Teams must work together to answer the following questions to the best of their ability and your team captain must email your answers to the organisers no later than **23:00 12th July**.

You are required to demonstrate your understanding of the concepts in **YOUR OWN WORDS**. Keep your answer brief and to the point. Your answers to each of the questions, should not exceed more than 2-3 lines.

**Q1: What happens to the IP Address reported by WhatIsMyIp.com when performing the network primer exercise in Tutorial 1?**Answer:

**Q2:** **What is NAT?**  
Answer:

**Q3:** **What are Security Groups used for in OpenStack?**  
Answer:

**Q4: What is difference between a Floating IP and the Network attached on Instance Creation?**  
Answer:

**Q5:** **Explain what ed25519 represents when generating an SSH key pair?**  
Answer:

**Q6:** **What is a ProxyJump ?**  
Answer:

**Q7: Explain the parameters of the following filesystem export:**

/home 10.100.50.0/24(rw,async,no\_subtree\_check,no\_root\_squash)

Answer:

**Q8: Name the Prerequisites required for Installing and Configuring Ansible.**  
Answer:

**Q9: What is the benefits of having the an NFS Mounted home directory?**  
Answer:

**Q10: What is the Danger of not having Environment Modules ?**Answer:

**Q11: Explain the difference between Static and Dynamic libraries?**

Answer:

**Q12: What is a NUMA domain and what does the command lstopo show you?**Answer:

**Q13:** **What is the purpose of an HPL.dat file?**  
Answer:

**Q14:** **What benefits are there in building and compiling libraries from source?**Answer:

**Q15: What is the different between HPL and HPCC?**Answer:

**Q16:** **From your experience, of all the different ways that was used to run HPL, which was the best and why?**

Answer:

**Q17:** **What is the important of Cluster Monitoring?**  
Answer:

**Q18: What is a Container?**  
Answer:

**Q19:** **What is the importance of Slurm?**  
Answer:

**Q20:**  **What is the purpose of Munge Package?**  
Answer:

**Q21:**  **What is the purpose of a Jupyter Notebook**

Answer:

**Q22:**  **What is difference between Terraform and Ansible?**

Answer:

**Q23:**  **In your experience, what are the benefits of Using CircleCI**

Answer: