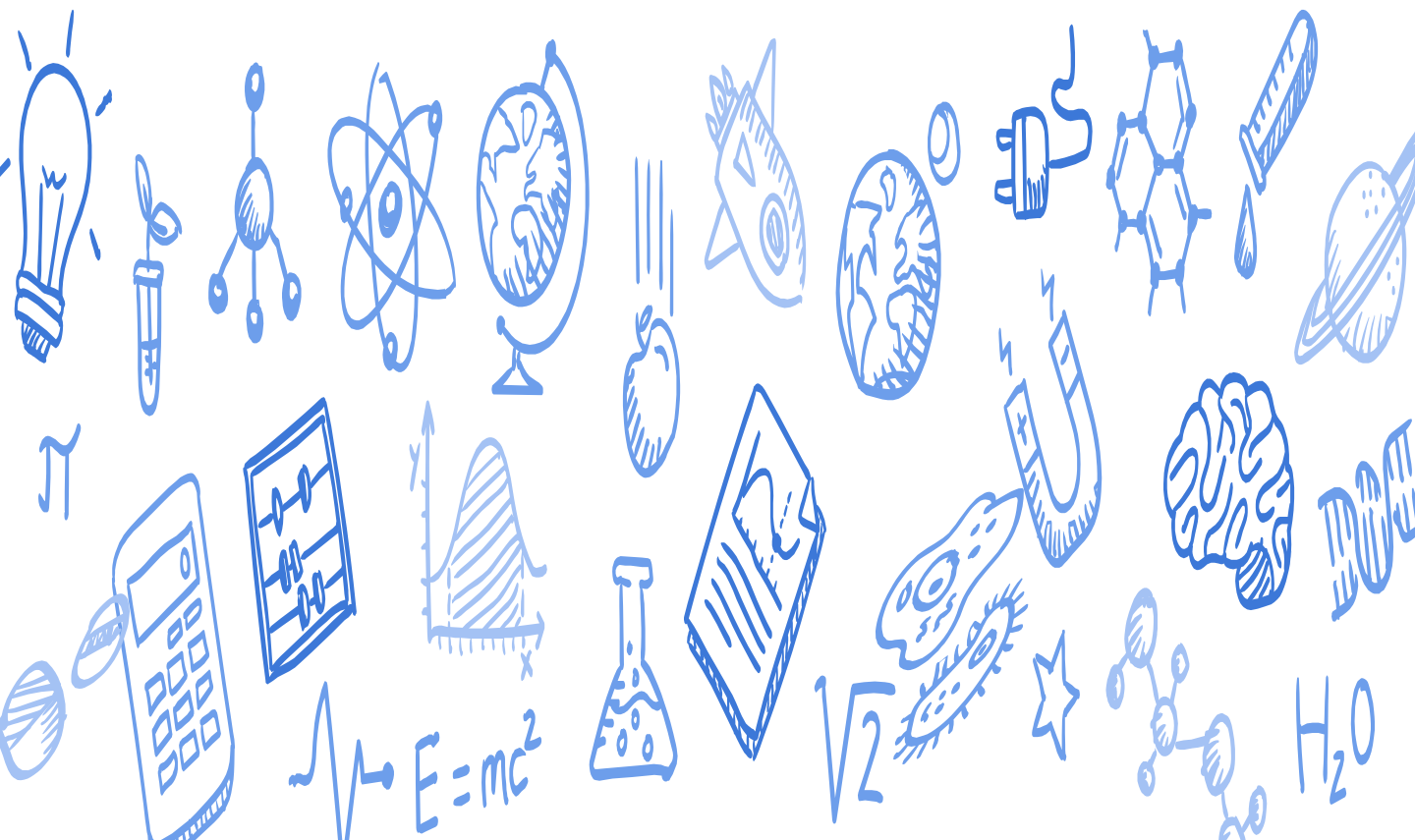
Click here for YouTube video on this topic

YouTube

ELECTRICAL ENGINEERING MCQ'S

40 Important Electrical Engineering MCQ's on

Illumination (Light)



1. Radiant efficiency of the luminous source depends on

a. shape of the source

b. temperature of the source

c. wavelength of light rays

d. all of the above.

Ans. b. temperature of the source

2. Light waves travel with a velocity of

a. 3 x 1010cm/s

b. 3 x 1012cm/s

c. 3 x 1015 cm/s

d. 3 x 1018 cm/s.

Ans. a. 3 x 1010cm/s

3. Carbon arc lamps are commonly used in

a. domestic lighting

b. street lighting

c. cinema projectors

d. photography.

Ans. c. cinema projectors

4. The unit of solid angle is

a. solid angle

b. Radian

c. Steradian

d. candela.

Ans. c. Steradian

5. Candela is the unit of

a. Luminous flux

b. Luminous intensity

c. Wavelength

d. None of the above.

Ans. b. Luminous intensity

6. The unit of luminous flux is

a. Steradian

b. Candela

c. Lumen

d. lux.

Ans. c. Lumen

7. The illumination is directly proportional to the cosine of the angle made by the normal to the illuminated surface with the direction of the incident flux. Above statement is associated with

a. Planck's law

b. Macbeth's law of illumination

c. Bunsen's law of illumination

d. Lambert's cosine law.

Ans. d. Lambert's cosine law.

8. Illumination level required for precision work is around

a. 50 lm/m2

b. 100 lm/m2

c. 200 lm/m2

d. 500 lm/m2

Ans. d. 500 lm/m2.

9. Which of the following needs the highest level of illumination?

a. Proof reading
b. Bed rooms
c. Hospital wards
d. Railway platforms

Ans. a. Proof reading

10. Which of the following will need lowest level of illumination ?

a. Displays
b. Fine engraving
c. Railway platform
d. Auditoriums

Ans. c. Railway platform

11. Which of the following lamp gives nearly monochromatic light ?

a. Sodium vapor lamp
b. GLS lamp
c. Tube light
d. Mercury vapor lamp

Ans. a. Sodium vapor lamp

12. The illumination level in houses is in the range

a. 10-20 lumen/m2
b. 30 - 50 lumen/m2
c. 40-75 lumen/m2
d. 100-140 lumen/m2

Ans. d. 100-140 lumen/m2

13. Luminous efficiency of a fluorescent tube is

a. 5- 10 lumens/watt

b. 15-20 lumens/watt

c. 30 - 40 lumens/watt

d. 60 - 65 lumens/watt.

Ans. d. 60 - 65 lumens/watt

14. One lumen per square meter is the same as

a. One lux

b. One candela

c. One foot candle

d. One lumen meter

Ans. a. One lux

15. Standard wattage of 3 ft. fluorescent tube is

a. 10 W

b. 40 W

c. 65 W

d. 100 W.

Ans. b. 40 W

16. For the same wattage which lamp is cheapest ?

a. Sodium vapor lamp

b. Mercury vapor lamp

c. Fluorescent tube

d. GLS lamps.

Ans. d. GLS lamps

17. Optical instruments used for the comparison of candle powers of different sources are known as

a. Candle meters
b. Radio meters
c. Bunsen meter
d. Photo meter

Ans. d. Photo meter

18. Which photometer is used for comparing the lights of different colors ?

a. Bunson photometer
b. Grease spot photometer
c. Lummer Brodhum photometer
d. Guilds Flicker Photometer

Ans. d. Guilds Flicker Photometer

19. Which photometer depends for its operation on Lambert's cosine law ?

a. Macbeth lllumino meter
b. Trotter Illumination Photometer
c. Lummer Brodhum Photometer
d. Guild's Flicker Photometer

Ans. b. Trotter Illumination Photometer

20. Which photometer depends for its operation on Inverse Square Law ?

a. Guilds Flicker Photometer
b. Lummer Brodhum Photometer
c. Macbeth lllluminometer
d. Trotter Illumination Photometer.

Ans. c. Macbeth lllluminometer

21. The colour temperature of day light is around
a. 50 K
b. 160 K
c. 600 K
d. 6000 K
Ans. d. 6000 K
22. Light is produced in electric discharge lamps by
a. heating effect of current
b. magnetic effect of current
c. ionization in a gas or vapor
d. carbon electrodes
Ans. c. ionization in a gas or vapor

23. Lumen/watt is the unit of
a. Light flux
b. Luminous intensity
c. Brightness
d. Luminous efficiency
Ans. d. Luminous efficiency
24. Candela is-the unit for
a. Light flux
b. Luminous intensity
c. Brightness
d. Luminous efficiency
Ans. b. Luminous intensity

25. Which gas is sometimes used in filament lamps ?

a. Argon
b. Krypton
c. Nitrogen
d. Carbon dioxide

Ans. a. Argon

26. Which bulb operates on lowest power ?

a. Night bulb
b. Neon bulb
c. GLS bulb
d. Torch bulb

Ans. d. Torch bulb

27. The output of a tungsten filament lamp depends on

a. size of lamp
b. size of shell
c. temperature of filament
d. all of the above

Ans. c. temperature of filament

28. A zero watt lamp consumes

a. no power
b. about 5 to 7 W power
c. about 15 to W power
d. about 25 to 30 W power

Ans. b. about 5 to 7 W power

29. Melting temperature of tungsten is
a. 2000°K
b. 2500°K
c. 2655°K
d. 3655°K.
Ans. d. 3655°K.
30. The flicker effect of fluorescent lamp is more pronounced at
a. lower voltages
b. higher voltages
c. lower frequencies
d. higher frequencies.
Ans. c. lower frequencies

31. A 60w lamp gives a luminous flux of 1500lumens so its efficiency will be?
a. 150lumen/watt
b. 300lumen/watt
c. 25lumen/watt
d. 2.5lumen/watt
Ans. c. 25lumen/watt
32. Colour of light depends upon
a. Velocity of light
b. Frequency
c. Wavelength
d. Both b and c
Ans. d. Both b and c

33. Sky appears blue due to

a. Radiation

b. Reflection

c. Refraction

d. Scattering of light over dust particle

Ans. d. Scattering of light over dust particle

34. Luminous flux is

a. Measured in lux

b. A part of light energy radiated by sun that is received on earth

c. The rate of energy radiation in the form of light waves

d. None of these

Ans. c. The rate of energy radiation in the form of light waves

35. For which of the following lights power factor is high

a. Sodium vapour lamp

b. Mercury vapour lamp

c. Incandescent lamp

d. Neon lamp

Ans. c. Incandescent lamp

36. Which of the following lamp does not have a separate choke?

a. Sodium vapour lamp

b. Mercury vapour lamp

c. Fluorescent lamp

d. None of these

Ans. a. Sodium vapour lamp

37. Blinking of fluorescent tube is may be due to

a. Lower circuit voltage

b. Loose contact

c. Defective starter

d. Any of the above

Ans. d. Any of the above

38. The filament of GLS lamp is made up of

a. Copper

b. Carbon

c. Tungsten

d. Aluminium

Ans. c. Tungsten

39. The luminous efficiency of filament lamp is about

a. 100 to 200 lumens/ watt

b. 10 to 18 lumens/watt

c. 50 to 75 lumens/watt

d. 75 to 100 lumens/watt

Ans. b. 10 to 18 lumens/watt

40. Sodium vapour lamp requires an ionisation voltage about

a. 10 volts

b. 5 volts

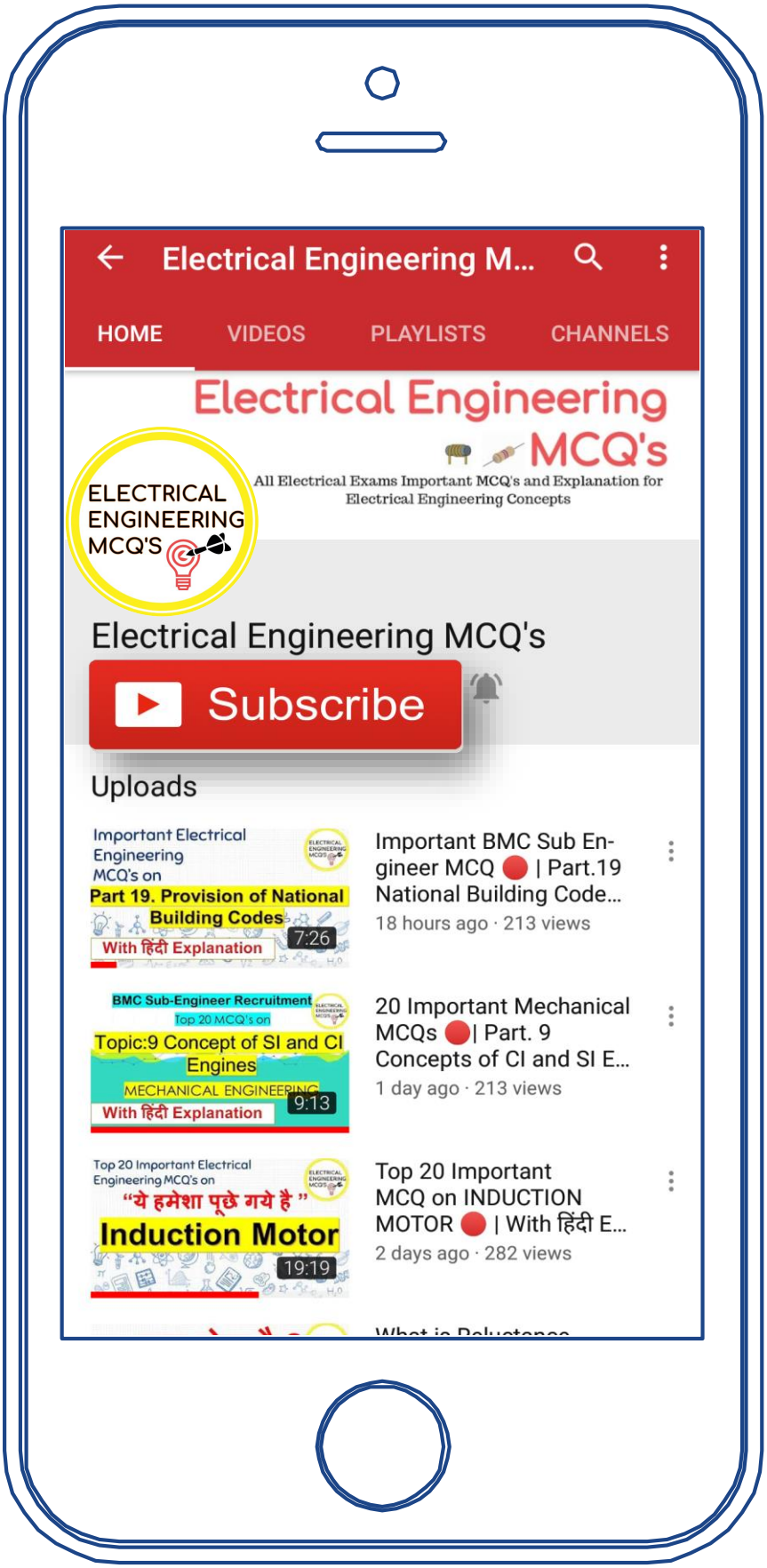
c. 20 volts

d. 100 volts

Ans. b. 5 volts

Click on Subscribe Button to visit YouTube Channel for More videos and Subscribe to

Electrical Engineering MCQ's



ELECTRICAL ENGINEERING MCQ'S