

QUESTIONS

① STATE THE METHODS OF DETERMINING MAXIMUM DEMAND IN CONSUMER'S MAIN
ASSESSMENT, CALCULATION, LIMITATION, MEASUREMENT.

② BETWEEN WHICH TWO POINTS THE CONSUMER'S MAIN RUNS.

POINT OF SUPPLY AND MAIN SWITCH

③ WHAT IS THE MINIMUM PERMISSIBLE CURRENT CARRYING CAPACITY
OF CABLE USED AS CONSUMER MAIN FOR A BLOCK OF HIGH
RISE APARTMENTS?

63 AMP.

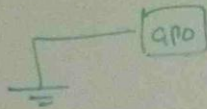
④ IS IT PERMISSIBLE TO USE SINGLE INSULATED CABLES (TPI)
INSTALLED IN SCREWED GALVANISED STEEL CONDUIT AS CONSUMER
MAIN. EXPLAIN YOUR ANSWER

NO BECAUSE INSULATED CABLE (WITHOUT SHEATH)
ENCLOSED IN METALLIC WIRING ENCLOSURE SHALL NOT BE
USED AS CONSUMER'S MAIN.

- ⑤ WHAT IS THE MINIMUM CURRENT CARRYING CAPACITY FOR CONSUMER'S MAIN IN A NON-DOMESTIC INSTALLATION WITH A 3 ϕ SUPPLY?

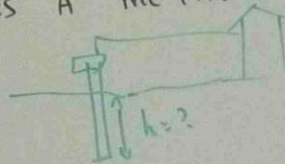
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- ⑥ THE RESISTANCE OF THE EARTHING SYSTEM FROM THE EARTH PIN OF A GPO TO THE EARTH ELECTRODE IN A MEN SYSTEM MUST NOT BE



0.5 Ω

- ⑦ TO WHAT DEPTH DOES A METALLIC ROD EARTH ELECTRODE NEED TO BE DRIVEN?

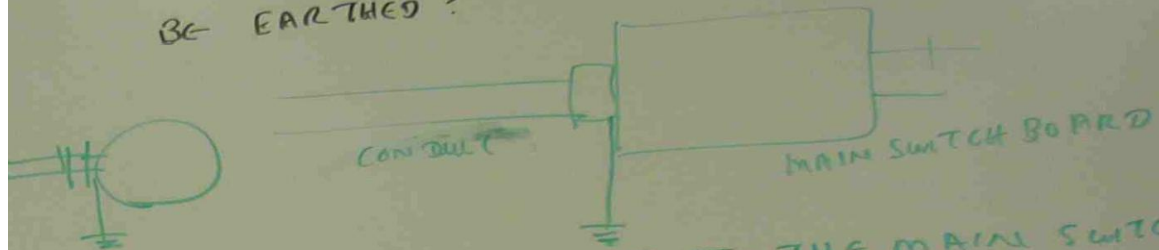


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- ⑧ STATE THREE REQUIREMENTS FOR THE CONNECTION OF AN EARTH ELECTRODE TO THE EARTHING SYSTEM.

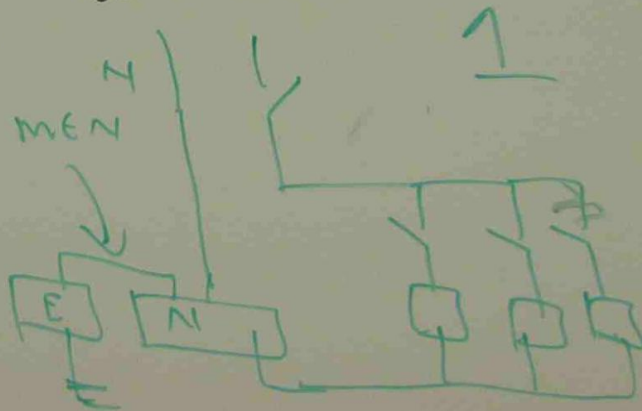
- ACCESSIBLE FOR VISUAL INSPECTIONS AND FOR THE PURPOSE OF DISCONNECTION AND TESTING
- ADEQUATE ELECTRICAL CONDUCTIVITY
- PROTECTED FROM MECHANICAL DAMAGE / CORROSION

9) WHERE SHOULD A METALLIC WIRING ENCLOSURE BE EARTHED?



AT THE END ADJACENT TO THE MAIN SWITCH BOARD (OR) ACCESSORY AT WHICH WIRING ENCLOSURE ORIGINATES.

10) WHAT IS THE MAXIMUM NUMBER OF MEN POINTS ALLOWED IN A MULTISTOREY INSTALLATION THAT CONSISTS OF 1 MAIN SWITCH BOARD AND 5 DISTRIBUTION BOARDS.



(11) EXPLAIN THE CONDITIONS UNDER WHICH IT MAY BE NECESSARY TO EARTH STEEL PARTITIONS IN A COMMERCIAL PREMISES.

METALLIC FRAMEWORK FOR ELECTRICAL EQUIPMENT SUPPORT STRUCTURE

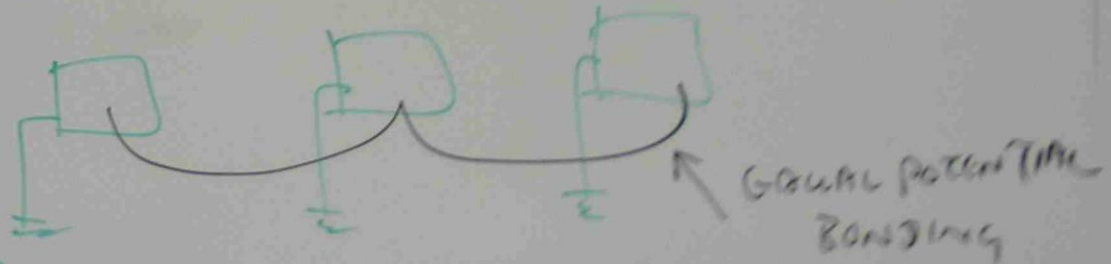
(12) STATE TWO REQUIREMENTS FOR AN EFFECTIVE JOINT

ELECTRICAL CONTINUITY

ADEQUATE MECHANICAL STRENGTH

(13) FOR WHAT PURPOSE IS AN EQUIPOTENTIAL BOND REQUIRED

TO MINIMIZE THE RISK ASSOCIATED WITH THE OCCURRENCE OF VOLTAGE DIFFERENCE BETWEEN EXPOSED CONDUCTIVE PARTS OF ELECTRICAL EQUIPMENTS.



(14) WHAT IS THE MINIMUM SIZE FOR A COPPER MAIN EARTHING CONDUCTOR

4 mm²

(15) LIST 4 ITEMS THAT WOULD REQUIRE AN EQUIPOTENTIAL BONDING

METALLIC WATER PIPING

METAL CABLE SHEATH | METALLIC WIRING ENCLOSURE

SWIMMING / SPA POOLS

TELEPHONE / TELECOMMUNICATION SYSTEM.

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- (16) NAME FOUR REQUIREMENTS FOR WIRING BEHIND HINGED SWITCH BOARD PANELS.
- (17) FUSE MAY BE MOUNTED ON THE BACK OF THE SWITCH BOARD _____.
- (18) NAME THREE PARTS OF AN INSTALLATION THAT DO NOT NEED TO BE CONTROLLED BY A MAIN ISOLATING SWITCH.
- (19) DESCRIBE CONDITIONS WHICH WOULD BE UNSUITABLE FOR THE INSTALLATION OF SWITCHBOARDS.
- (20) WHAT IS THE MINIMUM THICKNESS OF A 600mm x 600mm TYPE 2 NON METALLIC HINGED SWITCH BOARD PANEL?
- (21) DESCRIBE TWO ACCEPTABLE METHODS FOR FIXING EQUIPMENTS TO A SWITCH BOARD PANEL.

(22) WHAT CONDITIONS GOVERN THE ACCESSIBILITY OF SWITCHBOARDS HAVING EXPOSED LIVE PARTS?

(23) WHAT PROTECTION MUST BE PROVIDED FOR ALL CIRCUITS OUT GOING FROM A SWITCHBOARD?

(24) WHAT CONNECTIONS AT THE MAIN SWITCHBOARDS ARE NECESSARY FOR THE MAIN SYSTEM?

(16) PROVIDED WITH SUFFICIENT FREE LENGTH TO ALLOW THE PANEL TO BE MOUNTED.

SUITABLY FIXED

RETAINED IN POSITION TO AVOID UNDES. MOVEMENT

RETAINED IN POSITION TO AVOID STRESS AT TERMINAL.

(17)

TO PROTECT THE SWITCH BOARD INSTRUMENTS.

(18)

FIRE & SMOKE CONTROL EQUIPMENT
EVACUATION EQUIPMENT
LIFT

(19)

WATER CONTAINER
FIXED COOKING APPLIANCES
NEAR SHOWER
NEAR SWIMMING POOL
NEAR AUTOMATIC FIRE SPRINKLER
NEAR FIRE HOSE

(20)

15mm

(21) METAL
SCREW - BOLT TAPPED HOLE
METAL SCREW + TAPPED NUT.

(22) LIVE PARTS SHALL BE ARRANGED SO THAT
PROTECTION AGAINST DIRECT CONTACT IS PROVIDED
BY BARRIER (OR) ENCLOSURE

(23) CIRCUIT BREAKER
FUSE ON ACTIVE WIRE

(24) A CONNECTION SHALL BE MADE AT THE
MAIN SWITCH BOARD FROM THE MAIN
EARTHING TERMINAL.
CONNECTION (OR) BAR TO THE EARTHING
TERMINAL ON MAIN NEUTRAL LINK.

