Electrical Trades College

ASP Level 2 Electrician

Test 10

Name	
Student Number	
Signature of student	
Name of Assessor	
Signature of assessor	
Date	
Result	
Comment by assessor	

1) The majority of cables used for distribution works are ( ) insulated cables with a ( ) or ( )sheath.
   a) rubber, aluminium , aluminium alloy
   b) impregnated paper, lead , lead alloy
   c) PVC, tin, tin alloy

2) The current rating of cables is determined by
   a) The thermal capacity of the cable ,The voltage drop , Short circuit capacity
   b) Temperature rating of cable, cable size, type of insulation
   c) Thermal capacity of cable, cable resistance, current rating of cable

3) Where cables are fixed to a vertical surface or wall the distance between the wall and the surface of the cable should not be less than ( )

a) 10 mm

b) 15 mm

c) 18mm

d) 20mm

4) Maximum permissible continuous conductor temperature for paper insulated cable.0.6/ 1 KV all types is

a) 50 degree centigrade

b) 60 degree centigrade

c) 70 degree centigrade

d) 80 degree centigrade

5) To reduce the stress. The following is one task
Select appropriate materials to enclose cable. Select appropriate cable materials for relevant condition.

a) True

b) False

6) Aluminium conductor is stronger than copper wire

a) True

b) False

7) A single core 66KV cable has a conductor diameter of 2 cm and a sheath of inside diameter 5.3 cm . Find the maximum stress. If two inter-sheaths are used, find the best positions, the maximum stresses and the voltage on inter-sheaths.

a) 15 KV/cm

b) 38.7 KV / cm

c) 70 Kv/cm

d) 100 Kv/cm

8) Conductor 2 and 3 are connected , measured capacitance between conductor 1 and the skin in 6 micro farad.
All conductors are connected, measure the conductor and the skin is 4 micro farad.
Calculate Cs and Cc.

a) Cs 1.33 micro farad, Cc 2.33 micro farad

b) Cs 1333 micro farad, Cc 4.33 micro farad

c) Cs 2.33 micro farad, Cc 5.33 micro farad

9) Thumping method is safe method to test the fault in UG cable

a) True

b) False

10) Voltage coupler and analyzer with a dielectric test set of proof tester is utilized in

a) Arc reflection
b) Surge pulse reflection
c) Voltage pulse reflection

Xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

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Test 11

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Name of Assessor	
Signature of assessor	
Date	
Result	
Comment by assessor	

Lesson 11 AA Type note 6

1) The following method is ( )
A line of conduits, ducts or tubes is laid in trench. The tubes are of glazed stoneware, cement or concrete. The cables are pulled into the position from manholes or brick pits. It is unnecessary to armour the cable but a serving of heat resistant type of jute protects the cable when drawing in.

a) Direct laying

b) Draw in system

c) Solid System

2) One step included in UG cable joining is

a) The paper is pencilled back 2 cm and metallised paper is cut back to within 8 cm of lead.

b) The paper is pencilled back 3.2 cm and metallised paper is cut back to within 3.8 cm of lead.

c) The paper is pencilled back 1.2 cm and metallised paper is cut back to within 1.8 cm of lead.

3) Find the insulation resistance per Km of cable of conductor diameter. 1.6 cm and internal sheath diameter cm

a) 500 MΩ

b) 700 MΩ

c) 900 MΩ

d) 1103 MΩ

4) UG Cable is

a) Low tension cable -- Below 500V

b) Low tension cable -- Below 1000V

c) High tension cable -Above 1000V

5) ( ) fs are designed as a series of structural steel beams or rail or reinforced concrete with extra reinforcement or structural steel to support manhole frames

a) Roof

b) Floor

c) Wall

6) Frame covers are

- Made of ( )
- Are designed to withstand the loadings of traffic
- May be made of reinforce concrete

a) steel / iron/ malleable iron/

b) cast steel / steel/ malleable iron/

c) cast steel / steel/ malleable steel

d) cast steel / iron/ malleable iron/

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Test 12

Name	
Student Number	
Signature of student	
Name of Assessor	
Signature of assessor	
Date	
Result	
Comment by assessor	

Lesson 12 UG Equipment

1) Normally the lifespan of a UG cable is about
   a) 30 years
   b) 40 to 50 years
   c) 100 years

2) XLPE, EPR and PILC insulated cables with wire armour or braid and lead sheath cover can be jointed effectively and
safely in straight, branch, transition, mains and service arrangement
   a) True
   b) False

3) To meet the performance and specification requirements for planned maintenance, project installations and fault
repair work , the type of cable joint is

a) SPECIALIST CABLE JOINTS

b) ZERO HALOGEN HEAT SHRINK JOINTS

c) Medium & High Voltage MV HV Cable Joints

4) Proper size of connectors should be used for a particular cable,
- proper tools and equipment are to be used,
- cuts and stripping should be very clean,
- proper technique is to be used for cable jointing and
- restoring the insulation, outer-sheath and armour. are essential for

a) Efficient way to join UG cables

b) Economy way to join UG cable

c) Reliable connection in UG cable joining

5) This work method is making ( )
1. Remove the insulation of wire
2. Wrap the fixture wire around the branch wire
3. Bend the branch wire over the completed turns
4. Wrap the remaining fixture wire over the bent branch wire
5. This can be followed by soldering and taping, or simply taping of the joint

a) Western Union Splice Joint

b) Fixture Joint

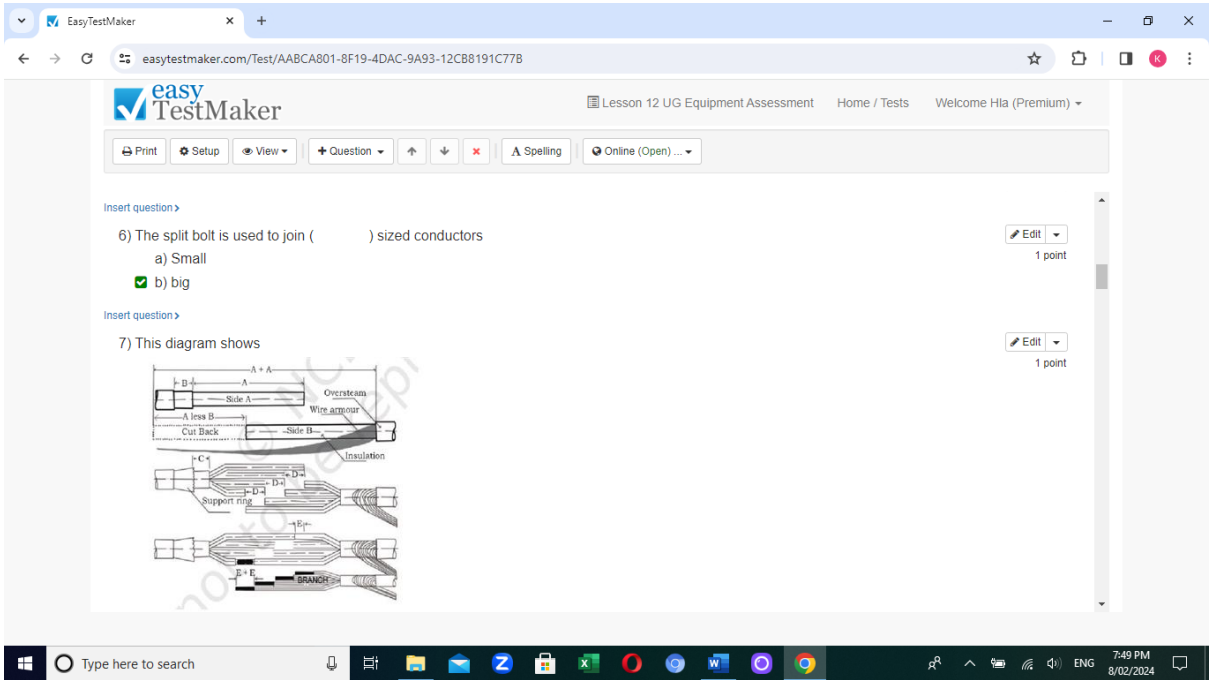
c) Knotted Tap Joint

6) The split bolt is used to join ( ) sized conductors

a) Small

b) big

7) This diagram shows



a) preparing the cables before joining

b) joining the cables

c) finalizing the cables

8) Some common types of terminations are
crimp connection
soldered connection
compression termination
wire-wrapping connection
direct connection
loop or eye connection

for

a) UG Cable connection

b) Motor winding connection

c) Building wire connection

9) Tape the crimped connectors, wrap around and extend to cover at least ( ) of the cable insulation of the conductor entering the connectors

a) 10 mm

b) 15 mm

c) 20 mm

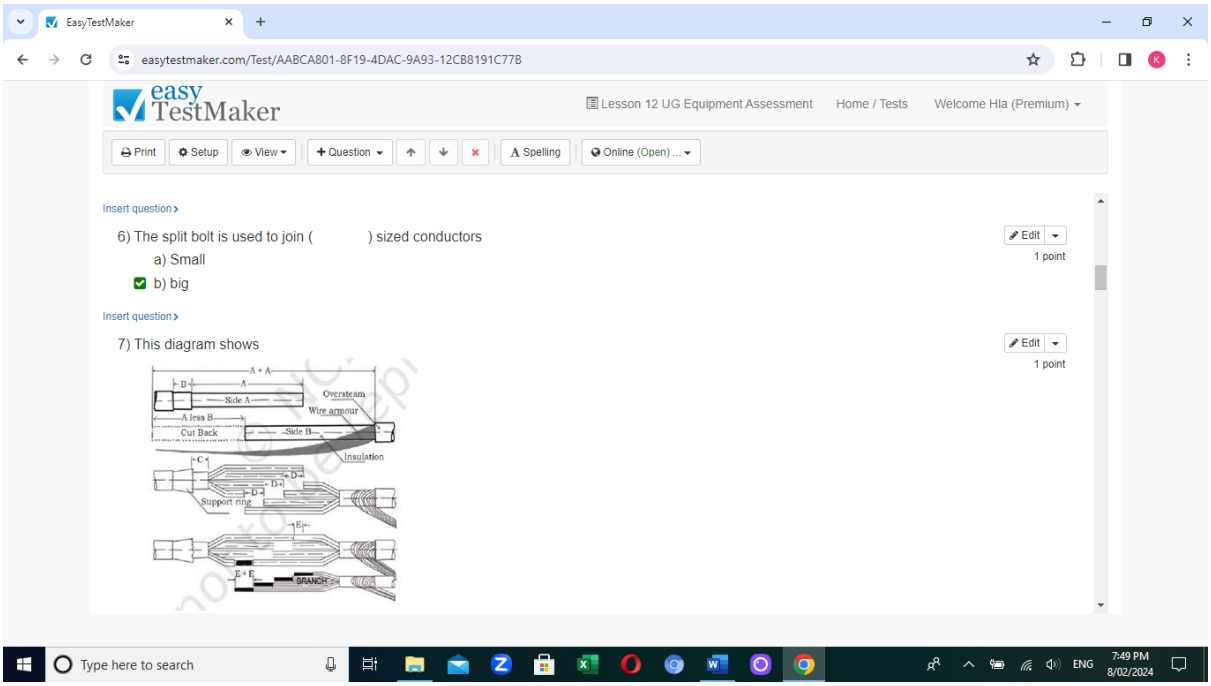
d) 25mm

10) In the step " Restoring Armour and Applying Mesh Tape" which type of tape is to be used?

a) standard vinyl/PVC tape

b) metallic tape
c) paper insulated tape
d) adhesive tape

11) The picture shows that



a) Binding the Cables
b) Restoring Armour and Applying Mesh Tape
c) Re-establish the Over Sheath

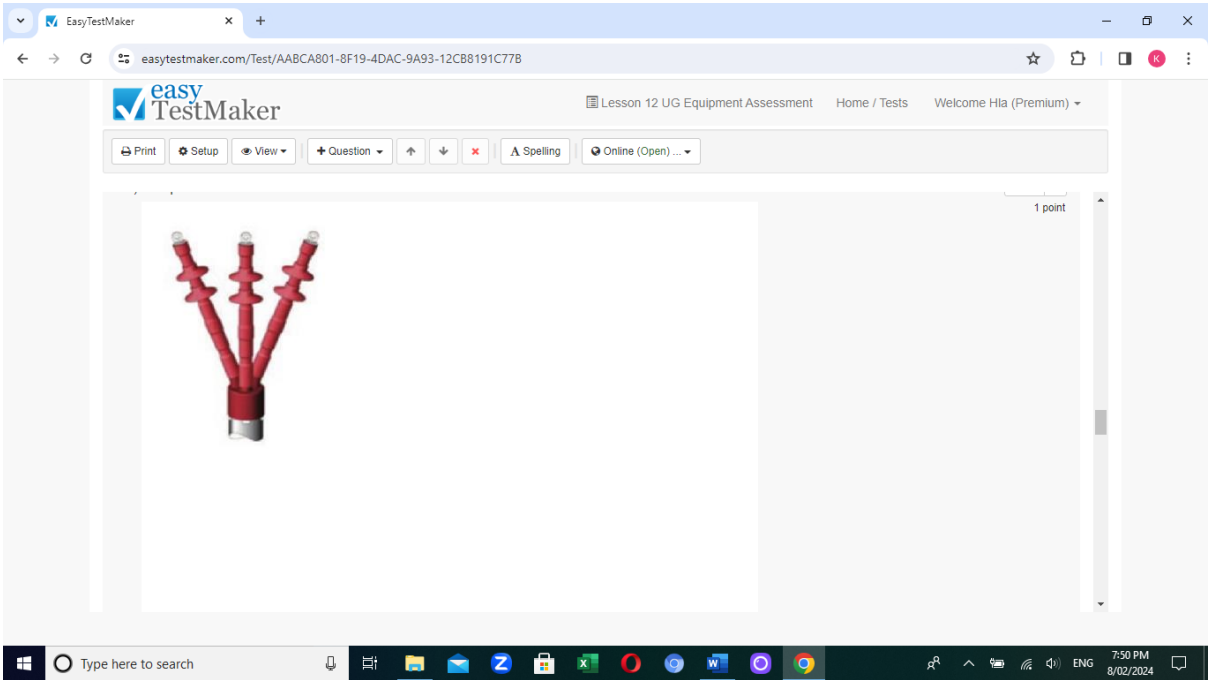
12)

12) Sleeve Joint can be made with any type of ( ) conductor.
a) copper
b) aluminium

13) Underground cables are joined by
a) welded connection
b) soldered connection
c) ferrules or lugs (crimped)

14) Terminals or compression fittings suitable for ( ) conductors
a) stranded
b) solid

15) The picture shows



a) T-Joint
b) Terminal joint
c) Conductor Joint
d) Britannia Join
e) Western Union joint

16)

16) Using the correct cable tools to prepare industrial and utility cables before cable jointing and terminating reduces
a) catastrophic cable failures.
b) efficiency
c) expenses

17) Compression Joint is useful for conductors of more than
a) 0.04 cm 2
b) 0.06 cm 2
c) 0.08 cm 2

18) Jumper can be connected to main conductors
a) True
b) False

19) Which method allows heat to be transferred more effectively?
a) Direct buried
b) Ducted

c) Shared trench

20) When the worker is required to work in an excavation? or opening in the ground that is 1.5 metres or more in depth."." the trench needs to be

a) supported

b) shored

c) closed

21) Direct Laid Cable
The trench shall be completed with a smooth and level bottom, with not protruding rocks. Spoil should be deposited at least ( )
from the trench to prevent material from falling back into trench

a) 300 mm

b) 500 mm

c) 600 mm

d) 1m

22) Ducting shall generally be orange PVC heavy duty conduit to

a) AS3000

b) AS3008

c) AS3012

d) AS 2053

23) Separation between High and Low voltage cable is minimum

a) 50mm

b) 100mm

c) 150mm

24) Warning sign to UG Cable laying shall comply with

a) AS1743

b) AS2063

c) AS4777

25) When pulling from drums larger than ( ) in diameter, the cable should be supported from the drum to ground level by a suitable ramp.

a) 1m

b) 1.5m

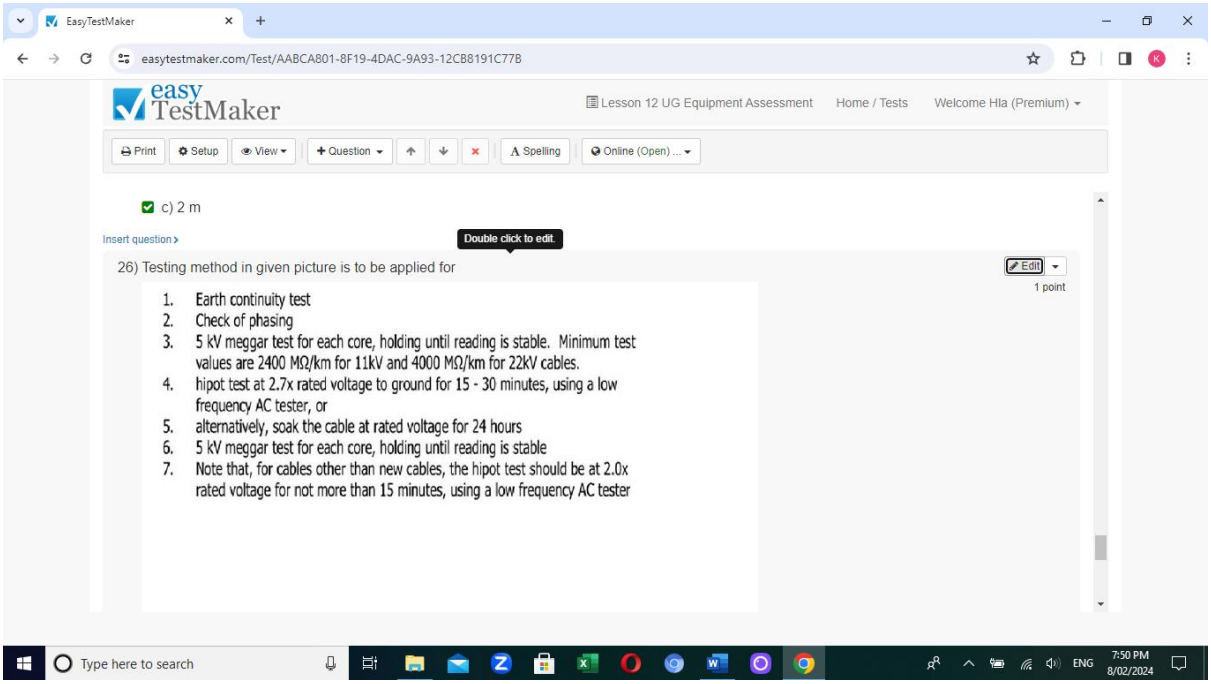
c) 2 m

26) Testing method in given picture is to be applied for

a) High voltage XLPE Cable

b) Paper/Lead cable

c) LV cable



27) Safety Management Systems must comply with

a) AS3000

b) AS2053

c) AS4801:2001.

28) The method requiring digging a 1.5m deep and 0.45m wide trench which is then covered with a layer of sand. The cables are laid in the trench and covered with a 10 cm thick layer of sand. To protect against mechanical injury the trench is then covered with bricks and other materials. is

a) Direct laying

b) Built in

c) Solid

d) drawn in