

SCHEME FOR VALUATION
APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY
FOURTH SEMESTER B.TECH DEGREE EXAMINATION, DECEMBER 2018

Course Code: EE206
Course Name: MATERIAL SCIENCE

ANSWER KEY

PART A

1. Classification -5 marks
2. Compound semiconductor – 3 marks; 2 Example (1 mark each)
3. Statement -2 marks; explanation -3 marks
4. Curie Weiss Law -2 marks; Ferromagnetism – 3 marks
5. Definition- 2 marks ; 3 applications – 1 mark each
6. Superconductivity 3 marks; 2 application -2 marks
7. Theory of classification -1 mark; 4 classifications- 4 marks
8. Spectrography -2. 5 marks; spectrograph -2.5 marks

PART B

- 9 a . Definition and explanation of each -2 marks
 - b properties of carbon suitable for the application 2+2 marks
- 10 a Energy band diagram and conduction property of each -2 marks
 - b Definition -2 marks; Application -2 marks
- 11 a properties - 3 marks; application 1mark; effect of adding N₂ - 2marks
 - b 4 numbers -1 mark each

PART C

- 12 . 5nos of breakdown mechanism – 2 marks each
- 13 Treatment of Transformer oil – 5 marks; Testing – 5 marks

14 a each application – 3 marks

b Spontaneous magnetisation and classification – 3 marks ; Examples – 1 mark

PART D

15 a Type I – 2 marks example 1 mark; Type II – 2marks Example – 1 mark

b Two materials – 2marks ; examples 2 marks

16 a Photo voltaic conversion – 3 marks ; Advantages – 3 marks

b Comparison -2 marks; differences – 2 marks.

17 general description - 2 marks. 4 techniques – 2 marks each

