

ANSWER SHEET

1. Global Information System

- a) A worldwide network of computer-based information systems connected by a singular global address is known as a global information system (GIS). Using the TCP/IP suite, GIS will overlay public or private high-level services on top of the layered communications and related infrastructure to support communications.
- b) FIVE (5) components of GIS.
- Hardware: A GIS needs to run on hardware, which is the computer. GIS software is currently supported by a wide variety of hardware at this time, including desktop PCs and networked or standalone servers located in data centers.
 - Software: Since GIS is providing key information to support communication, it needs software to store, analyze, and display all the information. Some software key components that necessary for GIS are DBMS, tools for support input and or online communicating are using
 - Data: The data of GIS, such as geographic data and associated tabular data are the core component of GIS. These data are gathered internally or acquired from a commercial data supplier and then stored, managed, and organized by a DBMS.
 - People: GIS users range from technical professionals to people who utilize it to facilitate daily activities. Because of this, GIS technology is of little use without the personnel that oversees it and creates strategies for using it to solve issues in the real world.
 - Methods: A well-designed strategy and business rules are the base of a successful GIS. To achieve the goal, the models and operating methods are particular to each organization.
- c) FIVE (5) ways how GIS is used in business and daily life:
- Mapping

- Telecom and Network Services
- Agricultural Application
- Transportation Planning
- Disaster Management and Mitigation

2. Website portal

a) FIVE (5) free services that provided by most portals:

- Storage space: Some providers afford their clients free storage space on the web server for personal or company use.
- Search engines: to search between keywords.
- News: Providers often grant free news for their clients for utilized in the website.
- Reference tools: such as yellow pages or maps or even stock quotes.
- Shopping malls and auctions.

b) The difference between Web design and GUI design

Web Design	GUI Design
The fonts, display, and control are shared with user and accessible in many platforms	Using personal font and familiar system; usually used for a fixed device display
User can access the site through many ways, such as pages, search results, or links	The designer has fully control for the navigation through the application
User move fast and takes short time to switch between pages and explore the application	More enclosed and slow pace, need to take longer time in the application

3. The guidelines for multimedia:

- **Don't overdo it.** Most multimedia components have the drawback of being big and taking longer to load in web browsers, especially on mobile devices. It is an effective strategy for maintaining the balance between visuals and content.

- **Avoid Using Flash.** The cause is that flash animation frequently leads to browser crashes and malfunctions. Flash may not always display correctly for visitors on specific devices since it is not always cross-platform compatible.
- **Double Audio Content with Text.** Web crawlers won't take up valuable material in the form of video or audio, which will reduce its SEO value. The answer would be to summarize the main ideas with supporting language that embodies prioritized keywords.
- **Never attempt to trick users.** Some websites try to deceive visitors into doing a fake action using multimedia. Unnecessary moves like clicking an arrow to go to an advertisement instead of the actual website will not produce the required outcomes and are terrible for the user experience.

4. The five (5) Design Implications

- **Seek consistency.** When creating identical circumstances and action sequences, try to maintain consistency by using well-known symbols, colors, menu hierarchy, call-to-actions, and user flows.
- **Enable frequent users to use shortcuts.** Such as keyboard shortcuts for copying and pasting so as the user becomes more experienced, they can navigate and operate the user interface more quickly and effortlessly.
- **Offer informative feedback.** The user should know where they are and what is happening every time. For every action, there should be appropriate, human-readable feedback within a reasonable amount of time.
- **Design dialogue to yield closure.** Always tell the user what their action has led them. For instance, after making an online purchase, consumers might value receiving a "Thank You" message and a receipt as verification of the purchase.
- **Provide easy error handling.** Systems should be error-proof and ensure that users follow clear and simple step-by-step instructions to fix errors as quickly and painlessly as possible. For instance, highlight the text fields in online forms where users forget to provide input.

