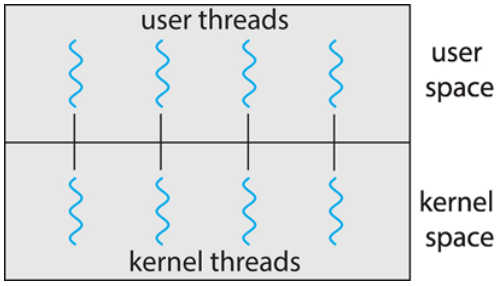
Quiz-2

Time: 30 minutes

Name: **ID:**

1. **Describe the multi-threading model given in the picture and explain how it can overcome the drawbacks of another multithreading model. [2 marks]**



2. **Explain any two threading issues. [2 marks]**

3. **Find outputs of the following code.** **[6 marks]**

```
#include <stdio.h>
#include <unistd.h>
#include <sys/wait.h>

int main() {
   int id;
   static int s = 2;
   int v = 4;
   id = fork();

   if (id < 0) {
      printf("fork failed\n");
   } else if (id == 0) {
      printf("I am the child!\n");
      s *= 3;
      v += 6;
      printf("Child values of s: %d & v: %d\n", s, v);
   } else {
      printf("I am the parent!\n");
      wait(NULL);
      s += 2;
      v -= 2;
      printf("Parent values of s: %d & v: %d\n", s, v);
   }

   s++;
   v++;
   printf("Final values of s: %d & v: %d\n", s, v);
   printf("End of process\n");

   return 0;
}
```