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SEMESTER : 6TH

PAPER :

**Information system and data
processing**

SUBMITTED TO:

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QUESTION:1

A)

WHY WE DEFINE DIFFERENT NEEDS

BEFORE TAKING ANY TASK , ELABORATE

YOUR ANSWER.

B)

WHAT INFORMATION IS REQUIRED IF A

PERSON IS THINKING TO START A

SPECIFIC BUSINESS ALSO DISCUSS

DIFFERENT SOURCES OF INFORMATION.

ANSWER:

PART : A

Decisions are required to be taken in day to day life. No single task in our life can be done without decision making. For every assignment we undertake, there has to be a process of making choices. Whenever we are faced with choices, there is an inevitable need of selecting one particular course of action. Any task can be done in various ways, but doing it simultaneously through all possible alternatives is virtually impossible. This necessitates making a reasonable choice from all the options available.

An example can be taken for a person who wants to go to Islamabad. He can look at following options.

- Use any of the local bus service available
- Go by train
- Travel by air

As you can see, the decision to be made in this situation is faced with the availability of a set of combination of alternatives.

- Every decision we take in daily life requires some sort of information about the alternatives available. For instance, in the above example certain factors need to be considered before taking a decision.
- How urgent it is to reach to Islamabad
- How much time is available to accommodate travelling, since each mode of travelling will take different time to reach at the same destination?
- Whether bookings are available for the desired day and time.
- Is there any possibility of cancellation of booking or flight or bus service.
- Which bus service or airline to chose from, since various airlines and bus services are having travelling facilities to Islamabad.
- Without the availability of relevant information, we may take a decision which is wrong or not to our benefit. For instance if the person does not have complete knowledge of facts he might not be able to

take the right decision.

PART B:

- a) What information is required if a person is thinking to start a specific business, also discuss different sources of information.

1. Evaluate yourself:

Let's start with the most basic question: Why do you want to start a business? Use this question to guide what kind of business you want to start.

- What skills do you have?
- Where does your passion lie?
- Where is your area of expertise?
- How much can you afford to spend, knowing that most businesses fail?
- How much capital do you need?

2. Think of a business idea:

Start thinking for business ideas.

3. Do market research:

Is anyone else already doing what you want to start doing? If not, is there a good reason why?

Start market research.

4. Get feedback:

Let people interact with your product or service and see what their take is on it. A fresh set of eyes can help point out a problem you might have missed.

5. Write your business plan:

A business plan is a written description of how your business will evolve from when it starts to the finish product.

6. Develop your product or service:

After all the work you've put into starting your business, it's going to feel awesome to actually see your idea come to life.

Source of information:

Sources of information are generally categorized as primary, secondary or tertiary depending on their

Originality and their proximity to the source or origin. For example, initially, findings might be

Communicated informally by email and then presented at meetings before being formally published as a primary source. Once published, they will then be indexed in a bibliographic database, and repackaged and commented upon by others in secondary sources.

Primary Sources:

Some definitions of primary sources:

1. Primary sources are original materials on which other research is based
2. They are usually the first formal appearance of results in the print or electronic literature (for example, the first publication of the results of scientific investigations is a primary source.)
3. They present information in its original form, neither interpreted nor condensed nor evaluated by other writers.
4. They are from the time period (for example, something written close to when the event actually occurred.
5. Primary sources present original thinking and report on discoveries or share new information.

Secondary Sources:

Secondary sources are less easily defined than primary sources. What some define as a secondary source, others define as a tertiary source. Nor is it always easy to distinguish primary from secondary sources.

For example,

- A newspaper article is a primary source if it reports events, but a secondary source if it analyses and comments on those events.

Some Definitions of Secondary Sources:

1. Describe, interpret, analyze and evaluate the primary sources
2. Comment on and discuss the evidence provided by primary sources.

Tertiary Sources:

This is the most problematic category of all.

Some Definitions of Tertiary Sources:

1. Works which list primary and secondary resources in a specific subject area

2. Materials in which the information from secondary sources has been "digested" - Reformatted and condensed, to put it into a convenient, easy-to-read form.

3. Sources which are once removed in time from secondary sources

Some examples of tertiary sources:

1. Almanacs and fact books
2. Bibliographies (may also be secondary)
3. Chronologies

QUESTION:2

WHAT IS ORGANIZATION? EXPLAIN DIFFERENT TYPES OF ORGANIZATION IN DETAIL.

ANSWER :

Definition:

"Organization" is understood as planned, coordinated and purposeful action of human beings in order to construct or compile a common tangible or intangible product or service. This action is usually framed by formal membership and form (institutional rules). Organization is a permanent arrangement of elements. These elements and their actions are determined by rules so that a certain task can be fulfilled through a system of coordinated division of labour.

EXPLANATION:

Basically, an organization is group of people organized to accomplish an overall goal. Organizations can range in size from two people to hundreds of thousands -- some people might argue that organizations are even larger. Organizations have an overall goal (or mission) which is usually subdivided into various other goals (often called strategic goals) that, in total, will achieve the overall goal of the organization.

A structure through which individuals cooperate systematically to conduct business. It is a collection of people working under predefined rules and regulations to obtain a set of objectives. It is a stable formal social structure. It takes resources from the environment. An organization is defined by the elements that are part of it (who belongs to the organization and who does not?), its communication (which elements communicate and how do they communicate?), and its rules of action compared to outside events (what causes an organization to act as a collective actor?).

By coordinated and planned cooperation of the elements, the organization is able to solve tasks that lie

beyond the abilities of the single elements. The price paid by the elements is the limitation of the degrees of freedom of the elements and processes them to produce outputs.

TYPES:

Flat Organization:

A flat organization is unlike any other corporate structure. It's exactly as its name suggests. While individuals may hold an expertise, hierarchy and job titles are not stressed among general employees, senior managers, and executives. In a purely flat organization, everyone is equal.

Flat organizations are also described as self-managed. The idea behind this organizational structure is to reduce bureaucracy so as to empower employees to make decisions, become creative problem solvers, and take responsibility for their actions. Since there are minimal or no levels of middle management, a company that adopts this structure well can end up being more productive by speeding up the decision-making processes.

Apart from increased productivity, firms with flat organizations have leaner budgets since they don't involve any pricey middle-management salaries. The only thing to keep in mind is that this structure works best for small to medium-sized companies. This way, a firm can decentralize decision-making while still maintaining its corporate integrity.

Functional Organization:

Also referred to as a bureaucratic structure, a functional organization is one that divides a firm's operations based on specialties. Ideally, there's an individual in charge of a particular function. It's like any typical business that consists of a sales department, human relations, and marketing department. It means that every employee receives tasks and is accountable to a particular specialist.

A functional organization confers several benefits. For one, there's a total specialization of work meaning that every employee gets professional guidance from a specialist. Secondly, work is performed more efficiently since each manager is responsible for a single function. The only drawback to adopting a functional organization is the fact that there's a delay in decision-making. All the functional managers must be consulted when making major decisions, which can take time.

Divisional Organization:

A divisional organization structures its activities around a market, product, or specific group of consumers. For instance, a firm can operate in the United States or Europe, or sell products focused on a specific group of customers. Gap Inc. is the perfect case in

point. It runs three different retailers – Banana Republic, Gap, and Old Navy. Although each one operates as a separate entity that caters to different consumer segments, they are all under the company Gap Inc. brand.

General Electric is another ideal example; it owns numerous firms, brands, and assets across different industries. Although GE is the umbrella corporation, each division works as an individual firm. The diagram below will give you an idea of what a divisional organization looks like.

QUESTION # 3:

WHAT ARE THE DIFFERENCE BETWEEN DATA AND INFORMATION? GIVE DETAIL WITH PROPER EXAMPLES AND EXPLANATIONS.

ANSWER:

"Data" comes from a singular Latin word, datum, which originally meant "something given." Its early usage dates back to the 1600s. Over time "data" has become the plural of datum.

"Information" is an older word that dates back to the 1300s and has Old French and Middle English origins. It has always referred to "the act of informing," usually in regard to education, instruction, or other knowledge communication.

The terms "data" and "information" are sometimes misinterpreted as referring to the same thing. However, they are not the same.

DATA:

Data is a collection of values. Those values can be characters, numbers, or any other data type. If those values are not processed, they have little meaning to a human.

INFORMATION:

Information is data that was processed so a human can read, understand, and use it.

EXPLANATION:

The "P" in CPU stands for "processing," specifically, data processing. Processing data into information is the fundamental purpose of a computer.

Data is raw, unorganized facts that need to be processed. Data can be something simple and seemingly random and useless until it is organized. When data is processed, organized, structured or presented in a given context so as to make it useful, it is called information.

Examples of Data and Information:

- The history of temperature readings all over the world for the past 100 years is data. If this data is organized and analyzed to find that global temperature is rising, then that is information.
- The number of visitors to a website by country is an example of data. Finding out that traffic from the U.S. is increasing while that from Australia is decreasing is meaningful information.
- Often data is required to back up a claim or conclusion (information) derived or deduced from it. For example, before a drug is approved by the FDA, the manufacturer must conduct clinical trials and present a lot of data to demonstrate that the drug is safe

DIFFERENCE:

Information *informs* you of something. It answers a specific question. It represents a specific truth or fact.

Data is the collection of recorded values from which information can be ascertained.

For example, consider the question, "what is the temperature outside?" Data provides the basis for an answer to that question. If the data is "25.6" and "Celsius," the answer is, "Outside, the temperature is 25.6 degrees Celsius." You must know what

"temperature" is, and what "degrees Celsius" are, to process the data into information.

Signal data and noise data:

Some data is not relevant or informational. This irrelevant data is called noise.

For example, if you create an audio recording of a piano concert, you might hear people in the audience coughing, or the sound of a ceiling fan. These noises are irrelevant to the purpose of the audio recording, which is to record the sound of the piano.

Information is analogous to a signal. In the example above, the relevant data is the sound of the piano. It answers the question, "what did the piano sound like?" The remaining data (the noise) does not answer that question, so it can be ignored or removed.

Signal and data processing:

Signal processing is the separation of noise from a signal. A noisy signal is analyzed, and the noise is reduced or removed, to accentuate the signal or isolate it completely.

Similarly, data processing identifies meaningful data, and separates it from the meaningless data. The meaningful data is then interpreted, combined, modified, connected, and structured into something new called information.
