

PARUL UNIVERSITY
FACULTY OF ENGINEERING & TECHNOLOGY
B.Tech. Winter 2019 – 20 Examination

Semester: 5

Subject Code: 03106347

Subject Name: Application of Electrical Energy

Date: 12/12/2019

Time: 10:30 am to 01:00pm

Total Marks: 60

Instructions:

1. All questions are compulsory.
2. Figures to the right indicate full marks.
3. Make suitable assumptions wherever necessary.
4. Start new question on new page.

Q.1 Objective Type Questions (Each of one mark)**(15)**

1. Tariff is applied for which kind of consumers?

| | |
|---------------------------|---------------------|
| (a) Big consumers | (b) Small consumers |
| (c) Residential consumers | (d) All of these |
2. Voltage required for butt welding is _____

| | |
|---------------|---------------|
| (a) 2 to 8 V | (b) 2 to 6 V |
| (c) 6 to 10 V | (d) 6 to 12 V |
3. _____ has the highest value of thermal conductivity?

| | |
|--------------|-----------|
| (a) Aluminum | (b) brass |
| (c) Copper | (d) Steel |
4. The example of plastic welding is

| | |
|------------------------|-----------------------|
| (a) Gas welding | (b) Arc Welding |
| (c) Resistance Welding | (d) None of the Above |
5. _____ is not an application of dielectric heat.
6. Diversity factor is always _____ 1.
7. In Induction Heating, _____ is of high value?
8. _____ furnaces are used for heat treatment of casting.
9. The power factor will be leading in case of _____ heating.
10. Full form of LED is _____
11. Which of the following methods of heating is not dependent on the frequency of supply?

| | |
|-----------------------|------------------------|
| (a) Induction Heating | (b) Dielectric Heating |
| (c) Electric Heating | (d) All of the above |
12. The most modern method for food processing is _____ heating.
13. _____ Factor is defined as the ratio of the illumination when everything is clean to illumination under normal working conditions.
14. Candela is the unit of _____ quantity
15. Unit of luminous flux is _____

Q.2 Answer the following questions. (Attempt any three)**(15)**

- A) What do you mean by Tariff? Give the types of Tariff.
- B) Explain Terms (a) Luminous Intensity (b) Lumen
- C) Explain Induction Heating.
- D) Define (a) Load Factor (b) Diversity Factor

Q.3 A) Explain Spot Welding with Suitable Diagram.**(07)**

- B) Give the Comparison between AC and DC Welding with Suitable Example.

(08)**OR**

- B) Explain the Working and Application of Arc Furnace.

(08)**Q.4 A) Explain Compact Fluorescent lamp.****(07)****OR**

- A) Explain Salt bath furnace with Suitable diagram.

(07)

- B) Explain Indirect Resistance Heating with Suitable Diagram.

(08)