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| **unnamed****Scheme of Valuation/Answer Key**(Scheme of evaluation (marks in brackets) and answers of problems/key) |
| **APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY**V SEMESTER B.TECH DEGREE EXAMINATION, DECEMBER 2018 |
| **Course Code: EE309** |
| **Course Name: MICROPROCESSOR AND EMBEDDED SYSTEMS** |
| Max. Marks: 100 |  | Duration: 3 Hours |
| **PART A** |
|  |  | ***Answer all questions, each carries5 marks.*** | Marks |
| 1 |  | Each (1.25) | (5) |
| 2 |  | Program(3) + delay time= 1.1ms (2) | (5) |
| 3 |  | 5 interrupts explanation (5) | (5) |
| 4 |  | Five comparison (5) | (5) |
| 5 |  | Each (1.25) | (5) |
| 6 |  | Diagram (3)+ Explanation (2) | (5) |
| 7 |  | Data types(2) + Directives (3) | (5) |
| 8 |  | Program (5)***Students making a positive attempt to answer this question (correct logic/flowchart/steps/algorithm) may be provided with proportional weightage of marks.*** | (5) |
| **PART B** |
| ***Answer any twofull questions, each carries10 marks.*** |
| 9 | a) | Program (5)***Students making a positive attempt to answer this question (correct logic/flowchart/steps/algorithm) may be provided with proportional weightage of marks.*** | (5) |
|  | b) | timing diagram (5) | (5) |
| 10 |  | Diagram (4) + Explanation (6) | (10) |
| 11 | a) | Explanation (5) | (5) |
|  | b) | Machine Cycle (2.5) + Instruction Cycle(2.5)  | (5) |
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| **PART C** |
| ***Answer any twofull questions, each carries10 marks.*** |
| 12 | a) | Diagram (4) + Explanation (2) | (6) |
|  | b) | Software interrupts (2) + Hardware interrupts (2) | (4) |
| 13 | a) | Diagram (5) | (5) |
|  | b) | Any five characteristics (5) | (5) |
| 14 | a) | Each one 2 marks (2marks x 4=8 marks)  | (8) |
|  | b) | two demerits (2) | (2) |
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| **PART D** |
| ***Answer any twofull questions, each carries 10 marks.*** |
| 15 |  | Diagram (5) + Explanation (5) | (10) |
| 16 | a) | SFR registers(5) | (5) |
|  | b) | TMOD registers (2.5) + TCON registers (2.5) | (5) |
| 17 |  | Program (10)***Students making a positive attempt to answer this question (correct logic/flowchart/steps/algorithm) may be provided with proportional weightage of marks.*** | (10) |
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