



G1011

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APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY**Scheme for Valuation/Answer Key***Scheme of evaluation (marks in brackets) and answers of problems/key***SEVENTH SEMESTER B.TECH DEGREE EXAMINATION (S), MAY 2019****Course Code: EE401****Course Name: Electronic Communication**

Max. Marks: 100

Duration: 3 Hours

PART A*Answer all questions, each carries 5 marks.*

Marks

- | | | |
|---|---|-----|
| 1 | Figure- 2 + derivation-3 | (5) |
| 2 | Figure- 2 + role of mixer-3 | (5) |
| 3 | Figure- 2 + explanation of important stages-3 | (5) |
| 4 | Figures-2, features (3 points each)-3 | (5) |
| 5 | Fig.- 2 + relevance- 3 | (5) |
| 6 | Fig. 1+ relevance- 4 | (5) |
| 7 | Fig. 3 + explanation-2 | (5) |
| 8 | Fig. 1+ Concept- 2 + role-2 | (5) |

PART B*Answer any two full questions, each carries 9 marks.*

- | | | |
|----|---|-----|
| 9 | a) $m=1/3$, $f_{SB}=9$ k & 11kHz, amplitude-2.5 V, BW=2kHz - 4 marks, spectrum-1 | (5) |
| | b) Feature comparison for specific application-5 | (5) |
| 10 | a) Fig.-2 + explanation of important blocks- 4 | (6) |
| | b) Fig. and explanation- 2 each | (4) |
| 11 | a) Circuit-2 + explanation-3 | (5) |
| | b) Circuit-2 + explanation-3 | (5) |

PART C*Answer any two full questions, each carries 9 marks.*

- | | | |
|----|---------------------------------------|-----|
| 12 | a) Derivation of range equation-5 | (5) |
| | b) Fig. 2+ explanation- 3 | (5) |
| 13 | a) Fig. 2 + Explanation- 3 | (5) |
| | b) Fig. 2 + Explanation- 3 | (5) |
| 14 | a) Statement and explanation-4 | (4) |
| | b) Fig-2+ explanation of the stages-4 | (6) |

PART D*Answer any two full questions, each carries 12 marks.*

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15 a) Fig. 2 + 2 features- 2	(4)
b) (Fig- 1 + Explanation-2) x 2	(6)
16 a) Fig-2+ explanation-2	(4)
b) Explanation-3+ reduction (at least 2 points) -3	(6)
17 a) Fig. 2+ Explanation-3	(5)
b) Fig-2+ explanation of important stages-3	(5)

