Which kind of switching technique indicates the transfer of coded values from input to output during the same interval of time?

1. Space Switching
2. Time Switching
3. Combination Switching
4. None of the above

**ANSWER: A**

 Which form/s of grading design has/have the tendency to share every trunk between equal number of groups?

1. Homogeneous Grading
2. Heterogeneous Grading
3. Skipped Grading
4. All of the above

**ANSWER: A**

The-------------- is a circuit switched network, while the -------------- is a packet- switched network

1. telephone, ATM
2. SONET and FDDI
3. satellite, telephone
4. FDDI and SONET

**ANSWER: A**

When a switch capacity is full, calls coming into that switch are said to be\_\_\_\_.

1. open
2. shorted
3. blocked
4. shunted

**ANSWER: C**

Example of circuit switching and S&F (Stored and Forward) switching is

1. Telephone and Post of Telegraph
2. Video Signal Post or Telegraph
3. Digital Signal Post or Telegraph
4. None of above

**ANSWER: A**

In ------------- each packet is treated independently of all others

1. circuit switching
2. datagram switching
3. frame switching
4. none of the above

**ANSWER: B**

In message switching system, an incoming message gets \_\_\_\_ especially if the required route is busy.

1. Lost
2. Stored in a queue & retransmitted
3. Sampled
4. Recovered

**ANSWER: B**

Which type of switching network involves the establishment of a dedicated path between two stations?

1. Message Switching
2. Packet Switching
3. Circuit Switching
4. Manual Switching

**ANSWER: C**

In packet switching, what does the header of each short size of packet consist of?

1. Source address
2. Destination address
3. Intermediate nodes
4. All of the above

**ANSWER: D**

If a group of trunk is offered 1200 calls during the busy hour & 20 calls are lost along with the average call duration of about 7 min, then what would be the total duration of congestion period?

1. 21.6 sec
2. 42.2 sec
3. 57.6 sec
4. 98.2 sec

**ANSWER: C**

In two-stage network, which phenomenon/situation occurs due to impossible connectivity of given incoming trunk to selected outgoing trunk specifically because of link utilization for other connection between primary and secondary switches?

1. Bursting
2. Blinking
3. Blocking
4. Burning

**ANSWER: C**

By how many times does the time division exchange exhibit connection and disconnection with respect to every millisecond, due to its ability of using rearrangeable networks?

1. 2
2. 4
3. 8
4. 16

**ANSWER: C**

Which signals are regarded as call-progress signals as they are sent back to inform the caller about the progress of the call?

1. Address Signals
2. Status Signals
3. Call request Signals
4. ANSWER Signals

**ANSWER: B**

Which among the following can be adopted as a dedicated path between the source and destination in circuit switching?

1. Physical Wire
2. Radio Link
3. Co-axial Cable
4. All of the above

**ANSWER: D**

Consider the statements given below. Which among them represents the operational step executed in datagram Packet Switched Network?

1. Fixed Path is assigned between nodes from source to destination
2. First Come First Serviced basis is applicable
3. Necessity of an identifier for a connection between source host & destination host
4. Transmission of short messages of one or two packet length

**ANSWER: D**

Rectangular crosspoint array is a

1. Space switching
2. Electronic switching
3. Digital switching
4. Time switching

ANSWER: A

A time division time switch can be controlled in

1. Sequential write/random read
2. random write/random read
3. random write/sequential read
4. All of above

ANSWER: D

In a one-stage space division switch, if N = 200, the number of cross points is

1. 10,000
2. 20,000
3. 40,000
4. 30,000

ANSWER: C

ESS stands for

1. Electronic Switching System
2. Effective Electronic Switching System
3. Early Electronic Switching System
4. none of these.

ANSWER: A

Circuit switching takes place at the layer of

1. data line
2. physical
3. network
4. transport

ANSWER:B

Trunks are the lines that run between

1. switching system and power plant
2. Local area network
3. Switching stations
4. Subscribers and exchange

ANSWER: C

|  |
| --- |
|  |

Availability of single processor system is given by

1. MTBF/MTTR
2. MTTR/MTBF
3. MTTR/(MTBF+MTTR)
4. MTBF/(MTBF+MTTR)

ANSWER: D

Unavailability of single processor system is given by

1. MTBF/MTTR
2. MTTR/MTBF
3. MTTR/(MTBF+MTTR)
4. MTBF/(MTBF+MTTR)

ANSWER: B

Availability of Dual processor system is given by

1. MTBF2/MTTR2
2. 2MTTR/MTBF2
3. MTTR2/2(MTBF+MTTR)2
4. (MTBF)2/(MTBF)2+2(MTTR)2

ANSWER: D

Unavailability of Dual processor system is given by

1. MTBF2/MTTR2
2. 2MTTR2/MTBF2
3. 2MTTR2/2(MTBF+MTTR)2
4. (MTBF)2/(MTBF)2+2(MTTR)2

ANSWER: B

In trunking system, when the channel is already in use, the call is blocked or queued. State whether True or False.

1. True
2. False

ANSWER: A

Who developed the fundamental of trunking theory?

1. Newton
2. Ohm
3. Erlang
4. Einstein

ANSWER: C

MTTR means

1. Maximum Time To Repair
2. Most Time To Repair
3. Mean Time To Repair.
4. Maximum Time To Repair

ANSWER: C

Which form/s of grading design has/have the tendency to share every trunk between equal numbers of groups?

1. Homogeneous Grading
2. Heterogeneous Grading
3. Skipped Grading
4. All of the above

ANSWER: A

In a time multiplexed space switching system, one speech sample appears every

1. 125 micro sec
2. 20 msec
3. 125 msec
4. 1 sec

ANSWER: A

Time synchronization is necessary in

1. FDM
2. TDM
3. WDM
4. Quadrature multiplexing

ANSWER: B

Three methods of switching are

1. circuit switching, packet switching, and protocol switching
2. circuit switching, packet switching, and message switching
3. Loop switching, packet switching, and message switching
4. Node switching, packet switching, and message switching

ANSWER: B

If ‘n’ number of users are present in a network with point-to-point links, then how many links will be required in the network?

1. n (n – 1)
2. n (n – 1) / 2
3. n (n – 1) / 4
4. n (n – 1) / 8

ANSWER: B

Which among the following is/are adopted by cross bar systems with hard wired control subsystem?

1. Relays
2. Latches
3. Both a and b
4. None of the above

ANSWER: C

What is the hardware, used to establish connection as an electrical path between inlet and outlet pair in switching system, known as?

1. Switching Matrix
2. Switching Network
3. Both a and b
4. None of the above

ANSWER: C

In folded type of network, \_\_\_\_

1. input lines are folded back to output lines
2. output lines are folded back to input lines
3. input lines are folded back to themselves (input lines)
4. output lines are folded back to themselves (output lines)

ANSWER: B

For the two-group grading consisting of 14 trunks, availability = 5, Ak = 1.4E and the required grade of service of about 0.01, what would be its traffic capacity?

1. 4.98 E
2. 6.72 E
3. 8.3 E
4. 10 E

ANSWER: A

Which kind of switching system does not comprise any subscriber, concentrator or expander?

1. Crossbar
2. Director Exchange
3. Strowger
4. Tandem

ANSWER: D

In Electronic Switching Centre (ESC), the transmission rate of X.25 protocol is \_\_\_\_9.6 Kbps.

1. Less than
2. Equal to
3. Greater than
4. None of the above

ANSWER: C

In a single stage network

1. There is no redundancy
2. There is redundancy
3. Alternative cross points are available
4. Alternative paths are available

ANSWER: B

What are the  Methods to move data through a network of links and switches

1. Packet switching
2. Circuit switching
3. Line switching
4. Both a and b

ANSWER: D

In \_\_\_\_\_\_\_\_\_ resources are allocated on demand.

1. Packet switching
2. circuit switching
3. line switching
4. frequency switching

ANSWER: A

The situation when both transmitter and receiver have to work in tandem is referred to as

1. Parallel
2. Serial
3. Synchronous
4. Asynchronous

ANSWER: C

Given that MTBF=2000Hrs and MTTR = 4Hrs. Calculate the unavailability for single processor systems for 10 years and 30 years.

1. For 10years: U=175.2Hrs and For 30 Years, U=525.6 Hrs.
2. For 10years: U=180.2Hrs and For 30 Years, U=500.6 Hrs.
3. For 10years: U=195.2Hrs and For 30 Years, U=550.6 Hrs.
4. None of the above

ANSWER: A

Given that MTBF=2000Hrs and MTTR = 4Hrs. Calculate the unavailability for dual processor systems for 10 years and 30 years.

1. For 10years: U=40.04 min and For 30 Years, U=2.1 Hrs.
2. For 10years: U=180.2Hrs and For 30 Years, U=500.6 Hrs.
3. For 10years: U=195.2Hrs and For 30 Years, U=550.6 Hrs.
4. None of the above

ANSWER: A

Dual processor operates in \_\_\_\_ modes

1. Standby
2. Synchronous
3. Load Sharing
4. All of the above

ANSWER: D

Total number of crosspoints in the two stage concentrator network

1. C2=2/M1/2 N
2. C2=2/N1/2 M
3. C2=2N/(M+N)1/2
4. C2=2M/(M+N)1/2

ANSWER: A

Total number of crosspoints in the two stage Expander network

1. C2=2/M1/2 N
2. C2=2/N1/2 M
3. C2=2N/(M+N)1/2
4. C2=2M/(M+N)1/2

ANSWER: B

Total number of crosspoints in the three stage concentrator network

1. C3=2/M1/2 N
2. C3=2/N1/2 M
3. C3=2N/(M+N)1/2
4. C3=2M/(M+N)1/2

ANSWER: C

Total number of crosspoints in the three stage expander network

1. C3=2/M1/2 N
2. C3=2/N1/2 M
3. C3=2N/(M+N)1/2
4. C3=2M/(M+N)1/2

ANSWER: D

Number of inlets and outlets in the two stage concentrator network are given by the formula

1. m = n= M1/2
2. m = n= N1/2
3. m = M/ (M+N)1/2 , n = N/ (M+N)1/2
4. All of the above

ANSWER: A

Number of inlets and outlets in the two stage Expander network are given by the formula

1. m = n= M1/2
2. m = n= N1/2
3. m = M/ (M+N)1/2 , n = N/ (M+N)1/2
4. All of the above

ANSWER: B

A multistage switch usually has a \_\_\_\_\_\_ efficiency than a single crossbar switch.

1. High
2. Less
3. Can’t say

ANSWER: A

A multistage switch usually has a \_\_\_\_\_\_ crosspoints than a corresponding single crossbar switch.

1. High
2. Less
3. Can’t say

ANSWER: B

Different forms of grading are

1. Skipped, Homogeneous, progressive
2. Skipped, sequential, progressive
3. Skipped, Homogeneous, random
4. None of the above

ANSWER: A