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| --- | --- | --- | --- | --- |
| **Module/Competence Detail** | | **Trainee’s Detail** | | |
| **SECTOR:** | ICT | **Names:** |  | |
| **SUB-SECTOR** | Networking | **Class** |  | |
| **Qualification Title:** | TVET Certificate IV | **Date:** |  | |
| **MODULE (Code & Name):** | NEWPS401:SWITCHING | **Trainer's Detail** | | |
| **Competence Title:** | Perform switching | **Names:** |  | |
| **School:** |  | **DECISION** | **......../100 Marks** |  |
| **Signature** |  | |

**End of second term comprehensive assessment**

**Instructions**

**This exam has three section A, B and C**

* **Answer all Question in provided answer space**
* **Section A:** Answer all questions  **55Marks**
* **Section B:** Choose Only Three Questions **30Marks**
* **Section C:** Choose Any One Question  **15Marks**

**SECTION A:** Attempt all questions in section A**/ 55 marks**

**Q1.** choose and the write the correct answers **[18Marks]**

1. **Which frame completes the entries in switching**
2. Acknowledgment frame
3. Setup frame
4. Routing frame
5. None
6. **Which one of the following switch functions is needed to pass data between two PCs, each connected to a different VLAN?**
7. Layer 2 switch
8. Layer 3 switch
9. Trunk
10. Tunnel
11. **Which VLANs are allowed on a trunk link by default ?**
12. None
13. Only the native VLAN
14. All active VLANs
15. Only negotiated VLANs
16. **Which one of the following is a valid VTP advertisement?**
17. Triggered update
18. VLAN database
19. Subset
20. Domain

**Q2.** What are Ethernet frame fields? **[7Marks]**

**Q3. What is the difference between broadcast domain and collision domain? [4Marks]**

**Q4.** In different ways of accessing either Router or switches, we use different lines. Namely, VTY, CONSOLE or AUX lines. Give the difference between VTY and CONSOLE lines. **[4Marks]**

**Q5. Why is network segmentation a good idea when managing a large network?**

**[5Marks]**

**Q6. What are the two ports of switches? [4Marks]**

**Q7. Why is it said that the switch ports are under some Broadcast domain by Default? [4Marks]**

**Q8. what is sub interfaces? [4Marks]**

**Q9. What is MAC Address? [5Marks]**

**SECTION B: Choose one (3) question in section B/ 30 marks**

**Q10:** Switches are made in different platforms/ form factors

**A.** Give different types of switch form factors. **[6Marks]**

**B.** The information in switch is in the form of Frames. What is the difference between Tagged frame and Untagged Frame? **[4Marks]**

**Q11:** Router and Switches are both networking devices that perform packet forwarding techniques

**A.** What is Packet forwarding /**4 Marks**

**B.** Give and Explain 2 Types of packet forwarding as used in either Switches or routers /**6 Marks**

**Q12:** Apart from Cut-Through Versus Store-and-Forward Switching features state other fiveSwitching features.[**10Marks]**

**Q13: I**n some cases, different network administrators find the need in configuring VTP. (VLAN TRUNKING PROTOCOL).

**A.** What is VTP? **[1marks]**

**B.** VTP performs in three (3) main modes. What are they? **[3marks]**

**C.** Write down the commands needed for VTP Client, and VTP Server switches to begin VLAN advertisement process.  **[6marks]**

**SECTION C:** Choose one (1) question in section C **/15 MARKS**

**Q17:** LAN traffic can be managed through assigning the network users in different VLANs

A. Give any three benefits of VLAN in a certain Network. **[3Marks]**

B. Give five (5) types of VLAN you know. **[4Marks]**

C. What is inter-VLAN [**2Marks]**

D. Differentiate the type of inter-VLAN in detail [**6Marks]**

**Q18:** A certain company needs to setup the network and configure 2 VLANs in it as VLAN 5 with ICT as the name and VLAN 10 with STAFF as the name**/**

1. Write down the commands to create the above VLANs  **[5Marks]**
2. Write down the commands needed for interfaces FastEthernet 0/1 and FastEthernet 0/2 to be assigned in VLAN 5 and FastEthernet 0/3 in VLAN 10 [**5Marks]**
3. Write down the commands required to create as Switch Virtual Interface (SVI) into VLAN 5 with the IP of 192.168.10.10/24  **[5Marks]**