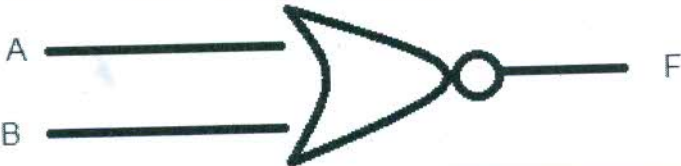


6.12.17

DAV PUBLIC SCHOOL, HEHAL, RANCHI-5
MARKING SCHEME OF PRACTICE TEST-II(SUB. : COMPUTER SCIENCE(083))

Q.No.	Suggested Answer	Marks
1.a)	<p>(c) (i) The data members are : Topic and standard. The member functions are : readtextbook() and showtextbook(). (ii) The member functions are : readtextbook() and showtextbook(). (iii) The member functions are : readtextbook(), showtextbook(), readphysicsbook() and showphysicsbook(). (iv) The size of an object of Physicsbook is 68 bytes. v) Multilevel Inheritance</p>	5
b)	<p>(i) Constructor of University class (ii) The Department require 106 bytes (iii) void Display(), void Input(), void Enrol(int,int), void Show(), void EnterData(), void DisplayData(). (iv) char state[25] v) Multilevel Inheritance</p>	5
2.a)	<pre>void show(int roll) { student s; ifstream fin("Stud.txt"); while(fin.read((char*)&s,sizeof(s))) { if(s.roll==roll) { cout<<"Student Name:"<<s.name<<endl; cout<<"Roll Number:"<<s.roll; } } }</pre>	2
b)	<pre>#include <fstream.h> void main() { ifstream fin("myfile.txt"); char ch; int count=0; while(fin.get(ch)) { if(ch=='a' ch=='e' ch=='i' ch=='o' ch=='u' ch=='A'.....) count++; } cout<<"Total No. of vowel character:"<<count; }</pre>	2
c)	<pre>#include <fstream.h> void main() { ifstream fin("myfile.txt"); int count=0; char word[10]; while(fin) { fin>>word; if(word[0]=='A' word[0]=='a') count++; } cout<<count; }</pre>	2
d)	<pre>void find(employee e,int code) { ifstream fin("emp.txt",ios::binary ios::in); while(fin.read((char*)&e,sizeof(e))) { </pre>	2

	<pre> { if(code==e.retempcode()) { e.display(); } } </pre>																																											
e)	i) to place the position of get pointer 10 bytes ahead from the current position. ii) to place the position of get pointer 10 bytes back from the last position. iii) to place the position of put pointer 200 bytes ahead from the beginning position. iv) to tell the current position of put pointer.	2																																										
3.a)	$ \begin{aligned} \text{L.H.S} &= X.Y + X'.Z + Y.Z \\ &= X.Y + \cancel{X}.Z + (X + X') Y.Z \\ &= X.Y + X'.Z + X.Y.Z + X'.Y.Z \\ &= (X.Y + X.Y.Z) + (X'.Z + X'.Y.Z) \\ &= X.Y + \cancel{X}.Z \end{aligned} $	2																																										
b)	i) $F(a, b, c, d) = c'd' + bd + b'd'$ ii) $F(a,b,c,d)=(c+d)(b'+d')(b+d)$ for both the question 3 quads will be formed.	5+5																																										
c)		2																																										
d)	i) $F(a,b,c)=a'bc + ab'c + abc'$ ii) $F(a,b,c)=(a+b+c) (a+b+c') (a+b'+c) (a'+b+c) (a'+b'+c')$	2+2																																										
e)	Truth Table: <table border="1" data-bbox="172 930 1403 1154"> <thead> <tr> <th colspan="4">L.H.S.</th> <th colspan="3">R.H.S.</th> </tr> <tr> <th>A</th> <th>B</th> <th>A+B</th> <th>(A+B)'</th> <th>A'</th> <th>B'</th> <th>A'.B'</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>0</td> <td>0</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> </tr> <tr> <td>0</td> <td>1</td> <td>1</td> <td>0</td> <td>1</td> <td>0</td> <td>0</td> </tr> <tr> <td>1</td> <td>0</td> <td>1</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> </tr> <tr> <td>1</td> <td>1</td> <td>1</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> </tr> </tbody> </table> <p>L.H.S=R.H.S. (Proved)</p>	L.H.S.				R.H.S.			A	B	A+B	(A+B)'	A'	B'	A'.B'	0	0	0	1	1	1	1	0	1	1	0	1	0	0	1	0	1	0	0	0	0	1	1	1	0	0	0	0	2
L.H.S.				R.H.S.																																								
A	B	A+B	(A+B)'	A'	B'	A'.B'																																						
0	0	0	1	1	1	1																																						
0	1	1	0	1	0	0																																						
1	0	1	0	0	0	0																																						
1	1	1	0	0	0	0																																						
4.i)	The output is : 6 10 8 6 8 8 6 8	2																																										
ii)	The output is : DynAmiC ACT # 10	4																																										
iii)	25:20 40:10 35:10	4																																										
5. i)	The correct program is : <pre> #include <iostream.h> #include <string.h> struct Swimmingclub { int memnumber; char memname[20]; char memtype[10]; }; void main() { Swimmingclub per1, per2; </pre>	3																																										

	<pre> cout << "Member Number:"; cin >> per1.memnumber; cout << "Member Name :"; cin >> per1.memname; strcpy(per1.memtype, "HIG"); per2 = per1; cout <<"Member Number :" << per2.memnumber; cout << "Member Name :" << per2.memname; cout << "Member Number :" << per2.memtype; } </pre>																							
ii)	<p>The correct program is:-</p> <pre> #include <iostream.h> void main() { int x; cin>>x; for(int y=0;y<10;y++) cout<<x+y; } </pre>	2																						
6.	<table border="1"> <thead> <tr> <th>Function's Name</th> <th>Header File</th> </tr> </thead> <tbody> <tr><td>strcpy()</td><td>string.h</td></tr> <tr><td>random()</td><td>stdlib.h</td></tr> <tr><td>exit()</td><td>process.h</td></tr> <tr><td>isupper()</td><td>ctype.h</td></tr> <tr><td>pow()</td><td>math.h</td></tr> <tr><td>getch()</td><td>conio.h</td></tr> <tr><td>clrscr()</td><td>conio.h</td></tr> <tr><td>strlen()</td><td>string.h</td></tr> <tr><td>isdigit()</td><td>ctype.h</td></tr> <tr><td>setw()</td><td>iomanip.h</td></tr> </tbody> </table>	Function's Name	Header File	strcpy()	string.h	random()	stdlib.h	exit()	process.h	isupper()	ctype.h	pow()	math.h	getch()	conio.h	clrscr()	conio.h	strlen()	string.h	isdigit()	ctype.h	setw()	iomanip.h	5
Function's Name	Header File																							
strcpy()	string.h																							
random()	stdlib.h																							
exit()	process.h																							
isupper()	ctype.h																							
pow()	math.h																							
getch()	conio.h																							
clrscr()	conio.h																							
strlen()	string.h																							
isdigit()	ctype.h																							
setw()	iomanip.h																							
7.a)	<table border="1"> <thead> <tr> <th>Co-Axial Cable</th> <th>Optical Fiber Cable</th> </tr> </thead> <tbody> <tr> <td>1. It is cheaper than Optical Fiber cable.</td> <td>1. It is costlier than co-axial cable.</td> </tr> <tr> <td>2. Its coverage is comparatively smaller than optical fiber cable.</td> <td>2. It's coverage area broader than co-axial cable.</td> </tr> </tbody> </table>	Co-Axial Cable	Optical Fiber Cable	1. It is cheaper than Optical Fiber cable.	1. It is costlier than co-axial cable.	2. Its coverage is comparatively smaller than optical fiber cable.	2. It's coverage area broader than co-axial cable.	2																
Co-Axial Cable	Optical Fiber Cable																							
1. It is cheaper than Optical Fiber cable.	1. It is costlier than co-axial cable.																							
2. Its coverage is comparatively smaller than optical fiber cable.	2. It's coverage area broader than co-axial cable.																							
b)	LAN:-Local Area Network GPS:- Global Positioning System.	2																						
c)	Guided Media:- Twisted Pair Cable, Co-Axial Cable Unguided Media:- Laser Signal, Radio Wave	2																						
d)	<p>i)</p> <pre> graph TD B[Center B] --- C[Center C] B --- A[Center A] B --- D[Center D] </pre> <p>ii) Server can be placed at Center C as it has maximum number of computers. iii) Repeater can be placed between center B and Center D because of large distance. Switches must be placed at all the centers. iv) Bu using MAN with leased line satellite connection.</p>	1 1 1																						