**Course: Information system and data processing**

**Program: BS (SE)**

**Instructor: Muhammad Abrar Khan**

**Examination: Midterm Assignment**

**Total Marks: 30**

**Date: Apr. 13, 2020**

**Note:** Attempt all questions. Use examples and diagrams where necessary.

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**Q.1**

 **(a)** **Why we define different needs before taking any task, elaborate your answer.**

**Answer:**

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.

• How urgent it is to reach to Islamabad .

• Whether bookings are available for the desired day and time.

 • Which bus service or airline to chose from, since various airlines and bus services are having travelling facilities to Islamabad.

• Is there any possibility of cancellation of booking or flight or bus service.

• Similar is the case with business. Businesses are run by organizations which are in-fact a group of people. As individuals have choices to choose from, organizations also face various alternatives in day to day operations, Decisions are made by individuals from the management.

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

**Answer:** You want to make sure you prepare thoroughly before starting a business, but realize that things will almost certainly go awry. To run a successful business, you must adapt to changing situations.

Before you start selling your product or service, you need to build up your brand and get a following of people who are ready to jump when you open your doors for business.

1. Refine your idea.

2. Write a business plan.

3. Assess your finances.

4. Determine your legal business structure.

5. Register with the government and IRS.

6. Purchase an insurance policy.

7. Build your team.

8. Choose your vendors.

9. Bland yourself and advertise.

10. Grow your business.

**Different sources of information :** An Information Source is a source of information for somebody, i.e. anything that might informs a person about something on provide knowledge to somebody. Information sources may be observations, people speeches, documents, pictures, organizations etc.

**1.Primary Sources of Information:-** Primary sources of information are the first published records of original research and development or description of new application or new interpretation of an old theme or idea. There are original documents representing unfiltered original ideas.

For Example-:

➢ Books

➢ Periodicals

➢ Conference Papers

➢ Research Monographs

➢ Research Reports

➢ Patents

➢ Standards

➢ Thesis

➢ Manuscript

**2.Secondary Sources of Information:-** Secondary sources of information are those which are either compiled from or refer to primary sources of information. The original information having been casually modified selected or reorganized so as to serve a definite purpose for group of users. Such sources contain information arranged and organized on the basis of some definite plan.

**Types of Secondary Sources of Information:**

“Bonn” has divided the secondary sources into three types which are as below

1. Index Type

2. Survey Type

3. Reference Type

**4.Tertiary Sources of Information:-** This is the most problematic category of all. However, people rarely expected to differentiate between secondary and tertiary sources. Materials in which the information from secondary sources has been digested- reformatted and condensed, to put it into a convenient, easy to read form. Sources which are once removed in time from secondary sources and works which index, organize and compile citations to, and show you how to use secondary sources.

**Q.2 What is organization? Explain different types of organization in detail.**

**Answer: Definition:** Organization refers to a collection of people, who are involved in pursuing defined objectives. It can be understood as a social system which comprises all formal human relationships. The organization encompasses division of work among employees and alignment of tasks towards the ultimate goal of the company.

**Different types of organization:**

**1.Formal Organization Structure:** The organization structure of jobs and positions, with specified activities and relationships, is known as formal organization structure. It is created by management, to attain the objectives of the company.

**Line Organization:** Line organization is the oldest and simplest pattern of organization, wherein the supervisor has outright supervision over the subordinate. The flow of authority is from the top level executive to the person at the lowest level of the organization’s echelon.

**Functional Organization:** As the name suggests, functional organization structure is one in which the thorough task of managing and directicting the employees, is grouped as per the functions or type of work involved.

Project Management Organization: Project Organization is not an independent organization, like the organization structure discussed above. Instead it is a set up within an organization, so as to accomplish a project or firm’s objectives. It is led by project manager, who is responsible for project objectives.

**Matrix Organization:** Matrix organization is the emerging structure of the organization, which is a combination of functional organization and project organization. In such an organization, the functional departments such as production, accounting, marketing, human resource, etc. constitute a vertical chain of command, while project division consitute horizontal line of authority.

**2.Informal Organization Structure:** The relationship between the employees, that relies on personal attitudes, prejudices and interests rather than procedures. It is system of personal and social connection, whose creation is not needed by formal organization.

The organization structure is a basic idea, which depends on the activity authority relationship in the company. It is designed in such a way to realise business objectives.

Principles of Delegation of Authority

Departmentalization

Delegation of Authority

Internal Environment

Types of Groups

**Q.3 What are the difference between Data and Information? Give detail with proper examples and explanations.**

**Answer: Data:** An unorganized, raw, simple, sometimes useless thing in information is called data. Data is very simple and useless until it is processed and organized because we can never get the knowledge of something from data. Basically, Data store is in RAM it’s called Random Access Memory.

Data is represented with the help of characters such as alphabets (A-Z, a-z), digits (0-9) or special characters (+,-,/,\*,<,>,= etc.)

Example: Different organizations carry out surveys to identify the opinions of the people about their products. In these surveys, people also convey their ideas and opinions about diverse issues. The organizations use these ideas and opinions as data for the enhancement of their products also.

**Information:** Information is a package or set of data which is included in the context to describe the details of any topic or research. Information makes a context meaningful and useful for others. It helps us to know the exact story of a context. The information contains a huge number of data from several sources.

Example: An organization can use the view of the people as data. Then process it to produce information about its concern. For example, it can know how many people like or dislike its product. The organization can use this information for the perfection of its product.

 **Difference Between Data and Information**

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|  **Data**• Data can be any character number, image , words,text,mean,little or nothing to a man.When data is processed.• Data alone can never be significant.• Data is based on records,observations etc.• Data is unorganizedand does not depends on information |  **Information**• Organized and presented in a context to make it useful is called information.• But information is always important itself.• Information is based on analysis of data.• But information always depends on data and organized |

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