

Paper Code: M-EPA-EEPSIEW3002

Level
3

Electrical, Electronic Product Service and Installation Engineer EPA Mock Multiple-choice Test - White Goods

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 **50 multiple-choice** questions.
The exam is worth **100 marks**, with a Pass being **66 marks**, Merit **76 marks**, and Distinction **90 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.

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 recorded.

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

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

1

Which of the following does the current Electricity at Work Regulations require?

- A. That all electrical systems shall be maintained so as to prevent danger
- B. That all portable electrical equipment must undergo portable appliance testing (PAT) by an electrician
- C. That all portable electrical equipment must undergo portable appliance testing (PAT) every 12 months
- D. That employers replace electrical equipment every 7 years

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Which of the following **must** all producers do under the current Waste Electrical and Electronic Equipment (WEEE) Regulations?

- A. Dispose of electrical and electronic equipment in landfill sites only
- B. Hold personal data for all purchasers of electrical and electronic equipment
- C. Keep records of all electrical and electronic equipment put on the market for at least 4 years
- D. Retain a record of all electrical and electronic equipment returned for at least 10 years

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Which of the following groups are **employers** liable for in terms of health and safety?

- A. Contractors, customers and unauthorised visitors
- B. Customers, employees and contractors
- C. Employees, friends and on-site visitors
- D. Employers, employees and their families

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What **must** all vehicles transporting isobutane (R600a) refrigerant have?

- A. A gas safe sticker
- B. A red flammable gas warning sticker
- C. A suitable ventilation system
- D. A waste carrying licence

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Carrying out a systematic risk assessment and controlling the risks identified will typically:

- A. increase the likelihood of accidents
- B. increase the severity of an injury
- C. reduce accidents
- D. reduce documentation

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An appliance in the dark green efficiency label category is described as:

- A. having high CO2 emissions
- B. having high water consumption
- C. not very efficient
- D. very efficient

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The hazard from using an extension lead is electricity and the likelihood of harm is increased if the cable is damaged. What happens to the severity?

- A. It doubles
- B. It increases
- C. It reduces
- D. It stays the same

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Which standard **must** an appliance installed in a bathroom meet?

- A. IP10
- B. IP2X
- C. IPX2
- D. IPX4

9

For a laundry product to begin a cycle, what **must** the appliance confirm?

- A. That clothes are loaded
- B. That suitable detergent has been added
- C. That the door is closed
- D. That the drum is in good condition

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Which of the following is a likely impact of an open circuit thermostat fault on a 90-degree wash?

- A. The programme will not start
- B. The programme will take longer to complete
- C. The wash will consume more water
- D. The wash will not reach the required temperature

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Which of the following is a human factor in the cause of accidents?

- A. A lapse in concentration
- B. A noisy saw in a joinery workshop
- C. A wet kitchen floor
- D. Late arrival for work due to transport problems

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Within what voltage range would a UK-designed appliance be suitable?

- A. 210-230vAC
- B. 220-240vAC
- C. 210-230vDC
- D. 220-240vDC

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What should an **employee** do to protect themselves from hazards?

- A. Always have safety clothing nearby
- B. Be aware of personal safety and avoid taking risks
- C. Complete the task assigned regardless of hazards
- D. Only use fire safety rules when required

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Which risk evaluation indicates that no action is required and no documentary records need to be kept?

- A. Intolerable
- B. Moderate
- C. Substantial
- D. Trivial

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When considering ambient temperatures, where is the **least** appropriate place for a fridge to be located?

- A. Garage
- B. Kitchen
- C. Living room
- D. Utility room

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Which of the following is **not** encouraged by the current Waste Electrical and Electronic Equipment (WEEE) Regulations?

- A. Rebuild
- B. Recovery
- C. Recycling
- D. Reuse

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What is a suitable method to check whether tools are fit for purpose?

- A. By annually carrying out an insulation test on all non-metal parts of tools prior to further use
- B. By carrying out a variety of durability tests
- C. By ensuring they meet the ISO8573 standard
- D. By visually ensuring the safe condition of the insulation and all other parts prior to use

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What would be the typical impact of an element open circuit fault on a fan-assisted appliance?

- A. An increase in noise
- B. Intermittent heat
- C. No heat generated
- D. Overheating

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What **must** an engineer turn off to safely isolate a cooker?

- A. The miniature circuit breaker (MCB)
- B. The residual current device (RCD)
- C. The temperature sensor
- D. The thermostat control

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A **human** factor related to the use of a machine that requires a significant physical effort to operate is the:

- A. condition of the workplace where the machine will be used
- B. individual strength of the operator using the machine
- C. position in the workplace where the machine will be used
- D. time that the machine is in use on a daily basis

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When undertaking a wash cycle, a washing machine needs to detect if the correct amount of water has entered the drum via a:

- A. humidity sensor
- B. lambda sensor
- C. pressure sensor
- D. turbidity sensor

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What is the **main** reason for having a circuit breaker on an electrical system?

- A. To enable additional appliances to be used in the circuit
- B. To govern the amount of electricity used
- C. To protect electrical equipment from damage
- D. To stop the flow of electricity if there is a fault

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To check the continuity of the earth wire, the test is done from the earth pin on the plug top to:

- A. any metal that can be touched
- B. one of the motors
- C. specific elements
- D. the live pin on the plug top

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Where **must** flammable chemicals be stored?

- A. In a cool, dry place away from heat and sunlight
- B. In an area near tools
- C. In an upright position
- D. In the same containers as other hazardous wastes

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Which washing machine cycle requires the highest water level?

- A. Cottons
- B. Quick wash
- C. Synthetics
- D. Woolens

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Insulation resistance testing of an appliance will tell an engineer if:

- A. a component has a connection from live to earth or neutral to earth
- B. a component has gone open circuit on the live to neutral path
- C. there is a poor earth connection on the appliance
- D. there is a short circuit on the earth connection to the chassis of the unit

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A class 1 appliance that is **not** earthed:

- A. may become live and produce a shock hazard
- B. may not power on
- C. will fail an insulation resistance test
- D. will trip the residual current device (RCD)

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What are holiday mode, automatic drying sensors and lower temperature washes all examples of?

- A. Energy-saving features
- B. Old technology
- C. Selectable programmes on freezers
- D. Settings that complete tasks faster

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Where available, what mode can be used to isolate components?

- A. Calibration mode
- B. Customer mode
- C. Programming mode
- D. Service mode

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What is the **first** principle of safe movement?

- A. To adopt a stable base
- B. To pick up the load to test its stability
- C. To pick up the load to test its weight
- D. To stop and think

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Which of the following factors can affect insulation resistance testing?

- A. A cooker that needs to go through a 'drying out' procedure
- B. A dishwasher being used in a soft water area
- C. A tumble dryer that has a humidity sensing program
- D. Using liquid detergent in a washing machine

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A warehouse uses numerous forklift trucks for picking stock and putting deliveries away. Staff from production may also come into the warehouse to collect items. How would a risk assessment of the severity and likelihood of an accident occurring be calculated?

- A. Likelihood high x severity low
- B. Likelihood low x severity low
- C. Severity high x likelihood high
- D. Severity high x likelihood low

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What is the appropriate way to isolate components when running a functional test?

- A. Run the appliance on engineer service mode
- B. Run the test alongside a similar specification appliance
- C. Run through a full programme
- D. Run through a live test

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EU regulations specify that non-networked electrical devices sold after 2013 cannot have a standby power greater than:

- A. 0.5 watts
- B. 1 watt
- C. 2.5 watts
- D. 5 watts

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A voltage pen or voltage stick is sometimes used to help confirm an appliance is isolated from the mains supply. What should an engineer do to ensure this device is fit for purpose?

- A. Change the batteries in the device prior to using it
- B. Put the device near the supply cable of the isolated appliance
- C. Test the pen or stick near a supply cable of an appliance that is connected to the mains. If it emits a light or a sound it is working
- D. Test the voltage pen or stick on the metal cabinet of the appliance. If it does not emit a light or a sound it is working

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Which is the **least** likely result of a single component failure?

- A. Complete breakdown
- B. Less efficient working
- C. Normal operation
- D. Partial breakdown

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Which of the following describes a fail-safe device?

- A. If a fault develops the equipment may be dangerous to use
- B. If there is a fault the equipment remains safe
- C. The equipment has a switch that can be operated if a fault occurs
- D. The equipment resets automatically after a fault

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Where available, what can an appliance store internally that will aid with diagnostics?

- A. Fault codes
- B. Programme options
- C. Recent history
- D. Smart programmes

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What is the correct order for conducting a risk assessment?

- A. Assess, control, identify, review and record
- B. Assess, review, identify, control and review
- C. Identify, assess, control, record and review
- D. Identify, record, assess, review and control

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Which of the following is a common user-induced variable responsible for a fault?

- A. Incorrect loading
- B. Insufficient damping
- C. Overheating
- D. Water fill level

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An engineer **must** ensure that any waste they produce as a result of their business operations is:

- A. disposed of by any means possible
- B. documented and labelled
- C. separated into individual sections
- D. stored safely, treated and collected or recycled

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Which of the following is a requirement of **employees** under health and safety law?

- A. Cooperating with their employer
- B. Paying for additional required training
- C. Providing their own safety equipment
- D. Signing a disclaimer in case of an accident

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What is the **first** appropriate diagnostic step to take upon notification of a fault?

- A. Disconnect the appliance
- B. Order spares immediately
- C. Question the user
- D. Write off the appliance

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Which is good practice when replacing a singular component?

- A. Assuming any associated components are fine to leave unchanged
- B. Inspecting associated components for breakdown due to the fault
- C. Only inspecting associated components when reported faulty
- D. Replacing associated components regardless of the fault

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A suitable and sufficient risk assessment of the workplace can benefit the **employer** by demonstrating that:

- A. all staff have received relevant training
- B. members of the public cannot trespass on the premises
- C. opportunities for civil claims will be limited
- D. the workplace is safe as far as is reasonably practicable

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Which of the following is a typical result of failing to reduce a full load from the washing machine when transferring it into a dryer?

- A. Delayed start time
- B. Poor drying results
- C. Quieter noise levels
- D. Reduced drying time

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What is the typical result if an appliance is being used in a damp cellar?

- A. A high insulation resistance reading
- B. A low insulation resistance reading
- C. The earth continuity reading to be too low
- D. The supply voltage will rise by 10%

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Which programme should be selected to eliminate potential causes when a component is suspected to be faulty?

- A. A programme that does not use that component
- B. A programme that only uses that component
- C. A programme that uses all components
- D. A random programme

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Which of the following is **not** an energy efficiency rating?

- A. A+
- B. A
- C. B
- D. G

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An alarm installation company is risk assessing falls from height when staff are using ladders. The hazard is injury falling from height, where the likelihood is high because of the frequency of ladder use. Which of the following is the **most** effective control to introduce?

- A. A-frame or shorter ladders
- B. Fall arrest equipment
- C. Mobile elevated work platforms
- D. Training for staff







**Level
3**



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