

**APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY****Scheme for Valuation/Answer Key***Scheme of evaluation (marks in brackets) and answers of problems/key***APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY****SECOND SEMESTER B. TECH DEGREE EXAMINATION (R & S), MAY 2019****Course Code: BE102****Course Name: DESIGN AND ENGINEERING**

Max. Marks: 50

Duration: 2 Hours

**Instructions:** *This is an open book examination and the students are permitted to use maximum of 4 text books, class notes, own notes, earlier assignments; but access to mobile phone and internet is not allowed. Exchange of text books/notes not permitted.*

**PART A***Answer any 6 questions, each carries 5 marks*

		marks
1	Any 3 objectives and 2 constraints , one mark each	(5)
2	Survey questionnaire consists of minimum 5 relevant questions	(5)
3	Proper sketch of house of quality with all parts- 5 marks	(5)
4	Objective tree with sub functions (Minimum 5 points)	(5)
5	Any 5 points with justification 5 marks-5 marks	(5)
6	Any 5 standard items. 1 marks each	(5)
7	IPR for story- 2 marks, IPR for invention-3 marks	(5)
8	Any 5 aspects including atleast 2 aesthetic aspects and atleast 2 ergonomic aspects	(5)

**PART B***Answer 2full questions, each carry 10 marks.*

9	a) Design parameters with justification – 2marks. Sketch- 3 marks	(5)
	b) Any 5 ‘Design for X’ with explanation-5 marks	(5)
10	a) Design parameters with justification – 2marks. Sketch- 3 marks	(5)
	b) Atleast 5 points including both objectives and constraints -5 marks	(5)
11	a) Definition	(3)
	b) Modular design showing at least seven parts- 7 marks	(7)

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