

## Unit 5 - Week 3

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## Week 3 Assignment 3

The due date for submitting this assignment has passed.  
As per our records you have not submitted this assignment.

**Due on 2020-10-07, 23:59 IST.**

1) Which of these features can help in improving performance in a thread-parallel program? 1 point

- a. False sharing
- b. Race condition
- c. Latency hiding
- d. None of the above

- a.  
 b.  
 c.  
 d.

No, the answer is incorrect.

Score: 0

Accepted Answers:

c.

2) Number of threads in an openMP program is specified by 1 point

- a. execution command
- b. number of processors in the SMP
- c. runtime function
- d. specifying it using shell command: export

- a.  
 b.  
 c.  
 d.

No, the answer is incorrect.

Score: 0

Accepted Answers:

c.

d.

3) In openMP program, which thread is active throughout? 1 point

- a. All threads
- b. Master thread
- c. omp\_get\_max\_threads
- d. None of the above

- a.  
 b.  
 c.  
 d.

No, the answer is incorrect.

Score: 0

Accepted Answers:

b.

4) A private variable, b, is initialized before the parallel region as, b=10; What will be the value of b inside the parallel region? 1 point

- a. garbage
- b. 10
- c. 0
- d. NAN

- a.  
 b.  
 c.  
 d.

No, the answer is incorrect.

Score: 0

Accepted Answers:

c.

5) There are two parallel regions in an OpenMP program with same number of threads. In the first region, a variable z is given different values by different threads. In the second region each thread needs to access the variable z as last updated by the same thread in the previous region. What should be the type of the variable z? 1 point

- a. shared
- b. last-private
- c. first-private
- d. thread-private

- a.  
 b.  
 c.  
 d.

No, the answer is incorrect.

Score: 0

Accepted Answers:

d.

6) All variables have a data-sharing attribute of *shared* by default, so all threads can access all variables (except parallel loop counters). 1 point

- a. True
- b. False

- a.  
 b.

No, the answer is incorrect.

Score: 0

Accepted Answers:

a.

7) False sharing may arise during a reduction clause 1 point

- a. True
- b. False

- a.  
 b.

No, the answer is incorrect.

Score: 0

Accepted Answers:

b.

8) In omp single construct, all threads execute the region sequentially 1 point

- a. True
- b. False

- a.  
 b.

No, the answer is incorrect.

Score: 0

Accepted Answers:

b.

9) With which of these clauses one can map iterations to threads? 1 point

- a. Schedule
- b. Section
- c. Parallel
- d. Private

- a.  
 b.  
 c.  
 d.

No, the answer is incorrect.

Score: 0

Accepted Answers:

a.

10) Which of this functionality can be obtained by calling omp\_set\_nested? 1 point

- a. Master thread bifurcates into slave threads in a parallel region
- b. Multiple threads share same private variable
- c. One specific thread in a parallel region bifurcates into many threads in the nested loop
- d. Each of the threads in a parallel region, which encounters the nested loop bifurcates into many threads

- a.  
 b.  
 c.  
 d.

No, the answer is incorrect.

Score: 0

Accepted Answers:

d.