High Performance Computing (HPC) MCQs [set-9]

201. A processor performing fetch or decoding of different instruction during the execution of another instruction is called _____ .

A. super-scaling

B. pipe-lining

C. parallel computation

D. none of these

Answer: B

202. General MIMD configuration usually called

A. a multiprocessor

B. a vector processor

C. array processor

D. none of the above.

Answer: A

203. A Von Neumann computer uses which one of the following?

A. sisd

B. simd

C. misd

D. mimd.

Answer: A

204. MIMD stands for

A. multiple instruction multiple data

B. multiple instruction memory data

C. memory instruction multiple data

D. multiple information memory data

Answer: A

205. MIPS stands for:

A. memory instruction per second

B. major instruction per second

C. main information per second

D. million instruction per second

Answer: D

206. M.J. Flynn's parallel processing classification is based on:

A. multiple instructions

B. multiple data

C. both (a) and (b)

D. none of the above

Answer: C

207. VLIW stands for:

A. vector large instruction word

B. very long instruction word

C. very large integrated word

D. very low integrated word

Answer: B

208. The major disadvantage of pipeline is:

A. high cost individual dedicated

B. initial setup time

C. if branch instruction is encountered the pipe has to be flushed

D. all of the above

Answer: C

209. A topology that involves Tokens.

A. star

B. ring

C. bus

D. daisy chaining

Answer: B

210. multipoint topology is

A. bus

B. star

C. mesh

D. ring

Answer: A

211. In super-scalar mode, all the similar instructions are grouped and executed together.

A. true

B. false

Answer: A

212. Which mechanism performs an analysis on the code to determine which data items may become unsafe for caching, and they mark those items accordingly?

A. directory protocol

B. snoopy protocol

C. server based cache coherence

D. compiler based cache coherence

Answer: D

213. How many processors can be organized in 5-dimensional binary hypercube system?

A. 25

B. 10

C. 32

D. 20

Answer: C

214. Multiprocessors are classified as _____.

A. simd

B. mimd

C. sisd

D. misd

Answer: B

215. Which of the following is not one of the interconnection structures?

A. crossbar switch

B. hypercube system

C. single port memory

D. time-shared common bus

Answer: C

216. Which combinational device is used in crossbar switch for selecting proper memory from multiple addresses?

A. multiplexer

B. decoder

C. encoder

D. demultiplexer

Answer: A

217. How many switch points are there in crossbar switch network that connects 9 processors to 6 memory modules?

A. 50

B. 63

C. 60

D. 54

Answer: D

218. In a three-cube structure, node 101 cannot communicate directly with node?

A. 1

B. 11

C. 100

D. 111

Answer: B

219. Which method is used as an alternative way of snooping-based coherence protocol?

A. directory protocol

B. memory protocol

C. compiler based protocol

D. none of above

Answer: A

220. snoopy cache protocol are used in ----------based system

A. bus

B. mesh

C. star

D. hypercube

Answer: A

221. superscalar architecture contains ----------execution units for instruction execution

A. multiple

B. single

C. none of the above

Answer: A

222. time taken by header of a message between two directly connected nodes is called as----------

A. startup time

B. per hop time

C. per word transfer time

D. packaging time

Answer: B

223. the number of switch requirement for a network with n input and n output is ----------

A. n

B. n2

C. n3

D. n4

Answer: B

224. which of the following is not static network

A. bus

B. ring

C. mesh

D. crossbar switch

Answer: D

225. In super-scalar processors, _____ mode of execution is used.

A. in-order

B. post order

C. out of order

D. none of the mentioned

Answer: C