

Enrollment No.....



Faculty of Engineering
End Sem (Odd) Examination Dec-2019
EN3ES06 Computer Programming

Programme: B.Tech.

Branch/Specialisation: All

Duration: 3 Hrs.**Maximum Marks: 60**

Note: All questions are compulsory. Internal choices, if any, are indicated. Answers of Q.1 (MCQs) should be written in full instead of only a, b, c or d.

- Q.1 i. Computer can't boot if it does not have 1
 (a) Compiler (b) Linker
 (c) Interpreter (d) Operating system
- ii. _____ is a procedure or step by step process for solving a 1
 problem.
 (a) Algorithm (b) Flowchart
 (c) Pseudocode (d) All of these
- iii. The continue statement cannot be used with 1
 (a) For (b) While (c) Do while (d) Switch
- iv. Output of following program? 1

```
#include <stdio.h>
int main() {
    int i = 5;
    printf("%d %d %d", i++, i++, i++);
    return 0;
}
```

 (a) 7 6 5 (b) 5 6 7
 (c) 7 7 7 (d) Compiler Dependent
- v. Size of the array need not be specified, when 1
 (a) It is a formal parameter
 (b) It is a declaration
 (c) Initialization is a part of definition
 (d) All of these

P.T.O.

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- vi. Which of the following return-type cannot be used for a function in C? **1**
 (a) Char * (b) Struct (c) Void (d) None of these
- vii. What is the return type of malloc() or calloc() **1**
 (a) void * (b) Pointer of allocated memory type
 (c) void ** (d) int *
- viii. The reason for using pointers in a C program is **1**
 (a) Pointers allow different functions to share and modify their local variables.
 (b) To pass large structures so that complete copy of the structure can be avoided.
 (c) Pointers enable complex “linked” data structures like linked lists and binary trees.
 (d) All of these
- ix. When fopen() is not able to open file, it returns **1**
 (a) EOF (b) Null
 (c) Runtime Error (d) Compiler Dependent
- x. What is the value of EOF? **1**
 (a) -1 (b) 0 (c) 1 (d) 10
- Q.2 i. Discuss algorithm, pseudo-code, flow chart with example. **4**
 ii. What is the importance of computer languages and discuss generations of programming language? **6**
- OR iii. Explain compiler, assembler, linker and loader. **6**
- Q.3 Attempt any two:
 i. Define different type of keywords in C with example **5**
 ii. Write a pseudo code to explain For, while and do-while loop. **5**
 iii. Write a program to check whether a character is vowel or consonant using switch case in C language. **5**
- Q.4 i. What is importance of array in C and explain 1D,2D and 3D array? **4**
 ii. Discuss call by value and call by reference with an example. **6**
- OR iii. Write a program that contains a function to multiply two integer array and output of the function should be in the main function. **6**

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- Q.5 i. What is the importance of pointer and explain usage of ‘*’ and ‘&’ in it? **4**
 ii. Discuss command line argument and dynamic memory allocation in C. **6**
- OR iii. Compare structure and union in C with program. **6**
- Q.6 Attempt any two:
 i. Write a program in C to store student information using file. **5**
 ii. Write a program in C to open a file and replace a word in the text file. **5**
 iii. Explain fscan, fseek, rewind function used in file operation with example. **5**

Marking Scheme EN3ES06 Computer Programming

Q.1	i.	Computer can't boot if it does not have (d) Operating system		1	
	ii.	_____ is a procedure or step by step process for solving a problem. (a) Algorithm		1	
	iii.	The continue statement cannot be used with (d) Switch		1	
	iv.	Output of following program? (a) 7 6 5		1	
	v.	Size of the array need not be specified, when (c) Initialization is a part of definition		1	
	vi.	Which of the following return-type cannot be used for a function in C? (d) None of these		1	
	vii.	What is the return type of malloc() or calloc() (a) void *		1	
	viii.	The reason for using pointers in a C program is (d) All of these		1	
	ix.	When fopen() is not able to open file, it returns (b) Null		1	
	x.	What is the value of EOF? (a) -1		1	
Q.2	i.	Definition of algorithm, pseudo-code, flow chart 1 mark for each (1 mark * 3) Example	3 marks 1 mark	4	
	ii.	Importance of computer languages Generations of programming language	2 marks 4 marks	6	
	OR iii.	Compiler, assembler, linker and loader. 1.5 marks for each definition and example	(1.5 marks * 4)	6	
Q.3		Attempt any two:			
	i.	About keywords Variable identifier constants explanation Example	1 mark 2 marks 2 marks	5	
	ii.	Write a pseudo code to explain For While Do-while loop.	2 marks 1.5 marks 1.5 marks	5	
	iii.	Program to check whether a character is vowel or consonant using switch case in C language. Stepwise marking		5	
Q.4	i.	Importance of array in C 1D,2D and 3D array 1 mark for each type (1 mark * 3)	1 mark 3 marks	4	
	ii.	Call by value Call by reference Example	2 marks 2 marks 2 marks	6	
	OR iii.	If output is properly managed in the main function. For the function to multiply two integer arrays	2 marks 4 marks	6	
Q.5	i.	Importance of pointer Usage of '*' Usage of '&'	2 marks 1 mark 1 mark	4	
	ii.	Command line argument in C Dynamic memory allocation in C	3 marks 3 marks	6	
	OR iii.	Structure and example Union and example	3 marks 3 marks	6	
Q.6		Attempt any two:			
	i.	Program in C to store student information using file. Stepwise marking		5	
	ii.	Program in C to open a file and replace a word in the text file 2.5 marks for each function and its usage	(2.5 marks * 2)	5	
	iii.	Function used in file operation fscan, fseek, rewind Example	3 marks 2 marks	5	
