Question 1. From the code snippet below, what is the output of factorial if n is 5 ?

n = int(input('Type a number, and its factorial will be printed: '))

if n < 0:

raise ValueError('You must enter a non-negative integer')

factorial = 1

for i in range(2, n + 1):

factorial \*= i

print(factorial)

2) Which of the following options correctly creates a list of squares for all even numbers from 0 to 10?

1. squares = [x\*\*2 for x in range(11) if x % 2 == 0]
2. squares = [x^2 for x in range(11) if x % 2 == 0]
3. squares = [x\*\*2 for x in range(10) if x % 2 == 0]
4. squares = [x\*2 for x in range(11) if x % 2 == 0]

Ans: A

Q3: There exists a data type Date with member function Increment that increments the current Date object by one. The ++ operator is being overloaded to postincrement an object of type Date. Select the correct implementation:

1. Date Date::operator++( int )  
   {  
    Date temp = \*this;  
    Increment();  
    return \*temp;  
   }
2. Date Date::operator++( int )  
   {  
    Increment();  
    Date temp = \*this;  
    return temp;  
   }
3. Date Date::operator++( int )  
   {  
    Date temp = \*this;  
    return this;  
    temp.Increment();  
   }
4. Date Date::operator++( int )  
   {  
    Date temp = \*this;  
    Increment();  
    return temp;  
   }

**ANS: d. Date Date::operator++( int )  
 {  
 Date temp = \*this;  
 Increment();  
 return temp;  
 }**