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| Which of the following is an invalid declaration of an object of class Car with default constructor?   1. Car \*lexus = new (Car); 2. Car\* lexus = new Car(); 3. Car \*lexus = new Car; 4. (Car\*) lexus = new Car(); 5. None of the above |
| Given the following code, what is the output: #include<iostream>  using namespace std; void show(char = '\*', int = 1);  int main(){  show('$', 2);  return 0;  }  void show(char c, int n){  for(int i = 1; i <= n; ++i){  cout << c;  }  cout << endl;  }   1. \* 2. \*\* 3. $ 4. $$ 5. Compilation Error |
| After run this code, the output should be:  class CBase{  public:  virtual void show(){  cout << "\n Base class - function show() is called";  }  void display(){  cout << "\n Base class - function display() is called";  }  };  class CDelivered :public CBase{  public:  void show(){  cout << "\n Delivered class - function show() is called";  }  void display(){  cout << "\n Delivered class - function display() is called";  }  };  int main()  {  CBase obj1;  CDelivered obj2;  CBase\* p;  p = &obj1;  obj1.display();  obj1.show();  p = &obj2;  p->display();  p->show();  return 0;  }   1. Base class - function display() is called Base class - function show() is called Delivered class - function display() is called Delivered class - function show() is called 2. Base class - function display() is called Delivered class - function show() is called Delivered class - function display() is called Delivered class - function show() is called 3. Base class - function display() is called Base class - function show() is called Base class - function display() is called Delivered class - function show() is called 4. Base class - function display() is called Delivered class - function show() is called Base class - function display() is called Base class - function show() is called 5. Delivered class - function display() is called Base class - function show() is called Delivered class - function display() is called Delivered class - function show() is called |
| Which of the following is a valid declaration of an object of class Box?   1. Box obj = new Box; 2. Box obj = new Box(); 3. Box obj = new (Box); 4. new Box (obj); 5. None of the above |
| Which is the correct answer following this code below: #include<iostream>  using namespace std; class CBase{  public:  int\* num;  CBase(int \*x){  num = x;  }  };  int main(){  int\* pp = new int;  int a = 100;  pp = &a;  CBase obj1(pp);  CBase obj2 = obj1;    cout << \*obj1.num <<” “;  \*obj1.num++;  cout << \*obj2.num << endl;    return 0;  }   1. 100 100 2. 100 101 3. 101 101 4. 101 100 5. None of the above |
| Which of the following is not OOPS concept in C++?   1. Object 2. Encapsulation 3. Polymorphism 4. Inheritance 5. None of the above |
| Given the following code, what is the result:  class Person {  void say() {  cout << “Hello”;  }  }  class Student :public Person {  void say() {  cout << “Student Hello”;  }  }  Person\* person = new Student();  Person->say();   1. Hello 2. Student Hello 3. Hello   Student Hello   1. Student Hello   Hello   1. None of the above |
| Given the following code, what is the result:  cout << "Hello\n";  int i = 3;  while (--i > 0) {  cout << "Fresher Academy";  i--;  }   1. Hello 2. Hello   Fresher Academy   1. Hello   Fresher Academy  Fresher Academy   1. Hello   Fresher Academy  Fresher Academy  Fresher Academy   1. Compilation error |
| Given the following code, what is the result:  int iAr[] = { 1, 3, 5, 7, 9 }; for (int x : iAr) {  for (int j = 0; j < 3; j++) {  if (x > 4 && x < 8)  continue;  cout<< " " << x;  if (j == 1)  break;  }  }   1. 1 3 9 2. 5 5 7 7 3. 1 3 3 9 9 4. 1 1 3 3 9 9 5. Compilation fails |
| Given the following code, what is the result:  int x = 2019;  do {  while (x > 20) {  x -= 2000;  }  } while (x > 2019 + 1);  cout << x;   1. 19 2. 20 3. 2019 4. -1969 5. 2039 |
| Given the following code, what is the result:  int age = 20;  string size = (age > 22) ? "huge" : (age < 20) ? "tiny" : "small";  cout << size;   1. small 2. tiny 3. huge 4. 20 5. 22 |
| Which of the following is the correct output of the code snippet given below?  int arr[] = { 0, 1, 2, 3, 4, 5, 6, 7, 8, 9 };  int n = 6;  n = arr[arr[n] / 2];  cout << arr[n] % 2;   1. 3 2. 0 3. 6 4. 1 5. 2 |
| Which of the following is the correct output of the code snippet given below?  int \*array\_variable = new int[10];  for (int i = 0; i < 10; ++i) {  array\_variable[i] = i;  cout << array\_variable[i] << " ";  i++;  }   1. Compilation Error 2. 0 1 2 3 4 5 6 7 8 9 3. 1 3 5 7 9 4. 2 4 6 8 5. 0 2 4 6 8 |
| What is the output of the following code?  #include<iostream>  using namespace std; class Access {  public:  int x;  int y;  void cal(int a, int b) {  x = a + 1;  y = b;  }  }; int main(){  Access\* obj = new Access();  obj->cal(2, 3);  cout << obj->x++ << " " << obj->y;  return 0;  }   1. 3 3 2. 2 3 3. 4 3 4. Runtime error 5. Compilation error |
| What is the output of the following code?  #include<iostream>  using namespace std; class Access {  public:  static int x;  Access(){  x += 1;  }  };  int Access::x = 0;  int main(){  new Access();  Access \*aa = new Access();  cout << Access::x;  return 0;  }   1. count=0 2. count=1 3. count=2 4. count=3 5. None of the above |
| What is wrong in this segment code?  class CBase {  public:  int\* num = nullptr;  CBase(int \*x) {  num = x;  }  CBase(const CBase &obj) {  num = new int();  \*num = \*obj.num;  }  };  class CDelivered :public CBase {  protected:  char ch;  public:  CDelivered() {  ch = '$';  }  };  A.Protected variable cannot definition in constructor of delivered class  B.Base class have no appropriate default constructor available for delivered class  C.The integer pointer “num” in base class is not definition  D.Code is clean, no problem  E.None of the above |
| What is result of this segment code? #include<iostream>  using namespace std; void swap(int \*x, int &y){  int temp = \*x;  \*x = y;  y = temp;  }  int main(){  int a = 69;  int b = 96;  swap(&a, b);  cout << b << " " << a;  return 0;  }   1. 69 96 2. 69 69 3. 96 96 4. 96 69 5. None of the above |
| What is result of this segment code? enum week { Monday,  Tuesday,  Wednesday,  Thursday,  Friday,  Saturday,  Sunday };    int main() {  week day;  day = Thursday;  cout << "Day: " << day + 1 << endl;  return 0;  }   1. Day: 2 2. Day: 3 3. Day: 4 4. Day: 5 5. Compile error |
| What is the output of the following segment code?  int gvalue = 0;  void changeSomeValue(int gvalue, int lvalue){  lvalue++;  gvalue++;  }  int main(){  int lvalue = 1;  cout << lvalue << " " << gvalue;  return 0;  }   1. 0 1 2. 1 2 3. 0 2 4. 1 1 5. None of the above |
| What is the result of this code below:  #include<iostream>  using namespace std; class CBase  {  public:  CBase(){}  ~CBase(){  cout << "Base class - destructor is called\n";  }  };  class CDelivered :public CBase{  public:  ~CDelivered(){  cout << "Delivered class - destructor is called\n";  }  };  int main(){  CBase\* obj1 = new CBase();  CBase\* obj2 = new CDelivered();  CDelivered\* obj3 = new CDelivered();  delete obj3;  delete obj2;  delete obj1;  return 0;  }   1. Delivered class - destructor is called Base class - destructor is called  Base class - destructor is called 2. Base class - destructor is called Base class - destructor is called Base class - destructor is called Delivered class - destructor is called 3. Delivered class - destructor is called Delivered class - destructor is called Base class - destructor is called Base class - destructor is called 4. Delivered class - destructor is called Base class - destructor is called Base class - destructor is called Base class - destructor is called 5. Delivered class - destructor is called Delivered class - destructor is called  Base class - destructor is called |
| What is the size of the struct below?  struct Strt {  int a;  float b;  double c;  char ch[69];  };   1. 69 2. 88 3. 32 4. 85 5. 64 |
| After run this code below, result is:  int main() {  float sum = 0.0, average = 0.0;  int num = 0;  float arr[] = { 5, 2, 1, 4, 5, 0, 7 };  for (int i = 1; i < 7; ++i){  if (arr[i] < 1.9){  goto jump;  }  sum += arr[++i];  num++;  }  jump:  average = sum / num;  cout << "\nAverage = " << average;  return 0; }   1. 3 2. 3.5 3. 4 4. 4.5 5. 2 |
| Which are not storage class in C++? (multiple choice)   1. static 2. unsigned 3. register 4. extend 5. mutable |
| Give a segment code below, choose the right answer: #include<iostream>  using namespace std;  class cls {  void f(int a, int b) { stt = a + b; };  static int stt;  double dx(double x) { return x \* x; };  char ch[11];  };  int main() {  int a[3] = { 5, 6 };  cout << sizeof(cls) + sizeof(a) << endl;  return 0;  }  A.23  B.31  C.32  D.35  E.Compile error |
| What is the output of the following program? #include<iostream>  using namespace std; int main() {  int i = 3, j = 4, k = 5, result;  result = (i, j, k);  cout << result << endl;  return 0;  }   1. 12 2. 5 3. 4 4. 3 5. None of the above |
| **Logic & GMAT** | |
| Kevin, Joseph, and Nicholas are 3 brothers. If the following statements are all true, which of them is the youngest?   * Kevin is the oldest. * Nicholas is not the oldest. * Joseph is not the youngest.  1. Kevin 2. Joseph 3. Nicholas 4. None of them |
| 5 brothers compare their heights and find that:   * Alex is taller than Brian but shorter than Charlie. * Daniel is taller than Edward but shorter than Alex.   Who is the tallest?   1. Alex 2. Brian 3. Charlie 4. Daniel 5. Edward |
| 1.Tanya is older than Eric.  2.Cliff is older than Tanya.  3.Eric is older than Cliff.  If the first two statements are true, the third statement is   1. True 2. False 3. Uncertain |
| Look at this series: 21, 9, 21, 11, 21, 13, 21, ... What number should come next?   1. 14 2. 15 3. 21 4. 23 5. 25 |
| Look at this series: 7, 10, 8, 11, 9, 12, ... What number should come next?   1. 7 2. 10 3. 12 4. 13 5. 15 |
| Your favorite store is having a 50%-off storewide sale! You have a coupon for an additional 25% discount.  Which option will give you a lower price on a $200 purchase?   * Option A: The store clerk applies a discount of 75% since that's the sum of 50% and 25% * Option B: The store clerk first applies the 50% discount, and then applies the 25% discount to that value.  1. Option A 2. Option B 3. Both Option A and Option B yield the same price |
| * The mass of a full jar of honey is 600 grams. * With half of the honey, the total mass is 350 grams.   What is the mass of the empty jar in grams?     1. 100 2. 150 3. 200 4. 250 5. 300 |
| What is the smallest integer greater than 2 that when divided by 5 gives a remainder of 1?   1. 2 2. 4 3. 6 4. 8 5. 11 |
| **Data Structures & Algorithms** | |
| Which of the following uses FIFO method?   1. Queue 2. Stack 3. Hash Table 4. Binary Search Tree 5. None of the above |
| Suppose a algorithm with an input of the list: hand, eye, nose, face.  Step 1. Swap places with the 1st and 4th items on the list. Step 2. Swap places with the 1st and 2nd items on the list. Step 3. End.  What will be the list at Step 3?   1. face, eye, nose, hand 2. hand, eye, nose, face 3. eye, hand, nose, face 4. eye, face, nose, hand 5. None of the above |
| Suppose a function with an input of the string "ABCDEFG". (A is in the 1st position, B is in the 2nd position, and so on.)  Step 1. Set loop = 0 Step 2. Add 1 to loop Step 3. Swap the letter at position loop with the letter at position loop + 2 Step 4. If loop < 4 go to Step 2. Step 5. End.  What will be the string at Step 5?   1. CDEBAFG 2. CDEFABG 3. CDEFBAG 4. CDEFGBA 5. None of the above |
| There is a stack of numbers: 4, 13, 65, 3, 8.  Do the following action in sequence: push(5), pop(), pop(), pop().  What value return in the last pop aciton?   1. 5 2. 13 3. 65 4. 3 5. 8 |
| David wants to create an algorithm to ensure that he buys exactly N items.  Which of these algorithms could he use?   1. **Algorithm 1:** Start with n with 0 Buy one item. Increase n  by 1.  Repeat. Stop when n = N. 2. **Algorithm 2:** Start with n with 1 Buy one item. Increase n  by 1.  Repeat. Stop when n = N. 3. **Algorithm 3:** Start with n with 0 Buy one item. Multiply n  by 2.  Repeat. Stop when n = N. 4. **Algorithm 4:** Start with n with 1 Buy one item. Multiply n  by 2.  Repeat. Stop when n = N. 5. None of the above |
| Alice wants to create an algorithm that would help her find the largest number in a set. Assume that the set is denoted by a[0], a[1], ..., a[N-1].  Which of these algorithms could she use?   1. **Algorithm 1:**   Start with i = 0.  While i < N - 1:  Set large = a[i].  Increase i by 1.   1. **Algorithm 2:**   Start with i = 0 and large = a[0].  While i < N:  If a[i] > large, replace large with a[i].  Increase i by 1.   1. **Algorithm 3:**   Start with i = 0. Set large = a[0].  While i < N - 1:  If a[i] > large, replace large with a[i].  Increase i by 1.   1. **Algorithm 4:**   Start with i = 0. Set large = a[0].  While i < N:  If a[i] < large, replace large with a[i].  Increase i by 1.   1. None of the above |
| Susan wants to create an algorithm that finds the Nth Fibonacci number, which follows the rules that:  F(1) = 1, F(2) = 1, F(n) = F(n – 1) + F(n – 2)  Which of the following algorithms could she use to find ?   1. **Algorithm 1:** Set n = 1; first = 1; second = 1   Set first = second; second = second + first and increase n by 1  Step when n = N. Print first   1. **Algorithm 2:** Set n = 1; first = 1; second = 1   Set second = second + first; first = second and increase n by 1  Step when n = N. Print first   1. **Algorithm 3:** Set n = 1; first = 1; second = 1   Set second = second + first; first = second - first and increase n by 1  Step when n = N. Print first   1. **Algorithm 3:** Set n = 1; first = 1; second = 1   Set first = second - first; second = second + first and increase n by 1  Step when n = N. Print first   1. None of the above |