

## **Level 2 Fire & Emergency Lighting 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 (Fire & Emergency Lighting 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. If portable alarm devices do not send the alarm signal continuously, it is acceptable for the transmission equipment to send the alarm signal repeatedly at periods not exceeding:**

- a) 60 seconds
- b) 10 seconds
- c) 30 seconds
- d) 20 seconds

**9. What should not be used to protect a fire alarm system under normal circumstances?**

- a) Residual current device
- b) Miniature circuit breaker
- c) Rewireable fuse
- d) HRC fuse

**10. In buildings designed to accommodate the general public in large numbers, at least two sounder circuits should be provided in every un-compartmented public space if the space is designed to accommodate more than:**

- a) 4000 members of the public
- b) 100 members of the public
- c) 500 members of the public
- d) 95 members of the public

**11 The provision of emergency lighting in a public building is ultimately dictated by the:**

- a) Health and Safety at Work Act
- b) Electricity at Work Regulations
- c) Data Protection Act
- d) Reporting of Injuries, Diseases and Dangerous Occurrences Regulations

**12. Which British Standard No. is the 'Code of practice for the emergency escape lighting of premises'?**

- a) BS 5839-1
- b) BS 5266-1
- c) BS EN 1838
- d) BS 5839-6

**13. Which type of emergency luminaire has its emergency lighting lamps energised at all times?**

- a) Non-maintained lighting
- b) Satellite lighting
- c) Maintained lighting
- d) Terrestrial lighting

**14. What type of emergency luminaire only illuminates once the normal supply has failed?**

- a) Maintained lighting
- b) Non-maintained lighting
- c) Satellite lighting
- d) Terrestrial lighting

**15. The Code of Practice for the emergency lighting of premises defines 'Open Areas' as rooms with a floor area greater than:**

- a) 50 m<sup>2</sup>
- b) 80 m<sup>2</sup>
- c) 100 m<sup>2</sup>
- d) 60 m<sup>2</sup>

**16. Emergency lighting has six (6) modes of operation. The number used to describe the mode of operation for a 'maintained' luminaire is:**

- a) 0
- b) 2
- c) 3
- d) 1

**17. Emergency lighting is classified as either 'self-contained' or 'central supply'. The letter used to describe a 'self-contained' system is:**

- a) Y
- b) S
- c) Z
- d) X

**18. Testing emergency luminaires for 'full rated duration' should be performed at least:**

- a) monthly
- b) six-monthly
- c) annually
- d) quarterly

**19. Emergency escape lighting is required to have a minimum duration of at least:**

- a) 30 minutes
- b) 1 hour
- c) 2 hours
- d) 4 hours

**20. Under emergency lighting conditions, all escape route signs, and direction signs must be:**

- a) externally illuminated only
- b) internally illuminated only
- c) either internally or externally illuminated
- d) photoluminescent only

### **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.

**21. Is the following statement correct “The control and indicating equipment (CIE) should conform to BS EN 54-2”:**

**22. If each core of a two-core cable has an end to end resistance of  $0.1\Omega$ , what is the combined resistance when the cores are connected at one end of the cable?**

**23 What devices would you use along the length of an addressable loop to mitigate loss of devices in the event of a short circuit?**

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

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

**26. For 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:**

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

**28 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:**

**29 What date is not required to be recorded in the logbook?**

**30. 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:**

**31. When premises are 'occupied', the phrase used to describe this in BS 5266-1 is referred to as:**

**32. When undertaking a fire safety risk assessment, the first step in the process is to:**

**33. Emergency escape lighting should be provided near all 'points of emphasis'. The horizontal distance that is normally considered to be 'near' is:**

**34. Escape route signs should be coloured?**

**35. When the supply to the local lighting fails, what is the recommended minimum lux level to illuminate a fire alarm panel?**