

Enrollment No.....



Faculty of Science  
End Sem (Even) Examination May-2018  
BC3CO05 Problem Solving and Programming-II

Programme: B.Sc.(CS) Branch/Specialisation: Computer Science

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. The mechanism used to convey information to the function is the **1**  
(a) Argument (b) Commands (c) Loops (d) Statements
- ii. According to the following code, select the best suitable statement **1**  
int x=5,y=3,z;  
a=add(&x,&y);  
(a) The function add is called by passing the values  
(b) The function add is called by passing reference  
(c) Both (a) and (b)  
(d) None of these
- iii. What does argv and argc indicate in command-line arguments? **1**  
(Assuming: int main(int argc, char \*argv[] ) )  
(a) Argument count, argument variable  
(b) Argument count, argument vector  
(c) Argument control, argument variable  
(d) Argument control, argument vector
- iv. Which header file should be included to use functions like malloc() **1**  
and calloc()?  
(a) memory.h (b) stdlib.h (c) string.h (d) dos.h
- v. What is the meant by 'a' in the following operation? **1**  
fp = fopen("Random.txt", "a");  
(a) Attach (b) Append (c) Apprehend (d) Add

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- vi. Which files will get closed through the fclose() in the following program? **1**  
#include<stdio.h>  
int main()  
{ FILE \*fs, \*ft, \*fp;  
fp = fopen("A.C", "r");  
fs = fopen("B.C", "r");  
ft = fopen("C.C", "r");  
fclose(fp, fs, ft);  
return 0;  
}  
(a) "A.C" "B.C" "C.C" (b) "B.C" "C.C"  
(c) "A.C" (d) Error in fclose()
- vii. The first graphics card, introduced in August of 1981 by IBM, was known as **1**  
(a) Monochrome Display Adapter (MDA)  
(b) Hercules Graphics Card (HGC)  
(c) Colour Graphics Adapter (CGA)  
(d) Enhanced Graphics Adapter (EGA)
- viii. A multiple-frequency monitor is also called **1**  
(a) Multisync monitor (b) Multiscan monitor  
(c) Asynchronous monitor (d) All the these
- ix. The basic use of initgraph() function is **1**  
(a) Switch the output from text mode to graphics mode  
(b) Switch the output from graphics mode to text mode  
(c) Switch the output from user mode to operating system mode  
(d) None of these
- x. Correct declaration syntax of ellipse() function is **1**  
(a) void ellipse(xradius,yradius, x, y,stangle,endangle);  
(b) void ellipse(x, y,stangle,endangle,xradius,yradius);  
(c) void ellipse(x, y,xradius,yradius,stangle,endangle);  
(d) void ellipse(x, y,radius,stangle,endangle);
- Q.2 i. What is function? Explain different types of function. **2**  
ii. Explain different ways to define a function. **8**

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- OR iii. What do you understand by recursion? Explain with example and memory allocation diagram. **8**
- Q.3 i. What do you understand by pointers? Give the syntax of declaration of a pointer. **3**  
ii. How we can define main() function with take something nature? Explain using suitable example. **7**
- OR iii. What is the use of enumerated data type? Create enum for weekdays and explain its use. **7**
- Q.4 i. Explain the utility fopen() function using suitable diagram. **3**  
ii. Write a C language program to read marks from a comma separated file using fscanf () function. **7**
- OR iii. Write a C language program to take string from the user and write it into file. **7**
- Q.5 i. What do you mean by video pages? Explain. **4**  
ii. Explain different component of VDU. **6**
- OR iii. Explain Colours in Graphics Mode in detail. **6**
- Q.6 Attempt any two:  
i. How can we fill colour in Regular and Non-Regular Shapes using C programming? **5**  
ii. Write a program to fill a circle by a solid colour. **5**  
iii. Write a program to print "Hello" in two different font style and size. **5**

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## Marking Scheme

### BC3CO05 Problem Solving and Programming-II

Q.1	<p>i. The mechanism used to convey information to the function is the (a) Argument <span style="float: right;">1</span></p> <p>ii. According to the following code, select the best suitable statement int x=5,y=3,z; a=add(&amp;x,&amp;y); (b) The function add is called by passing reference <span style="float: right;">1</span></p> <p>iii. What does argv and argc indicate in command-line arguments? (Assuming: int main(int argc, char *argv[] ) (b) argument count, argument vector <span style="float: right;">1</span></p> <p>iv. Which header file should be included to use functions like malloc() and calloc)? (b) stdlib.h <span style="float: right;">1</span></p> <p>v. What is the meant by ‘a’ in the following operation? fp = fopen(“Random.txt”, “a”); (b) Append <span style="float: right;">1</span></p> <p>vi. Which files will get closed through the fclose() in the following program? #include&lt;stdio.h&gt; int main() { FILE *fs, *ft, *fp; fp = fopen("A.C", "r"); fs = fopen("B.C", "r"); ft = fopen("C.C", "r"); fclose(fp, fs, ft); return 0; }</p> <p>(d) Error in fclose() <span style="float: right;">1</span></p> <p>vii. The first graphics card, introduced in August of 1981 by IBM, was known as <span style="float: right;">1</span></p> <p>(a) Monochrome Display Adapter (MDA)</p> <p>viii. A multiple-frequency monitor is also called <span style="float: right;">1</span></p> <p>(d) All the above</p> <p>ix. The basic use of initgraph() function is <span style="float: right;">1</span></p> <p>(a) switch the output from text mode to graphics mode</p>		<p>x. correct declaration syntax of ellipse() function is (b) void ellipse(x, y, stangle, endangle, xradius, yradius); <span style="float: right;">1</span></p> <p>Q.2 i. What is function? Explain different types of function. <span style="float: right;">2</span></p> <p>Definition: <span style="float: right;">1 Mark</span></p> <p>types of function: <span style="float: right;">1 Mark</span></p> <p>ii. Explain different ways to define a function. <span style="float: right;">8</span></p> <p>Four Way : each way of 2 mark (2 mark * 4 = 8 marks)</p> <p>OR iii. What do you understand by recursion? Explain with example and memory allocation diagram. <span style="float: right;">8</span></p> <p>Recursion Definition: <span style="float: right;">2 Marks</span></p> <p>example: <span style="float: right;">4 Marks</span></p> <p>Memory allocation diagram: <span style="float: right;">2 Marks</span></p> <p>Q.3 i. What do you understand by pointers? Give the syntax of declaration of a pointer. <span style="float: right;">3</span></p> <p>pointer Definition: <span style="float: right;">1.5 Marks</span></p> <p>syntax of declaration: <span style="float: right;">1.5 Marks</span></p> <p>ii. How we can define main() function with take something nature? <span style="float: right;">7</span></p> <p>Explain using suitable example.</p> <p>Definition of command line argument: <span style="float: right;">2 Marks</span></p> <p>Example: <span style="float: right;">5 Marks</span></p> <p>OR iii. What is the use of enumerated data type? Create enum for weekdays and explain its use. <span style="float: right;">7</span></p> <p>Definition of enumerated data type: <span style="float: right;">2 Marks</span></p> <p>Example: <span style="float: right;">5 Marks</span></p> <p>Q.4 i. Explain the utility fopen() function using suitable diagram. <span style="float: right;">3</span></p> <p>Utility: <span style="float: right;">2 Marks</span></p> <p>Diagram: <span style="float: right;">1 Mark</span></p> <p>ii. Write a C language program to read marks from a comma separated file using fscanf ( ) function. <span style="float: right;">7</span></p> <p>Definition: <span style="float: right;">1 Marks</span></p> <p>Program: <span style="float: right;">6 Marks</span></p> <p>OR iii. Write a C language program to read records from file created in binary mode. <span style="float: right;">7</span></p>
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	Definition :	1 Mark	
	Program:	6 Marks	
Q.5	i. What do you mean by video pages? Explain.		<b>4</b>
	Definition :	1 Mark	
	Explanation:	3 marks	
	ii. Explain different component of VDU.		<b>6</b>
	Any 3 Component of VDU (3 * 2 marks = 6)		
OR	iii. Explain Colours in Graphics Mode in detail.		<b>6</b>
	Definition :	2 Marks	
	Explanation:	4 marks	
Q.6	Attempt any two:		
	i. How can we fill colour in Regular and Non-Regular Shapes using C programming?		<b>5</b>
	Colour in Regular –	2 marks	
	Non-Regular Shapes-	3 marks	
	ii. Write a program to fill a circle by a solid colour.		<b>5</b>
	Program-	5 marks	
	iii. Write a program to draw a string "Hello" in different colour and at different location, time delay between two strings is three second.		<b>5</b>
	Program- 5 marks		

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