



**SREENARAYANAGURU OPEN UNIVERSITY**

*The State University for Education, Training and Research in Blended Format, Kerala*

University Building, Kureepuzha, Kollam, Kerala-691601 | [www.sgou.ac.in](http://www.sgou.ac.in)

## **ASSIGNMENT QUESTIONS**

### **BACHELOR OF COMPUTER APPLICATION**

#### **SEMESTER-1**

#### **INTRODUCTION TO INFORMATION TECHNOLOGY**

#### **B21CA01DC**

### **Instructions for Writing Assignments**

- For the descriptive section use Illustrations and examples to explain.
- Use visuals and diagrams effectively to communicate your ideas.
- Support your choices with evidence and justification.
- Attempt any questions from each section.

### **SET 1 (Descriptive)**

1. Explain Key Functional Units of a Computer (with Diagrams). Explain how each unit contributes to processing information, and illustrate their connections with a labeled diagram. Also explain their specific functions and provide relatable examples of their interaction in daily tasks.
2. Explain various types of memories used in a computer : Volatile RAM, permanent ROM, spacious hard drives, lightning-fast SSDs etc. Differentiate them based on function and volatility and compare the technologies behind each (transistors, flash memory) type of memory, and provide relevant examples of their usage in various systems. Finally, analyse their advantages and disadvantages in terms of speed, capacity, and cost.
3. Explain the two main types (CISC and RISC) of computer architecture and their key differences. Discuss which type is better for specific tasks like complex calculations or energy efficiency. Explore other classifications like Von Neumann and Harvard architectures. Briefly discuss future directions and trends in this field.

4. Explain the need of operating systems in computers. Explain what an operating system does (resource allocation, memory management, security) and why it's crucial. Compare different types of operating systems (Windows, macOS, Linux, .....etc) and discuss their strengths and weaknesses in terms of ease of use, security, and compatibility.
5. Detail the latest trends in computer science like AI, quantum computing, blockchain, the Internet of Things (IoT), AR, VR, etc. Discuss their potential impact on society, business, and personal lives. Predict future advancements and challenges in this evolving field.

**(1\*15=15)**

### **SET II (Analytical)**

1. Define HyperText Markup Language (HTML) and its role in web page creation. Explain and demonstrate basic HTML tags for formatting text, creating links, embedding images, and building tables. Design and code a simple web page using HTML, showcasing relevant tags and structures.
2. When designing memory systems encompassing RAM (Random Access Memory) and ROM (Read-Only Memory), what critical considerations must be taken into account regarding their respective architectures, access speeds, storage capacities, and data retention mechanisms, and how do these factors interplay to influence the overall performance, reliability, and versatility of the memory subsystem in diverse computing environments and applications?
3. In the realm of website development and hosting, what strategic decisions should be made regarding the selection of programming languages, frameworks, and content management systems, considering factors such as scalability, security, user experience, and customization potential? Additionally, how do the choices made during development impact the subsequent hosting requirements, including server configuration, bandwidth allocation, and scalability provisions, and how can these elements be optimized to ensure seamless performance, high availability, and efficient resource utilization?
4. The digital world is constantly under siege by diverse malware threats, each with unique functionalities and potential for harm. This assignment requires you to enumerate and explain the six common malware types namely: viruses, worms, Trojans, ransomware, spyware, and adware. Develop a comprehensive comparison table differentiating these six malware types based on:
  - a. Functionality: How do they operate and propagate?
  - b. Target: What data or systems do they aim to compromise?
  - c. Impact: What are the potential consequences of infection?

- d. Detection: How are they typically identified and detected?
5. Consider the purchase of a laptop tailored for tasks such as graphic design, video editing, and 3D modeling/rendering. What key factors should be meticulously evaluated to ensure optimal performance and cost-effectiveness, and how might varying specifications impact the overall efficiency and functionality of the system, Elaborate your laptop specifications with proper justifications?

**(1\*15=15)**



**Common Course for All Programmes**  
**Semester I-Language Core**  
**Reading and Writing English**  
**(B21EG01LC)**

**Instructions for Writing Assignments**

**Descriptive**

- *Clearly outline the key elements or aspects that need to be described, such as features, characteristics, or events.*
- *Employ descriptive language that can engage the senses and ensure vivid pictures, enhancing the richness of descriptions.*
- *Organise the assignment in a coherent sequence to guarantee clarity and facilitate the smooth conveyance of ideas.*

**Analytical:**

- *Clearly articulate your main argument in a concise manner at the beginning of your answer. This sets the tone for your analysis and helps the reader understand the central point you are trying to convey.*
- *Support your analysis with specific examples and quotes from the literature .Use direct textual evidence to illustrate and reinforce your points.*
- *Move beyond mere summary and engage in critical analysis .Interpret the significance of the literary elements, such as themes, characters, and symbols.*

**SET 1 (Descriptive)**

1. Explore the significance of non verbal communication as a supplement to verbal communication. Provide examples from daily life and discuss how nonverbal cues such as body language, paralanguage, and gestures enhance or sometimes contradict the verbal messages we convey.
2. Describe in detail Dr. A.P.J. Abdul Kalam's dream and vision for India as depicted in his book *Ignited Minds*.
3. Detail the various parts of speech in English, providing relevant examples to highlight their functions.
4. Investigate how editing contributes to effective communication, particularly for writers using English as a Second Language (ESL). Provide examples from the passage to illustrate the steps involved in the editing process, and discuss how these steps lead to a refined and polished final draft.

5. Write a persuasive essay on the dangers of social media addiction among today's youth.

### **SET II (Analytical)**

1. Analyse how barriers like physical, psychological, and cultural factors can affect the listening process. Provide examples illustrating the impact of these barriers on communication outcomes and discuss strategies to enhance listening skills, fostering more meaningful and productive interactions.
2. How does H.H. Munro employ symbolism in his short story "The Open Window," and what deeper meanings or thematic elements are conveyed through the use of symbolic elements in the narrative?
3. Using apt examples of your choice, discuss the forms and functions of different tenses in English.
4. Analyse the importance of graphical aids, such as tables, graphs, and figures, in enhancing the presentation of information in reports. Consider practical examples and potential challenges in applying the suggested steps to real-world report writing scenarios.
5. Prepare a précis of the following passage and explain the different steps involved:

*There is an enemy beneath our feet—an enemy more deadly for his complete impartiality. He recognizes no national boundaries, and no political parties. Everyone in the world is threatened by him. The enemy is the Earth itself. When an earthquake strike, the world trembles. The power of a quake is greater than anything man himself can produce.*

*But today scientists are directing a great deal of their effort into finding some way of combating earthquakes and, perhaps at some time shortly, mankind will have discovered a means of protecting itself from earthquakes. An earthquake strikes without warning. When it does, its power is immense. If it strikes a modern city, the damage it causes is as great as if it has struck a primitive village. Gas mains burst, explosions are caused and fires are started. Underground railways are wrecked. Buildings collapse, bridges fall, dams burst and gaping crevices appear in busy streets.*

*If the quake strikes at sea, huge tidal waves sweep inland. If it strikes mountain regions, avalanches roar down into the valley. Consider the terrifying statistics from the past 1755: Lisbon, capital of Portugal—the city was destroyed entirely and 450 killed; 1970: Peru—50,000 killed. In 1968, an earthquake struck Alaska. As this is a relatively unpopulated part, only a few people were killed. But this likely was one of the most powerful quakes ever to have hit the world.*

*Geologists estimate that during the tremors, the whole of the state moved over 80 feet farther west into the Pacific Ocean. Imagine the power of something that can move an entire subcontinent! This is the problem that scientists face. They are dealing with forces so immense that man cannot hope to resist them. All that can be done is to try to pinpoint just where the earthquake will strike and work from there. At least some precautionary measures can then be taken to save lives and some property.([https://englishluv.com/examples-of-precis-writing/#google\\_vignette](https://englishluv.com/examples-of-precis-writing/#google_vignette))*

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**COMMON COURSE FOR UG PROGRAMMES**  
**SEMESTER I**  
**ENVIRONMENTAL STUDIES**  
(ABILITY ENHANCEMENT COMPULSORY COURSE)  
**B21ES01AC**

**SET 1 (Descriptive)**

*Each set of Assignments will consist of 5 (five) questions and learners shall choose **any one** from each set. Each Assignment carries 15 marks.*

1. Identify the threats to water resources. Develop a detailed strategy to conserve the water resources.
2. Discuss on the provisions of sustainable development in the scenario of growing population in India.
3. Make a detailed report on major environmental movements in Kerala and comment on its outcomes.
4. What are the different types of forests in India? How can habitat destruction influence biodiversity loss?
5. Give an account on the sources of e-waste. Discuss the measures to reduce the impact of e-wastes on environment.

**(1\*15=15)**

**SET II (Analytical)**

1. Based on the floods in Kerala during 2018 and 2019, prepare a report on the flood affected area nearest your locality. Collect the secondary data to include the social and environmental impacts, in the report. Develop a strategic flood management and mitigation plan for the area mentioned, based on the terrain and population.

2. Identify the types of solid wastes generated in your locality and their sources. Evaluate the solid waste management strategies employed by the authorities in your locality. Identify the challenges and suggest feasible solutions.
3. Prepare a list of endangered mammals in India and add a short note for each. Prepare a report on the conservation strategies implemented by Government of India, since independence till date. Analyse the outcome of the major conservation strategies implemented.
4. Collect the data on any three major environment disasters occurred in Kerala since Independence. Prepare a detailed report on each with regard to the damage on health, environment and economy. Evaluate the status of ecosystem restoration after the occurrence of specified disasters. Comment on the challenges and suggest feasible solutions.
5. “Wetlands are Earth’s kidneys”. Evaluate this statement and record the ecosystem services provide by a wetland area near to your place of residence. Identify the threats faced by the wetland and develop a plan to conserve the ecosystem.

**(1\*15=15)**

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