Communication Systems Info Section

1. Why are symbols used (graphical representation) for communication systems? Expedite (speed up) the installation

2. Where would you look to double check the designation of a symbol? Legend on drawings

3. What do subscript letters indicate on Special Auxiliary Outlets? Variances in equipment, location, or mounting height

4. What is indicated by a line with no other designation on a communication system drawing? 2-wire system

5. How is remote control wiring distinguished from regular wiring on a drawing? Fine lines

6. What is the difference between heat-resistant wire and fire-resistant wire? Fire-resistant is tested at higher temps (8400 for 30 min) compared to heat resistant (3800 for 15 min)

7. What two pieces of information should be added to a breaker symbol? Suffix, poles and capacity

8. Which component of a communication system is indicated by a circle with a “J” in it? Speaker output jack

9. What is a “back box”? Steel rough-in enclosures that house the components

10. Where are vestibule units typically located? Entrance or foyer accessible to the public

11. What are some options for vestibule panels when ordering? Handset violation buzzer, door indicator light assembly, busy light, vestibule hand set, fire alarm annunciators, remote trouble indicators, and post office lock assembly

12. What two options are often part of the apartment station? Background music and emergency communication

13. What is the minimum number of wires for an apartment intercom connection? (No music or emergency) Four (three common and one selective)

14. How is a door unlocked for visitors when using the telephone-type apartment station? Depressing the suite handset cradle switch
15. What are the two types of electric door strikes? **Buzzer-type (8-12 V) and silent-type (4.5-6 V)**

16. What is the minimum number of conductors required for a door answering system? **Two wires**

17. What are some features found on residential voice communication systems? **Control lights, monitoring facilities, hands-free operation, privacy button, individual station volume, door call by chime system, auxiliary pushbuttons.**

18. What is the most common type of communication system for residential use? **Radio-intercom**

19. What distance must be maintained between communication conductors and house power lines below 300V? What does this material state and what does the CEC state? **This material says 300 mm but CEC says 50 mm. Rule 60-308**

20. Why are speakers for separate rooms not mounted back to back in a common wall when installing a communication system? **Reduce feedback**

21. What are some advantages of a video residential intercom system? **Security, privacy, and prestige**

22. What precautions should be taken when installing a door station for a video residential intercom system? **Lighting is crucial. Avoid direct sunlight. May have to add lighting from the front.**

23. List some areas where video intercom systems can be utilized? **Apartment houses, condos, industrial plants, office buildings, doctor/dentist offices, banks, schools, jails**

24. Will the TV image and the voice signal switch off at the same time with a video intercom system? **No, the video shuts off after approx 1 minute and the voice is active until the handset is replaced.**

25. What is the maximum distance for Coaxial cable RG59/U-75 cable before a video amplifier is required? **300 M**

26. How is the electric door strike unlocked from a telephone-type station in an intercom system? **Depressing the hook switch fully activates the entrance door strike**

27. What are the basic components of a nurses call system? **Control console/master station, patient stations, indicating lights, and a power supply**
28. To operate a master station in a nurses call system, you will need some computer experience. True or False?

29. What are the two most common types of operation for emergency stations installed in washrooms and bath areas? Push-button or pull chord emergency station

30. What is the purpose of door alarm stations? Monitor opening of doors leading to and from area monitored by nurses call system

31. What is the purpose of corridor lights connected to a nurses call system? Provide a clear visual signal throughout the corridor

32. What is the purpose of a vacancy module in an annunciator panel? Fill an unused module position that will be used for future expansion

33. What are some uses of the paging feature for a communication system? Reach personnel anywhere in the facility or making general announcements

34. What is the purpose of a zone-control module in a paging system? Allows for paging through selected speakers without disturbing other areas

35. What are “access modules” typically used for in a communication system? Provide access from a telephone system to a paging system

36. How are paging systems typically accessed from a telephone system? Paging amplifiers

37. What are some results of mismatching speakers in a communication system? Loss of output, loss of stability, and shortened life or damage to output transformers

38. What is the result of polarity reversal in a speaker for a communication system? Speaker failure

39. Microphone cords are unaffected by other conductors so they can be run close to them. True or False? (Oscillations, hum, and crosstalk)

40. What is the impedance of a balanced microphone plug or amplifier input terminal? Unbalanced? Balanced 600Ω and unbalanced 50,000Ω

41. What is the result of connecting a magnetic-type phonograph to an amplifier terminal for a ceramic-type? Weak signal

42. What is the result of connecting a ceramic-type phonograph to an amplifier terminal for a magnetic-type? Distorted signal
43. After a communication system is installed and ready to go, what are some double checks that should be made before actually operating the system? Check connections between components, spacing between lines, wire, connections or ground breaks.

44. What is the most likely cause of oscillation in a communication voice system? Ground connections.