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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 B.TECH DEGREE EXAMINATION, DECEMBER 2018 | | | | | |
| **Course Code: CS303** | | | | | |
| **Course Name: SYSTEM SOFTWARE** | | | | | |
| Max. Marks: 100 | | |  | Duration: 3 Hours | |
| **PART A** | | | | | |
|  |  | ***Answer all questions, each carries3 marks.*** | | | Marks |
| 1 |  | Program – 3marks | | | (3) |
| 2 |  | List of Registers (1)  Purpose(2) | | | (3) |
| 3 |  | Explanation of forward reference (1)  Resolving the Problem (2) | | | (3) |
| 4 |  | Format (2)  Example(1) | | | (3) |
| **PART B** | | | | | |
| ***Answer any two full questions, each carries9 marks.*** | | | | | |
| 5 | a) | Addressing modes –(5)  Target address calculation (4) | | | (9) |
| 6 | a) | Application software-(1.5)  System Software –(1.5) | | | (3) |
|  | b) | Program (6) | | | (6) |
| 7 | a) | 3 functions (1 mark for each) | | | (3) |
|  | b) | Algorithm (5)  Explanation(1) | | | (6) |
| **PART C** | | | | | |
| ***Answer all questions, each carries3 marks.*** | | | | | |
| 8 |  | Definition+ Example-(1.5)  Advantages – (1.5) | | | (3) |
| 9 |  | Bootstrap Loader(1)  Working of Bootstrap Loader(2) | | | (3) |
| 10 |  | EXTDEF & EXTREF – Explanation + Example (1.5 marks each) | | | (3) |
| 11 |  | Formation of bitmask (1)  Usage with example(2) | | | (3) |
| **PART D** | | | | | |
| ***Answer any two full questions, each carries9 marks.*** | | | | | |
| 12 | a) | Definition of Program Block (1)  Definition of Control Section(1) | | | (2) |
|  | b) | Description of the Block concept(3)  Object code generation with example(4) | | | (7) |
| 13 | a) | Description(1.5)  Example(1.5) | | | (3) |
|  | b) | Algorithm(5)  Explanation(1) | | | (6) |
| 14 | a) | Explanation -3 marks | | | (3) |
|  | b) | Working of any one type of one pass assembler(6) | | | (6) |
| **PART E** | | | | | |
| ***Answer any four full questions, each carries10 marks.*** | | | | | |
| 15 | a) | Keyword macro parameter(1.5)  Positional macro parameter(1.5) | | | (3) |
|  | b) | Algorithm(6)  Explanation (1) | | | (7) |
| 16 | a) | Yes.(1) Generation of unique labels(5) | | | (6) |
|  | b) | Explanation (3)  Example(1) | | | (4) |
| 17 | a) | Overview of conditional macro expansion(2)  Explanation of any two types of conditional macro statements with examples(3 mark for each)  Implementation details – 2 marks | | | (10) |
| 18 | a) | Diagram (5 )  Explanation(3) | | | (8) |
|  | b) | Four functions(0.5 marks for each) | | | (2) |
| 19 | a) | 6 points& its explanation( 1 mark for each) | | | (6) |
|  | b) | 4 points(1 mark for each) | | | (4) |
| 20 | a) | Definition(2)  Design issues(3) | | | (5) |
|  | b) | Character Device Driver(2.5)  Block Device Driver(2.5) | | | (5) |
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