



2018 Electrical Construction Wiring

Schedule:

8:00- Orientation

8:15- Written Test Begins

9:15- Written Test Ends (All students head to shop, do not begin until instructed)

9:30- Competition Begins

11:30- Lunch(All students are required to stop working for 30 minutes, NO EXCEPTIONS!!!)

12:00- Competition Resumes

2:00- Competition Ends (No Exceptions)

3:00- All scores must be finalized and turned in.

Tools Supplied By Contestant	Items Permitted for Written Test
<ol style="list-style-type: none"> 1. Cordless Drill or impact with extra battery and assortment of bits. 2. 4' or 6' Step Ladder(some will be provided at site) 3. Diagonal pliers 4. Side cutters 5. Long-nose pliers 6. Pump pliers 7. Wire strippers 8. Knife 9. Assorted flat blade and Phillips screwdrivers 10. 8' folding rule 11. 12' (or longer) measuring tape 12. Electrician's hammer 13. Hacksaw 14. Torpedo level 15. Electrical tape and connectors 16. 1/2" EMT conduit bender 17. Multimeter 18. Calculator 	<ol style="list-style-type: none"> 1. National Electric Code 2017 Edition 2. Ugly's Book 3. Key Word Index 4. Calculator 5. Paper 6. Pencil

2018 West Virginia SkillsUSA

Electrical Construction Wiring Contest

Do not begin until you are instructed to do so. Observe all safety rules at all times and proper PPE must be worn while in the shop area. Clean your work area once your project is completed or when you are instructed to do so.

You will have four hours to complete this entire project.

Circuit 1

- Luminaire “A” is controlled by three-way switches “K and D”
- Luminaire “B” and receptacle “I” are controlled by single pole switch “E”

Circuit 2

- Receptacle “G” is controlled by single pole switch “L”
- Receptacle “C” is always energized

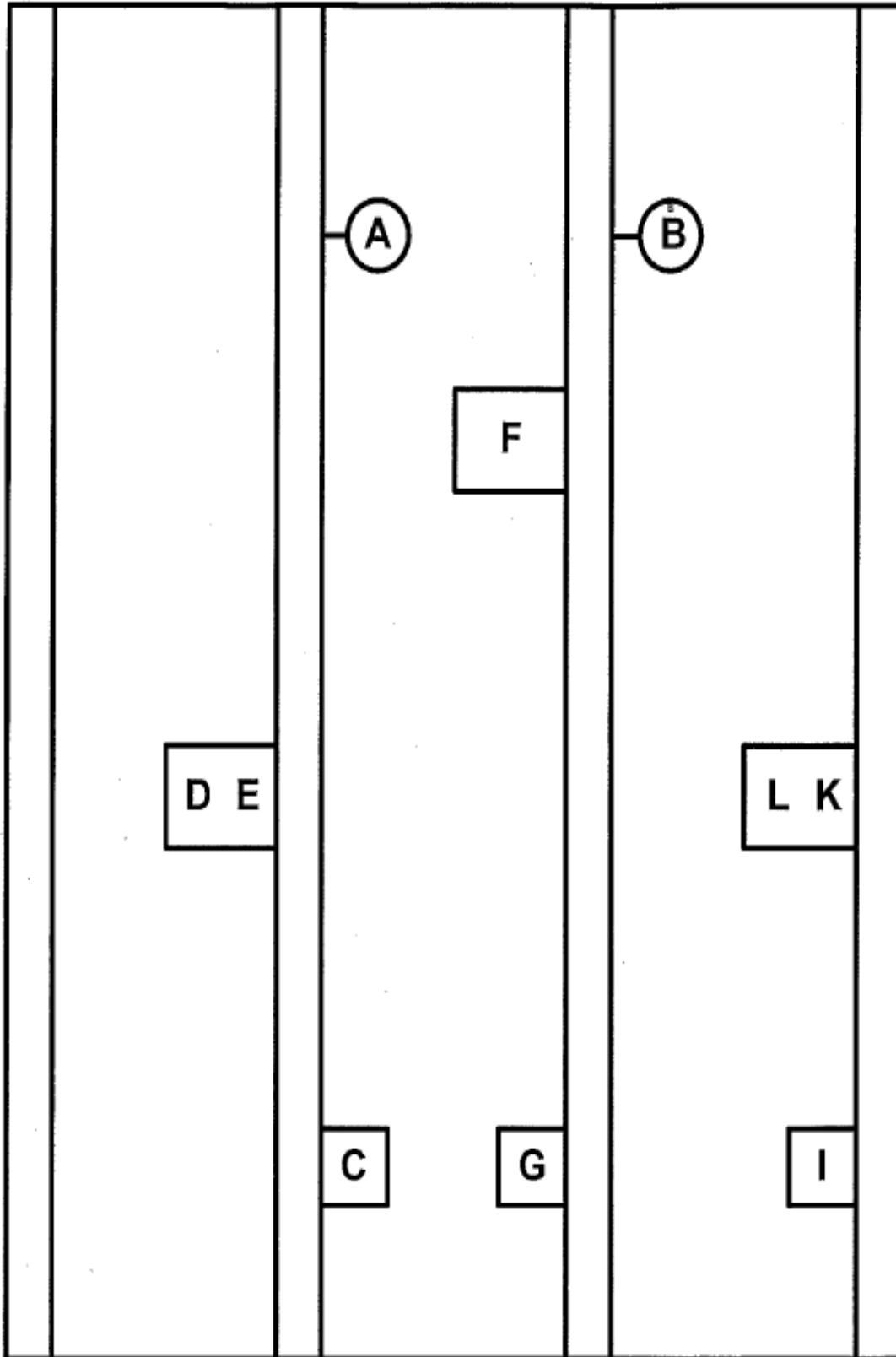
A cord and 120 Volt cap supplies both circuits 1 and 2 (common feed for testing purposes only) that originates in junction box “F” a 4” square 52” AFF

Note:

- Do NOT USE PERMANENT MARKERS FOR LAYOUT
- No back wiring of devices is permitted
- Duplex receptacles are mounted 17” AFF to center
- Luminaires are mounted 60” AFF to center
- Switches are mounted 48” AFF to center
- Set all boxes for ½” sheetrock and make all necessary connections to the devices but **DO NOT** fasten the devices to the boxes so they may be inspected.
- Comply with all of the applicable NEC requirements.

Residential Layout Contest

All measurements are taken from the floor and right side of the framing. Note the drawing is not to scale.

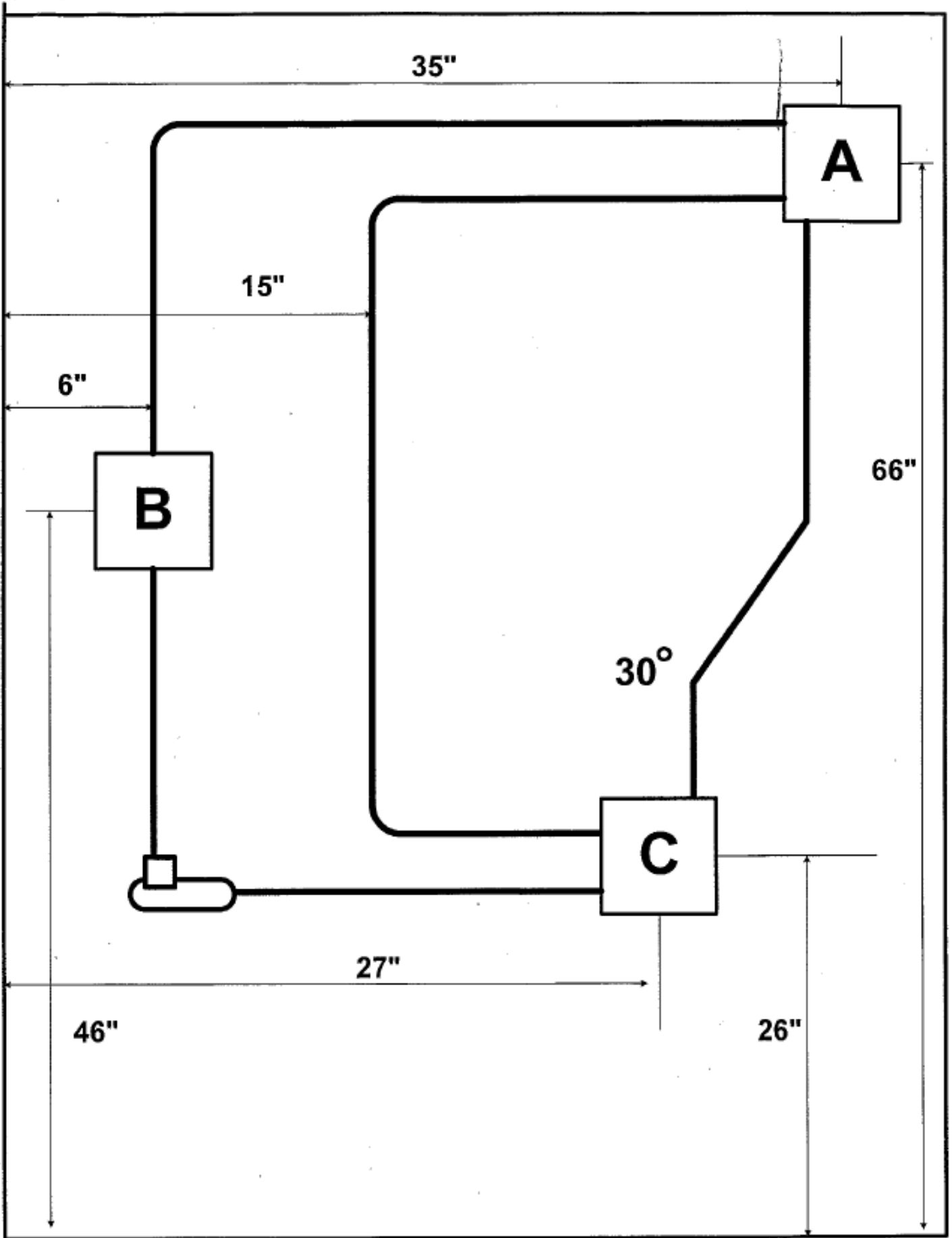


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- **DO NOT USE PERMANENT MARKERS FOR LAYOUT**
- All measurements are to the center and are to be taken from the left side of the plywood and above finished floor.
- All boxes and straps will be secured with screws to the plywood wall.
- Use the knockouts on the boxes as shown on the drawing.
- Use ½" EMT one hole straps to secure the tubing
- Boxes "A", "B" and "C" are all centerline measurement.
- There is a 5 point deduction from your score for each coupling used.
- Comply with all of the Applicable NEC requirements.





Score Card

Contest:	Electrical Construction Wiring	Chair:			
Division:		Contestant Numbers			
Type	Skills Area	Max	101	103	104
Standard	Written Test	150			
Standard	Safety	35			
Standard	National Electrical Code	55			
Standard	Height Requirements	90			
Standard	Device Locations	90			
Standard	Wiring Methods	85			
Standard	Grounding, Splicing & Terminations	60			
Standard	Overall Neatness	45			
Standard	Box Locations & Mounting	90			
Standard	EMT - Pipe Bending	140			
Standard	Function/Operation	120			
Standard	Job Site Material Acquisition	40			
Standard					
Standard					
Standard					
Penalty	Clothing	-50			
Penalty	Resume Penalty	-10			
Total Scores:		1000			

Judges Sheet

CONDUIT

Item	Points	1	2	3	4	5	6	7	8	9
Conduit cut straight	20									
Conduit reamed	20									
Correct length	20									
Offsets at boxes	20									
Height / Block	20									
Overall Neatness	40									
TOTAL SCORE	140									

Conduit cut straight - 5 points each

Conduit reamed - 5 points each

Offsets at boxes - 5 points each

ALL MEASUREMENTS - WITHIN 1/8 OF AN INCH.

Judges Please use 5 Point Increments