

12. In the schedule of loads for motor circuits, which of the following is NOT included?
- Type of motor
 - Motor's manufacturer**
 - Motor as numbered or identified in the power layout
 - Number of phase
13. What is the allowable ampacity of THW insulated copper conductor with an area of 8.0 mm² and exposed to an ambient temperature of 30 (C)?
- 45 A**
 - 20 A
 - 30 A
 - 60 A
14. For two conductors inside the conduit, the ampacity of the conductors shall be derated to what percent?
- 90%
 - 80%
 - 70%
 - None of these**
15. Electrical equipment may best be mounted on a concrete wall by using one of the following. Which one is this?
- Wooden plug
 - Expansion bolt**
 - Load plug
 - Plastic plug
16. What is the neutral load of a range that has a demand load of 10.4 kW?
- 7.28 kW
 - 13 kW**
 - 8.32 kW
 - 10.4 kW
17. If the subject is extensive and requires more time for checking and for computations of fees, the issuance of the electrical permit need not be issued immediately. However, the delay shall not be longer than how many working days?
- 7
 - 6
 - 5**
 - 8
18. Splices in ground conductors shall be as few as practicable and shall be attached so as to withstand a pull test of
- 900 Newtons
 - 880 Newtons
 - 800 Newtons
 - 890 Newtons**
19. Locations which are hazardous because of the presence of combustible dust.
- Class I
 - Class II**
 - Class III
 - Class IV
20. For an ambient temperature of 30 (C, a THW insulated copper conductor with a cross sectional area of 3.5 mm² and buried underground has the following ampacity. Which one is correct?
- 20 A
 - 40 A
 - 15 A
 - 30 A**
21. All extended parts located within _____ of the lighting protection system shall be bonded thereto.
- 1,500 mm
 - 1,600 mm
 - 1,800 mm**
 - 2,000 mm
22. Operation at substantially constant load for an indefinitely long time.
- Periodic duty
 - Intermittent duty
 - Continuous duty**
 - Short time duty

23. Transformer exceeding 112.5 kVA, shall not be located within ____ from combustible materials of the building.
- a. 400 mm **b. 300 mm** c. 200 mm d. 500 mm
24. Electrodes of iron or steel plates shall be at least _____ in thickness.
- a. 6.2 mm b. 5.8 mm c. 6.0 mm **d. 6.4 mm**
25. The frame of the vehicle-mounted generator shall be permitted to serve as the grounding electrode for a system supplied by a generator located on the vehicle under which of the following conditions?
- a. the vehicle of the generator is bonded to the vehicle frame
b. the generator supplies only equipment loaded on the vehicle
c. the non-current carrying metal parts of equipment and the equipment grounding conductor terminals of the receptacles are bonded to the generator frame
d. all of these
26. The minimum insulation level for the neutral conductors of a solidly grounded system shall be _____ .
- a. 600 V** b. 300 V c. 500 V d. 1,000 V
27. The following copper conductors have the same cross sectional area but are made up of different number of strands. Which one has the least resistance to AC current?
- a. 19-strand conductor
b. Single solid conductor
c. 7-strand conductor
d. 37-strand conductor
28. Advisory rules in the Code are characterized by the use of the word _____ .
- a. will b. would c. shall **d. should**
29. A device capable to drawing lightning discharge to it in preference to vulnerable parts of the protected area.
- a. Ground terminal b. Lightning trap c. Ground mat **d. Air terminal**
30. Conductors normally used to carry current shall be of ____ unless otherwise provided in the PEC.
- a. aluminum **b. copper** c. copper clad aluminum d. all of these
31. Light fixtures suspended from the ceiling by chains should be wired so that the
- a. chain is grounded
b. wires help support the fixture
c. wires will not touch the chains
d. wires do not support the fixture
32. An appliance, which is fastened or otherwise, secured at a specific location.
- a. Permanent appliance

- b. Stationary appliance
 - c. Portable appliance
 - d. Fixed appliance**
33. Which one is a standard rating of an inverse time CB?
- a. 140 A
 - b. 130 A
 - c. 120 A
 - d. 110 A**
34. Aerial cable under non-metallic extensions shall have a clearance of not less than ____ from steel structure members or other conductive materials.
- a. 60 mm
 - b. 30 mm
 - c. 50 mm**
 - d. 40 mm
35. Above ground tanks containing liquids at atmospheric pressure are considered to be protected against lightning if the following requirements are met. Which one is NOT included?
- a. the metal roof shall have a minimum thickness of 4.8 mm
 - b. the roof shall be welded, bolted or riveted to the shell
 - c. all pipes entering the tank shall be metallically connected to the tank at the point of entrance
 - d. none of these**
36. According to Republic Act No. 184, a licensed Master Electrician may operate and tend generator rated up to a certain voltage. What is the voltage?
- a. 440 V
 - b. 750 V**
 - c. 220 V
 - d. 460 V
37. A heavy duty lamp holder shall have a rating no less than ____
- a. 450 W
 - b. 500 W
 - c. 600 W
 - d. 660 W**
38. In rigid metal conduit wiring, conduits shall be supported at least every
- a. 2,500 mm
 - b. 3,500 mm
 - c. 3,000 mm**
 - d. 2,000 mm
39. Conductors used in open wiring method within ____ from the floor shall be considered exposed to physical damage.
- a. 3,000 mm
 - b. 2,500 mm
 - c. 2,000 mm**
 - d. 1,800 mm
40. Heating elements of cables shall be separated at least ____ from the edge of outlet boxes and junction boxes.
- a. 200 mm**
 - b. 100 mm
 - c. 150 mm
 - d. 300 mm
41. Auxiliary gutters shall not contain more than ____ current carrying conductors at any cross section.
- a. 36
 - b. 32
 - c. 30**
 - d. 24
42. Circuits rated from 201 to 400 A requires a minimum insulation resistance of
- a. 25,000 ohms**
 - b. 50,000 ohms
 - c. 100,000 ohms
 - d. 12,500 ohms
43. No overcurrent device shall be connected in series with any conductor that is

- a. stranded b. current carrying c. closed **d. intentionally grounded**
44. Which of the following size of single-phase transformer is NOT standard?
a. 30 kVA b. 37.5 kVA c. 75 kVA d. 20 kVA
45. For the purpose of lightning protection, a high rise building is a building with a height over _____.
a. 23 m b. 50 m c. 20 m d. 15 m
46. Branch circuits are classified according to the maximum _____.
a. voltage across it
b. load being served
c. power consumed
d. setting of the overcurrent device
47. Cable tray shall NOT be used in
a. hoist ways b. dry location c. industrial establishments d. all of these
48. What type of electrical conductors has a trade name moisture resistant thermoplastic ?
a. TW b. THW c. THWN d. all of these
49. A device used for the purpose of minimizing irregularities in the flow of welding currents.
a. Rheostat box b. Grounding transformer **c. Reactor** d. none of these
50. For all land-based electrical installation under the scope of the Philippine Electrical Code, where should an electrical permit be filed?
a. Department of Energy
b. Office of the City/Provincial Engineer
c. Office of the Mayor
d. Local Building Office

PHILIPPINE ELECTRICAL CODE (TEST 4)

1. For each 2-wire laundry branch circuit, a feeder load of NOT less than ____ shall be

- included.
- a. 1,800 VA **b. 1,500 VA** c. 2,000 VA d. 1,200 VA
2. The computed load for the branch circuit installed to supply exterior signs and outline lighting shall be computed at a minimum of ____ volt-amperes.
- a. 1,200** b. 1,500 c. 1,800 d. 1,000
3. Non-metallic boxes shall be permitted only with ____.
- a. concealed knob and tube wiring
b. non-metallic sheathed cable
c. open wiring on insulators
d. all of these
4. A building or other structure serve shall be supplied by only one service drop EXCEPT for
- a. multiple occupancy building
b. fire pumps
c. emergency electrical system
d. all of these
5. Air terminals exceeding 600 mm in height shall be supported at a point NOT less than ____ of its height.
- a. three-fourth b. two-fifth **c. one-half** d. one-third
6. At least how many entrance(s) shall be provided to give access to the working space about electrical equipment?
- a. two **b. one** c. three d. not specified in the code
7. Sheet steel metal boxes over 1640 cm³ in size shall be made from steel NOT less than ____ thick uncoated.
- a. 1.25 mm **b. 1.35 mm** c. 1.6 mm d. 1.8 mm
8. For straight pulls, the length of the pull box shall NOT be less than ____ times the outside diameter over sheath of the largest shielded or lead covered conductor or cable entering the box
- a. 48** b. 42 c. 36 d. 38
9. This type of cable is fabricated assembly of insulated conductors enclosed in a flexible metal sheath.
- a. ground wire
b. integrated gas spacer cable
c. medium voltage cable
d. armored cable
10. Which of the following circuits shall NOT be grounded?
- a. 2-wire DC systems
b. vehicle mounted generators

- c. health care facilities
- d. all of these

11. An attachment plug and receptacle shall be permitted to serve as the disconnecting means for single phase room air conditioner rated 250 V or less if the manual controls of the room air conditioner is readily accessible and located within a certain distance from the floor. What is this distance?
- a. 2,000 mm
 - b. 1,800 mm**
 - c. 1,900 mm
 - d. 1,700 mm
12. There are situations where deviations from the code requirements are necessary. Before such deviations are made, there must be a written permission from one of the following entities. Which one is this?
- a. Board of Electrical Engineering**
 - b. Code Enforcing Authority
 - c. IIEE Code Committee
 - d. Philippine Regulation Board
13. Circuits with rigid non-metallic conduit approved for direct burial and placed under streets, hi-ways, roads, alleys, driveways and parking lots shall have a minimum cover distance of ____.
- a. 760 mm
 - b. 900 mm
 - c. 1,000 mm
 - d. 600 mm**
14. Energized parts of generators operated at more than ____ to ground shall not be exposed to accidental contact where accessible to unqualified persons.
- a. 75 V
 - b. 50 V**
 - c. 100 V
 - d. 40 V
15. So constructed or protected that exposure to a beating rain will not result in the entrance of water under specified test conditions.
- a. raindrip
 - b. raintight**
 - c. rainproof
 - d. rainsealed
16. The cross sectional area in square millimeters of a conductor shall be durably marked on the surface repeated at intervals NOT exceeding ____.
- a. 600 mm**
 - b. 900 mm
 - c. 1,000 mm
 - d. 760 mm
17. Motor circuit switches shall ____ permitted to be of the knife switch type.
- a. not be
 - b. be**
 - c. be or not be
 - d. none of these
18. The following are common splicing rules EXCEPT one. Which one is this?
- a. a splice must provide a path for the current to pass through
 - b. a joint must be mechanically as strong as the wire itself
 - c. all splices must be mechanically and electrically secured by means of a solder
 - d. wires of the same size should be spliced together in line**

19. For watercrafts, where should the said electrical permit be filed?
- Local Building Office
 - Maritime Industry Authority**
 - Office of the Philippine Ports Authority
 - Office of the Philippine Coast Guard
20. Reconnection by the supplier of electrical energy in cases where service has been cut-off due to non-payment of bills shall not require a new certificate of inspection provided the period of cut-off is NOT more than ____.
- one and one-half years
 - two years
 - half a year
 - one year**
21. Liquidtight flexible nonmetallic conduit shall NOT be used where the voltage of the contained conductors is in excess of ____.
- 600 V**
 - 300 V
 - 250 V
 - 1000 V
22. Roofs with a series of parallel ridges shall have air terminal along the end ridge at intervals NOT exceeding ____.
- 7,600 mm**
 - 8,000 mm
 - 6,000 mm
 - none of these
23. Communication wires and cables shall be separated at LEAST a certain minimum distance from service drops of electric light and power conductors, which are not installed in a raceway or in cable. What is this minimum distance?
- 150 mm
 - 175 mm
 - 300 mm**
 - 200 mm
24. Service entrance using copper conductors shall have sufficient capacity and shall NOT be smaller than ____.
- 5.5 mm²
 - 3.5 mm²
 - 14.0 mm²
 - 8.0 mm²**
25. Hazardous locations in which easily ignitable fibers or material producing combustible flyings are handled, manufactured or used
- Class III, Division 1**
 - Class IV, Division 2
 - Class I, Division 1
 - Class I, Division 2
26. The rating of the overcurrent device shall not be less than the noncontinuous load plus a percentage of the continuous load.
- 125%**
 - 80%
 - 100%
 - 140%
27. A ____ branch circuit shall be permitted to supply cooking appliances that are

fastenes in place in any occupancy.

- a. 30 or 40 A b. 20 or 30 A c. 50 or 60 A d. **40 or 50 A**

28. An overcurrent device shall be connected at the point where the conductors to be protected _____.
a. **receives its supply**
b. is being terminated
c. receives its load
d. none of these
29. Service entrance cables shall be supported by straps or other approved methods within ____ of every service head
a. **300 mm** b. 500 mm c. 600 mm d. 400 mm
30. Type MC cable shall be supported and secured at intervals NOT exceeding
a. 2,000 mm b. **1,800 mm** c. 1,500 mm d. 2,500 mm
31. A point in a wiring system at which current is taken to be used in some equipment.
a. grounded b. conductor c. service entrance d. **outlet**
32. Live vegetation or trees _____ used for support of overhead conductor spans.
a. shall be b. should be c. **shall not be** d. should not be
33. A conductor having no covering or electrical insulation.
a. **bare conductor** b. concealed conductor c. encased conductor d. exposed conductor
34. Type FC cable shall have the temperature rating durably marked on the surface at intervals NOT exceeding _____.
a. **600 mm** b. 550 mm c. 800 mm d. 760 mm
35. Hazardous locations where combustible dust is not normally in the air in quantities sufficient to provide explosive or ignitable mixtures, and dust accumulations are normally insufficient with the normal operation of electrical equipment.
a. Class II, Division 1
b. **Class II, Division 2**
c. Class III, Division 1
d. Class III, Division 2
36. The clearance form the top of a switchboard to a ceiling which is combustible shall NOT be less than _____.
a. **1,000 mm** b. 800 mm c. 900 mm d. 1,250 mm
37. Overhead conductors used in festoon lighting shall NOT be less than _____.
a. 0.75 mm² b. **3.5 mm²** c. 2.0 mm² d. 5.5 mm²
38. Conductors used in lightning protection system maybe coursed through air without

- support for a distance of ____ or less.
- a. 1,000 mm **b. 900 mm** c. 760 mm d. 800 mm
39. In concealed knob and tube wiring, the clearance to be maintained between conductor is
- a. 55 mm b. 45 mm **c. 76 mm** d. 50 mm
40. A run type IGS cable between pull boxes or terminations shall NOT contain more than the equivalent of ____ quarter bends.
- a. one b. two c. three **d. four**
41. For optional calculation in dwelling units, the first 10 kW shall be computed at 100% while the remainder is at ____.
- a. 65% b. 60% c. 50% **d. 40%**
42. Operation of equipment in excess of normal, full load rating or of a conductor in excess of rated ampacity.
- a. overload** b. overvoltage c. overcurrent d. surge
43. Branch circuits larger than ____ shall supply only non-lighting outlet loads.
- a. 30 A b. 40 A **c. 50 A** d. 60 A
44. When circuit breakers are installed in enclosed switchboards, they are usually derated to a certain percentage. What is this percentage?
- a. 60% **b. 80%** c. 50% d. 70%
45. Which of the following statement is NOT true?
- a. electrical equipment and wiring not mentioned in the code shall require a special permission prior to installation
- b. extended use of temporary installation shall not require a new approved electrical permit**
- c. an application of inspection shall be filed with the government agency concerned before a preliminary and or final inspection is done
- d. a copy of the electrical permit shall be posted or kept at the job site at all times, until the approval of the work have been made.
46. Fixed electric space heating loads shall be computed at ____ of the total computed load.
- a. 80% b. 90% **c. 100%** d. 125%
47. The powers of the Board are vested in them by who's authority?
- a. President of the Philippines
- b. Commissioner of PRC
- c. Under RA 7920**
- d. National President of IIEE

48. The current carrying conductors in cablebus shall have insulation rating of ____ or more
a. 40 (C) b. 50 (C) c. **70 (C)** d. 60 (C)
49. In hazardous location, the use of non-metallic conduit shall be permitted provided it is buried NOT less than ____ below the earth level.
a. 400 mm b. **600 mm** c. 1,000 mm d. 500 mm
50. Open conductors shall be separated from open conductors of other circuits by NOT less than a certain distance. What is this distance?
a. 200 mm b. **100 mm** c. 150 mm d. 120 mm

TECHNICAL SUBJECT (TEST 5)

1. The term of office for any members of the BEE (Board of Electrical Engineering) is how many years?
a. **3 years** b. 2 years c. 1 year d. 4 years
2. Relays which verify the condition of the power system or in protection systems.
a. auxiliary relay b. regulating relay c. programming relay d. **monitoring relay**
3. A substance that cannot be decomposed any further by a chemical reaction.
a. ion b. **element** c. molecule d. none of these
4. A 220 V, 10 hp, single-phase induction motor operates at an efficiency of 86% at a power factor of 90%. What is the current?
a. 45.26 A b. 37.69 A c. 34.81 A d. **43.81 A**
5. The no load power input of a transformer is approximately equal to what losses in a transformer?
a. **iron losses** b. copper losses c. ventilation losses
d. all of these
6. Admittance in AC circuit is a parameter equivalent to the _____.
a. impedance
b. square of impedance
c. square root of impedance
d. **reciprocal of impedance**
7. In applying mouth to mouth rescue breathing to a person under electric shock, which of the following is the correct sequence out of the following scrambled steps?
a. Pull his chin to keep his tongue out
b. Clear his throat from any materials
c. Place him on his back
d. Blow air through his nose or mouth
e. Tilt his head back as far as possible
a. a, c, b, e, d
b. c, e, a, d, b
c. **c, b, e, a, d**
d. a, e, c, d, b
8. What should you do to prevent a shock when on a high voltage supply?
a. open the filter capacitor
b. **discharged the filter capacitor**
c. closed the filter capacitor
d. charge the filter capacitor

9. If the needle of the VOM will no longer align with the zero-ohm mark at the lowest range of resistance but will align on the other resistance ranges, which of the following is a probable cause?
- the needle is bent
 - the supply battery is weak**
 - the meter current is abnormal
 - the terminals were interchanged
10. A resistance of 4 ohms is connected in series to a parallel connection of two 8-ohm resistance. The total resistance is
- 6 ohms
 - 20 ohms
 - 8 ohms**
 - 12 ohms
11. When cleaning a commutator, which of the following shall NOT be used?
- clean cloth
 - sand paper
 - emery**
 - all of these
12. A Merz-price protection is suitable for
- alternators**
 - transformers
 - transmission lines
 - feeders
13. Common tripping time for 60 Hz circuit breaker.
- 6 cycles
 - 8 cycles**
 - 7 cycles
 - 5 cycles
14. One horsepower is equivalent to how many watts?
- 746**
 - 764
 - 674
 - none of these
15. How would determine, from visual observation of the armature winding, whether the generator is a lap or a wave wound.
- direction of the end connection**
 - connection to the commutator
 - connection to the field winding
 - connection to brushes
16. A resistor of 4-ohm resistance is connected in parallel with a series combination two resistors, 3-ohm and 1-ohm respectively. What is the equivalent resistance of the whole combination?
- 8 ohms
 - 3 ohms
 - 5 ohms
 - none of these**
17. Evaluate the resistance of a shunt resistor required to convert a 1 mA, 300-ohm galvanometer into an ammeter with a maximum range of 5 A?
- 60 m(**
 - 600 m(
 - 6 m(
 - none of these
18. What is the resistance of a component having no continuity?
- low resistance
 - no or zero resistance
 - infinite resistance**

- d. all of these
19. A battery is a group of cells connected in
a. parallel b. series-parallel c. series **d. all of these**
20. Which of the following steps is used for isolating a circuit breaker for maintenance purposes?
a. turn off the main generator
b. open the disconnect switches
c. connect the circuit breaker contacts to ground
d. none of these
21. Lubrication commonly used by gearmotors.
a. water **b. oil** c. grease d. talc
22. For efficient operation, induction motors are always designed with a small
a. airgap **b. voltage drop** c. inductive reactance d. impedance
23. A shunt motor draws a line current of 30 A from a 250 V source. If the total losses amount to 1,250 watts, how much is the efficiency of the motor at this load?
a. 87.45% b. 83.33% **c. 89.21%** d. none of these
24. An atom that acquires additional electrons.
a. anion b. cathode c. anode d. cation
25. In order for a material to be called a conductor, what is the maximum number of valence electrons it can have?
a. only one b. two **c. three** d. none of these
26. Three resistors R_1 , R_2 and R_3 are connected in series across a 100 V source. If R_2 opens, the
a. voltage across R_2 is 100 V
b. voltage across R_1 is 100 V
c. total resistance decreases
d. voltage across R_2 is zero
27. The equivalent capacitance of two capacitors in series is 2.4 (F. If one of the capacitor has a capacitance of 4 (F, what is the capacitance of the other?
a. 6 (F b. 2 (F c. 5 (F d. none of these
28. An ideal step-up transformer with 100 turns in the primary and 2500 turns in the secondary carries a load of 2 A in the secondary windings. What is the current in the primary side?
a. 50 A b. 0.08 A c. 25 A d. 1,250 A
29. This winding is connected in series with armature winding of a DC generator to

compensate the field flux distortion due to armature reaction.

- a. series field windings
- b. interpole windings
- c. compensating windings**
- d. shunt field windings

30. What is the load of 10 receptacle outlets supplying cord and plug-connected office equipment used at continuous duty?

- a. 1,800 VA
- b. 1,440 VA
- c. 2,250 VA**
- d. 3,000 VA

31. twenty resistors each having a resistance of 1000 ohms are connected in parallel. The equivalent resistance is

- a. 20,000 ohms
- b. 50 ohms**
- c. 1,000 ohms
- d. 5,000 ohms

32. An important feature of a thin film resistor is its ____ temperature coefficient of resistance.

- a. low**
- b. high
- c. negative
- d. zero

33. In parallel operation of DC generators which of the following parameters must be the same?

- a. speed
- b. phase sequence
- c. voltage.**
- d. all of these

34. Voltage across an electric circuit, acts as a

- a. mass of electrons
- b. negative ions
- c. force**
- d. component of current

35. An oscilloscope is usually used to measure

- a. rms voltage
- b. average voltage
- c. maximum voltage**
- d. all of these

36. One of the following parameters cannot be change by a transformer? Which one is it?

- a. impedance
- b. current
- c. voltage
- d. power**

37. A wattmeter measures

- a. AC as well as DC power**
- b. AC power only
- c. DC reactive power only
- d. None of these

38. What is the feeder load of a feeder serving three squirrel cage induction motors having FLAs of 34, 27 and 12 A respectively?

- a. 73 A
- b. 81.50 A**
- c. 91.25 A
- d. 58.40 A

39. Two inductors of 6 and L henries are connected across its other. Neglecting the effect of mutual capacitance, what is the value of L if the total inductance of the combination is 2 H?
- a. 4 H b. 8 H c. 12 H **d. none of these**
40. Which one is a semiconductor?
- a. phosphorous b. arsenic c. **gallium arsenide** d. diamond
41. If a person is accidentally in electric shock, which of the following is the first thing to do?
- a. call immediately the nearest doctor
b. attend instantly to the victim's breathing
c. separate the victim immediately from the circuit
d. give him water at once to help him breath
42. Capacitor commonly used in circuits that have a combination of DC and AC voltages.
- a. ceramic capacitor b. plastic capacitor c. oil-filled capacitor **d. electrolytic capacitor**
43. Transforms heat energy to electric energy
- a. transformer b. battery c. generator **d. thermocouple**
44. The torque exerted by a DC motor delivering power to load is 742 N-m. If the motor is rotating at 480 rpm, how much is the mechanical power delivered by the shaft of the motor?
- a. 60 hp b. 45 hp **c. 50 hp** d. 55 hp
45. A wire has a resistance of 30 ohms at 20 (C. What will its resistance at 60 (C. Assume the temperature coefficient of resistance to be 0.00385 at 20 (C.
- a. 34.26 (b. 36.42 (c. 32.46 (**d. none of these**
46. When examining a dead set, which item(s) should be checked?
- a. open filament b. power supply diodes c. fuse **d. all of these**
47. Which of the following statements is NOT true?
- a. a discharged lead-acid cell for a long time can easily be charged
b. lead-acid cells can be charged and discharged at a very high rate without damaging the plates
c. a lead-acid cell has a lesser ampere hour capacity than a nickel iron cell of the same capacity
d. all of these
48. A DC load takes 6 A at 50 V. Find the value of a series resistance required in order to operate the same load successfully from a 110 V supply.
- a. 10 ohms** b. 6 ohms c. 12 ohms d. 8 ohms

49. Motor used to start heavy loads.

- a. synchronous motor
- b. series motor**
- c. wound rotor
- d. differential compound motor

50. The resistance of four rheostats are 10, 5, 7 and 3 ohms, which are connected in series to a battery, which produces a potential difference of 75 V across its terminals. Find the current in each rheostat.

- a. 10 A
- b. 3 A**
- c. 5 A
- d. 7 A