RESOURCES FOR

"HSC-II COMPUTER"

ZUEB EXAMINATIONS 2021

PREFACE:

The ZUEB examination board acknowledges the serious problems encountered by the schools and colleges in smooth execution of the teaching and learning processes due to sudden and prolonged school closures during the covid-19 spread. The board also recognizes the health, psychological and financial issues encountered by students due to the spread of covid-19.

Considering all these problems and issues the ZUEB Board has developed these resources based on the condensed syllabus 2021 to facilitate students in learning the content through quality resource materials.

The schools and students could download these materials from www.zueb.pk to prepare their students for the high quality and standardized ZUEB examinations 2021.

The materials consist of examination syllabus with specific students learning outcomes per topic, Multiple Choice Questions (MCQs) to assess different thinking levels, Constructed Response Questions (CRQs) with possible answers, Extended Response Questions (ERQs) with possible answers and learning materials.

ACADEMIC UNIT ZUEB:

2. Constructed Response Questions (CRQs)

HOW TO ATTEMPT CRQs:

- Write the answer to each Constructed Response Question/ERQs in the space given below it.
- Use black pen/pencil to write the responses. Do not use glue or pin on the paper.

SECTION B (SHORT ANSWER QUESTIONS)

1. Differentiate between data and information?

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1.	**Define Data and information?**	**DATA:** **Raw facts and figures are called data. It is used to perform certain operations in an organization. It gives the status of past activities. Data may be numerical like inventory figures, test scores, etc. Data may be non-numerical like your name and address.** **INFORMATION:** **Processed data is called information. It is usually output of a process and is meaningful. The grade of a student in a particular subject in a semester precisely gives the complete information of the performance of a student**	**K/A**	**E**
2.	**Name the File Types from usage and function point of view?**	**TYPES OF FILES FROM USAGE POINT OF VIEW** • **Master file** • **Transaction file**	**U**	**E**

		• **Back up file** **TYPES OF FILES FROM FUNCTION POINT OF VIEW** • **Program files** • **Data files**		
3.	**Define Sequential and Random-Access file?**	**SEQUENTIAL FILES** **In sequential files records are stored sequentially. These files store data as it arrives one after another in the sequence. These files take more time to store data. The best reason for using sequential files is their degree of portability to another program. The drawback to sequential files is that you only have sequential access to your data.** **RANDOM ACCESS FILES** **In random files records are accessed directly without going through the preceding records. Record in this type of file is stored on a calculate address. In random file the data is stored exactly as it appears in memory, thus saving processing time**	**K/A**	**M**
4.	**Define DBMS?**	**DBMS** **A collection of programs that enables you to store, modify and extract information from a database. There are many different types of DBMS, ranging from small systems that run on personal computers to huge systems that run on mainframes. The DBMS is used for large and medium sized organizations having different types of files for different purposes**	**K/A**	**E**
5.	**Define Primary Key and Secondary Key?**	**PRIMARY KEY** **In a relation the attribute or a combination of attributes that uniquely identifies a row or a record. Example A social security number, ISBN, student roll number, etc.** **SECONDARY KEY** **A secondary key is a non-unique field that is used as a secondary or alternate key. Sometimes records are required to be accessed by a field other than the primary key. In these situations, another key that is used is called secondary key or alternate key.**	**U**	**E**
6.	**What do you understand by ER Diagram?**	**E-R DIAGRAM** **ER stands for entity relationship diagram. E-R diagram is a specialized graphic that illustrates the interrelationships between entities in a database. ER diagram often use**	**K/A**	**M**

		symbols to represent three different types of information		
7.	Define Referential integrity and Redundancy?	**REFERENTIAL INTEGRITY** Referential integrity is a constraint on foreign key. If a foreign exists in a relation, then either the foreign key value must match the primary key value of some tuple in its parent table or the foreign key value must be completely NULL. **REDUNDANCY** In a Database, Redundancy appears when same data values are stored more than once in a table. It is also called redundancy if the same values are stored in more than one table	K/A	E
8.	What is Table in Database?	**TABLE** Table is a collection of rows and columns. All the intersection points of rows and columns are called cells. In these cells data can be stored. Each column of table represents a field. Each field is specified to store a particular type of data. Table can be viewed in different ways but most commonly used are datasheet view and design view	U	E
9.	Define IDE?	**IDE** IDE stands for integrated development environment. It is a simple and easy way to do a task. It presents graphical objects like buttons, icons and menus to perform certain operations. Using IDE, a new user and programmer can easily do their jobs. MS Access also provides the same facility for its users	K/A	M
10.	Discuss High Level and Low-Level Languages?	**HIGH LEVEL LANGUAGE** A programming language that is close to human language is called high level language. The instructions written in high level language look like English language sentences. High level languages are easy to learn and understand.	K/A	E

		LOW LEVEL LANGUAGE **A language that is close to the language of computer. Computer itself uses this language is called a low-level language. There are two types of low-level languages.** 1. **Machine language** 2. **Assembly language**		
11.	**What is Preprocessor Directive?**	**PREPROCESSOR DIRECTIVE** **Preprocessor directives are instructions for the preprocessor. These instructions are written at the beginning of the program. Every preprocessor directive starts with # symbol. After # symbol "include" or "define" directives are used. Preprocessor directives are also called compiler directives**	U	E
12.	**Why main function must use in C language?**	**IMPORTANCE OF MAIN FUNCTION () IN C-LANGUAGE** **Every C language program must contain a main () function. A program without main function cannot be executed. Instructions of programs are written between the curly braces {} of main () function. These statements enclosed in main () function are called body of the main () function**	K/A	M
13.	**What is Turbo C++?**	**TURBO C++** **Turbo C++ is an integrated development environment (IDE) for creating C and C++ programs. Borland international has developed it. It is also called TC editor. It is used to create, edit and save programs. It also has powerful debugging features. These help us in finding and removing errors from a program. We can easily compile program. Linking a program is also very easy. It is also used to execute a program**	K/A	E
14.	**What do you mean by syntax Error in C?**	**SYNTAX ERROR** **The rule for writing a program in a specific**	U	E

		programming language is called syntax of the language. We must follow the syntax of a language. Syntax error occurs when the statements of program are not according to syntax. Compiler detects syntax errors. If there is a syntax error in program. It cannot be compiled successfully. Compiler tells about the location and type of syntax error. Syntax errors can be removed easily		
15.	What is Variable initialization in C?	**VARIABLE INITIALIZATION IN C-LANGAUGE** Storing a value in variable at declaration time, is called initialization. When we declare a variable, some memory is allocated to it, according to its type. This memory already contains some data. This meaningless is called garbage. If we use variable without assigning a value the result will not be correct. We should initialize a variable before using it.	K/A	M
16.	What is meant by Data Type in C?	**DATA TYPE** Computer programs are used to solve different types of problems with computer. Computer program take data as input, process it and produce results in the form of output. Computer program can process different types of data. Data type is defined as the set of values and a set of operations allowed on those values. It also tells us about the memory required to store that data	K/A	E
17.	Which Types can be used to store integer/Floating point data in C?	**DATA TYPES FOR INTEGERS** • int • short int • long int • unsigned int • unsigned long int **FLOATING-POINT DATA** • float • double • long double	U	E

18.	Discuss Increment and Decrement Operators in C?	**INCREMENT OPERATOR** A double plus (++) sign is called increment operator. It is a unary operator. It is used to add 1 to the current value of a variable. It cannot be used with a constant or an expression. It can be used before or after the variable. For example, x++ and ++x is valid but 14++ is not valid. **DECREMENT OPERATOR** A double minus (--) sign is called decrement operator. It is a unary operator. It is used to subtract one from the current value of a variable. It cannot be used with a constant or an expression. It can be used before or after the variable name. For example, x-- and --x are valid but 14-- is not valid	K/A	M
19.	Define And, Or and Not Operator in C?	**AND OPERATOR** If the relational expression on both sides of AND generates true the final result is true. It is represented by && symbol. **OR OPERATOR** If any of the relational expression on both sides of OR generates true the result is true. It is represented by || symbol. **NOT OPERATOR** Ans. It is used to convert true to false and false to true. It is represented by! symbol	K/A	E
20.	What is Prefix and Postfix increment in C?	**PREFIX INCREMENT** If increment operator is written before the variable name, then it is called prefix increment operator. For example, ++x. In this case of prefix increment the value of variable is incremented by one and then it is used. **POSTFIX INCREMENT** If increment operator is written after the variable name, then it is called postfix increment operator. For example, x++. In this case of postfix increment first the value of variable is used then incremented by 1	U	E