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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) |
|  |  |  | | |  |
| **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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