

GATE 2015 – A Brief Analysis
(Based on student test experiences in the stream of EC on 31st
January, 2015 – (Second Session))

Section wise analysis of the paper

Section Classification	1 Mark	2 Marks	Total No of Questions
Engineering Mathematics	5	4	9
Networks	2	4	6
Electronic Devices	3	3	6
Analog Circuits	3	3	6
Digital Circuits	3	3	6
Signals and Systems	3	3	6
Control Systems	2	3	5
Communication	2	4	6
Electromagnetics	2	3	5
Verbal Ability	3	0	3
Numerical Ability	2	5	7
	30	35	65

Questions from the Paper

Aptitude

- What is the synonym of **Awkward**?
- What is the adverb of **Misogyny**?
- Question based on grammar in sentence.
- $a^2 + b^2 + c^2 = 1$, then $ab + bc + ca$ gives _____.
- Statements:**
(I) All film stars are singers
(II) All film directors are film stars.
Conclusions:
(I) All film directors are singers.
(II) Some film stars are film directors.
Which of the following is true?
(A) Conclusion (I) is possible
(B) Conclusion (II) is possible

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- (C) Conclusion (I) and (II) is possible
(D) Neither Conclusion (I) nor Conclusion (II) is possible

6. A tiger is 50 leaps far from a deer. If tiger makes 5 leaps/min, deer makes 4 leaps/min, then how much time tiger takes to catch the deer?
_____ min

Technical

1. A field is given as $E = (a_x + j2a_y)e^{j(\omega t - \beta z)}$.
The polarization is _____.
2. The electrostatic potential in a source free medium is $2x^2 + y^2 + 2cz$, then the value of c is _____.
3. For a field $E = 2\cos(\omega t - \beta z)a_x + 5\cos(\omega t + \beta z - 90^\circ)a_y$, polarization is _____.
4. Two antenna are placed along “x” and “y” axis carrying currents 90° out of phase with a frequency 3 GHz. The distance between the two antennas to have a maximum field at 60 is _____.
5. An air filled rectangular wave guide have cut off frequency 6 GHz for TE₁₀, and 15GHz for TM₁₁. The cut off frequency for TE₀₁ is _____GHz.
6. If ‘x’ and ‘y’ are independent variables and $p(x=0) = p$; $p(y=0) = q$
then $p(x+y \leq 1)$ is _____.
7. A fair coin is tossed until two consecutive head show up. If X denotes number of times coin is tossed then the expectation of X is _____.