

P P SAVANI UNIVERSITY

Second Semester of B. Tech. Examination

May 2022

SECE1010 Basics of Computer and Programming

3.06.2022, Friday

Time: 10:00 A.M. To 12:30 P.M.

Maximum Marks: 60

Instructions:

1. The question paper comprises of two sections.
2. Section I and II must be attempted in same answer sheet.
3. Make suitable assumptions and draw neat figures wherever required.
4. Use of scientific calculator is allowed.

SECTION - I

Q - 1 Answer the Following: (MCQ/Short Question/Fill in the Blanks)

[05]

- (i) Which of the following is a type of architecture used in the computers nowadays?
- a) Microarchitecture
 - b) Harvard Architecture
 - c) Von-Neumann Architecture
 - d) System Design
- (ii) Which one of the following is not true?
- a) Kernel remains in the memory during the entire computer session
 - b) Kernel is made of various modules which cannot be loaded in running operating system
 - c) Kernel is the first part of the operating system to load into memory during booting
 - d) Kernel is the program that constitutes the central core of the operating system
- (iii) What is IoT?
- a) Network of physical objects embedded with sensors
 - b) Network of virtual objects
 - c) Network of objects in the ring structure
 - d) Network of sensors
- (iv) Where is the operating system placed in the memory?
- a) Either low or high memory (depending on the location of interrupt vector)
 - b) In the low memory
 - c) In the high memory
 - d) None of the mentioned
- (v) Which of the following is false about IoT devices?
- a) IoT devices use the internet for collecting and sharing data
 - b) IoT devices need microcontrollers
 - c) IoT devices use wireless technology
 - d) IoT devices are completely safe
- (vi) Who is the inventor of Artificial Intelligence?
- a) Geoffrey Hinton
 - b) Andrew Ng
 - c) John McCarthy
 - d) Jürgen Schmidhuber
- (vii) Which of the following is a component of Artificial Intelligence?
- a) Learning
 - b) Training
 - c) Designing
 - d) Puzzling

- Q - 2 (a) Give a detailed description of the input and output devices. [05]
Q - 2 (b) Why is primary memory different from secondary memory? Describe different types of ROM. [05]

OR

- Q - 2 (a) Describe in detail the generation of computers. [05]
Q - 2 (b) What is an Operating System? Define the different types of operating systems. [05]
Q - 3 (a) What is Artificial Intelligence (AI)? Describe its pros and cons. [05]
Q - 3 (b) What is the printer? Describe in detail what the 3D printer is. [05]

OR

- Q - 3 (a) What is an Internet of Things (IoT)? Describe its pros and cons. [05]
Q - 3 (b) Describe the algorithms with their pros and cons. [05]
Q - 4 Attempt any one/two. [05]
(i) What is a flowchart? Give a detailed description of flowchart symbols.
(ii) Describe in detail the features of the C programming language.

SECTION - II

- Q - 1 Define (Any Five) [05]
(i) One-Dimensional Array
(ii) Character Set
(iii) String
(iv) Increment Operator
(v) For Loop
(vi) Ladder If else
(vii) Nested If else
Q - 2 (a) What is data Type? Explain them. [05]
Q - 2 (b) What is an Operator? Explain any two. [05]

OR

- Q - 2 (a) Write short notes on the following: [05]
i. Ternary Operator
ii. Break Statement
Q - 2 (b) Write short notes on the following: [05]
i. Parts of Loop
ii. String Functions
iii. Switch Case.
iv. Format Specifier
Q - 3 (a) What is the use of the if else statement? Explain with the program. [05]
Q - 3 (b) What is a String Handling function in C? How is it defined? What are its arguments? Explain with an example. [05]

OR

- Q - 3 (a) Write a program for Nested if Else statement. [05]
Q - 3 (b) Explain various types of Loops with syntax and example. [05]
Q - 4 Attempt any one/two. [05]
(i) What is a character array? Explain with a suitable example.
(ii) What is the difference between Exit controlled and Entry Controlled loop? Explain with example.
