Assignment 11

The due date for submitting this assignment has passed.
As per our records you have not submitted this assignment.

1) For a Yagi-Uda antenna, if number of directors keep on increasing then the gain of the antenna:

- Increases
- Decreases
- Remains nearly constant
- First increases and then saturates

No, the answer is incorrect.
Score: 0
Accepted Answers:
First increases and then saturates

Common Data for Questions 2-5: A 3-element Yagi-Uda antenna is designed for GSM1800 using wire diameter of 5 mm.

2) The approximate lengths of reflector, driven, and director elements are respectively:

- 7 cm, 7.5 cm, 8 cm
- 7 cm, 8 cm, 7.5 cm
- 8 cm, 7 cm, 7.5 cm
- 8 cm, 7.5 cm, 7cm

No, the answer is incorrect.
Score: 0
Accepted Answers:
8 cm, 7.5 cm, 7cm

3) The approximate spacing between driven and reflector elements in cm is:

- 3

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4) The approximate spacing between driven and director elements in cm is:  
- 3.75
- 4.5
- 5.8
- 7.5

No, the answer is incorrect.  
Score: 0  
Accepted Answers:  
5.8

5) The maximum gain achieved using a 3-element Yagi-Uda antenna is approximately:  
- 3 dBi
- 5 dBi
- 7 dBi
- 12 dBi

No, the answer is incorrect.  
Score: 0  
Accepted Answers:  
7 dBi

6) The radiation patterns of Yagi-Uda and Log-Periodic antennas are respectively:  
- Broadside, Broadside
- Broadside, Endfire
- Endfire, Broadside
- Endfire, Endfire

No, the answer is incorrect.  
Score: 0  
Accepted Answers:  
Endfire, Endfire

7) A Log-Periodic antenna provides ________ gain and _________ bandwidth as compared to Yagi-Uda antenna.  
- Higher, Larger  
- Higher, Smaller  
- Lower, Larger  
- Lower, Smaller

No, the answer is incorrect.  
Score: 0  
Accepted Answers:  
Lower, Larger

Common Data for Questions 8-10: A Log-Periodic antenna is designed to operate in the frequency range of 400 MHz to 700 MHz for a gain of 8 dBi. The optimum values of T and S are approximately equal to 0.865 and 0.16, respectively. The diameter of the dipole elements is 5 mm.

8) The minimum number of dipole elements required is:  
- 4
9) The lengths of the largest and the smallest dipole (in cm) are:
- 37.50, 18.16
- 37.50, 20.99
- 32.81, 18.16
- 32.81, 20.99
No, the answer is incorrect. Score: 0
Accepted Answers: 5

10) The total length of the antenna in cm is:
- 52.15
- 46.34
- 39.63
- 26.33
No, the answer is incorrect. Score: 0
Accepted Answers: 39.63