

GANPAT UNIVERSITY

M.TECH SEMSTER – I (ELECTRICAL) REGULAR EXAMINATION – JANUARY -2013

3EE105: Technical Skills & Research Methodology

MAXM TIME: 3 HRS

MAXM MARKS: 70

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 Define 'Communication' and discuss its process on the basis of Shannon's model. (12)

OR

Q.1 How, according to you, communication skills play instrumental role in the professional life of an engineer?

Q.2 What, according to you, is debate? Discuss the dos and don'ts of debating. (11)

Q.3 Do as directed (Any TWELVE). (12)

- (1) My friend _____ a recipient of the Nobel Prize. He received it in 1921. (Use proper form of 'receive')
- (2) Tolstoy used to work 17 hours a day to complete his 'War and Peace'. (use 'would')
- (3) The exercise truly _____ the video tutorial we just watched.(complement/compliment)
- (4) He insisted that the patient _____ on a fruit diet. (use proper form of 'remain')
- (5) When I met him last, He _____ working for Nasa for a year. (Insert proper form of 'work')
- (6) He looks horrible! He _____ look good if he _____ beard. (Use Second Conditional)
- (7) The cardinal key to success is commitment. (Identify underlined words).
- (8) Can you _____ him _____ the pill? (make, swallow)
- (9) Why don't you _____ your room _____? It's quite filthy here. (get, clean)
- (10) Her Moped was stolen yesterday.(Change the voice)
- (11) _____ you ever _____ how it feels to be standing on the moon?(use proper form of 'wonder')
- (12) She _____ be telling the truth. I know that she's a big liar.(can't/won't/wouldn't)
- (13) You must pay your outstanding debts to live a peaceful life. (Identify underlined word).
- (14) The committee is resolved to provide help in the flood _____ areas (effected/affected)

SECTION – II

Q.4 Define 'Listening' and discuss the traits of a good listener. (12)

OR

Q.4 Prepare short notes for the following.

- (1) Strategies for effective reading comprehension
- (2) Essential of formal writing skills

Q.5 (A) Show how two coupled first order differential equations can model the behavior of two fighting armies. Show how Lanchester's square law can be derived from the differential equations. (05)

(B) We are going to use MATLAB function "ode45" to solve the above equation. The differential equations are to be written in the form of MATLAB function named (06)

Q.6 Draft the following business letters. (Any two)

- (1) Draft an inquiry letter for purchase of various electrical accessories for power plant.
- (2) Lodge a complaint for non-receipt of various winterwears.
- (3) Send out a reply to the retailer's inquiry for various electrical cables.

-----END OF PAPER-----

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