

GANPAT UNIVERSITY
M.TECH SEMSTER – I (ELECTRICAL)
CBCS (New) REGULAR EXAMINATION – NOVEMBER-DECEMBER -2015
3OS105: Technical Skills & Research Methodology

MAX. TIME: 3 HRS

MAX. MARKS: 60

Instructions:

1. Figures to the right indicate full marks.
2. Each section should be written in a separate answer book.
3. Be precise and to the point in your answer.

SECTION – I

- Q.1 (A) Prepare a detailed note on 'Process of Communication' covering all its stages. [5]
 (B) Discuss 'attention grabbers' in effective oral presentation. [5]

OR

- Q.1 (A) What qualities, according to you, are assessed by means of Group Discussion as a part of job interview? [6]
 (B) Boredom factors of presentation and the remedies to solve them [4]

- Q.2 (A) "Listening is a process of receiving, decoding, interpreting, evaluating and responding to oral content" - Elaborate [4]
 (B) Draft a letter of complaint to the dealer for receipt of wrong consignment of electronic home appliances. [6]

OR

- Q.2 (A) Draft a committee report with recommendations on proposed takeover of a small scale engineering tools making company. [5]
 (B) "Reading makes a full man" - Discuss [5]

- Q.3 **Do as directed.** [10]

1. It _____ very long since we last met. How have you been?
 (Insert proper form of 'to be')
2. She **occasionally** dreams of completing this **mammoth** task on her own.
 (Recognize the Parts of Speech in bold)
3. Yesterday my brother took IELTS test. (Change the voice)
4. I _____ short-stories since 1986. I think it is high time I changed my genre.
 (Insert proper form of 'to write')
5. The British **enslaved** the Indians for more than 200 years.
 (Give Noun for the word in bold)
6. I _____ just _____ writing the essay when my pen ran out of ink.
 (Insert proper form of 'to start')
7. One who eats all kinds of food.
 (Give one word substitute)
8. The shop sells **antiquated** articles. Many of them are of no use today.
 (Use a synonymous term for the word in bold)
9. She always _____ her boyfriend _____ for her mobile bills. (get + pay)
10. Generally, I _____ cold drink to tea. One must not _____ others.
 (Insert proper form of 'to prefer')

SECTION - II

Q.4 (A) Explain mathematical model with suitable examples. What is the importance of mathematical model in engineering research? [6]

(B) What is exponential growth and decay? Give the example for exponential growth and decay model. [4]

OR

Q.4 (A) Differentiate between the probabilistic analysis and deterministic analysis. [5]

(B) What are the difficulties associated with numerical solution? What are the advantages of numerical solution over analytical solution? [5]

Q.5 (A) Explain the Bay's rule with example. [6]

(B) Differentiate between continuous and discrete system models. [4]

OR

Q.5 (A) Discuss about stochastic, deterministic, and chaotic model with suitable example. [6]

(B) Write a short note on measurement errors. [4]

Q.6 Attempt any two

(A) What is Venn Diagrams? How it can be applicable to engineering research? [5]

(B) Explain Probabilistic Risk Assessment (PRA). [5]

(C) Explain the sources of modeling errors in research. What are the consequences of modeling errors? [5]

END OF PAPER