

**TESSO Cabler Register**  
**Two-Yearly Current Competency Examination – Premises Networks**

**Notes to Candidates:**

1. A minimum of 80% of the questions in this examination must be answered correctly in order to pass the examination.
2. Correct answers are to be indicated by circling the letter to the side of the desired answer.
3. The two declarations at the end of the paper must be signed for this examination paper to be considered by TESSO.
4. While AS/NZS3080:2002 refers to Classes rather than Categories, the common usage of Categories means that the latter have been used throughout this document for clarity. Cat 5e relates to Class D, while Cat 6 relates to Class E.

**Examination Questions:**

1. According to AS/NZS3080:2002, bridge taps and splices may be used in a compliant system.  
A. True  
B. False
2. When using tie wraps to secure cable bundles, they should be...  
A. Very tight to avoid any movement in the cable bundle.  
B. Loose, so as not to put unnecessary stress on the cable being tied.
3. What is the maximum allowable Permanent Link distance for a AS/NZS3080:2002 compliant system? (excludes patch cords, work area cords, and equipment cords)  
A. 90 m  
B. 80 m  
C. 100 m  
D. 295 m
4. A Consolidation Point (CP) is defined as an interconnection in the horizontal cabling that allows for more practical and economical moves, adds and changes in open office environments (modular furniture, research labs, etc...).  
A. True  
B. False
5. According to AS/NZS3080:2002, how many CPs are allowed in a Permanent Link or Channel?  
A. 3  
B. 2  
C. 1  
D. 0
6. According to AS/NZS3080:2002, what is the maximum allowable total length for all work area cords, patch cords, jumpers, and equipment cords in a horizontal Channel?  
A. 10 m  
B. 1 m  
C. 6 m  
D. 30 m

7. What is the Category rating of a horizontal Channel which has Cat 6 cable, Cat 6 patch panels, and Cat. 6 work area hardware, has passed all field tests for Category 6 performance, but contains a Category 5e patch cord?
  - A. Cat 5
  - B. Cat 5e
  - C. Cat 6
  - D. No Category applies
8. What is the minimum allowable bend radius for a 4-pair horizontal cable in the AS/NZS3080:2002 document?
  - A. 10x the Outside Diameter (OD) of the cable.
  - B. 8x the OD of the cable.
  - C. 6x the OD of the cable.
  - D. 4x the OD of the cable
9. To reduce the effects of CP connections on near-end crosstalk (NEXT), AS/NZS3080:2002 requires a minimum distance be between the CP and the Telecommunications Closet (TC). What is this minimum distance?
  - A. 15 m
  - B. 10 m
  - C. 20 m
  - D. 25 m
10. Which three cable types are recognised by AS/NZS3080:2002 as compliant horizontal distribution media?
  - A. Four-pair 100 Ohm Unshielded Twisted Pair (UTP).
  - B. Four-pair 100 Ohm Shielded or Screened Twisted Pair (STP, ScTP, S/FTP, etc).
  - C. Two-fibre 50/125 $\mu$ m or 62.5/125 $\mu$ m multi-mode optical fibre cable.
  - D. Twinaxial cable.
11. Name three of the following factors which contribute significantly to signal impairment in a Cat 6 channel:
  - A. Cable tightly kinked
  - B. Cable coiled in a large loop
  - C. Pairs untwisted greater than 13mm
  - D. Cable sheath stripped back greater than 25mm
12. Each horizontal cable in a structured cabling system must be marked with a unique identifier.
  - A. True
  - B. False
13. What is the maximum allowable pair untwisting at terminations for Categories 5e and 6?
  - A. 13 mm
  - B. 25mm
  - C. As much as necessary (twist is irrelevant)
14. According to AS/NZS3080:2002, multi-mode fibre to the desk may be used in a compliant system.
  - A. True
  - B. False
15. Attenuation in copper and optical fibre systems is normally expressed in which units?
  - A. dB
  - B. mV/m
  - C. Ohms
  - D. mA

16. When optical fibre is to be used in the horizontal cabling system, what is the minimum number of fibres that must be run to each workstation according to AS/NZS3080:2002?
  - A. 1
  - B. 4
  - C. 2
  
17. A 3dB loss in power reflects a transmission signal loss of:
  - A. 50%
  - B. 32%
  - C. 63%
  - D. 90%
  
18. 62.5/125 and 50/125 represent what type of optical fibre?
  - A. singlemode
  - B. plastic
  - C. multimode
  
19. Which fibre connector is recommended by AS/NZS3080:2002 for new installations?
  - A. Simplex SC
  - B. Simplex ST
  - C. Duplex SC
  - D. Duplex ST
  
20. What are some causes of losses in optical fibre cabling systems?
  - A. Mismatched fibre cores
  - B. Surface scratches
  - C. Dirt and/or debris
  - D. All of the above
  
21. Over-tightened tie wraps can cause microbends in fibre optic systems.
  - A. True
  - B. False
  
22. Which of the following contribute to attenuation in fibre optic systems?
  - A. Connector insertion/splices
  - B. Micro/macro bending
  - C. Light scattering
  - D. All of the Above
  
23. Never bend fibre optic cables tighter than \_\_\_\_\_ times the outside diameter of the cable sheath when installed and under no tensile load.
  - A. Five
  - B. Ten
  - C. Twenty
  
24. Which test equipment should be used to directly measure the amount of light loss in an optical fibre link?
  - A. Optical Time Domain Reflectometer (OTDR)
  - B. Power Meter and Light Source (OLTS)
  - C. Continuity Tester
  - D. Inspection Scope

The following questions are all based on the content of Unit Standard 17396 version 4, “Demonstrate knowledge of safe working practices in telecommunications”, available from the New Zealand Qualifications Authority website <http://www.nzqa.govt.nz>, and all must be answered correctly.

25. Does the definition of *Associated equipment* in special note 3 include three, five or all (*circle one of the underlined options*) of the following eight items: insulating gloves, screens, stands, mats, boots and protective covers; safety belts; ladders; ropes for pole top rescue.
26. Which performance criteria refers to “documented enterprise procedures” for evacuation procedures:  
A. 2.2  
B. 3.2  
C. 4.1  
D. 6.2
27. Which element requires a demonstration of knowledge with respect to the safe use of hand and portable electric tools:  
A. 1  
B. 3  
C. 4  
D. 5
28. Which performance criteria includes a “Range” statement referring to the use of “non wire-reinforced wooden or fiberglass stile ladders .....”:  
A. 1.3  
B. 3.3  
C. 5.1  
D. 6.1
29. Which element requires a demonstration of knowledge with respect to fire prevention and control procedures:  
A. 2  
B. 3  
C. 5  
D. 7
30. Which performance criteria includes a “Range” statement referring to “contact between telecommunications drop wires and power lines”:  
A. 5.2  
B. 9.2  
C. 9.4  
D. 10.2
31. Which element requires a demonstration of knowledge with respect to the reporting of electrical accidents:  
A. 7  
B. 8  
C. 10  
D. 11
32. Does performance criteria 8.1 refer to “hazardous substances likely to be encountered....”  
A. True  
B. False

**DECLARATIONS**

1. I hereby declare that I have personally completed this examination paper:

Name (print): ..... Signed: ..... Date: .....

2. I hereby confirm that (print): ..... personally completed this examination paper:

Name (print): ..... Position: ..... Signed: ..... Date: .....