K.J. Somaiya College Of Engineering

Vidyavihar (E) Mumbai-77

ELECTRICAL WIRING

JOB SHEET

NAME:- HiralPatel ROLL NO:- 16010421071 BATCH:- G3 (IT)

NAME OF EXPERIMENT/JOB:- Godown wiring.

TOOLS AND EQUIPMENTS:-

MCB	230V, 5A	1
one-way switch	SPST, 5A	1
two-way switch	SPDT, 5A	2
light bulb.	60W	3

PROCEDURE:-

- Turn off all the main breakers to ensure the main supply is switched off.
- Connect all the switches to the earthing / grounding.
- Connect the neutral wire from MCB directly to all the three.
- Connect the line (phase wire) wire to the first terminal of SPST switch.
- Connect the SPDT switch common (middle) terminal to the second terminal of SPST switch.
- Connect the upper terminal of first SPDT switch to the first lamp.

- Connect the lower terminal of first SPDT switch to the common (middle one) of second SPDT switch.
- Connect the upper and lower terminals of second SPDT switch to the second and third lamp mechinery.

{ SPST → Single pole single throw or singleway.
SPDT → Single pole double throw or twoway.

Working:

It is a linear sequence of switching i.e. when a person enters the first room or position, all lighting points are switched OFF as the first SPST switch is at OFF position.

when we,

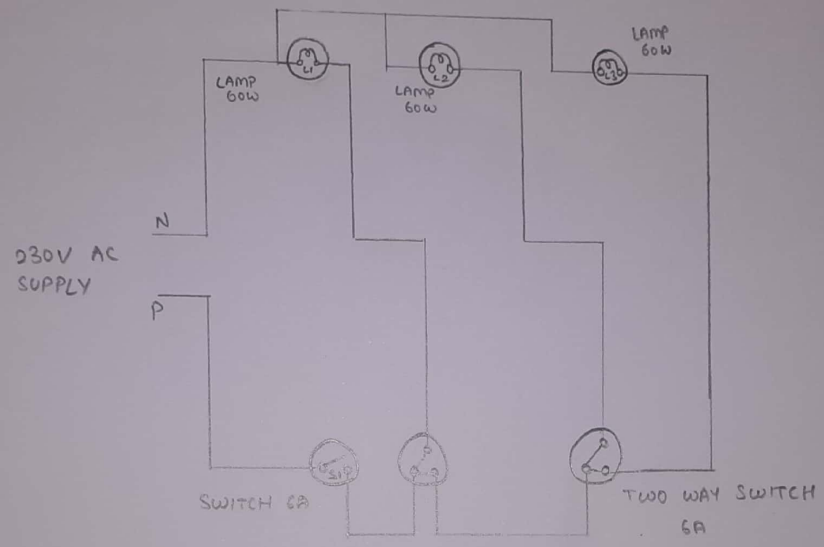
- switch on the SPST, the first lamp is switched on.
- switch on the first SPDT, the second lamp switch on and the previous one switch off.
- switch on the second SPDT, the third lamp switch on and the previous (second one) lamp switch off.

Similarly, when we, switch off the last i.e. second SPDT, the second lamp switch on and third lamp switch off. and so on until it reaches to the first SPST switch and the whole circuit can be switched off by turning it off.

USE:-

Godown wiring circuit is needed in tunnel like structures, warehouses, long passages, big godowns

having lots of rooms and different persons. It makes the best choice to save electricity and energy consumption where only one load i.e. light bulb can be operated at a time. Nowadays, as CFL and LED bulb which consumes low energy, this types of wiring is avoided due to its complexity ignoring the power consumption.



GODOWN WIRING.

TERM: 2021-22	DATE: 26/12/21	CONCEPT BY:
SEM: I	KJ SOMAIYA COLLEGE OF ENGINEERING	DRAWN BY:
SHOP: ELECTRICAL WIRING		APPD. BY:
NAME: Hiral Patel		INSTRUCTOR SIGN:
ROLL NO.: 1601042107		

K.J. Somaiya College Of Engineering

Vidyavihar (E) Mumbai-77

ELECTRICAL WIRING

JOB SHEET

NAME:- Hiral Patel ROLL NO:- 16010421071 BATCH:- G3 (IT)

NAME OF EXPERIMENT/JOB:- House wiring.

TOOLS AND EQUIPMENTS:-

lamp - 60W
Regulator
Bell push
one way switch - S3
Two way switches.

PROCEDURE:-

- Turn off the main breaker to ensure the main supply is switched off.
- Connect the neutral wire directly from CB to the first terminal of electric bell or buzzer.
- Connect all the push button switches common terminals to the line (phase or live) wire from related circuit breaker.
- Connect the upper terminals of push button switches to the first terminal of indicator lamps or bulbs.
- Connect the second terminals of all indicator lights

bulbs through a common wire and wire them to the second terminal of electric bell.
- Do the proper earthing/grounding according to your local area code.

Working:

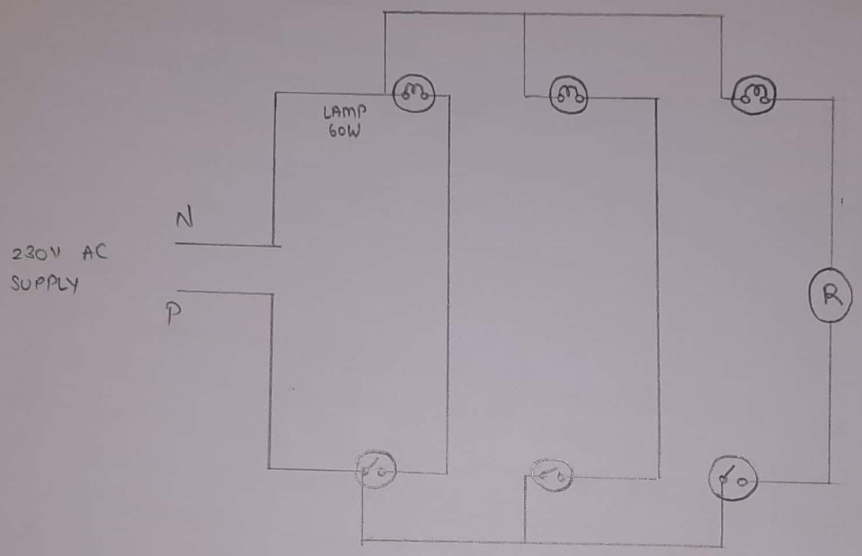
The bell push circuit used in houses where the bell is assigned number to a lamps and configured in a panel. The indicator lamp and bell are controlled from a different location by push button switches.

USE:-

Bell push circuit is used when a bells and buzzers are needed to be control from a different location.

Bell push circuit is also known as housing circuit where an electric bell is controlled from a location or more.

HOUSE WIRING



TERM: 2021-22	DATE: 26/12/21	CONCEPT BY:
SEM: I	KJ SOMAIYA COLLEGE OF ENGINEERING	DRAWN BY:
SHOP: ELECTRICAL WIRING		APPD. BY:
NAME: Hiral Patel		INSTRUCTOR SIGN:
ROLL NO.: 16010421071		

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ELECTRICAL WIRING

JOB SHEET

NAME:- Hiral Patel ROLL NO:- 16010421071 BATCH:- G3 (IT)

NAME OF EXPERIMENT/JOB:- Staircase wiring.

TOOLS AND EQUIPMENTS:-

Ammeter

Voltmeter (0-500V)

lamp (60 W)

Two way switches.

PROCEDURE:-

The first and second pole of SPDT switchs, is connected to the corresponding first and second pole of the SPDT switchs. That is similar poles of both two switches are connected to each ethere

The phase of the supply line is connected to the common pole of a switch. And the phase line to the load is taken from the common pole of the next switch. It makes an arrangement that, to close the circuit both the switches should be in the same position in order to make the two common poles in contact to achieve a closed circuit. changing the en

and off condition of a single switch can determine whether the circuit is closed or open. Thus, in staircase wiring, we can control the load from both positions.

Working:

Suppose you want to off the bulb from the upper switch at the top of stair (upper portion of stair) simply switch off the switch then circuit will break and the bulb will be off. To switch on the bulb again, just switch on the same switch at upper portion of staircase. In other words you can off and on bulb from upper switch at the top of stair. You can perform the same operation from the bottom switches installed in staircase. Suppose you want to off the bulb from the lower switch at bottom of stair. Simply off the switch, then again circuit will break and the bulb will be off. You can switch on the bulb again to switch on the same switch installed at the bottom or downstairs.

USE:-

- The main purpose of two way switching connection is to connect and control AC appliances and equip-

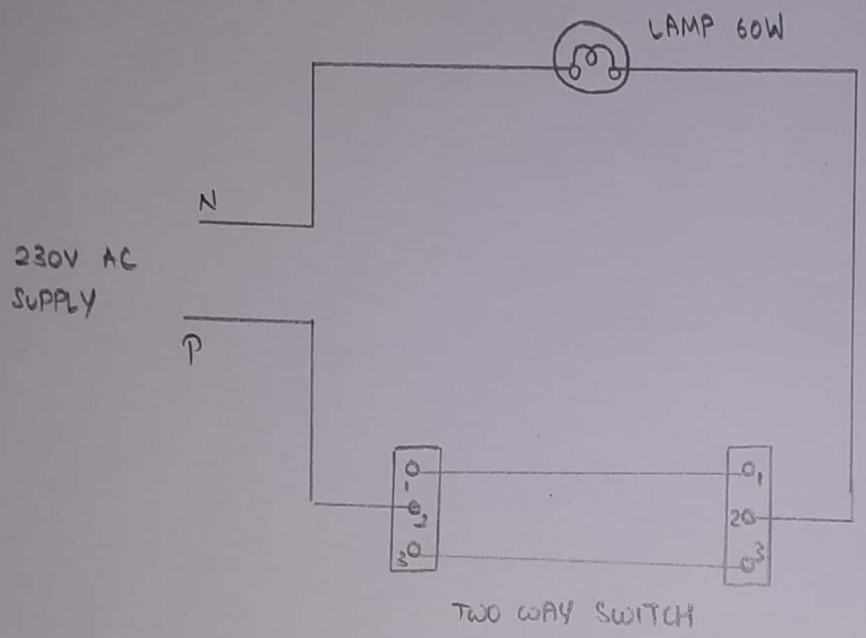
-ments from two separate locations.

- It is mostly used in staircase wiring where a light bulb can be controlled (switch on/switch off) from different places, no matter you are in the upper or lower portion of the stair.
- It is also used in rooms having large area which has two entry and exit gates.
- It is used to control any electrical (AC or DC) appliance or equipment like fan, light bulbs etc. from two different places.

CONCLUSION:-

This is a simple learning guide on electrical wiring systems. Different types of electrical wiring factors to consider while selecting an installment method. different types of electrical drawing need and also few example wiring diagrams/ circuits.

STAIR CASE WIRING



TERM: 2021-22

SEM: I

SHOP: ELECTRICAL WIRING

NAME: Hiral patel

ROLL. NO.: 16010421071

DATE: 26/12/21

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