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| **APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY**  FIFTH SEMESTER B.TECH DEGREE EXAMINATION, DECEMBER 2018 | | | |
| **Course Code: EC 305** | | | |
| **Course Name: MICROPROCESSOR & MICROCONTROLLER** | | | |
| **Scheme of Valuation** | | | |
| (Scheme of evaluation (marks in brackets) and answersof problems/key) | | | |
| **PART A** | | | |
|  |  | ***Answer any twofull questions, each carries15 marks.*** | Marks |
| 1 | a | Diagram with necessary markings –  Explanation of GPR,SPR,Flags | (4)  (2+2+2) |
|  | b | Comparison  Control Signals | (3)  (2) |
| 2 | a | Timing Diagram  Explanation  Time Required | (5)  (3)  (2) |
|  | b | Purpose of each signal (1 mark each) | 1X5=(5) |
| 3 | a | Advantages  Scan lines  Encoded Mode  Decode mode | (2)  (2)  (3)  (3) |
|  | b | Diagram  Explanation | (3)  (2) |
| **PART B** | | | |
| ***Answer any twofull questions, each carries15marks.*** | | | |
| 4 | a | Logically correct program  -Logic /algorithm/flowchart - | (7)  (3) |
|  | b | Segments  Advantage  Physical address determination | (2)  (1)  (2) |
| 5 | a | Explanation 1 mark each | (1X5) |
|  | b | Diagram with necessary markings –  Explanation of memory map– | (5)  (5) |
| 6 | a | Function  P1 as Input  P1 as output | (4)  (3)  (3) |
|  | b | Addressing modes with examples | (5) |
| **PART C** | | | |
| ***Answer any twofull questions, each carries20 marks.*** | | | |
| 7 | a | Diagram with necessary markings –  Explanation – | (5)  (5) |
|  | b | TMOD description  TCON description  SCON  IE  IP | (2 X5) |
| 8 | a | Logically correct program  -Logic/ algorithm/flowchart | (7)  (3) |
|  | b | Diagram  Explanation  program | (3)  (3)  (4) |
| 9 | a | Logically correct program  -Logic/ algorithm/flowchart | (7)  (3) |
|  | b | Diagram  Explanation | (5)  (5) |
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