1. **Different migration techniques**
    a. **Pure stop-and-copy migration** :
        - halting the original VM
        - copying all pages to the destination
        - starting the new VM
        Downtime and total migration time are proportional to the amount to be migrated.

    b. **Pure demand migration** :
        - Kernel data structure is transferred to destination by using short stop-and-copy phase.
        - Destination VM is started and other pages are transferred across the network
        Advantage is shorter downtime
        Disadvantage is longer total migration time and performance degradation.

    c. **Pre-Copy Migration** :
        - Uses iterative push phase and short stop and copy phase.
        Advantages are less downtime, less data to transfer
        Disadvantage is longer migration time and duplicate transmission.

    d. **Post Copy Migration** :
        - transmits all processor state to the target
        - starts VM at target and actively pushes/transfers the VM's memory pages
        Advantage is that it avoids the duplication transmission overhead.
        Disadvantage is that its downtime is higher than that of pre-copy.

    e. **Page bitmap**:
        - uses pre-copy technique with bitmap pages.
        - bitmap page marks the frequently updated pages which are transmitted in the last iteration process.
        Advantages are less migration time and no duplicate transmission overhead.
        Disadvantage is of higher downtime.

    f. **Time-Series based Pre-Copy** :
        - identifying high dirty pages in iteration by their historical statistics in the bitmap page.
        - which avoids the overhead of transferring them again and again.
        Advantages are that number of iteration of migration decreases, downtime and total migration time decreases.

2. **SDN based Mobile Ad-Hoc Network**
    Mobile Ad-Hoc Network based on SDN is divided into three layers-

i. *Ad-Hoc Networking Layer* :
   - Ad-Hoc On-Demand Distance Vector (AODV) over Wi-Fi is used similar to the communication layer of SDN topology.
   - The neighboring node is tracked through the use of periodic Hello packets.
   - RREQ is broadcast-ed if a route is desired, RREP is sent if route to destination is found and RERR is sent to concerned nodes if a neighbor node leaves the network.

ii. *Network Operating System (NOS)* :
   - It maintains the global map of the network and manages sub - network for each application and supports dynamic change routing protocols.

iii. *Control Program* :
   - It controls forwarding rules, routing tables and routing protocols.

3. **Criteria for Performance evaluation**
   a. Network bandwidth (Network Capacity per second)
   b. Dirty Rate of Application
   c. Average Waiting time
   d. Load balancing
   e. Number of requests executed/ rejected
   f. Throughput
   g. Workload
   h. Real time responsiveness
   i. Number of input and output operation in network
   j. Usability
   k. Scalability
   l. Latency