

15. (a) Describe briefly electrical switches.

Or

- (b) Write a note on Inverter.

SECTION C — (5 × 8 = 40 marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 600 words.

16. (a) Arrive an expression for the value of capacitance.

Or

- (b) Explain the consumption of electrical power.

17. (a) Explain the classification of transformers.

Or

- (b) Explain the construction of transformers.

18. (a) Write a note on wet grinder.

Or

- (b) Write a note on electric from box.

19. (a) Explain the house wiring.

Or

- (b) Explain the overloading.

20. (a) Write a note on electrical protection.

Or

- (b) Write a note on UPS.

Reg. No. :

Code No. : 40317 E Sub. Code : JSPH 3 A/
SSPH 3 A

B.Sc. (CBCS) DEGREE EXAMINATION,
NOVEMBER 2019.

Third Semester

Physics — Main ' '

Skill Based Subject — MAINTENANCE OF
ELECTRICAL APPLIANCES

(For those who joined in July 2016 onwards)

Time : Three hours

Maximum : 75 marks

SECTION A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer.

1. The formula to find $I =$ _____.

- | | |
|-------------------|-------------------|
| (a) VR | (b) $\frac{V}{R}$ |
| (c) $\frac{R}{V}$ | (d) IR |



2. One Kilowatt hour of electric energy is the same as
 (a) 36×10^5 joules (b) 36×10^5 ergs
 (c) 36×10^5 watts (d) 36×10^5 BTU
3. A transducer's function is to _____ energy.
 (a) convert (b) transmit
 (c) produce (d) prevent
4. An electric filament bulb can be worked from _____.
 (a) DC supply (b) AC supply
 (c) Battery supply (d) All
5. The rating of a fuse wire is always expressed _____.
 (a) amperes (b) ampere-hours
 (c) ampere volt (d) kWh
6. S.I. Unit of power is _____.
 (a) Henry (b) Watt
 (c) Coulomb (d) Watt-hr
7. The peak value of a sine wave is 200 V. Its average value is _____.
 (a) 141.4 (b) 127.4
 (c) 282.8 (d) 200 V
8. The power factor of a DC circuit is always _____.
 (a) Unity
 (b) Less than unity
 (c) Greater than unity
 (d) Zero

9. Power factor is zero, recovery voltage will be _____.
 (a) Maximum (b) Minimum
 (c) 0.5 (d) 0.707
10. In Vacuum circuit breaker it is order of _____.
 (a) 10 mm Hg (b) 10^{-9} mm Hg
 (c) 10^{-2} mm (d) 10^{-6} mm Hg

SECTION B — ($5 \times 5 = 25$ marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 250 words.

11. (a) State and explain Ohm's law.
 Or
 (b) Write the uses of multimeter.
12. (a) Describe the working of transformer.
 Or
 (b) Write a note on losses in transformer.
13. (a) Discuss the principle behind fan.
 Or
 (b) Explain in detail about the functioning of the refrigerator.
14. (a) Write a note on RMS value.
 Or
 (b) Write a note on colour code.

