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SVIS 305 A-2K13

B.Sc. VIth Semester Degree Examination

Electronics

(Communication Electronics - II)

Paper - 6.1

Time : 3 Hours

Maximum Marks : 80

Instructions to Candidates.

  i)   *Answer **all** questions from Section 'A'*

  ii) *Answer any **five** questions section 'B'*

  iii) *Answer any **four** questions from Section 'C'.*

Section - A

1. Choose the correct answer.   (1×5= 5)

  i)   Total time required to scan one line is

      a) 10 μ sec   .b) 22 μ sec

      c) 52 μ sec   d) 64 μ sec

  ii) In PAL system colour sub carrier frequency is

      a) 3.58 M.Hz   b) 4.43 M.Hz

      c) 5.5 M.Hz   d) 7 M.Hz

  iii) Cross talk or inter modulation distortion presents more in

      a) FDMA   b) CDMA

      c) TDMA   d) All of these

  iv) Satellite transponders can deliver data rates in the range of

      a) 50-150 kbps   b) 20-50 mbps

      c) 50-150 mbps   d) 150-250 mbps

  v)   Condition for propagation of light through optical fiber is

      a) Sin i < NA   b) Sin i > NA

      C) Sin i = NA   d) All of these

2. Fill in the blanks   (1×5= 5)

    i)   In interlace scanning, interlace ratio is _____.

    ii)   In colour TV, Colour information is carried by _____.

    iii)   Geo - stationary satellites are located at a height of _____.

    iv)   PCM transmission requires _____ band width as compared to analog transmission.

    v)   The refractive index of clad is _____ than the core of the fiber.

3. State true or false.   (1×5= 5)

    i)   According to FCC standards channel band width is 6 M.Hz.

    ii)   The colour which is more sensitive to eye is red.

    iii)   In satellite communication uplink frequency is greater than downlink frequency.

    iv)   Delta modulation transmits two bits per sample.

    v)   In optical fiber the velocity of light is independent of frequency.

Section - B   (5×5=25)

4. What is scanning? Explain in brief successive scanning.

5. Explain in brief additiving mixing of colours.

6. Define the terms.

    a)   Satellite   b)   Apogee

    c)   Perigee   d)   Ascending node

    e)   Inclination.

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7. What is TDMA? Explain.

8. Explain in brief PCM.

9. Define matched filter. Explain it's operation.

10. Describe the characterstics of N.A.

Section - C

11. a) What is camera tube?

    b) With a neat diagram, explain vidicon camera tube.   **(2+8)**

12. With a neat block diagram, explain

    a) PAL encoder

    b) PAL decoder.   **(5+5)**

13. With a neat block diagram, explain satellite

    a) Uplink system

    b) Down link system.   **(5+5)**

14. a) Define modulation.

    b) Explain pulse Amplitude modulation.

    c) Explain in brief LAN.   **(2+4+4)**

15. Describe, probability bit error in base band transmission.   **(10)**

16. a) With a neat block diagram, explain optical fiber communication system.

    b) Write the advantages of OFC.   **(6+4)**

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