High Performance Computing (HPC) MCQs [set-7]

151. every node has to know when to communicate that is

A. call the procedure

B. call for broadcast

C. call for communication

D. call the congestion

Answer: A

152. the procedure is disturbed and require only point-to-point _____

A. synchronization

B. communication

C. both

D. none

Answer: A

153. Renaming relative to the source is _____ the source.

A. xor

B. xnor

C. and

D. nand

Answer: A

154. Task dependency graph is ----------

A. directed

B. undirected

C. directed acyclic

D. undirected acyclic

Answer: C

155. In task dependency graph longest directed path between any pair of start and finish node is called as ----------

A. total work

B. critical path

C. task path

D. task length

Answer: B

156. which of the following is not a granularity type

A. course grain

B. large grain

C. medium grain

D. fine grain

Answer: B

157. which of the following is a an example of data decomposition

A. matrix multiplication

B. merge sort

C. quick sort

D. 15 puzzal

Answer: A

158. which problems can be handled by recursive decomposition

A. backtracking

B. greedy method

C. divide and conquer problem

D. branch and bound

Answer: C

159. In this decomposition problem decomposition goes hand in hand with its execution

A. data decomposition

B. recursive decomposition

C. explorative decomposition

D. speculative decomposition

Answer: C

160. which of the following is not an example of explorative decomposition

A. n queens problem

B. 15 puzzal problem

C. tic tac toe

D. quick sort

Answer: D

161. Topological sort can be applied to which of the following graphs?

A. undirected cyclic graphs

B. directed cyclic graphs

C. undirected acyclic graphs

D. directed acyclic graphs

Answer: D

162. In most of the cases, topological sort starts from a node which has _____

A. maximum degree

B. minimum degree

C. any degree

D. zero degree

Answer: D

163. Which of the following is not an application of topological sorting?

A. finding prerequisite of a task

B. finding deadlock in an operating system

C. finding cycle in a graph

D. ordered statistics

Answer: D

164. In ----------task are defined before starting the execution of the algorithm

A. dynamic task

B. static task

C. regular task

D. one way task

Answer: B

165. which of the following is not the array distribution method of data partitioning

A. block

B. cyclic

C. block cyclic

D. chunk

Answer: D

166. blocking optimization is used to improve temmporal locality for reduce

A. hit miss

B. misses

C. hit rate

D. cache misses

Answer: B

167. CUDA thought that 'unifying theme' of every form of parallelism is

A. cda thread

B. pta thread

C. cuda thread

D. cud thread

Answer: C

168. Topological sort of a Directed Acyclic graph is?

A. always unique

B. always not unique

C. sometimes unique and sometimes not unique

D. always unique if graph has even number of vertices

Answer: C

169. threads being block altogether and being executed in the sets of 32 threads called a

A. thread block

B. 32 thread

C. 32 block

D. unit block

Answer: A

170. True or False: The threads in a thread block are distributed across SM units so that each thread is executed by one SM unit.

A. true

B. false

Answer: A

171. When the topological sort of a graph is unique?

A. when there exists a hamiltonian path in the graph

B. in the presence of multiple nodes with indegree 0

C. in the presence of single node with indegree 0

D. in the presence of single node with outdegree 0

Answer: A

172. What is a high performance multi-core processor that can be used to accelerate a wide variety of applications using parallel computing.

A. cpu

B. dsp

C. gpu

D. clu

Answer: C

173. A good mapping does not depends on which following factor

A. knowledge of task sizes

B. the size of data associated with tasks

C. characteristics of inter-task interactions

D. task overhead

Answer: D

174. CUDA is a parallel computing platform and programming model

A. true

B. false

Answer: A

175. Which of the following is not a form of parallelism supported by CUDA

A. vector parallelism - floating point computations are executed in parallel on wide vector units

B. thread level task parallelism - different threads execute a different tasks

C. block and grid level parallelism - different blocks or grids execute different tasks

D. data parallelism - different threads and blocks process different parts of data in memory

Answer: A