ESCUELA SUPERIOR POLITECNICA DEL LITORAL

FACULTAD DE INGENIERIA EN ELECTRICIDAD Y COMPUTACION

LICENCIATURA EN REDES Y SISTEMAS OPERATIVOS

COMUNICACIÓN DE DATOS

I TERMINO 2013-2014 TERCERA EVALUACION

NOMBRE: …………………………………………………………………………….…

1.- Responda a las siguientes preguntas (40 puntos)

a) Mencione 3 métodos de detección de errores

b) Mencione las capas del modelo OSI

c) ¿Qué es la atenuación?

d) ¿Qué es la multiplexacion y como se clasifica?

e) Que significa BER, y explíquelo brevemente

1. ¿Qué es el ruido? Y como se clasifica
2. Que método de control de flujo es más eficiente: parar-esperar o ventana deslizante y por qué?
3. ¿Cuál es la diferencia entre tiempo de transmisión de una trama con el tiempo de propagación?

2.- Conteste a las siguientes preguntas Verdadero o Falso (10 puntos)

1. La Multiplexacion permite que diferentes fuentes de transmisión compartan una capacidad de transmisión mayor ( )
2. Una pérdida de 3dB equivale a una pérdida del 50% ( )
3. La fibra monomodo tiene menor ancho de banda de transmisión que la multimodo y puede abarcar menor distancia. ( )
4. Es posible reducir por completo el ruido en un sistema de telecomunicaciones. ( )
5. En la conmutación por circuitos los nodos se conectan únicamente con usuarios finales ( )
6. Para la propagación de ondas de tierras es necesaria la línea de vista. ( )
7. El uso de para trenzado reduce el costo de instalación comparado con el uso de cable coaxial. ( )
8. En el método de ventana deslizante los frames no están numerados ( )
9. Un enlace half-duplex permite trasmitir datos en ambas direcciones. ( )
10. Un OTDR es un instrumento sirve para detectar tramos defectuosos en tendidos de fibra óptica. ( )

3.- En la siguiente hoja cuadriculada codificar la siguiente secuencia binaria: 11011111001101001 usando codificación NRZ, NRZI, AMI, Pseudoternario, Manchester y Manchester Diferencial (20 puntos)

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4.- Realizar el método de corrección de errores CRC por **lógica digital** y comprobar el resultado en el receptor por **lógica binaria**, con los siguientes datos: (30 puntos)

M(X)= X11+ X10+ X7 +X6+ X4+ X3+X+1

Generador Polinomial: X5+X3+X2+1



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