase() function This function returns the upper case form of the given string. Look at the following example code:**<br>**4. toLowerCase() function It returns the lower case form of the given string. Look at the following example code.**<br>**5. charAt() function It returns the character at a particular position. charAt(0) returns the first character in the string. charAt(1) returns the second character in the string and so on.**<br>**6. length property :** length property returns the length of the string. length means, the number of characters in the string. | 3 |
| 24 | Briefly explain the various types of web hosting. | |
| Ans | **1. Shared Hosting**<br>Different websites are stored in a single webserver.<br>Most Common type of Web Hosting.<br>Resources like RAM, CPU etc are shared by websites.<br>**2. Dedicated Hosting**<br>One website is hosted  in One webserver.<br>The website uses the entire server and its resources.<br>Suitable for big organizations with large number of visitors.<br>**3. Virtual Private Server ( VPS )**<br>A physical server is virtually partitioned into several servers using virtualization technology.<br>VPS  provides dedicated bandwidth to each website on the server.<br>Traffic in one website will not slow down other websites.<br>**Some popular server virtualization softwares are VMware, Virtualbox, FreeVPS, User-mode Linux, Microsoft Hyper-V, etc.** | 3 |
| 25 | Briefly explain the keys in RDBMS | |

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| Ans | **Candidate Key :one or more columns in a relation which can be used as a key**<br>**Primary Key: used to uniquely identify a row**<br>**Alternate Key and : candidate key which is not used as primary key**<br>**Foreign Key : column/columns in a table which the primary key of another table** | 3 |
| 26 | Briefly explain the components of SQL | |
| Ans | **Data Definition Language (DDL): CREATE, ALTER, DROP**<br>      **Data Manipulation language (DML):SELECT, INSERT, UPDATE, DELETE**<br>         **Data Control Language (DCL):GRANT, REVOKE** | 3 |
| 27 | Briefly explain column constraints in SQL | |
| Ans | **NOT NULL:**Ensures that a column cannot have NULL value.<br>**AUTO_INCREMENT:A**llows a unique number to be generated automatically when a new record is inserted into a table.<br>**PRIMARY KEY:**Uniquely identified each rows/records in a database table.<br>**UNIQUE:** Ensures that all values in a column are different.<br>**DEFAULT:**Provides a default value for a column when none is specified | 3 |
| 28 | Write short notes about ERP packages. | |
| Ans | **Oracle**<br>The ERP package from Oracle provides strong finance and accounting module.<br>**SAP**<br>SAP stands for Systems Applications and Products for data processing.<br>**Odoo**<br>Odoo is an open source ERP. In open source ERP the source code can be modified based on the requirement of organization.<br>Microsoft Dynamics<br>Microsoft is an American multinational corporation headquartered in Redmond,Washington. Microsoft Dynamics is part of Microsoft business solutions.<br>Tally ERP<br>Tally solutions Pvt Ltd is a Bangalore based Software Company in India. Tally ERP is a business accounting software for accounting, inventory and payroll. | 3 |
| 29 | Write short note on any 3 cyber crimes against individuals. | |
| Ans | **Identity Theft:**  someone pretends to be someone else someone uses another person's identifying information, like their name, credit card number, etc. without their permission to commit fraud or other crimes.<br>**Harassment :** Posting humiliating comments focusing on gender, race, religion, nationality at specific individuals in chat rooms, social media or e-mail. Using Internet, to harass someone is called **cyber stalking.**<br>**Impersonation and cheating:** Pretending to be another person for the purpose of harming the victim. They utilise the anonymity of the Internet to commit impersonation online<br>**Violation of privacy:** Intrusion into the personal life of another, without a valid reason.<br>**Dissemination of obscene materials:** Distribution and posting of obscene material(pornography) is a cyber crime. | 3 |
| | **Answer any 2 questions from 30 to 32. Each carries 3 Scores each** | |
| 30 | Explain various tokens in C++. | |

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| Ans | **Tokens** : Basic building blocks of C++ programs. There are five tokens in C++.<br>1. **Keywords** : Reserved words that give special meaning to the language compiler. Eg int, while, switch, defaut,, continue etc<br>2. **Identifiers** : User-defined words to identify memory locations, statements, functions, data types, etc.<br>3. **Literals**: Tokens that do not change their value during the program run. They are also known as constants.<br>    1. Integer literals are whole numbers without fractional part. Eg : 100, -25, 2014 etc<br>    2. Floating point literals are real constants are numbers having fractional parts. Eg : 3.14, -25.03 etc<br>    3. Character literals is a singlec haracter enclosed in single quotes ..Eg : 's' , 'S' , '\$' , '\n' , '+' , '9'<br>    4. String literals is a sequence of one or more characters enclosed within a pair of double quotes is called.<br>Eg : "Hello friends" , "123" , "C++" , "Baby\'s Day Out"<br>4. **Operators** : Symbols that tell the compiler about some operations. Eg : +, -, *, <, >, =, && etc<br>5. **Punctuators** : They give semantic and syntactic meaning to the compiler. Eg: #,(,{,[,! Etc. | 5 |
| 31 | a) Briefly explain the types of lists in HTML?<br>b) Write HTML code segment to display the list given below.<br>**Courses after 12**th **Commerce**<br>**.** Bachelor of Commerce ( B.Com )<br>. Chartered Accountancy (CA)<br>**.** Company Secretary ( CS ) | |
| Ans | a) **List**<br>There are three kinds of lists in HTML<br>**1. Unordered lists**<br>Tag used of making unordered list is **<UL> ... </UL>**<br>Its attribute is **Type**<br>values for Type attribute are **sqaure, disc and circle**<br>**2. Ordered lists**<br>Tag used for making unordered list is **<OL> ... </OL>**<br>Its attributes are **Type** **and Start**<br>Values of Type attribute are 1, A, a, I and i<br>**3.Definition lists.**<br>**Tags used for making definition list is <DL> ... </DL>, <DT> and <DD>** | 3 |
| | b) <B> Courses after 12<SUP>th</SUP>Commerce </B><br><UL><br><LI>Bachelor of Commerce ( B.Com )</LI><br><LI>Chartered Accountancy (CA)</LI><br><LI>Company Secretary ( CS )</LI><br></UL> | 2 |
| 32 | a) Define DBMS.<br>b) Explain the advantages of DBMS | |

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| | A **Database Management System** is defined as the software system that allows users to define, create, maintain and control access to the database.<br><br>**Advantages of DBMS.**<br><br>**1. Control data redundancy:**In database data is stored in a single place any changes made will reflects everywhere. There is no chance of duplicate data.<br>**2. Data consistency:** Data consistency is ensured in a database because there is no data redundancy.<br>**3. Efficient data access:** fast andaccurate data access.<br>**4. Data integrity:** Data integrity refers to the overall completeness, accuracy and consistency of data in the database.<br>**5. Data security:** use of passwords, the information in a database is made available only to authorized persons.<br>**6. Sharing of data:**The data stored in the database can be shared among several users or programs even simultaneously and each may use it for different purposes.<br>**7. Enforcement of standards:** With central control of the database, a Database Administrator (DBA) defines and enforces the necessary standards.<br>**8. Crash recovery:** DBMS provides some mechanism to recover data from the crashes. | 5 |
|---|---|---|
| Ans | | |

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