

Roll No. ....

**24006**

**B. Tech. 1st Semester (Common for All  
Branches)**

**Examination – February, 2022**

**FUNDAMENTALS OF COMPUTER & PROG. IN C**

Paper : CSE-101-F

Time : Three Hours ]

[ Maximum Marks : 100

*Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.*

**Note :** Attempt *five* questions in all, selecting *one* question from each Section. Question No. 1 is compulsory.  
All questions carry equal marks.

1. Write short notes on :

- (a) Linux & Linux OS 5
- (b) Linker & Loader 5
- (c) Character Arrays 5
- (d) Calloc vs. Malloc 5

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P. T. O.

**SECTION - A**

2. (a) Describe evolution of computers through its various generations. 12  
(b) What is a microprocessor ? What is its role in a computer ? 8
3. Elaborate the concept of operating system and its functions in detail. 20

**SECTION - B**

4. (a) Differentiate between machine level, assembly level & low level languages. Also define the various software devices needed for each. 12  
(b) Write types of high-level languages. 8
5. Describe OSI Reference Model. 20

**SECTION - C**

6. (a) WAP to check whether a number entered by user is prime number or not. 10  
(b) Explain the difference between Arrays & Strings. 10
7. WAP that inputs name of car, number of gears (integer) and price (float) for 10 cars & print them all on screen. 20

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**SECTION - D**

8. WAP that creates 5 variables : one for each char, int, float, double & long double. Then create pointers for each variable. Finally, demonstrate size of each variable and its pointer on screen. 20
9. Explain the concept of Dynamic Memory Allocation & various functions used for it. 20

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