

## Level 2 Fire & Security Pathway

### Example questions to assist with the Assessment of Underpinning Knowledge

The example questions are intended to help candidates prepare for the FESS underpinning knowledge test (Combined Fire & Security Pathway)

For these questions you may need to do some research. They are intended to help you gain the level of knowledge you will need for the online test.

The answers are not provided, and candidates should carry out their own research, discuss their suggested answers with colleagues and/or employers as required

**1 What is the primary advantage of a twin wire system as opposed to a four-wire system:**

- a) Installation time and cost
- b) Limitation of false alarms
- c) More zones can be covered
- d) Higher alarm output current

**2. What is the maximum area that can be protected by a fire detection loop?**

- a) 500m<sup>2</sup>
- b) 10,000m<sup>2</sup>
- c) 1000m<sup>2</sup>
- d) 2000m<sup>2</sup>

**3. Automatic fire detection should be provided in any area that contains a horizontal void that is:**

- a) 500 millimetres or more in height
- b) 1000 millimetres or more in height
- c) 800 millimetres or more in height
- d) 600 millimetres or more in height

**4 In escape routes in Category L systems, which type of detector must not be used?**

- a) optical smoke detector
- b) heat detector
- c) carbon monoxide detector
- d) aspirating detector

**5. Ionisation detectors may be useful in some environments because they:**

- a) give lower levels of false alarms than optical detectors
- b) will react quickly to black smoke
- c) are more cost effective to install
- d) will react to invisible smoke in the incipient stages of a fire

**6 Normal beam sensitivity is usually set between:**

- a) 10 and 20%
- b) 20 and 30%
- c) 50 and 75%
- d) 30 and 50%

**7 FP200 should be fixed horizontally at a spacing of:**

- a) 200mm
- b) 500mm
- c) 400mm
- d) 300mm

**8. When using wireless intruder systems, why is back tamper on a device essential?**

- a) For detection of movement
- b) To record the event in the system log
- c) To report removal of a device to the CIE
- d) Provides a testing method

**9. Which of these factors is considered as an advantage of a wireless security system?**

- a) Lower cost
- b) No cable to be installed
- c) Fewer false alarm activations
- d) Less maintenance

**10. When installing GPRS alarm transmission devices, which location is unlikely to be successful?**

- a) 2nd floor
- b) 1st floor
- c) Basement floor
- d) Ground floor

**11. A security risk assessment will help determine the system's:**

- a) setting method
- b) relevant standards
- c) battery capacity
- d) grade

**12. Which of the following is not an example of a permit to work system?**

- a) Live working on AC mains circuit
- b) Safe Isolation procedures
- c) Hot works approval
- d) Risk assessment and method statement

**13. What technology does a single path IP transmission device use to deliver signals?**

- a) GPRS
- b) Ethernet
- c) PSTN
- d) ISDN

**14.. Analogue CCTV transmission over RG59 coaxial cable has a maximum distance of:**

- a) 213 metres
- b) 100 metres
- c) 416 metres
- d) 1000 metres

**15. Where would you measure the voltage supply for a device?**

- a) The auxiliary supply terminals at the CIE
- b) At the battery terminals in the CIE
- c) At the component supply terminals
- d) At the expander auxiliary supply terminals

## **ADDITIONAL PRACTICE / STUDY HELP**

For these additional questions you may need to do some further research as they do not contain suggested answers. They are intended to help you gain the level of knowledge you will need for the online test.

Please note the actual online test during your assessment is completely multiple choice. You will not be presented with the style of question you find below.

**16. In Fire what devices would you use along the length of an addressable loop to mitigate loss of devices in the event of a short circuit?**

**17. Which format are Conventional fire detection circuits wired in?**

**18. Where is the correct location to test an end to end beam detector?**

**19. For Fire devices provided for people who are deaf or hard of hearing, a mains failure or low battery condition should result in a suitable warning within how many minutes and or seconds?**

**20. In areas with high levels of dust and dirt which could contaminate the Fire detector and/or lead to an unwanted alarm, preference should be given to the use of which other detector?**

**21. Where the sound pressure level of background noise is greater than 60 dB(A), the sound pressure level of the fire alarm signal is required to be above the sound pressure level of the background noise by how many decibels?**

**22. What date is not required to be recorded in the fire logbook?**

**23. The member of premises management responsible for supervising the fire detection and alarm system should be given sufficient authority to ensure that a clear space of at least 500 millimetres is preserved in all directions around and below every what detector:**

**24. What factor has an environmental effect on the performance of a CCTV system?**

**25. When should the "As fitted specification" be given to the client?**

**26. Measuring the quiescent and full alarm current of an intruder alarm requires a:**

**27. Why do premises, where alcohol is consumed, have CCTV systems installed?**

**28. Access control systems are often integrated with fire alarm systems to aid what:**

**29. Electrical readings are recorded at commissioning. Where must these records be kept?**

**30. Is an amendment to an installation permissible under BS 8243?**