Unit-III / FkeâeF-III 7½

6. What are radiation pattern and bandwidth of the long wire antenna?
Skeâ ueeie JeeÙej SCŠevee keâ eJeekeâjCe heŠve yeC[ekeoLe hej ÛeÛee keâeepeÙe?

7. How does an antenna array function to shape the radiation pattern? What are the objectives of this shaping?
Skeâ SCŠevee Sj ekeâme Øekeâej eJeekeâjCe heŠve keâ Deekeâej keâe heejJeelele keâjlee n? Fme Øekeâej me eJeekeâjCe Deekeâejkeâjce keâ ØeÙeepevee keâe mhe° keâeepeÙe~

Unit-IV / FkeâeF-IV 7½

8. What is inter lacing? What is it used? Explain that what is lost in theory but not in practice.
FŠjueemeie keÙee n? Fmekeâe ØeÙeeie keÙee keâjle n? mecePeeFÙe ekeâ emeæevle ™he ce nDee vekeâmeeve JÙeJenej ce vene nelee n~

9. Write short notes on the following :
(a) Aliasing
(b) Delta Modulation
evecve hej mee#ehle eŠhhee[Ùee eueeKeÙe:
(a) SeueÙeeemeie
(b) [uŠe cee[ueve

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Roll No. _____

S-614

B.Sc. (Part II) Examination, 2015

COMMUNICATION ELECTRONICS

Paper-II

Time Allowed : Three Hours] [Maximum Marks : 50

Note : Answer five questions in all. Choose at least one question from each Unit. Question No.1 is compulsory.
keâue heeÛe ØeMvee keâ Gòej oeepeS~ ØelÙekeâ FkeâeF me keâce-me-keâce Skeâ ØeMve ÛeeveS~ ØeMve me. 1 DeeveJeeÙe n~

1. Attempt all parts 2×10=10
meYee KeC[e keâe keâeepeÙe~
(i) Find gain in dB if voltage values are amplified by 20%.
Ùeeo Jeeušpe keâ ceeve ce 20% keâe DeeJeOeve Øeehle ne lee Fmekeâe ceeve dB ce Øeehle keâeepeÙe~
(ii) A 75W unmodulated Carrier has 100W of power after amplitude modulation. What is 'm'?
75W keâe keâejÙej keâe Meeòeâ DeeÙeece cee[ueve keâ heMÛeele 100W ne peelee n, 'm' keâ ceeve keâe ieCevee keâeepeS~

(iii) Write two technical drawbacks of Conventioanl A.M.

hejchejeiele DeeÙeece cee[ueve keâe oe keâeceÙee GuueKe keâj~

(iv) Give simple circuit for a balanced modulator.

yeueme cee[ueš j keâ eueÙe meeOeejCe heejheLe keâe jÛevee keâeepeÙe~

(v) Why over modulation is problem, when it occurs.

DeeJej cee[ueve neve hej keÙee mecemÙee GlheVe nelee n?

(vi) What is the sensitivity of a radio receiver?

je[Ùee me«eenkeâ keâe meJeoveMeeuelee keÙee nelee n?

(vii) What is problem of images in superhet rodyne receivers?

Skeâ mehejnš me«eenkeâ ce Fcepeme keâe mecemÙee keÙee n?

(viii) What functions must the IF stage perform?

Skeâ DeeF.Sheâ.mšpe keâ keÙee keâeÙe nele n?

(ix) How does Marconi antenna perform?

Skeâ ceejkeâevee SCševee keâme keâeÙe keâjlee n?

(x) What is PWM?

PWM keÙee n?

Unit-I / FkeâeF-I 7½

2. Why is modulation needed? Explain AM process. find an expression for largest possible fraction of total power in the sidebands after AM.

cee[ueve keÙee DeeJeMÙekeâ n? Sce.Sce. Øee›eâÙee âe JÙeeKÙee keâeepeÙe~ S.Sce. keâ heMÛeele GlheVe heeMJe heeókeâeDee keâ eueS DeeOekeâlece DeeeMekeâ Meekele keâ eueÙe JÙepekeâ evekeâeeueÙe~

3. What are the major blocks of a superhet receiver? What does each do?

Skeâ mehejnš DeeYe«eenkeâ keâ ceKÙe KeC[e keâ keâeÙee keâe JÙeeKÙee keâeepeÙe~

Unit-II / FkeâeF-II 7½

4. What are two ways of generating SSB signal? What are advantages and disadvantages of each?

SSB JÙelheVe keâjve keâe oe eJeeOeÙee keâeve mee n? Gvekeâ ueeYe Je neeveÙee keâe ÛeÛee keâeepeÙe~

5. Why SSB signal can't be demodulated by a diode detector? What is BFO method of SSB demodulation?

Skeâ [eÙee[e[škeš j Éejle Sme.Sme.yee. emeiveue keâe [ecee[euele keÙee vene ekeâÙee pee mekeâlee n? Fmekeâ e[cee[ueve keâe yee.Sheâ.Dee. eJeeOe keÙee n?