CCNA Voice Practice Tests – PSTN components and technologies (11-15)

Topic 2 ? Describe PSTN components and technologies. (15 Questions) Question 11 _____is responsible for converting analog voice packets from traditional voice formats to IP packets? Answer: digital signal processor Explanation: This question is to examine the function of DSP. A digital signal processor (DSP) is a specialized microprocessor with optimized architecture for fast operational needs of Digital Signal Processing. Signals are converted from analog to digital from traditional voice formats to IP packets, manipulated digitally, and then converted again to analog form. Question 12 Time-Division Multiplexing (TDM) is a type of digital or (rarely) analog multiplexing in which two or more signals or bit streams are transferred apparently simultaneously as sub-channels in one communication channel, but are physically taking turns on the channel. The time domain is divided into several recurrent timeslots of fixed length, one for each sub-channel. A sample byte or data block of sub-channel 1 is transmitted during timeslot 1, sub-channel 2 during timeslot 2, etc. One TDM frame consists of one timeslot per sub-channel. After the last sub-channel the cycle starts all over again with a new frame, starting with the second sample, byte or data block from sub-channel 1, etc.Which statement is true concerning time-division multiplexing? A.TDM transmits one voice signal at a time over a four-wire path. B.TDM transmits multiple voice signals across four separate communication mediums C.TDM transmits multiple separate voice signals over one communication medium by quickly interleaving pieces of each signal, one after another. D.TDM transmits one voice signal at a time over one or more communication mediums by quickly dividing pieces of each signal into equal bandwidth sizes and sending them in the order they are received. Information from each data channel is allocated bandwidth based on the current bandwidth needed for each time slot. This is determined by whether or not there is data that needs to be transmitted. Answer: C Explanation: This question is to examine the operational principle of TDM. Time-division multiplexing (TDM) is a type of digital or (rarely) analog multiplexing in which two or more signals or bit streams are transferred apparently simultaneously as sub-channels in one communication channel, but are physically taking turns on the channel. Question 13 You are CCNA VOICE associate in Lead2pass.com. You need configure a voice port that will allow the gateway to terminate two circuits from the PSTN or a PBX. Which type of voice port should you configure? A.PRI T1/E1 B.BRI C.PRI T1 D.E&M Answer: D Explanation: This question is to examine the difference between analog line and digital line. We can learn from the information ?a voice port that will allow the gateway to terminate two circuits? that the circuit connection is a physical connection. In the traditional voice, the analog line is the circuit switch. The digital line is the so-called TDM which is a packet switch and it establishes a virtual connection. Refer to the four options, only the E&M is an analog signaling, which is able to establish circuit connection. Question 14 Please match the description to the signaling type it corresponds to. (1)events that occur on the trunk, including seizure, wink, and answer (2)tones such as ringing or busy and announcements such as "no longer in service" (3)digits dialed or called party number that can be sstem-specific or variant-specific (I)Address Signaling (II)Supervisory Signaling (III)Informational Signaling A.(I)-(3);(II)-(2);(III)-(1) B.(I)-(1);(II)-(2);(III)-(3) C.(I)-(3);(II)-(1);(III)-(2) D.(I)-(1);(II)-(3);(III)-(2) Answer: C Explanation: This question is to examine the signaling types. There are three types of signaling as follows: 1. Address Signaling: It uses DTMF or Plus to send digit, which is used for ADR; 2. Supervisory Signaling: It is a control signaling, which is used to mark the events that occur on the trunk; 3. Informational Signaling: such as the dialing tones or ring back tones. Question 15 You are CCNA VOICE associate in Lead2pass.com. You are setting up the partially automated telephone. What is the key command to use? A.auto qos B.auto assign C.auto start-dn D.auto phone-type Answer: B Explanation: To automatically assign an already defined telephone or extension number to button 1 of Cisco Unified IP phones as they register for service with a Cisco Unified CME router, use the auto assign command in telephony-service configuration mode. To return to the default of not automatically assigning dn-tags, use the no form of this command.