



**KALINGA INSTITUTE OF INDUSTRIAL TECHNOLOGY**  
**DEEMED TO BE UNIVERSITY, BHUBANESWAR – 24**  
**(Decld. U/S 3 of UGC Act, 1956)**  
**OFFICE OF THE CONTROLLER OF EXAMINATIONS**

**Mid-Semester Examination (Autumn Semester, 2023–2024)**

**Subject Name & Code:** Scientific & Technical Writing (EX20003) **Applicable to Courses:** B. Tech. 3rd Sem

**Full Marks:** 40

**Time:** 1.5 Hours

Answer either **PART I** or **PART II** questions, as directed.

Attempt **PART I** if you belong to one of the following Schools of Engineering and Sections:

**School of Computer Engineering:** IT – 1, 2, and 3, CSE – 21, 23, 25, 27, 29, 31, 33, 35, 37, 39, 40, 41, 42, CSSE – 1, CSCE – 1 and 2;

**School of Electronics Engineering:** ETC – 1, 2, and 3, EEE

Attempt **PART II** if you belong to one of the Schools of Engineering and Sections :

**School of Computer Engineering:** IT – 4 and 5, CSE – 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, and 55, CSSE 2 and 3;

**School of Electronics Engineering:** E&CSE – 1, 2, 3, 4, and 5;

**All sections of School of Mechanical Engineering, School of Civil Engineering, and School of Electrical Engineering**

**PART I**

**SECTION A**

**(The question has five parts. Answer all parts of the question. Each part carries 2 Marks, Total Marks: 10)**

Question No.	Question	Learning levels as per Bloom's taxonomy	CO Mapping
1(a)	Revise the following sentence to (i) replace the cliché phrase, and (ii) include complete and accurate information:  Last but not the least item on the agenda, the sales team will have its next meeting at 6 pm on Wednesday.	III	CO 1
1(b)	Revise the following sentence to (i) replace the circumlocution with simple words, and (ii) avoid discriminatory writing:  In the given circumstances, our suggestion is to forestall the company's decision of retrenchment of its trusted employees especially at a time when employable manpower would not be easy to acquire.	III	CO 1
1(c)	What do the Latin phrases "pro rata" and "a priori" mean? Show how these phrases can be used in English sentences.	I, II	CO 2
1(d)	What is a two-column list and what is it used for? What is the significance of a numbered list as compared to a bulleted list?	I, II	CO 3
1(e)	What are transition words and phrases? Provide examples of transition words or phrases to show that you are (i) providing additional information and (ii) comparing two or more sets of information.	I	CO 3



### SECTION B

**Each question has two parts. Answer BOTH parts of Any THREE questions. Total Marks: 30**

Question No.	Question	Marks	Learning levels as per Bloom's taxonomy	CO Mapping
2 (a)	What are Primary, Secondary, and Tertiary audience? In which of these categories will you place Experts, Technicians, Executives, and Non-specialists? Give an example of a technical document with all three kinds of audience.	6	I, II	CO 1
2 (b)	Mention two differences between Scientific Writing and Science Writing, with one example of each. Write two distinguishing characteristics of Technical Writing. Give two examples of Technical Writing from two different fields.	4	II, I	CO 1
3 (a)	Define Plagiarism. What are the four main types of Plagiarism? Suggest the means to prevent plagiarism.	6	I, II	CO 2
3 (b)	In the following sentences, change the gender-biased and racially biased language to neutral and bias-free language: Every day, each inhabitant of earth must ask himself, how he can fulfil his duties towards his home planet. He would be the first coloured president in the White House, although the native American Indians were coloured as well.	4	II, III	CO 2
4 (a)	Write a short passage (within 200 words) on the topic "Climate Change" by using the Cause and Effect pattern of idea development.	6	II, III	CO 3
4 (b)	Fill in the blanks in the passage given below with appropriate transition words and phrases from the given list: according to, although, currently, due to, immediately, in fact, once, sometimes, such as, though ____ several countries have improved their services through the use of more sophisticated Web pages, ____ the Department of Public Expenditure and Reform (2012), countries still need to introduce more technologies and automated processes with the aim of reducing the burden of processes ____ needed for citizens and organizations. In several public processes the citizens and organization must present physical documents that are delivered manually from one section to another, ____ producing delays in the delivery ____ human causes ____ illness, oversight, or overwork of the public worker. By means of automated processes, this documentation is ____ available to the next section or administration in the business process ____ the documentation has been analyzed and completed by the corresponding section or administration.	4	III	CO 3
5 (a)	Revise the following sentences from informal English to formal English by replacing (i) highly colloquial words, (ii) shortened words, and (iii) contracted words with more formal words. Hey dude, wassup? Don't wait up, on my way home. Yeah, didn't get the memo, my bad.	6	II	CO 2
5 (b)	Revise the following paragraph by using the correct punctuation, capitalisation, nominalisation, and abbreviation: Since it's establish in 1996, the firm has rapidly grown to include a large professional staff. Currently 40 professionals in the UK serve Europe and 40 more serve North America and the Caribbean supported by para-financials and administrative staff.	4	III	CO 2



**PART II**

**SECTION A**

**The question has five parts. Answer ALL parts of the question. Each part carries 2 Marks, Total Marks: 10**

<b><u>Question No</u></b>	<b><u>Question</u></b>	<b><u>Learning levels as per Bloom's taxonomy</u></b>	<b><u>CO Mapping</u></b>
<b><u>1(a)</u></b>	"During heavy rainfall, some of the roads of smart city Bhubaneswar are getting submerged" Considering this statement, write a suitable title with capitalization.	II	CO 4
<b><u>1(b)</u></b>	What is your understanding about a conflict-of-interest statement? Write a conflict-of-interest statement.	I, II	CO 4
<b><u>1(c)</u></b>	Check the following sentences: (a) CO <sub>2</sub> emissions enhance the global warming. (b) The cement was replaced by fly ash at the rate of 10%, 20% and 30%. (c) During the last three days, the temperature increased by 2 °C, 4 °C and 6 °C. (d) In the U.S., one can travel with only with U.S. dollar If a sentence is correct, write "No change required", else write the correct sentence.	II	CO 5
<b><u>1(d)</u></b>	How can you validate the experimental results?	II	CO 6
<b><u>1(e)</u></b>	What is the difference between a summary and a conclusion?	II	CO 6

**SECTION B**

**Each question has two parts. Answer BOTH parts of Any THREE questions. Total Marks: 30**

<b><u>Question No.</u></b>	<b><u>Question</u></b>	<b><u>Marks</u></b>	<b><u>Learning levels as per Bloom's taxonomy</u></b>	<b><u>CO Mapping</u></b>
<b>2 (a)</b>	Ayusha Agrawal has written a paper out of her research work. She investigated, by conducting laboratory experiments, the effect of speed, feed and depth of cut on the material removal rate and surface roughness of mild steel workpieces when they are turned with high-speed steel cutting tools. She had used response surface methodology to find the optimal values of the cutting parameters that maximized the material removal rate and minimized the surface roughness of the work pieces. She had used the multi-objective geometric programming method to separately obtain the optimal parameter values and compare them with those obtained with the response surface methods. She had concluded that a combined response surface design-cum-geometric programming approach is the key to get the optimal values of the machining parameters. Write an abstract for the passage given above and suggest five keywords.	6	II	CO 4

<b>2 (b)</b>	Name the sections of a research article and briefly describe the contents of each.	4	II	CO 4
<b>3 (a)</b>	Following any standard reference style, write details of references for a book, a journal paper, a book chapter, conference proceedings and material on the Web	6	II	CO 5
<b>3 (b)</b>	Write down the rules associated with making figures and graphs	4	II	CO 5
<b>4 (a)</b>	In a research work, you have received support from others like materials, money, techniques, fellowship, discussions and revision of the manuscript. Write acknowledgments in the required sequence.	6	II	CO 6
<b>4 (b)</b>	<p>You had conducted an experiment relating Temperature and Electric Current (the independent variables) to Force (the dependent variable). The experimental values of these variables as you had hurriedly written down in your laboratory notebook (without specifying the units of measure) are the following:</p> <p>Temperature: 20, 50, 80.5.5, 110.05.05, 140 .</p> <p>Pressure: 17.1, 15, 15.85, 16.085, 18.30</p> <p>Force: 15, 46.2, 9.25, 0.125, 3.0</p> <p>Put these values in a tabular form, with an appropriate caption and with the chosen SI units of measure for the variables.</p>	4	II	CO 6
<b>5 (a)</b>	Describe how experimental results are interpreted and generalized.	6	II	CO 5
<b>5 (b)</b>	What are the common rules followed for drawing a flow chart, explain each briefly.	4	II	CO 5