1. **What is Docker primarily used for?**  
   A. Data storage  
   B. Containerization of applications  
   C. Operating system deployment  
   D. Virtual machine management  
   **Answer:** B. Containerization of applications
2. **Which of the following command is used to list all the running containers?**  
   A. docker ls  
   B. docker ps  
   C. docker run  
   D. docker images  
   **Answer:** B. docker ps
3. **What is the purpose of a Dockerfile?**  
   A. To store Docker images  
   B. To build Docker containers  
   C. To define the steps required to create a Docker image  
   D. To manage running containers  
   **Answer:** C. To define the steps required to create a Docker image
4. **Which command is used to create a new container from an image?**  
   A. docker build  
   B. docker create  
   C. docker start  
   D. docker run  
   **Answer:** D. docker run
5. **What is a Docker image?**  
   A. A running instance of a container  
   B. A template for creating containers  
   C. A tool for managing Docker containers  
   D. A virtual machine  
   **Answer:** B. A template for creating containers

**Intermediate Docker MCQs**

1. **Which of the following commands is used to stop a running container?**  
   A. docker rm  
   B. docker stop  
   C. docker pause  
   D. docker exit  
   **Answer:** B. docker stop
2. **What is the default network driver in Docker?**  
   A. Host  
   B. None  
   C. Bridge  
   D. Overlay  
   **Answer:** C. Bridge
3. **How can you remove all stopped containers at once?**  
   A. docker container prune  
   B. docker stop all  
   C. docker remove  
   D. docker rm all  
   **Answer:** A. docker container prune
4. **Which of the following commands is used to delete a Docker image?**  
   A. docker delete  
   B. docker rm  
   C. docker rmi  
   D. docker del  
   **Answer:** C. docker rmi
5. **Which command is used to see the logs of a running container?**  
   A. docker view  
   B. docker logs  
   C. docker inspect  
   D. docker ps -l  
   **Answer:** B. docker logs

**Advanced Docker MCQs**

1. **What is the purpose of Docker Compose?**  
   A. To build Docker images  
   B. To orchestrate multi-container applications  
   C. To deploy Docker containers on the cloud  
   D. To create Dockerfiles  
   **Answer:** B. To orchestrate multi-container applications
2. **What is the difference between docker exec and docker attach?**  
   A. docker exec runs a new command in a running container, while docker attach connects to an existing process in the container.  
   B. Both perform the same function.  
   C. docker attach is for stopped containers, while docker exec is for running containers.  
   D. None of the above.  
   **Answer:** A. docker exec runs a new command in a running container, while docker attach connects to an existing process in the container.
3. **What does the COPY instruction do in a Dockerfile?**  
   A. It copies files from the container to the host.  
   B. It copies files from the host to the container during build time.  
   C. It moves files within the container.  
   D. It duplicates a container.  
   **Answer:** B. It copies files from the host to the container during build time.
4. **Which of the following is used for container orchestration?**  
   A. Docker Compose  
   B. Kubernetes  
   C. Swarm  
   D. All of the above  
   **Answer:** D. All of the above
5. **What is the purpose of the .dockerignore file?**  
   A. To list files to exclude from the container during runtime  
   B. To ignore Docker commands during execution  
   C. To exclude files from being added to a Docker image during build  
   D. To ignore container logs  
   **Answer:** C. To exclude files from being added to a Docker image during build
6. **Which command can be used to copy files from a running container to the host system?**  
   A. docker cp  
   B. docker export  
   C. docker save  
   D. docker attach  
   **Answer:** A. docker cp
7. **If you restart a container, what happens to its data?**  
   A. All data is lost.  
   B. Data is persisted unless explicitly removed.  
   C. Data in volumes is preserved, but data in the container's writable layer is lost.  
   D. Data in the writable layer is preserved, but data in volumes is lost.  
   **Answer:** B. Data is persisted unless explicitly removed.
8. **What happens if a CMD instruction and an ENTRYPOINT instruction are both defined in a Dockerfile?**  
   A. CMD is ignored, and only ENTRYPOINT is executed.  
   B. ENTRYPOINT is ignored, and only CMD is executed.  
   C. CMD provides default arguments to ENTRYPOINT.  
   D. Both are executed in parallel.  
   **Answer:** C. CMD provides default arguments to ENTRYPOINT.
9. **Which statement about multi-stage builds in Docker is correct?**  
   A. They allow you to combine multiple images into a single container.  
   B. They enable efficient use of disk space by reusing intermediate containers.  
   C. They allow multiple containers to be defined in a single Dockerfile.  
   D. They are only supported in Docker Compose.  
   **Answer:** B. They enable efficient use of disk space by reusing intermediate containers.
10. **What is the effect of running docker run -d nginx?**  
    A. Starts an interactive container with Nginx.  
    B. Downloads the Nginx image but does not start a container.  
    C. Starts a detached container running Nginx.  
    D. Builds the Nginx image locally and then starts it.  
    **Answer:** C. Starts a detached container running Nginx.
11. **What does the --rm flag do when running a container?**  
    A. Removes the container before it starts.  
    B. Removes the container after it exits.  
    C. Removes all associated volumes.  
    D. Removes the image used by the container.  
    **Answer:** B. Removes the container after it exits.
12. **How does Docker handle ports when running docker run -P?**  
    A. Exposes all ports defined in the container to the same ports on the host.  
    B. Maps all ports defined in the container to random high-numbered ports on the host.  
    C. Maps all container ports to port 80 on the host.  
    D. Does not expose any ports by default.  
    **Answer:** B. Maps all ports defined in the container to random high-numbered ports on the host.
13. **What is the difference between docker export and docker save?**  
    A. docker export saves an image, while docker save saves a container.  
    B. docker export creates a tar file of a container’s filesystem, while docker save saves an image with all its layers.  
    C. Both commands do the same thing.  
    D. docker save exports a running container, while docker export exports a stopped container.  
    **Answer:** B. docker export creates a tar file of a container’s filesystem, while docker save saves an image with all its layers.
14. **What happens when you run docker-compose up --build?**  
    A. It only builds new images without starting containers.  
    B. It starts all services defined in docker-compose.yml, skipping build steps.  
    C. It rebuilds images and starts the containers.  
    D. It only stops and removes running containers.  
    **Answer:** C. It rebuilds images and starts the containers.
15. **What happens if you do not specify a tag when pulling an image with docker pull?**  
    A. Docker raises an error asking for a tag.  
    B. Docker defaults to the latest tag.  
    C. Docker pulls all available tags.  
    D. Docker pulls the image but does not associate it with any tag.  
    **Answer:** B. Docker defaults to the latest tag.
16. **How does Docker determine if a layer can be reused during image build?**  
    A. By comparing the file contents.  
    B. By checking the Dockerfile syntax.  
    C. By calculating a checksum for the layer.  
    D. By matching layer IDs across builds.  
    **Answer:** C. By calculating a checksum for the layer.
17. **Which command would you use to inspect the configuration of a running container?**  
    A. docker logs  
    B. docker inspect  
    C. docker ps  
    D. docker info  
    **Answer:** B. docker inspect
18. **What happens if you specify both RUN and CMD in a Dockerfile?**  
    A. Both are ignored, and the container fails to start.  
    B. CMD overrides RUN.  
    C. RUN is executed during the build, while CMD is executed at runtime.  
    D. RUN and CMD are merged into a single command.  
    **Answer:** C. RUN is executed during the build, while CMD is executed at runtime.
19. **Which of the following statements is true about Docker volumes?**  
    A. Volumes are tied to the container's lifecycle and are deleted when the container is removed.  
    B. Volumes are stored on the host filesystem and persist independently of container lifecycle.  
    C. Volumes are only used for sharing data between containers.  
    D. Volumes are slower than bind mounts.  
    **Answer:** B. Volumes are stored on the host filesystem and persist independently of container lifecycle.
20. **Which networking mode allows containers to share the network stack of the host?**  
    A. Bridge  
    B. Host  
    C. Overlay  
    D. None  
    **Answer:** B. Host