Final Integrated Competence Assessment (FICA)
Mock Paper B – With Answers

Question 1

Which one of the following is out with the Scope of BS 7671?

a) Low voltage generating set
b) Exhibitions, shows and stands
c) Equipment of aircraft
d) Caravans and motor caravans

Question 2

Caravan pitch electrical supply equipment should be located adjacent to the pitch and not more than how many meters from the connection facility?

a) 2m
b) 12m
c) 20m
d) 22m

Question 3

BS 7671 requires that where relevant, the first test on a new installation shall be:

a) Insulation resistance
b) Continuity of ring final circuit conductors
c) Continuity of protective conductors
d) Polarity

Question 4

When testing a 30mA, BS-EN 61008 RCD at 50% of its tripping current, the device should operate within:

a) 40 ms
b) 100 ms
c) 200 ms
d) RCD should not trip

Question 5

Before an installation is put into service, appropriate inspection and testing should be carried out by:

a) Apprentice
b) Electrician
c) A skilled person
d) Any of the above

Question 6

Which of the following statements is True in relation to PPE?

a) Good fitting PPE will never restrict mobility or visibility
b) Most PPE equipment is generic (suitable for all users)
c) PPE should be considered as the first option when managing risks
d) Employers must take reasonable steps to ensure PPE is properly used

Question 7

What is the minimum distance that should exist between holes in a timber frame wall?

a) 100 mm
b) 200 mm
c) 300 mm
d) D/4

Question 8

Which type of fire detector is recommended for installation in the kitchen of a dwelling?

a) Optical smoke alarm
b) Multi-sensor alarm
c) Heat alarm
d) Carbon monoxide alarm

Question 9

What is the minimum number of 13A socket outlets that should be installed in a kitchen?

a) 8
b) 7
c) 6
d) No minimum has been specified

Question 10

Mechanical ventilation in a kitchen above the hob should be able to provide a minimum extraction rate of at least:

a) 60 Litres per second

b) 50 Litres per second

c) 40 Litres per second

d) 30 Litres per second

Question 11

A circuit with a design current of 35A is installed using a cable with a current rating of 43A. If the voltage drop for the cable 4.4 mV/A/m, the circuit voltage drop for a 20 m run will be:

a) 3.08V

b) 3.784V

c) 6.18V

d) 1.8V

Question 12

The area up to 0.6m horizontally from the frame of a bath is described as being in which zone?

a) Zone 0

b) Zone 1

c) Zone 2

d) Zone 3

Question 13

The maximum disconnection times for an AC final circuit not exceeding 32A supplying socket-outlets connected to a TT earthing system is:

a) 0.07 s

b) 0.2 s

c) 1 s

d) 5 s

Question 14

On an Agricultural installation the RCD protection provided for circuits other than socket outlets should have a tripping current not exceeding:

a) 30 mA
b) 50 mA
c) 100 mA
d) 300 mA

Question 15

With regards to the provision of basic protection live parts shall be inside enclosures which should provide at least the degree of protection:

a) IPXXD
b) IP4X
c) IPXXB or IP2X
d) None of the above

Question 16

What is the maximum spacing of supports for a non-armoured PVC cable run vertically in a general setting with an overall diameter of less than 9mm?

a) 300 mm
b) 400 mm
c) 450 mm
d) 550 mm

Question 17

When carrying out a visual inspection on a new installation one purpose is to determine:

a) The equipment is correctly selected in accordance with BS 7671
b) That the client is happy with the installation
c) That cables cannot be seen
d) All of the above

Question 18

What is the recommended initial frequency of inspection of an electrical installation in a caravan?

a) Annually
b) Every three years
c) Every five years
d) Every ten years

Question 19

What does the term 'Risk' mean in relation to a Risk Assessment?

a) Something with the potential to cause harm
b) Unsafe working area
c) Unsafe working practices
d) Likelihood harm from a particular hazard will occur

Question 20

What is the design on a sign showing "No Access for Industrial Vehicles"?

a) Round, with a white background, black pictogram and red edging
b) Round, with a blue background, white pictogram and with white edging
c) Rectangle/Square, with a green background, white pictogram and white edging
d) Triangular, yellow background, black pictogram and black edging

Question 21

If you are working on a job and suspect that it may contain Asbestos, you should:

a) Get a Disposable half mask respirator
b) Dispose of the item you suspect contains the Asbestos in a sealed bag
c) Stop working immediately and inform your supervisor
d) Get immediate medical advice

Question 22

Portable hand held lamps for use in a conducting location with restricted movement should be:

a) Supplied from a SELV system
b) Supplied from a PELV System
c) Have a maximum voltage of 110 V
d) Have a maximum voltage of 240 V

Question 23

Which of the following statements is FALSE in relation to the Health & Safety at Work Act?

a) All Employees must take reasonable care to protect themselves and their colleagues
b) The Health & Safety at Work Act 1974 is a Statutory Document
c) A written Health & Safety Policy is required for companies with 5 or more employees
d) Health & Safety Regulations only apply to Companies with more than 5 Employees

Question 24

Which of the following incidents must be reported to the HSE under RIDDOR (Reporting of Injuries, Diseases and Dangerous Occurrences Regulations)?

a) A worker breaks their arm in a fall from a stepladder
b) A worker receives a minor cut that is treated from the site first aid kit
c) A worker is off work for three days with a minor sprain
d) A member of the public trips on site but is not injured

Question 25

The legislation that requires precautions to be taken against the risk of death or injury from electricity in work activities is:

a) BS 7671 (IET Regulations)
b) The Management of Health and Safety at Work Regulations 1999
c) Electricity at Work Regulations 1989
d) Electricity at work – safe working practices (HSG 85)

Question 26

Which of the following people are authorised to make alterations to an existing Permit of Work?

a) Any Approved Electrician on Site can make alterations as long as they are recorded
b) The person who issued the original permit
c) The Site Manager
d) No one, the existing permit would need cancelled and a new one issued.

Question 27

In the Electricity at Work Regulations, which regulation covers the need for maintenance to be done to ensure the safety of the system?

a) **Regulation 4 (2)**
b) Regulation 4 (3)
c) Regulation 41 (1)
d) Regulation 41 (2)

Question 28

In which of the following situations would you need a building warrant?

a) Rewire of a Bungalow
b) Electrical work when installing a new shower in a flat
c) **Adding new power socket outlets in a flat**
d) Rewire of a 2 story house

Question 29

On a TT system with U0 230V, the maximum value of Zs to ensure effective operation of a 500 mA RCD is:

a) **100Ω**
b) 167Ω
c) 200Ω
d) 1667Ω

Question 30

What is the maximum earth fault loop impedance (Zs) of a 230 V circuit protected by a 60A BS3036 fuse, for a 5s disconnection time?

a) 0.68Ω
b) **1.07Ω**
c) 0.51Ω
d) 3.9Ω