

  **Pages**

|  |
| --- |
|  |
| **Scheme of Valuation/Answer Key**(Scheme of evaluation (marks in brackets) and answers of problems/key) |
| **APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY**FIFTH SEMESTER B.TECH DEGREE EXAMINATION(S), JULY 2019 |
| **Course Code: ME369** |
|

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|

|  |  |  |  |
| --- | --- | --- | --- |
|

|  |  |  |
| --- | --- | --- |
|

|  |  |
| --- | --- |
|

|  |
| --- |
| **Course Name: TRIBOLOGY** |

 |

 |

 |

 |

 |
| Max. Marks: 100 |  | Duration: 3 Hours |
| **PART A**  |
|  |  | ***Answer any three full questions, each carries 10 marks.*** | Marks |
| 1 | a) | Potential savings  | ( 3) |
|  | b) | Definition 1 assumptions 5 | (1+5 ) |
| 2 | a) | Figure 2 explanation 3 | ( 2+3) |
|  | b) | Slideways in machine tool industryDraw dies in wire drawingCams and followersGearsDry or boundary- lubricated journal bearingsPiston rings / cylinder linersAny three - 3  |  |
|  | c) | 2 companies – 2 marks |  |
| 3 | a) | 3 ways – 3 marks |  |
|  | b) | Figure 2 , explanation 4 |  |
|  | c) | Any two - 2 |  |
| 4 | a) | Any six – 6 marks |  |
|  | b) | 2 types 2 marks |  |
|  | c) | 2 causes – 2 marks |  |
| **PART B**  |
| ***Answer any three full questions, each carries 10 marks.*** |
| 5 | a) | 4 occurance – 4 marks | ( ) |
|  | b) | Figure 1 , 3 regimes 3marks | ( ) |
|  | c) | Any two Assumptions 2  | ( ) |
| 6 | a) | Scuffing 1, galling -1 , seizure 1 |  |
|  | b) | Abrasive model 5 marks |  |
|  | c) | Definitions for both (1+1) |  |
| 7 | a) | Explanation 4 |  |
|  | b) | Any four considerations 4 |  |
|  | c) | Definition 1 gragh 1 |  |
| 8 | a) | 4 additives – 4 marks |  |
|  | b) | Figure 2 explanation 4 |  |
| **PART C**  |
| ***Answer any four full questions, each carries 10 marks.*** |
| 9 | a) | Explanation 4 | ( ) |
|  | b) | Explanation 2 | ( ) |
|  | c) | Any four materials 4 | ( ) |
| 10 | a) | Any four applications 4 | ( ) |
|  | b) | Figure 2Explanation 2 |  |
|  | c) | Definition 2 |  |
| 11 | a) | Adhesion index 2 |  |
|  | b) | Four interactions – 4 marks |  |
|  | c) | Figure 2 , explanation 2 |  |
| 12 | a) | Four properties 4 marks |  |
|  | b) | Figure 2 explanation 4 |  |
| 13 | a) | Explanation 4 |  |
|  | b) | Six methods – six marks  |  |
| 14 | a) | 4 properties - 4 marks |  |
|  | b) | 4 characteristics 2 marks  |  |
|  | c) | 4 methods 4 marks |  |
| \*\*\*\* |