

Paper Code: M-EPA-FESST-SE3004

Level 3

Fire, Emergency and Security Systems Technician EPA Mock Knowledge Test: Security

Information for registered centres

The seal on this examination paper must only be broken by the candidate at the time of the examination. Under no circumstances should a candidate use an unsealed examination paper.

Information for candidates

Under no circumstances should you, the candidate, use an unsealed examination paper.

This examination consists of **60 multiple-choice** questions.

The exam is worth **60 marks**, with a Pass being **40 marks**, and Distinction **50 marks**.

The duration of this examination is **90 minutes**.

You are **NOT** allowed any assistance to complete the answers.

You must use a pencil to complete the answer sheet - pens must **NOT** be used.

When completed, please leave the **examination answer sheet (EAS)** on the desk.

It is acceptable to use a calculator for this exam should you require one.

EXAMINATION ANSWER SHEET (EAS) INSTRUCTIONS:

For each question, fill in **ONE** answer **ONLY**.

If you make a mistake, ensure you erase it thoroughly.

You must mark your choice of answer by shading in **ONE** answer circle only.

Please mark each choice like this:

01 A B C D **ANSWER COMPLETED CORRECTLY**

Examples of how **NOT** to mark your examination answer sheet (EAS). These will not be marked.

01 A B C D **DO NOT** partially shade the answer circle
ANSWER COMPLETED INCORRECTLY

01 A B C D **DO NOT** use ticks or crosses
ANSWER COMPLETED INCORRECTLY

01 A B C D **DO NOT** use circles
ANSWER COMPLETED INCORRECTLY

01 A B C D **DO NOT** shade over more than one answer circle
ANSWER COMPLETED INCORRECTLY

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ANSWERS

All candidates **MUST** sign the Examination Answer Sheet (EAS) in the bottom right-hand corner of the page before leaving the examination room.

1

What are the commercial risks associated with the inappropriate behaviour of a representative of the installation company?

- A. There are no risks
- B. The detrimental outcome falls on the individual and not the company
- C. **Loss of reputation and retention of business**
- D. The individual may be arrested

2

Every employer has a responsibility to ensure:

- A. that written instructions are provided for every task
- B. all electrical equipment is tested monthly
- C. **the health, safety and welfare of all employees**
- D. that employees are qualified in health and safety

3

Why are shielded (screened) cables, often specified for data transmission signals, used for system installation?

- A. **They offer protection against radio frequency interference**
- B. They can be earthed to metal objects for superior installation
- C. They are of a higher quality than a standard flexible cable
- D. They are protected against deliberate or accidental damage

4

What is the collection of documents that would be produced **prior** to commencing an installation?

- A. As fitted document
- B. **Risk assessment and method statements**
- C. Final invoice
- D. Completion certificates

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To prevent misunderstandings between contractor and subcontractor, information should **always** be:

- A. **put in writing**
- B. communicated face-to-face
- C. shared online
- D. recorded via voicemail

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After completion of an installation job, it is **most** appropriate to:

- A. **provide the customer with relevant information about their new equipment**
- B. ask for payment immediately and ensure funds clear before leaving the premises
- C. move on to your next customer as soon as possible for efficiency
- D. attempt to sell further products and services to the customer

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If you wilfully contribute to environmental harm and damage, the **most** serious consequence you may face is:

- A. **prosecution, leading to a fine and/or imprisonment**
- B. suspension from work
- C. disciplinary proceedings at work
- D. a verbal warning from the site foreman

8

The **best** definition of commercial awareness is:

- A. **understanding what makes a business or organisation successful**
- B. knowing the amount of profit a business makes annually
- C. knowing all of the products a business sells
- D. understanding the company structure

9

What is the purpose of a NAS?

- A. A Wi-Fi service provider
- B. A telephone number storage server
- C. A supervised area network
- D. **A data storage server**

10

When carrying out an installation, at what stage is the system programmed and tested for correct operation?

- A. First fix
- B. Second fix
- C. Design
- D. **Commissioning**

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When an installation is complete, it is important to update and finalise the system layout drawing. This is also known as the:

- A. design sample
- B. design drawing
- C. **as fitted document**
- D. system specification

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What is the **main** purpose of system commissioning?

- A. To satisfy the requirements of the accreditation body
- B. **To ensure the system is fully functional**
- C. So that a completion certificate can be issued
- D. So that the system is in compliance with the relevant British Standard

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Carrying out a risk assessment and controlling the risks identified will **most** likely:

- A. increase the likelihood of accidents and ill health
- B. increase the severity of injury
- C. reduce the amount of documentation required
- D. **reduce the likelihood of accidents**

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If a multi-meter is connected in parallel with a battery, what is being measured?

- A. Resistance
- B. Current
- C. **Voltage**
- D. Volt drop

15

It is **most** important to follow industry and company codes of practice to:

- A. enable companies to maximise profits
- B. minimise risks and hazards on sites
- C. **maintain high standards of work and credibility**
- D. stay ahead of the competition with up to date technology

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When communicating with customers face-to-face, it is important to **always** use:

- A. technical terminology
- B. verbal communication only
- C. non-verbal communication only
- D. **both verbal and non-verbal communication**

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Which of the following behaviours **most** suitably demonstrate active listening to a customer?

- A. **Looking at the customer directly and asking questions to clarify certain points**
- B. Pre-empting what the customer may be asking
- C. Ensuring you take detailed notes during each interaction
- D. Responding emotionally and carefully planning your response while the customer is speaking, to prevent conversation gaps

18

Building strong and positive customer relationships is **most** likely to lead to:

- A. fewer workplace accidents
- B. an increase in conflict and disputes
- C. an increase in profit margins
- D. **an improved reputation and repeat business**

19

In which of the following would you find details on personal information retention?

- A. **Data Protection Act 2018**
- B. Freedom of Information Act 2000
- C. Human Rights Act 1998
- D. Care Act 2014/16

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When handing over an alarm system, what documentation would the customer be supplied with?

- A. **User manual**
- B. Installation manual
- C. Manufacturing manual
- D. Site survey manual

21

When preventive or corrective maintenance on a site is completed, it is **most** appropriate to record it in:

- A. the company expenses
- B. **the systems logbook**
- C. a HSE accident report book
- D. a diary for future reference

22

Where there is a risk of abrasion and mechanical damage, the **best** cables to use when low-voltage circuits need to be run through a duct and into an external compound are:

- A. polyvinyl chloride (PVC) cables
- B. **steel wire armoured cables**
- C. fire resistant cables
- D. composite alarm cables

23

Which legislation states the general requirements for the segregation of excess/unused materials on sites?

- A. **The Waste (Circular Economy) (Amendment) Regulations 2020**
- B. Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR)
- C. The Health and Safety at Work etc. Act
- D. Personal Protective Equipment (PPE) Regulations

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What documentation is **least** likely to be provided to the client during handover by the commissioning technician?

- A. The logbook
- B. Alarm system component documentation
- C. **The maintenance contract with a schedule of works**
- D. Contact details of your company in case of fault or activation

25

What is the correct formula for calculating current?

- A. $I = V \times R$
- B. **$I = V / R$**
- C. $I = V + R$
- D. $I = V - R$

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The **main** purpose of a system logbook is to:

- A. meet the insurance conditions for the installation
- B. **provide useful information for the maintenance engineer**
- C. record all instances of security breaches
- D. allow the customer to identify and fix any faults

27

Which electronic device would **most** likely be used by a technician to allow them to communicate and control their daily work and job progress?

- A. **Personal digital assistant**
- B. Electronic calculator
- C. Analogue watch
- D. GPS tracker

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The **main** reason for good communication in a team is to:

- A. improve staff punctuality
- B. meet the company's standards
- C. **ensure everyone knows what they are doing**
- D. ensure there will be no disagreements

29

The Electricity at Work Regulations requires that:

- A. portable electrical equipment must only be connected to a supply of 110 volts in buildings where more than 5 employees work
- B. all electrical equipment must have the fuse replaced every 5 years
- C. employers replace electrical equipment every 7 years
- D. **all electrical systems shall be maintained so as to prevent danger**

30

When sending data over a network, which protocol has error checking included so that no data is lost during transmission?

- A. UDP/IP
- B. **TCP/IP**
- C. RS485
- D. LINUX

31

What is the overall resistance value of two 2K Ohm resistors connected in parallel?

- A. 0.5K Ohm
- B. **1K Ohm**
- C. 2K Ohm
- D. 4K Ohm

32

What is the **main** objective of the final handover for an alarm system?

- A. To demonstrate the full range of system operations for end users
- B. To train the operators how to set and unset the system, but not demonstrate any further functionality
- C. To highlight the locations of the principle high risk areas
- D. To gain the correct knowledge of what to do if the system fails

33

What is the required angle for a ladder to be safely positioned against a wall?

- A. Two metres out for every four metres up
- B. One metre out for every four metres up
- C. One metre out for every two metres up
- D. Two metres out for every six metres up

34

For certain types of public and commercial buildings, low smoke and fume (LSF) cables **must** be used because:

- A. they are smaller, lighter and more flexible than polyvinyl chloride (PVC) cables
- B. they are cheaper than other cables and minimises costs for public works
- C. they are smoke and flame retardant and will not produce poisonous gases when exposed to fire
- D. in the event of a fire, they produce less black smoke than polyvinyl chloride (PVC) cables

35

To protect yourself from harm, you should:

- A. complete the task assigned regardless of hazards
- B. be aware of personal safety and avoid taking risks
- C. only use safety rules when required
- D. always have safety clothing nearby

36

Lawfully, personal data about customers held by a company **must** be:

- A. shared with all relevant parties
- B. kept for no longer than necessary
- C. processed on a regular basis
- D. detailed and informative

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When commissioning an intruder alarm system, the **main** purpose of a walk test is to ensure the:

- A. customer is happy with the installation standard
- B. detection devices are located in the correct locations
- C. sounders are working correctly
- D. detection devices are communicating with the control panel correctly

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What standards are applicable when completing a security intruder risk assessment?

- A. BS EN 50131
- B. BS EN 50132
- C. BS EN 60839-11
- D. BS EN 50172

39

What is the operating voltage of a door contact?

- A. Volt free
- B. 12 volts
- C. 24 volts
- D. 240 volts

40

An installation engineer can wire devices in series when they want to:

- A. isolate a circuit
- B. share the power source from another device
- C. connect more than one device on the same circuit
- D. disconnect only one device

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The outcome of installing a grade 2 device onto a grade 3 intruder alarm system is that the:

- A. system will still be classed as a grade 3 system
- B. system will not set
- C. whole system grade is reduced to grade 2
- D. customer will need to set this zone separately

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An emergency release call point should **always** remove power to the locking device by:

- A. sending a signal to the local controller to allow egress
- B. disconnecting the positive wire to the lock
- C. sending a signal to the reader to allow egress
- D. disconnecting the 230V AC mains supply

43

Real-time recording in a CCTV system Network Video Recorder means the unit is capable of:

- A. recording 24/7
- B. capturing images and recording 20-30 fps
- C. capturing images and recording 25-30 fps
- D. capturing images and recording 35-45 fps

44

What is meant by the term 'quiescent load'?

- A. Total load of the system under a test condition
- B. Power required under alarm condition
- C. Power requirement when idle
- D. Maximum load of the system

45

Which type of cameras work successfully with infrared (IR) illumination?

- A. Monochrome, or cameras that switch to monochrome when IR is active
- B. All cameras
- C. High resolution colour cameras
- D. Dome cameras

46

The importance of completing a security risk assessment is to:

- A. ensure that the most profit is made from the job
- B. comply with manual handling regulations
- C. meet the client's requirements and to confirm the grade of the system
- D. know what tools to bring on site

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A tamper circuit is designed to protect:

- A. cables from being cut
- B. the integrity of the system, including device lids and cable infrastructures
- C. the lids only of the detection devices
- D. the main panel and keypads from abuse

48

When commissioning the installation of an automatic gate, you **must** ensure that the gate starts to reverse before a crushing force of how much is exceeded in the crush area (between the gate and the post)?

- A. 400 Newtons
- B. 600 Newtons
- C. 700 Newtons
- D. 800 Newtons

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When installing the remote key pad on an intruder alarm system, which of the following locations is preferred?

- A. In a public space
- B. Outside the main entrance door
- C. At a high level so children cannot touch it
- D. A safe location within the protected area

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When selecting a suitable lens size to give a wide field of view, which of the following is the **most** suitable?

- A. 4mm
- B. 8mm
- C. 12mm
- D. 25mm

51

Before committing to installing a detection device, you **must** ensure that:

- A. the environment is appropriate for the device
- B. the customer knows when you may be able to get the job completed by
- C. you are only using what it says on the specification
- D. you have added the device to the circuit list

52

What length of battery standby requirement is necessary for a grade 3 system?

- A. 9 hours
- B. 12 hours
- C. 24 hours
- D. 48 hours

53

In accordance with the Institution of Engineering and Technology (IET) wiring regulations, the recommended vertical clip spacing for standard twin and CPC fire cable 9mm to 15mm diameter should be:

- A. 10cm
- B. 20cm
- C. 30cm
- D. 40cm

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The **main** purpose of putting a date on a standby battery is to:

- A. make it look official
- B. allow the customer to be informed
- C. highlight its periodical update
- D. ensure it does not get mixed up with others

55

When selecting a passive infrared sensor for a Grade 3 system, what **must** be incorporated?

- A. Anti-mask and back tamper
- B. Pet friendly sensors
- C. LED indication
- D. High impact plastic body

56

What **major** consideration should be accounted for in planning a security system?

- A. Make it expensive for a larger company to profit
- B. The location and risk factors present
- C. How quickly it can be installed
- D. What tools you may need

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What would **best** describe a grade 3 intruder alarm?

- A. A system that provides a low level of protection
- B. A system offering protection against intruders with limited expertise
- C. A medium risk system offering protection against a more experienced intruder
- D. A DIY installation

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Which of the following is a **key** advantage of a telemetry controlled zoom lens over a static lens?

- A. The zoom lens provides a better picture quality
- B. The zoom lens provides colour images
- C. The zoom lens has varying degrees of views
- D. The zoom lens can be used outdoors

59

When ordering or fitting electronic locks or keeps, it is **most** important to know the:

- A. length of the architrave
- B. width of the door
- C. fail safe/secure requirements
- D. height of the doorway

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The **main** difference between a passive infrared sensor (PIR) detector and a dual technology detector is that:

- A. a PIR is a better detection device for picking up movement
- B. dual technology has two different detection technologies within it
- C. dual technology can be fixed on its side
- D. a PIR only detects large objects







Level
3

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