



नेपाल टेलिकम, प्राविधिक, टेलिकम, सार्तौ, टेलिकम इन्जिनियर (इलेक्ट्रानिक्स एण्ड कम्युनिकेशन)

[Music]

आन्तरिक तथा खुला प्रतियोगितात्मक लिखित परीक्षा

२०८१।०५।०७

KEY [C]

पत्र : द्वितीय
समय : ३ घण्टा

पूर्णाङ्क : १००

विषय : Technical Subject

उत्तरपुस्तिकामा प्रश्नपत्रको KEY अनिवार्य रूपले उल्लेख गर्नुपर्नेछ । उल्लेख नगरेमा उत्तरपुस्तिका रद्द हुनेछ । परीक्षामा calculator, mobile प्रयोग गर्न पाइनेछैन ।

Objective

Time : 30 Minutes

30×1=30 Marks

Multiple Choice

- What is the primary advantage of circuit switching?
A) Efficient use of bandwidth
B) Low latency and consistent quality of service
C) Scalability to large network
D) Reduced setup time for connection
- What is the primary function of a hybrid circuit in telecommunication?
A) To convert digital signals to analog signals
B) To measure signal and noise levels
C) To separate transmitted and received signals on a two-wire circuits
D) To provide impedance matching for transmission lines
- Which address is used to identify a process on a host by the transport layer?
A) Physical address B) Logical address C) Specific address D) Port address
- Dispersion is maximum in type of optical fibers.
A) multimode step index B) multimode graded index
C) multimode single index D) single mode
- An optical transmitter transmits 10W power, compute its equivalent power in dBm.
A) -40 B) 10 C) 30 D) 40
- Which process gives the laser its special properties as an optical source?
A) Dispersion B) Stimulated absorption
C) Spontaneous emission D) Stimulated emission
- Space diversity is also known as diversity.
A) Frequency B) Antenna C) Polarization D) Time
- FDMA systems have a symbol time and intersymbol interference that are
A) large, high B) small, low C) small, high D) large, low
- Which of the followings is a CDMA standard of second generation network?
A) ETACS B) EDGE C) IS-95 D) IS-136
- An ideal voltmeter and an ideal ammeter have equivalent resistance that is
A) unity, unity B) zero, infinite C) infinite, zero D) zero, zero

pg 10
10

$$V = IR$$

$$I = \frac{V}{R}$$

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C - 3, प्राविधिक, टेलिकम, सार्वी, टेलिकम इन्जिनियर (इलेक्ट्रॉनिक्स एण्ड कम्युनिकेशन)

25. In the context of signal processing, what does the convolution of two signals represent?
- A) The sum of the two signals
 - B) The frequency response of the systems
 - C) The response of an LTI system to an input signal
 - D) The multiplication of the two signals in the time domain
- 26. A signal is sampled at Nyquist rate $f_s = 2f_0$. The function can be recovered from its samples only, if it is a
- A) periodic square wave of fundamental frequency, f_0
 - B) triangular wave of a fundamental frequency, f_0
 - C) periodic sine wave of fundamental frequency, f_0
 - D) unit impulse function
- 27. The Fourier transform of a rectangular function is function.
- A) Square
 - B) Triangular
 - C) Impulse
 - D) Sinc
28. What is the purpose of a Sample and Hold circuit in analog-to-digital conversion?
- A) To convert digital signals to analog signals
 - B) To sample the analog signal at regular intervals
 - C) To hold the sampled analog value constant during the conversion process
 - D) To filter out noise from the analog signal
29. Which of the following devices does the data compression?
- A) Switches
 - B) Circuit breakers
 - C) Microcontroller
 - D) Source encoder
30. In a Quadrature Amplitude Modulation (QAM) scheme with $M=16$ (16-QAM), how many bits are transmitted per symbol?
- A) 1 bit
 - B) 2 bits
 - C) 4 bits
 - D) 16 bits

- The End -

उत्तरपुस्तिकामा KEY अनिवार्य रूपमा लेख्नुहोला ।