

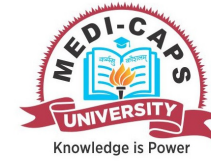
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- OR iii. What do you understand by enumerated data type explain with example? **6**
- Q.6 Attempt any two:
- i. Write file handling operations on sequential file access with different modes? **5**
- ii. Write file manipulation operations using fgetc(), fgets() and fseek() ? **5**
- iii. Write a program to create a new file and store your name, age and date of birth in it? **5**

Total No. of Questions: 6

Total No. of Printed Pages:4

Enrollment No.....



Faculty of Engineering  
End Sem (Odd) Examination Dec-2017  
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. C language can be used on **1**  
(a) MS-DOS OS (b) Linux OS  
(c) Windows OS (d) All of these
- ii. After compilation of the C program \_\_\_\_\_ is created. **1**  
(a) Assembly Code (b) Object Code  
(c) Low level Code (d) None of these
- iii. An unrestricted use of the “goto” statement is harmful because **1**  
(a) It makes it more difficult to verify programs.  
(b) It increases running time of the programs.  
(c) It increases the memory required for the programs.  
(d) It results in the compiler generating longer machine code.
- iv. Which combination of the integer variables x,y,z makes the **1**  
variable ‘a’ get the value 4 as output?  $a=(x > y)? ((x > z)? x: z) :$   
 $(( y > z)? y:z)$   
(a) x=3 y=4 z=2 (b) x=6 y=5 z=3  
(c) x=6 y=3 z=5 (d) x=5 y=4 z=5
- v. What is the output of the following program- **1**  
void main()  
{ char a[]= “computer” ; int len1,len2 ;  
len1=strlen((a); len2=strlen(“programming”);  
printf(“string=%s length=%d”, a, len1);}  
(a) String=computer length=8  
(b) String=programming length=11  
(c) String=computer programming length=20  
(d) None of these

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- vi. The output of the program is- **1**  
float show(x)  
{ printf(“%f”,x); }  
float small(x)  
{ float x=0.125; show(x); }  
void main()  
{ float x=0.25; show(x); small(x); }  
(a) 0.125,0.125 (b) 0.25,0.25  
(c) 0.25,0.125 (d) 0.125,0.25
- vii. Consider the following **1**  
struct {  
short s[5];  
union {  
float y; long z;  
}u; }t;  
Assume type short, float & long occupies 2, 4, 8 bytes respectively.  
The memory requirement for variable ‘t’ is  
(a) 22 bytes (b) 14 bytes (c) 18 bytes (d) 10 bytes.
- viii. The output of the following program is **1**  
void main()  
{ float a[5]={ 12.5,10.0,135.5,90.5,0.5};  
float \*ptr1=&a[0]; float \*ptr2=ptr1+3;  
printf(“%f”,\*ptr2); printf(“%d”,ptr2-ptr1);}  
(a) 90.500000,3 (b) 90.500000,12  
(c) 10.000000,12 (d) 0.500000,3
- ix. In file handling getc() returns EOF when **1**  
(a) End of file is reached.  
(b) When getc() fails to read a character  
(c) Both (a) and (b)  
(d) None of these
- x. Which of the following is true about FILE \* fp **1**  
(a) File is a keyword in C for representing files and fp is a variable of FILE type.  
(b) File is a structure and fp is a pointer to the structure of FILE type.  
(c) File is a stream.  
(d) File is a buffered stream.

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- Q.2 i. Differentiate between interpreter and compiler. **2**  
ii. Define 6 basic symbols used in flowchart. Draw a flowchart to find largest among 3 different numbers entered by users. **8**  
OR iii. What do you understand by algorithm? What are the qualities for good algorithm? Write an algorithm for calculating profit or loss earned by a shopkeeper taking values from shopkeeper for 5 different products. **8**
- Q.3 i. Define Variables with its declaration and initialization. Also write rules to declare a variable. **2**  
ii. Define all Branching statements with its syntax and example. **3**  
iii. Write a program using ‘for’ loop to print the following output- **5**  
1 2 3 4  
1 2 3  
1 2  
1  
OR iv. Write a program to create a simple calculator or perform all arithmetic operations using ‘switch case’? **5**
- Q.4 i. Define 1-D and 2-D array with its memory allocation representation. **2**  
ii. Define string functions with examples. **3**  
iii. Arrange the following numbers using ‘Bubble sort’. Write output after every pass. **5**  
64, 34, 25, 12, 22, 11, 90  
OR iv. Write a program to calculate cube of a number using both call by value and call by reference function. **5**
- Q.5 i. Define Pointers with its declaration and initialization? Why pointers are used in C language? **4**  
ii. Write a program to calculate result of a student using structure. Define rollno, name and marks as variables in structure. Also print the size of the structure. **6**

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EN3ES06 Computer Programming  
**Marking Scheme**

Q.1	i.	(d) All the above.	<b>1</b>	OR	iv.	5 marks for correct program Else give accordingly (on the basis of correct logic)	<b>5</b>
	ii.	(b) Object Code.	<b>1</b>	Q.5	i.	1 mark for pointer definition 1 mark for its declaration and initialization 2 marks for its uses	<b>4</b>
	iii.	(a) It makes it more difficult to verify programs	<b>1</b>		ii.	2 marks for structure declaration 1 mark for displaying size of the structure 3 marks for calculating result	<b>6</b>
	iv.	(a) x=3 y=4 z=2	<b>1</b>	OR	iii.	3 marks for enum data type definition 3 marks for example	<b>6</b>
	v.	(a) string=computer length=8	<b>1</b>	Q.6	i.	3 marks for file operations (eg- fopen, fclose,.....) 2 marks for modes (eg- a, r, w .....)	<b>5</b>
	vi.	(c) 0.25,0.125	<b>1</b>		ii.	2 marks for defining file manipulation 3 marks for explaining each operation	<b>5</b>
	vii.	(c) 18 bytes	<b>1</b>		iii.	5 marks for correct program Else give accordingly (on the basis of correct logic)	<b>5</b>
	viii.	(a) 90.500000,3	<b>1</b>				
	ix.	(c) Both (a) and (b)	<b>1</b>				
	x.	(b) File is a structure and fp is a pointer to the structure of FILE type.	<b>1</b>				
Q.2	i.	At least 4 difference (1/2 marks each)	<b>2</b>				
	ii.	6 symbols chart with shape and description 1 mark each (6 marks) For correct flowchart 2 marks.	<b>8</b>				
OR	iii.	1 mark for algorithm definition 3 marks for at least 3 qualities of good algorithm 4 marks for designing algorithm according to question.	<b>8</b>				
Q.3	i.	1 mark for variable definition and declaration and initialization 1 mark for rules	<b>2</b>				
	ii.	1 mark for if else statement 1 mark for nested if else 1 mark for else if ladder	<b>3</b>				
	iii.	5 marks for correct program Else give accordingly (on the basis of correct logic)	<b>5</b>				
OR	iv.	5 marks for correct program Else give accordingly (on the basis of correct logic)	<b>5</b>				
Q.4	i.	1 mark for 1-d array memory representation 1 mark for 2-d array memory representation	<b>2</b>				
	ii.	At least 3 string function defined 1 mark for each (for eg – strlen, strcat, strcpy....)	<b>3</b>				
	iii.	1 mark for each pass correct output	<b>5</b>				