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BOARD DIPLOMA EXAMINATION, (C-14)

MARCH/APRIL-2019

DAEIE - FIRST YEAR EXAMINATION

ELECTRONIC COMPONENTS AND MATERIALS

Time: 3Hours]

[Max. Marks:80

PART-A

10x3=30M

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

- 1) List any three specifications of a resistor.
- 2) State the need for tapering in potentiometers.
- 3) Define the term capacitance.
- 4) List any three common faults in capacitors.
- 5) Classify inductors.
- 6) State the need of fuse in electronic equipment.
- * 7) Mention any three specifications of loud speakers.
- 8) List any three types of laminates used in PCBs.
- 9) List any three conducting materials.
- 10) Classify insulating materials.

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PART-B

5x10=50M

Instructions: 1) Answer any **five** questions. Each question carries **ten** marks.
2) The answers should be comprehensive and the criteria for valuation is the content but not the length of the answer.

- 11) Explain the working of rheostat and mention its applications. (8+2)
- 12) Derive an equation for equivalent capacitance when two capacitors are connected in series.
- 13) a) Draw the symbols of iron core, air core and ferrite core inductors. 6M
b) List any two applications of A.F and R.F chokes. 4M
- 14) Explain the working of toggle, push button and thumb wheel switches and mention the ratings and applications.
- 15) Explain the constructional features and principle of operation of PMMC Loudspeaker.
- 16) Explain the methods of etching, Cleaning and drilling of PCB.
- 17) a) Classify materials and explain the properties like conductivity, Resistivity. 8M
b) Define super conductivity. 2M

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- 18) Explain soft magnetic materials with examples.

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