Q2) Match Column A with Column B   (Marks 5)

	Column A	Column B	
1	Caching	Is active & it is a Program in execution	3
2	Bootstrap program	One of operating system services	5
3	Process	Copying information into faster storage system	1
4	If thread state is disabled	Is loaded at power-up or reboot	2
5	User interface	Thread cancellation remains pending until thread enables it	4

Q3) Choose _only two_ of the following,, then compare.. (Marks 5)

1- Independent &cooperating processes.

2- Bounded-buffer & unbounded-buffer.

3- Shared memory & message passing. (with drawing)

4- Many to one & many to many multithreading model.

① Independent process	Cooperating process	Bounded Buffer	② Unbounded buffer
cannot affect or be affected by the execution of another process	Can affect or be affected by the execution of another process	assumes that there is a fixed buffer size	places no practical limit on the size of the buffer

③ Message passing / shared memory

Process A
Process B

Process A
Shared memory
Process B

message queue
m0 m1 m2 m3 ... mn
kernel

kernel

④ Many to one

user thread
K kernel
- One block cause all to block
- Solaries, GNU

Many to many

user thread
K K K kernel
- Solaries <9
- windows

Best wishes ...
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MID TERM I

CSCI 335 (Operating System) | **Level: 5** | **Total Marks: 15**

Total Time: 1 hour

Q1) Choose the best answer and write your answer in the following table (Marks 5)

choose only 5 of them

1	2	3	4	5	6	7
c	c	c	d	a	c	d

1. The socket 161.25.19.8: 1625 is on --------------------
   - (a) port 161.25.19.8
   - (b) host 1625
   - (c) host 161.25.19.8
   - (d) host 1623

2. If parent terminated __without__ invoking __wait__, process is an ---------------
   - (a) zombie
   - (b) fork
   - (c) Orphan
   - (d) none

3. ---------------implies a system can perform more than one task simultaneously
   - (a) concurrency
   - (b) balancing
   - (c) parallelism
   - (d) splitting

4. DRM stands for---------------
   - (a) decoder rights multiprogramming
   - (b) Process control block
   - (c) delft record multiprogramming
   - (d) Digital rights management

5. Device controller informs CPU that it has finished its operation by causing an --------
   - (a) Interrupt
   - (b) Trap
   - (c) Polling
   - (d) None

6. When one process in critical section, ----- Other may be in its critical section
   - (a) All
   - (b) some
   - (c) NO
   - (d) usually

7. A solution to the critical-section problem must satisfy the following -----
   - (a) avoiding
   - (b) bounded waiting
   - (c) mutual exclusion
   - (d) B&C