

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 on 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	Business 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	<pre>#include<iostream> using namespace std; int main() { } </pre>	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() Putchar()	2
10	What is the difference between actual parameter and formal parameter?	
Ans	actual parameter : arguments in function call. Eg sum(a,b); formal argument : arguments in function definition. Eg int sum (int x, int y)	2
11	List the mathematical functions in C++.	
Ans	pow(), sqrt(), abs(), fabs()	2

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12	Compare container tag and empty tag	
Ans	Container tags have opening tag and closing tag. Empty tag has only opening tag.	2
13	Write HTML code to display the following: (a) H ₂ SO ₄ (b) x ³ + y ³	
Ans	(a) H ₂ SO ₄ (b) x ³ + y ³	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. 2. String : text data 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++. (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. (b) int regno[10];	3
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. strlen("Computer"); // output : 8 b. strcpy() : function used to copy one string to another. Eg: strcpy(str1, str2); this copies the value in str2 into str1. c. strcat() : function used to join one string to another. Eg : strcat(str1,str2); this combines str1 and str2 and is stored in str1. d. strcmp() : function used to compare to strings. eg : strcmp (str1, str2) e. strcmpi() : function used to compare to strings ignoring case.	3
21	Briefly explain any 6 text formatting tags with their use.	

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Ans	<p> and :To make the text bold face. <I> and :To make the text italics or emphasis. <U> : To underline the text <S> and <STRIKE> :To strike through the text <BIG> : To make the text big sized <SMALL> : To make the text small sized <SUB> : To make the text subscripted (X₂) <SUP> : To make the text superscripted (X²) <Q> : To enclose the text in “double quotes”</p>	3
22	Compare static web page and dynamic web page	
Ans	<p>Static Webpage Content and layout is fixed. No Database Directly runs on browser. Easy To develop</p> <p>Dynamic Webpage Content and Layout changes during runtime Database is used. Runs in sever and results send to client. Needs programming skill to develop</p>	3
23	Briefly explain the built – in functions in JavaScript.	
Ans	<p>1.alert() function This function is used to display a messagebox on the screen. alert(“Welcome to JavaScript”); 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. 3. toUpperCase() function This function returns the upper case form of the given string. Look at the following example code: 4. toLowerCase() function It returns the lower case form of the given string. Look at the following example code. 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. 6. length property : length property returns the length of the string. length means, the number of characters in the string.</p>	3
24	Briefly explain the various types of web hosting.	
Ans	<p>1. Shared Hosting Different websites are stored in a single webserver. Most Common type of Web Hosting. Resources like RAM, CPU etc are shared by websites.</p> <p>2. Dedicated Hosting One website is hosted in One webserver. The website uses the entire server and its resources. Suitable for big organizations with large number of visitors.</p> <p>3. Virtual Private Server (VPS) A physical server is virtually partitioned into several servers using virtualization technology. VPS provides dedicated bandwidth to each website on the server. Traffic in one website will not slow down other websites. Some popular server virtualization softwares are VMware, Virtualbox, FreeVPS, User-mode Linux, Microsoft Hyper-V, etc.</p>	3
25	Briefly explain the keys in RDBMS	

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Ans	<p>Candidate Key :one or more columns in a relation which can be used as a key</p> <p>Primary Key: used to uniquely identify a row</p> <p>Alternate Key and : candidate key which is not used as primary key</p> <p>Foreign Key : column/columns in a table which the primary key of another table</p>	3
26	Briefly explain the components of SQL	
Ans	<p>Data Definition Language (DDL): CREATE, ALTER, DROP</p> <p>Data Manipulation language (DML):SELECT, INSERT, UPDATE, DELETE</p> <p>Data Control Language (DCL):GRANT, REVOKE</p>	3
27	Briefly explain column constraints in SQL	
Ans	<p>NOT NULL:Ensures that a column cannot have NULL value.</p> <p>AUTO_INCREMENT:Allows a unique number to be generated automatically when a new record is inserted into a table.</p> <p>PRIMARY KEY:Uniquely identified each rows/records in a database table.</p> <p>UNIQUE: Ensures that all values in a column are different.</p> <p>DEFAULT:Provides a default value for a column when none is specified</p>	3
28	Write short notes about ERP packages.	
Ans	<p>Oracle The ERP package from Oracle provides strong finance and accounting module.</p> <p>SAP SAP stands for Systems Applications and Products for data processing.</p> <p>Odoo Odoo is an open source ERP. In open source ERP the source code can be modified based on the requirement of organization.</p> <p>Microsoft Dynamics Microsoft is an American multinational corporation headquartered in Redmond, Washington. Microsoft Dynamics is part of Microsoft business solutions.</p> <p>Tally ERP Tally solutions Pvt Ltd is a Bangalore based Software Company in India. Tally ERP is a business accounting software for accounting, inventory and payroll.</p>	3
29	Write short note on any 3 cyber crimes against individuals.	
Ans	<p>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.</p> <p>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.</p> <p>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</p> <p>Violation of privacy: Intrusion into the personal life of another, without a valid reason.</p> <p>Dissemination of obscene materials: Distribution and posting of obscene material(pornography) is a cyber crime.</p>	3
Answer any 2 questions from 30 to 32. Each carries 3 Scores each		
30	Explain various tokens in C++.	

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<p>Ans</p>	<p>Tokens : Basic building blocks of C++ programs. There are five tokens in C++.</p> <p>1. Keywords : Reserved words that give special meaning to the language compiler. Eg int, while, switch, default,, continue etc</p> <p>2. Identifiers : User-defined words to identify memory locations, statements, functions, data types, etc.</p> <p>3. Literals: Tokens that do not change their value during the program run. They are also known as constants.</p> <p>1. Integer literals are whole numbers without fractional part. Eg : 100, -25, 2014 etc</p> <p>2. Floating point literals are real constants are numbers having fractional parts. Eg : 3.14, -25.03 etc</p> <p>3. Character literals is a single character enclosed in single quotes ..Eg : 's', 'S', '\$', '\n', '+', '9'</p> <p>4. String literals is a sequence of one or more characters enclosed within a pair of double quotes is called.</p> <p>Eg : "Hello friends" , "123" , "C++" , "Baby\'s Day Out"</p> <p>4. Operators : Symbols that tell the compiler about some operations. Eg : +, -, *, <, >, =, && etc</p> <p>5. Punctuators : They give semantic and syntactic meaning to the compiler. Eg: #,{,!, Etc.</p>	<p>5</p>
<p>31</p>	<p>a) Briefly explain the types of lists in HTML?</p> <p>b) Write HTML code segment to display the list given below.</p> <p>Courses after 12th Commerce</p> <ul style="list-style-type: none"> . Bachelor of Commerce (B.Com) . Chartered Accountancy (CA) . Company Secretary (CS) 	
<p>Ans</p>	<p>a) List</p> <p>There are three kinds of lists in HTML</p> <p>1. Unordered lists</p> <p>Tag used of making unordered list is ... </p> <p>Its attribute is Type</p> <p>values for Type attribute are square, disc and circle</p> <p>2. Ordered lists</p> <p>Tag used for making unordered list is ... </p> <p>Its attributes are Type and Start</p> <p>Values of Type attribute are 1, A, a, I and i</p> <p>3. Definition lists.</p> <p>Tags used for making definition list is <DL> ... </DL>, <DT> and <DD></p>	<p>3</p>
	<p>b) Courses after 12<SUP>th</SUP>Commerce </p> <pre> Bachelor of Commerce (B.Com) Chartered Accountancy (CA) Company Secretary (CS) </pre>	<p>2</p>
<p>32</p>	<p>a) Define DBMS.</p> <p>b) Explain the advantages of DBMS</p>	

<p>Ans</p>	<p>A Database Management System is defined as the software system that allows users to define, create, maintain and control access to the database.</p> <p><u>Advantages of DBMS.</u></p> <ol style="list-style-type: none"> 1. Control data redundancy:In database data is stored in a single place any changes made will reflect everywhere. There is no chance of duplicate data. 2. Data consistency: Data consistency is ensured in a database because there is no data redundancy. 3. Efficient data access: fast and accurate data access. 4. Data integrity: Data integrity refers to the overall completeness, accuracy and consistency of data in the database. 5. Data security: use of passwords, the information in a database is made available only to authorized persons. 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. 7. Enforcement of standards: With central control of the database, a Database Administrator (DBA) defines and enforces the necessary standards. 8. Crash recovery: DBMS provides some mechanism to recover data from the crashes. 	<p>5</p>
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