Seat	No:	Enrolmer	nt No.
Scat	. 110	GUJARAT TECHNOLOGICAL UNIVE	
		MCA – SEMESTER - I • EXAMINATION – WINTE	
Sub	ject	code: 610001	Date: 03/01/2013
Sub	ject	Name: Fundamentals of Programming (FOP)	
Time: 02:30 pm – 05:00 pm			Total Marks: 70
Ins	truct	ions:	
	1.	Attempt all questions.	
		Make suitable assumptions wherever necessary.	
	3.	Figures to the right indicate full marks.	
Q.1	(a)	Do as Directed	07
	()	1. Give an example of Octal Literal.	
		2. Default return type of any function in "C" is.	
		3. continue keyword can be used with switch case. State	e True/False.
		4. printf is a valid identifier in "C". State True/False.	
		5. Write down any two symbols of flow chart.	

6. Return type of getch () function is char. State True/False.

7. Enum is a derived data type. State True/False. **(b)** Write down the output of following code snippet with reason.

1. void main(){

2. void main(){

3. void main(){

4. void main(){

(a) Differentiate between following

define function.

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**Q.2** 

for(i=1;i<=10;i++); printf("%d",i); }

unsigned int main=10; printf("%u",main); }

printf("%10.2s","Hello");}

1. Entry control and Exit Control loop.

(b) Write a C program to print all prime numbers between 1 and 100 using user 07

OR

**(b)** Write a C program to print following Triangle in any given text file.

int a[]={1,2,3,4},i=2; printf("%d",i[a]);}

**2.** Flow chart and algorithm.

int i;

2

2

1

2

**07** 

**07** 

Q.3	(a)	Write short note on following  1. Command line argument  2. Bitwise operator  3. sizeof operator	03 03 01
	<b>(b)</b>	Write a "C" program to count number of character, word, vowel and special symbols in given string.  OR	07
Q.3	(a)	Write a "C" program to convert a decimal number to hexadecimal number using user define function.	07
	<b>(b)</b>	Explain following term  1. Actual and formal parameter.  2. Life and scope of a variable in a function.  3. Function prototype and function definition.  4. return type.	02 03 02 01
Q.4	(a)	<ol> <li>Answer the following</li> <li>Define pointer.</li> <li>What is the size of float pointer in Turbo C compiler?</li> <li>Write down any two uses of pointer.</li> <li>Create a pointer to 2-D array for int a [3] [3].</li> <li>Create an array of pointers.</li> <li>Initialize array of string.</li> <li>What is void *?</li> </ol>	07
	<b>(b)</b>	Differentiate union, structure and enum with suitable example.	07
Q.4	(a)	OR Explain all primitive data type in detail.	07
	<b>(b)</b>	Write down the significance of static and extern storage class with appropriate example.	07
Q.5	(a)	What is FILE *? Explain various file opening modes and functions used in reading and writing into the file.	07
	(b)	Write a program to create two dimensional array using dynamic memory allocation and make a user define function to print contents of the array. $\mathbf{OR}$	07
Q.5	(a)	Compare array and linked list. Also write a program to insert and delete node in singly linked list.	07
	<b>(b)</b>	Differentiate between following  1. Macro and function 2. recursion 3. break return and exit statement	02 02 03

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