

B. M. S. College of Engineering, Bengaluru - 560019

Autonomous Institute Affiliated to VTU

September / October 2023 Supplementary Examinations

Programme: B.E.

Branch: Aerospace Engineering

Course Code: 19AE3DCCTA

Course: Computer Aided Tools for Aerospace Engineering

Semester: III

Duration: 3 hrs.

Max Marks: 100

Date: 13.09.2023

Instructions:

Answer the following questions choosing one question from each unit

UNIT - I

1.	a)	Discuss the following Engineering articles	
	i.	Brochure, ii. Catalogs, iii. Banner, iv. Poster, v. Notes	10
	b)	Discuss the key elements of a research paper.	6
	c)	List the current generation word processing softwares.	4

OR

2.	a)	Discuss in detail about Manuscript.	5
	b)	List the various types of academic documents.	3
	c)	Discuss salient features of (i) Excel (ii) Latex and (iii) Beamer.	12

UNIT - II

3.	a)	Give an overview of Python. List its advantages and disadvantages.	8
	b)	Explain the difference between the C++ and python languages.	6
	c)	Describe the role of Lab view in engineering.	6

OR

4.	a)	Discuss the criteria for a programming language.	8
	b)	State the applications of the following programming languages.	
		(i) Python, (ii) R programming, (iii) Matlab, (iv) Math CAD, (v) Minitab & (vi) Excel	12

UNIT - III

5. a) Drawing is the language of Engineers. Elaborate. **5**

b) Differentiate between first angle and third angle system of projections. **5**

c) What are the types of geometric transformations? Explain four important types with examples. **10**

UNIT - IV

6. a) Discuss the advantages and disadvantages of 3D Computer Modelling. Give examples with their application in industry. **8**

b) Discuss Reverse Engineering & clay modeling principles. **8**

c) Discuss graphics exchange standards. **4**

UNIT - V

7. a) Discuss important steps in computer aided analysis process. List. **7**

(i) Its benefits and

(ii) the broad areas covered by CAE

b) Explain the process of computer aided manufacturing. **5**

c) Classify the structural analysis types listing the tools used for it. **8**
