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4247**BOARD DIPLOMA EXAMINATION, (C-14)****MARCH/APRIL-2019****DEEE – THIRD SEMESTER EXAMINATION****ELECTRONICS - I**Time:3 HoursMax.Marks:80**PART-A****10x3=30M**

Instructions: 1) Answer **all** questions. Each question carries **3** marks.
2) Answer should be brief and straight to the point and shall not exceed **five** simple sentences.

- 1) Define capacitance and list its specification.
- 2) Define self inductance and mutual inductance.
- 3) Distinguish between intrinsic and extrinsic semiconductors.
- 4) List advantages of Bridge rectifier.
- 5) List different types of filters.
- 6) What is the principle of photodiode?
- 7) List the applications of solar cell.
- 8) List causes for instability of transistor biasing.
- 9) Define operating point.
- 10) Define gain interms of decibel.

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PART-B

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5x10=50M

Instructions: 1) Answer any **five** questions. Each question carries **ten** marks.

2) The answer should be comprehensive and the criteria for valuation is the content but not the length of the answer.

- 11) Explain how resistance value is calculated using colour code. Find the value of resistance with colour code yellow-violet-orange and gold.
- 12) Explain input and output characteristics of transistor in CE configuration.
- 13) Explain the function of Zener diode as a voltage regulator in power supply.
- 14) Explain the construction and working of FET.
- 15) Explain the construction and working of opto-coupler and list its applications.
- 16) Explain the operation of transistor as an amplifier.
- 17) Briefly give the classification of amplifiers.
- 18) Explain the working of RC coupled CE amplifier with neat circuit diagram.

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