Assignment-2

The due date for the submission is 3-12-13, 23:59 IST.

1. Who has classified overhead high voltage transmission line as:
   - Class A: transporation to human
   - Class B: probable carcinogen to human
   - Class D: possible carcinogen to human
   - Class E: not classifiable as to its carcinogenicity to humans
   - Accepted Answer: Class D, possible carcinogen to human

   1 point

2. People living within ___ meter in the mast bases of cell tower antennas are considered to be in extremely high radiation zone.
   - 20
   - 50
   - 300
   - 308
   - Accepted Answer: 200

   2 points

3. The length of dipole antenna is 25 mm at 900 MHz with wire diameter of 0.3 mm, what will be current distribution of the antenna?
   - Uniform
   - Triangular
   - Sawtooth
   - None of the above
   - Accepted Answer: Triangular

   2 points

4. $A_0$, is the area of a dipole antenna of length 5 cm at 1300 MHz is ___. The $Z_0$, of this antenna will be inductive or capacitive?
   - 0.62, inductive
   - 0.62, capacitive
   - 3.2, inductive
   - 3.2, capacitive
   - Accepted Answer: 0.62, capacitive

   2 points

5. Design a dipole antenna of 0.7 GHz of diameter 4 mm. The approximate length in cm is:
   - 10
   - 20
   - 30
   - 40
   - Accepted Answer: 20

   2 points

6. The approximate resonant length of the printed dipole antenna is in cm is:
   - 6.8
   - 6.1
   - 3.4
   - 2.7
   - Accepted Answer: 6.1

   1 point

7. Approximate gain of this printed dipole antenna is dB in:
   - 9
   - 6
   - 2
   - 1.8
   - Accepted Answer: 6

   2 points

8. The real null radiation ($Z_0$) of a 3 foot dipole antenna whose length 1, satisfies (null dB) is approximately:
   - 138.2
   - 198.2
   - 272.2
   - 912.0
   - Accepted Answer: 912.0

   2 points

9. The radiation pattern of a small dipole antenna is:
   - [Diagram of radiation pattern]
   - Accepted Answer: [Pattern A]

   2 points

10. Bandwidth of a dipole antenna can be increased by:
    - Increasing the diameter
    - Using PTFE foam dielectric
    - Using microstrip configuration
    - All of the above
    - Accepted Answer: All of the above

    2 points