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What is the output of the following application?

package pet;

public class Puppy {

    public static int wag = 5; // q1

    public void Puppy(int wag) { // q2

        this.wag = wag;

    }

    public static void main(String[] tail) {

        System.out.print(new Puppy(2).wag); // q3

    }

}

Select one:

○ **a. 2**

○ **b. It does not compile because of line q1.**

◉ **c. It does not compile because of line q2.**

○ **d. It does not compile because of line q3.**

If there are 32 segments, each of size 1Kb, then the logical address should have

_____

Select one:

○ **a. 14 bits**

○ **b. 13 bits**

◉ **c. 15 bits**

○ **d. 16 bits**

Consider a logical address space of 8 pages of 1024 words mapped into memory of 32 frames. How many bits are there in the physical address?

Select one:

○ **a. 9 bits**

○ **b. 15 bits**

○ **c. 13 bits**

○ **d. 11 bits**

What is the output of the following application?

package track;

interface Run {

    default void walk() {

        System.out.print("Walking and running!");

    }

}

interface Jog {

    default void walk() {

        System.out.print("Walking and jogging!");

    }

}

public class Sprint implements Run, Jog {

    public void walk() {

        System.out.print("Sprinting!");

    }

    public static void main() {

        new Sprint().walk();

    }

}

Select one:

○ **a. Walking and running!**

○ **b. Walking and jogging!**

○ **c. Sprinting!**

◉ **d. The code does not compile.**

Consider following page trace :
4, 3, 2, 1, 4, 3, 5, 4, 3, 2, 1, 5.

Number of page faults that would occur if FIFO page replacement algorithm is used with Number of frames for the Job M=3, will be

Select one:

◉ **a. 9**

○ **b. 8**

○ **c. 10**

How many lines of the following program contain compilation errors?

```
package sky;
public class Stars {
    private int inThe = 4;
    public void Stars() {
        super();
    }
    public Stars(int inThe) {
        this.inThe = this.inThe;
    }
    public static void main(String[] endless) {
        System.out.print(new sky.Stars(2).inThe);
    }
}
```

Select one:

- a. None
- b. One
- c. Two
- d. Three

What is the output of the following application?

```
package transport;
class Ship {
    protected int weight = 3;
    private int height = 5;
    public int getWeight() { return weight; }
    public int getHeight() { return height; }
}
public class Rocket extends Ship {
    public int weight = 2;
    public int height = 4;
    public void printDetails() {
        System.out.print(super.getWeight()+","+super.height);
    }
    public static final void main(String[] fuel) {
```

/

```
        new Rocket().printDetails();

    }
}
```

Select one:
- ○ **a. 2,5**
- ○ **b. 3,4**
- ○ **c. 3,5**
- ◉ **d. The code does not compile.**

Fill in the blanks: _____is used to call a constructor in the parent class, while _____is used to reference a member of the parent class.

Select one:
- ○ **a. super and this()**
- ○ **b. super and super()**
- ◉ **c. super() and this**
- ○ **d. super() and super**

Dirty bit is used to show the

Select one:
- ◉ **a. page that is modified after being loaded into cache memory**
- ○ **b. page that is less frequently accessed**
- ○ **c. the wrong page in the memory**
- ○ **d. page with corrupted data**

Consider a computer with 8 Mbytes of main memory and a 128K cache. The cache block size is 4 K. It uses a direct mapping scheme for cache management. How many different main memory blocks can map onto a given physical cache block?

Select one:
- ○ **a. 2048**
- ◉ **b. 256**
- ○ **c. 8**
- ○ **d. 64**