#### **Panduit Certified Installer**



**Fiber Certification Review** 



#### <sup>2</sup>What does the cleave tool do?

- A. Breaks the glass cleanly
- B. Cuts the glass cleanly
- C. Scores the glass cleanly
  - D. Shatters the glass cleanly





<sup>3</sup>Which of the following describes Panduit's concerns for requiring cabling technicians to complete this training?

- A. Best practices are utilized for installing optical fiber cabling
- B. Installers have an understanding of industry standards
- C. Cabling is installed in a neat and workmanlike manner
- D. All of the above







### 4Which type of optical fiber has a core diameter of approximately 9 um?

- A. Multimode
- B. OM 3
- C. Single Mode
  - D. Interconnect





# <sup>5</sup>What should be done first when terminating an optical fiber connector?

- A. Cleave the glass
- B. Polish the end face of the connector
- C. Slide the connector boot onto the fiber
  - D. All of the above





<sup>6</sup>Determining the Pathway and Laying the Cable are the two main stages of installing a fiber cabling system.

A. True

✓B. False





# <sup>7</sup>How much buffer should be stripped at one time when using a strip tool?

- ✓A. 0.25 inch
  - B. 0.50 inch
  - C. 1 inch
  - D. 2 inches





8When installing optical fiber cabling, the strength member should be removed and the glass strands are wrapped around a pull rope for the cable to be pulled through the pathway.

A. True

✓B. False



<sup>9</sup>Which TIA standard defines the administration standard for the telecommunications infrastructure of commercial buildings?

A. TIA 568-B.2

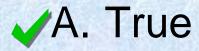
B. TIA 568-B.3

C. TIA 569

**✓**D. TIA 606



10 Panduit OptiCam connectors can be reterminated twice.



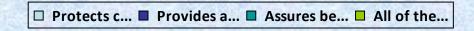
B. False



<sup>11</sup> Effective cable management allows for quick and easy moves, adds, and changes. Which of the following are benefits of effective cable management?

- A. Protects cables from crushing and pinching
- B. Provides aesthetically pleasing appearance
- C. Assures bend radius control for the cables
- D. All of the above





<sup>12</sup>Cables should be pushed through a pathway if it cannot be laid in a cable tray.

A. True

✓B. False





### 13 What are the two common core diameters for multimode fiber?

- A. 9 um/50 um
- ✓B. 50 um/62.5 um
  - C. 9 um/62.5 um
  - D. 9 um/125 um



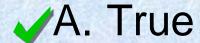


14Which of the following must be considered when establishing a loss budget for testing optical fiber cabling installations?

- A. Number of connectors
- B. Number and type of splices
- C. Cable attenuation coefficient
- D. All of the above



<sup>15</sup>When polishing optical fiber connectors with a puck on a polishing pad, the puck should be moved in a "figure 8" motion to assure even pressure on the glass.



B. False



1650 um fiber has become more popular in recent years because it works better with light sources.

- ✓A. LED
  - B. VCSEL
  - C. Laser
  - D. Infrared





17What tool is used to assure the field fiber is properly mated in a pre-terminated fiber connector?

- A. Strip tool
- B. Cleave tool
- C. Visual Fault Locator (VFL)
  - D. 5 um polishing film



#### 18 What is the first stage of polishing when terminating Standard Field Polish connectors?

- A. Air polishing
  - B. Polish with 1 um diamond polishing film
  - C. Polish with wet 5 um polishing film
  - D. Polish with dry 5 um polishing film





#### <sup>19</sup>Which of the following safety precautions must be observed when terminating optical fiber connectors?

- A. Wear safety glasses
- B. Dispose of scrap pieces of glass in an appropriate manner
- C. There should be no food or drinks in the termination area
- D. All of the above



fibers optic cables are 50/125 um fibers that are manufactured with a special process that allows the cable to perform better for transmitting 10 Gigabit Ethernet signals for up to 300 meters.

A. OM1

B. OM2

✓C. OM3

**D. OS1** 





<sup>21</sup> If pulling cable in stages, cable slack should be...

- A. Piled in a figure 8 pattern
  - B. Laid in a cable tray
  - C. Be attached to a pull string
  - D. All of the above





# <sup>22</sup>What is the maximum pulling tension for installing optical fiber cable?

- A. 25 lb/ft
- B. 100 lb/ft
- C. Consult cable manufacturer recommendation
  - D. 500 lb/ft







<sup>23</sup>Backbone cables should be labeled to identify the location of where the cable is terminated at each end.



B. False



### 24What type of Isopropyl Alcohol does Panduit recommend be used for cleaning during optical fiber termination?

- A. 50% Alcohol
- B. 70% Alcohol
- ✓C. 90% Alcohol
  - D. 120% Alcohol



25 Typically multimode cable have an outer jacket and the connector bodies are colored

- A. Blue, Ivory
- ✓B. Orange, Ivory
  - C. Yellow, Blue
  - D. Red, Blue
  - E. Agua, Ivory







### <sup>26</sup>What is the first thing you should do when testing fails?

- A. Check if the connector was properly polished
- B. Remove the connector from the FAP and inspect it with a microscope
- C. Make sure the transmit at one end goes to the receive at the other end
  - D. All of the above





<sup>27</sup>When using field test equipment, a reference measurement must be established and recorded before testing any cabling links.



B. False



<sup>28</sup>Interconnect cabling is usually two strand fibers in either a simplex, duplex or cable configuration.

- A. Zipcord
  - B. Ripcord
  - C. Buffered
  - D. Unbuffered





<sup>29</sup>A Small Form Factor optical fiber connector terminates two strands of fiber in the same footprint as an RJ45 copper connector.



B. False



<sup>30</sup>What type of optical fiber splicing requires a special machine that melts the ends of two fiber strands to form one solid strand?

- A. Mechanical splice
- ✓B. Fusion splice
  - C. Butt splice
  - D. Tap splice



<sup>31</sup>How much fiber slack is required when terminating optical fiber at a faceplate or inside of a fiber optic enclosure?

- A. 1 foot
- ✓B. 1 meter
  - C. 3 meters
  - D. 5 meters





32What are the two fundamental organizations that develop the cabling standards that are implemented worldwide?

- A. ISO and NEC
- B. TIA and UL
- ✓C. ISO and TIA
  - D. NFPA and CELEC





<sup>33</sup>Any industry standard anaerobic adhesive or polishing film may be used when terminating Panduit Standard Field Polish connectors.

A. True

✓B. False



34 Interconnect cables are used for small count cabling applications.

- A. Vertical
- ✓B. Horizontal
  - C. Backbone
  - D. Special





### <sup>35</sup>Fiber backbone cables must be tested in both directions at one wavelength.

A. True

✓B. False



### <sup>36</sup>What are the two components of the glass in a strand of optical fiber?

- A. Jacket/Strength member
- ✓B. Core/Cladding
  - C. Buffer/Acrylate coating
  - D. Acrylate coating/ Strength member





### <sup>37</sup>How should consumable items be replaced for a Panduit fiber termination kit?

- A. Order a new termination kit
- B. Order a competitor kit
- C. Order a refurbishment kit
  - D. Items do not need to be replaced







# 38 What is used to mate fiber terminations and patch cords in faceplates or enclosures?

- A. Visual Fault Locator (VFL)
- B. Fiber Adapter Panels (FAPs)
  - C. Cable Ties
  - D. Duplex Adapters



<sup>39</sup>There are two different types of OSP cable, indoor/outdoor and

- A. Buffered
- B. Unbuffered
- C. Loose tube
  - D. Tight tube





40 How much optical fiber cable slack is recommended for a Telecommunications Room?

- A. 1 meter
- ✓B. 3 meters
  - C. 5 meters
  - D. 10 meters



41 Loose tube OSP fiber optic cable typically must be terminated within \_\_\_\_\_ meters of entering the building, unless it is routed in conduit.

A. 8

B. 10

**✓**C. 15

D. 20

E. 50





## <sup>42</sup>What type of optical fiber cable should be installed for intra-building backbone cabling?

- A. Interconnect Cable
- B. Outside Plant Cable
- C. Distribution Cable
  - D. Loose Tube Cable





<sup>43</sup>Extra slack must be provided when terminating optical fiber cabling.

✓A. True

B. False



44Which TIA standard defines the requirements for optical fiber cabling installations for commercial office buildings?

A. TIA 568-B.2

✓B. TIA 568-B.3

C. TIA 569-A

D. TIA 607-A



<sup>45</sup>Cable slack cannot be stored in an enclosure.

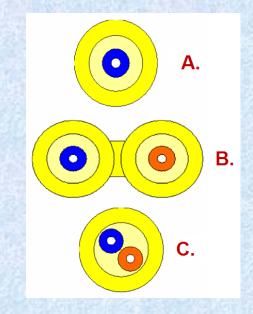
A. True

✓B. False



## <sup>46</sup>Match each cable to its correct type.

- 1. Duplex
- 2. Simplex
- 3. Zipcord
- 4. Buffered
- A. A-2, B-1, C-4
- B. A-2, B-1, C-3
- ✓C. A-2, B-3, C-1
  - D. A-1, B-2, C-3





<sup>47</sup>The Aramid Yarn should be secured to provide strain relief for fiber cable entering an enclosure if no other means of strain relief is provided.



B. False



# 48 Which of the following types of connectors are manufactured by Panduit?

- A. Standard Field Polish
- B. Opti-Crimp
- C. OptiCam
- ✓D. All of the above





<sup>49</sup>The outside diameter for the cladding for both single mode and multimode optical fiber is 125 um.



B. False



### <sup>50</sup>What tool is used for terminating OptiCam connectors?

- A. FCRP5Crimp Tool
- B. OptiCam Terminations Tool (OCCT)
  - C. FVFLKIT
  - D. FPAD polishing pad





51A pathway initially needing to service 10
work areas should be sized to accommodate
cables.

A. 10

B. 20

C. 25

**✓**D. 30

E. 40

F. 50

#### Participant Scores

3		
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