

**NIT30: VOIP SET UP INSTALLATION**

**Date:**

**Period: 3HOURS**

**MARKING GUID**

**TRADE: NETWORK AND INERNET TECHNOLOGY**

**NIT30: VOIP SET UP INSTALLATION**

**SECTION A: ATTEMPT ALL QUESTIONS /55MARKS**

**Q1.** what is Voice Over Internet Protocol. **(3marks)**

Voice over Internet Protocol (VoIP), is a technology that allows you to make voice calls using a broadband Internet connection instead of a regular (or analog) phone line.

**Q2.** Outline six (6) Types and example of VoIP services **(6marks)**

What different types of VoIP services are there

Inhouse VoIP Systems

Hosted VoIP systems

Hybrid systems

Skype

Facebook

**Q3.** out line 4 material used to deploy voip system . **(4marks)**

* connector
* Analog telephone adapter
* Cable
* POE adapter

**Q4.** How Does VoIP Work**: (3marks)**

Voice over Internet Protocol (VoIP) is not like traditional services and phones. There is no need for public switched telephone networks**([PSTN](https://www.nextiva.com/blog/what-is-pstn.html" \t "_blank))**. You can also say goodbye to phone lines and mobile towers.  
VoIP technology uses the internet instead to complete calls

**Q5.**out line 4 way of Application area/use of voip **(5marks)**

What application uses VoIP?

Popular personal VoIP apps include **Skype, Viber, and WhatsApp**. Enterprises and small businesses have both enjoyed Voice over Internet Protocol (VoIP) for low-cost communications. VoIP provides businesses a better phone service for much less, with dozens of premium features built into the platform.

**Q6**. What is a VoIP tool **(2marks)**

Voice over Internet Protocol (VoIP), is **a technology that allows you to make voice calls using a broadband Internet connection instead of a regular (or analog) phone line**

**Q7.** Mention four (4)VoIP Advantages (Benefits) **(4marks)**

**VoIP: Advantages (**Benefits)

* Lower costs.
* Increased accessibility.
* Complete portability.
* Higher scalability.
* Advanced features for small and large teams.
* Clearer voice quality.

**Q8.**The four most important VoIP components(VoIP elements) are:

* **(4marks)**
* Media Gateway.
* Media Server.
* Application Server.

**Q9.** how to install voip phone **(4marks)**

1. check voip requirement
2. Choose a voip provider
3. Pick hardware and accessories
4. Connect your phone
5. Chek your line for issue

**Q** 10.What are types site survey? **(4marks)**

Site surveys might include: Existing buildings (including valuation, measured surveys, structural surveys, structural investigations, condition surveys, and demolition surveys).

**Q11.**What equipments are needed for VoIP to be established. **5MARKS**

For a VoIP phone system to work, you have to have **a modem and router**, which are part of your existing internet setup. Users make calls from any device that has your call software downloaded. This device can be a smartphone, laptop, or desktop. You can also make calls from a VoIP phone

**Q 12.** what is IP default gateway  **(3marks)**

Is simply the IP of the next hope for traffic that is not explicity routed any where else

**Q13.** list 4 VoIP system equipment. **3marks**

1. Drilling tools
2. Workpiece
3. Patching tools
4. A cutting tool

**Q14** what are the different method of data collection **(4marks)**

1. Survey
2. Transaction
3. Interview and focus group
4. On line tracking
5. Forms
6. Social media monitoring

**Q15.** what are the description of voip call logs metrics. **(6marks)**

1. Date and time of a telephone call
2. Call duraction
3. Information on the source

**SECTION B: ATTEMPT 3 QUESTIONS /30 MARKS**

**Q16.**explain briefly Estimation of VoIP system cost **(10marks)**

**Estimation of VoIP system cost**

* .**Identify item specifications:** When constructing a building, engineers start with a blueprint that describes the goal of the project. They use the blueprint as the basis to create documents that further define how to construct the building. Materials lists, diagrams, and work schedules are types of documents that could help engineers ensure that the structure is built according to the blueprint.
* **Identify item cost:** *Product cost refers to all those costs which the company incurs to create the product of the company or deliver the services to the customers, and the same is shown in the financial statement of the company for the period in which they become the part of the cost of the goods that the company sells*

**Calculate the total cost:** The formula to calculate total cost is the following: **TC (total cost) = TFC (total fixed cost) + TVC (total variable cost)**.15 Apr 2021

**Total cost:**The sum of fixed costs and variable ...

**Fixed costs:**Costs that do not change, like rent

**Marginal cost:**The cost of producing one unit of ...

**Variable costs:**Costs that change over time, like

**Q17.**explain the interactive voice response(IVR)/**10MARKS**

IVR is an automated phone system technology that allow incoming caller to access information via a voice response system of pre recorded message without having to speak an agent

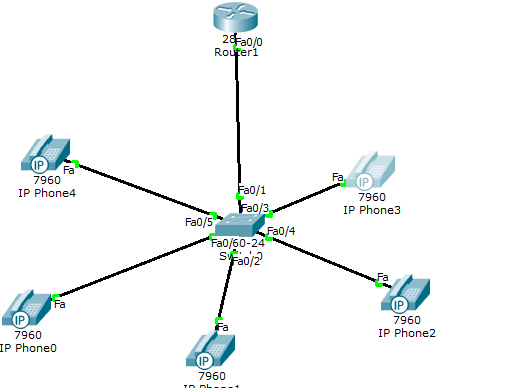
**Q18.** expain the following types of call routing method**(10marks)**

**Round robin**: is an arrangement of choosing all element in group

**Regular**: you use regular when referring to the thing ,person,time,or place

**Uniform**: dress of distinctive design

**Q19.**  drow your own voip diagram ? **(10marks)**



**SECTION C. ATTEMPT one QUESTIONS /15 MARKS**

**Q 20.** explain the following command

1. **Max-ephones:** maximum number do you need to use on the network
2. **Max-dn**: maximum number of directory . it will define maximum number that byou can use
3. **Auto assing**: this will automatically assign extension number to the button
4. **Ephone-dn**: are the extension number that you can assign to buttonon your ephones
5. **Telephone service**: telephone service calls(including voice,voice mail,conference,data call)
6. **Question 21:** ) configure this VOIP SYSTEM installation
7. Where we have the netwok ID : 192.168.1.0 mask: 255.255.255.0 default gateway 192.168.1.1

a) write down the code to configure interface

b) write down the code to configure DHCP SERVER

A) router> enable

Router#configuration terminal

Router#interface terminal 0/0

Router(config)ip address 192.168.1.0 255.255.255.0

Router(config)no shutdown

B) router> enable

Router#configuration terminal

Router#IP dhcp pool voice-pool

Router(config)#network 192.168.1.0 255.255.255.0

Router(config)#default-router 192.168.1.1

Router(config)#option 150 ip 192.168.1.1