MCQ Questions - SLURM

1. What does SLURM stand for?
a) Simple Linux Utility for Resource Management
b) Simple Linux Unit for Resource Management
c) Single Linux Utility for Resource Management
d) Simple Linux Universal Resource Management

2. Which command is used to submit a batch script to SLURM?
a) sbatch
b) salloc
c) srun
d) scancel

3. Which SLURM command displays the jobs in the scheduling queue?
a) sinfo
b) squeue
c) scontrol
d) sbatch

4. What is a job in SLURM?
a) A system configuration file
b) A user-submitted set of commands or a computational task
c) A node configuration
d) A partition

5. Which command requests an interactive job session in SLURM?
a) sbatch
b) srun
c) salloc
d) scancel

6. What does the command `sinfo` do in SLURM?
a) Submits a batch script
b) Cancels a submitted job
c) Displays node partition information
d) Allocates resources for a job in real-time

7. Which SLURM command can cancel a submitted job?
a) srun

b) squeue
c) scontrol
d) scancel

8. What does the SLURM option `--nodes` specify?
a) Number of tasks per node
b) Number of nodes requested
c) Amount of memory per node
d) Time limit for the job

9. Which SLURM command reports more detailed information about nodes, partitions, jobs, and job steps?
a) sinfo
b) scontrol
c) squeue
d) sbatch

10. What does the `--partition` option in SLURM specify?
a) The amount of memory per node
b) The time limit for the job
c) The partition or queue for the job
d) The number of tasks per node

11. What does the `scontrol show node` command do?
a) Displays the job queue
b) Shows detailed information about a specific node
c) Cancels a job
d) Submits a batch script

12. Which of the following is NOT a SLURM job status?
a) ALLOCATED
b) IDLE
c) DOWN
d) INACTIVE

13. What does the `--time` option in SLURM specify?
a) The number of nodes requested
b) The time limit for the job
c) The amount of memory per task
d) The partition name

14. What is the command to display the SLURM configuration related to the scheduler type?
a) scontrol show config | grep SchedulerType
b) scontrol show scheduler
c) sinfo -s SchedulerType
d) sbatch --show SchedulerType

15. What does the SLURM option `--ntasks` specify?
a) Number of nodes requested
b) Number of tasks requested
c) Number of CPUs per task
d) Amount of memory per node

16. What is Quality of Service (QoS) in SLURM?
a) A job scheduling algorithm
b) A way to define special limits or priorities for partitions or users
c) A memory allocation technique
d) A node configuration parameter

17. Which SLURM command displays the state of partitions and nodes?
a) scontrol
b) sinfo
c) squeue
d) sbatch

18. Which SLURM command can be used to cancel all jobs submitted by a specific user?
a) squeue -u <username>
b) scancel -u <username>
c) scontrol -u <username>
d) sbatch -u <username>

19. What does the `scontrol show job` command do?
a) Displays the job queue
b) Shows detailed information about a specific job
c) Cancels a job
d) Submits a batch script

20. What is the purpose of the `scancel --name <myjobname>` command?
a) To cancel a job by its ID

b) <mark>To cancel all jobs with a specific name</mark>
c) To cancel a job by its user
d) To cancel a job by its status

21. Which SLURM command displays the current load and availability of nodes?
a) scontrol
b) <mark>sinfo</mark>
c) squeue
d) sbatch

22. What does the SLURM option `--mem-per-cpu` specify?
a) Amount of memory per node
b) <mark>Amount of memory per CPU</mark>
c) Number of CPUs per task
d) Number of nodes requested

23. What is the function of a resource manager in SLURM?
a) To send compute tasks to nodes
b) <mark>To monitor node availability and load</mark>
c) To manage job queues and priorities
d) To submit batch scripts

24. What does the `scontrol create res` command do?
a) Displays detailed information about resources
b) <mark>Creates a reservation</mark>
c) Cancels a reservation
d) Submits a batch script

25. What is the purpose of the `sbatch <my_sample_bash_script>` command?
a) To allocate resources for an interactive job
b) <mark>To submit a job script for later execution</mark>
c) To cancel a submitted job
d) To display node partition information

26. Which SLURM command is used to display the status of jobs, nodes, partitions, reservations, etc.?
a) sinfo
b) <mark>scontrol</mark>
c) squeue
d) sbatch

27. What is the primary function of a job scheduler in SLURM?
a) To monitor node availability and load
b) To send compute tasks to nodes and manage job queues
c) To allocate memory per CPU
d) To display the state of partitions and nodes

28. What does the SLURM option `--output` specify?
a) The number of nodes requested
b) The output file for job logs
c) The time limit for the job
d) The partition name

29. What does the `scancel -t PENDING -u <username>` command do?
a) Cancels all pending jobs of a specific user
b) Cancels all running jobs of a specific user
c) Cancels all jobs of a specific user
d) Cancels all jobs in a specific partition

30. Which SLURM command can be used to display information about partitions?
a) sinfo
b) squeue
c) sbatch
d) scontrol show partition

31. What is the purpose of the `salloc --time=1:00:00 --partition=gpu --nodes=1` command?
a) To submit a batch script to the GPU partition
b) To allocate resources for an interactive job in the GPU partition for 1 hour
c) To display the status of the GPU partition
d) To cancel a job in the GPU partition

32. What does the `scontrol show res` command do?
a) Displays detailed information about reservations
b) Creates a reservation
c) Cancels a reservation
d) Submits a batch script

33. What is the purpose of the `--mail-type` option in SLURM?
a) To specify the time limit for the job
b) To specify the type of email notifications to be sent

c) To specify the partition name
d) To specify the number of tasks requested

34. Which SLURM job status indicates that the node is not available for use?
a) ALLOCATED
b) IDLE
c) DOWN
d) MIXED

35. What does the `scontrol show config` command do?
a) Displays the job queue
b) Shows detailed configuration information
c) Cancels a job
d) Submits a batch script

36. Which of the following is a function of the backfill algorithm in SLURM?
a) To allocate memory per CPU
b) To allow lower priority jobs to start earlier
c) To cancel a submitted job
d) To display node partition information

37. Which SLURM command displays information about a specific partition?
a) sinfo -p <partition>
b) scontrol show partition <partition>
c) squeue -p <partition>
d) sbatch --partition=<partition>

38. Which of the following nodes are designed for general-purpose computing and do not have any GPUs?
a) CPU only nodes
b) Nodes with high memory
c) Nodes with GPUs
d) Reserved nodes

39. What is the command to display detailed information about a specific job in SLURM?
a) squeue -j <job_id>
b) scontrol show job <job_id>
c) sinfo -j <job_id>
d) sbatch --job=<job_id>

40. Which SLURM command can display detailed information about jobs?
a) sinfo
b) scontrol show job
c) squeue
d) sbatch