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| **Scheme of Valuation/Answer Key**(Scheme of evaluation (marks in brackets) and answers of problems/key) |
| **APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY**FIFTH SEMESTER (S)B.TECH DEGREE EXAMINATION, JULY 2019 |
| **Course Code: ME367** |
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| **Course Name: NON-DESTRUCTIVE TESTING**  |

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| Max. Marks: 100 |  | Duration: 3 Hours |
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| **PART A**  |
|  |  | ***Answer any three full questions, each carries 10 marks.*** | Marks |
| 1 | a) | Any five advantages, one mark each | ( 5) |
|  | b) | Any five difficulties one mark each | (5 ) |
| 2 | a) | Any three factors one mark each | ( 3) |
|  | b) | Endoscope 1.5 mark,boroscope 1.5 mark | 3 |
|  | c) | Any two lighting methds -2 marks each | 4 |
| 3 | a) | Any five properties one mark each | 5 |
|  | b) | Each type one mark each | 5 |
| 4 | a) | Explanation | 8 |
|  | b) | Any four advantages half mark each | 2 |
| **PART B**  |
| ***Answer any three full questions, each carries 10 marks.*** |
| 5 | a) | Each point and explanation one mark each | (5 ) |
|  | b) | Principle three marks and diagram 2 mark | ( 5) |
| 6 | a) | Dry cntionus 2.5 mark,wet contionous 2.5 mark | 5 |
|  | b) | Any five advantages one mark each | 5 |
| 7 | a) | Diagram 2 mark,explanation 3 mark | 5 |
|  | b) | Principle 2 mark,explanation 2.5 mark | 5 |
| 8 | a) | Any two ultrasonic transducers 2.5 mark each | 5 |
|  | b) | 5 points 1 mark each | 5 |
| **PART C**  |
| ***Answer any four full questions, each carries 10 marks.*** |
| 9 | a) | Principle 3 mark diagram 2 mark | ( 5) |
|  | b) | Any five properties of x rays 2.5 markAny five properties of gamma rays 2.5 mark | ( 5) |
| 10 |  | Any four techniques with diagrams -2.5 marks each | (10) |
| 11 |  | General Interpretation points 5 mark, example 2.5 marks each | 10 |
| 12 |  | Any 5 factors with explanation 2 mars each | 10 |
| 13 | a) | Any two probes with diagram 5 marks each | 10 |
| 14 | a) | Lift off effect 2 mark, edge effect -1.5 mark, end effect-1.5 mark | 5 |
|  | b) | Any two applications of ECT 2.5 marks each | 5 |
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