



Exam : 920-203

Title : Passport 7000/15000

Ver : 03-25-2009

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**QUESTION 1:**

A customer wants to have a single NMS manage a network of Passports using IPIFR. The NMS is on a LAN connected to a Passport 7000 series Ethernet FP.

What components need to be connected together to access IPIFR and thus other Passports in the network?

- A. Ethernet - LAN PP - VR - FRUNI - IPIFR
- B. Ethernet - LAN PP - VR - FRDte - Vframer - FRUNI - IPIFR
- C. Ethernet - LAN PP - VR - FRDte - IPIFR
- D. Ethernet - LAN PP - VR - FRDte PP - Framer - FRUNI - IPIFR

Answer: B

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**QUESTION 2:**

A customer wants simple network management protocol (SNMP). The customer does not require a lot of network management traffic to manage the network. If the customer has Passport PCR 1.2 or greater, they do not require an ILS card.

- A. True
- B. False

Answer: A

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**QUESTION 3:**

Which function does a bridge perform in a telecommunications network? (Choose the correct answer.)

- A. performs protocol conversion between two networks
- B. revives a signal that may lose its strength when transmitted over distance
- C. determines the best path a signal should take through a network
- D. connects two LAN segments that use the same data link and the same network protocol

Answer: D

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**QUESTION 4:**

A telephone line and fiber optics are examples of which network component?  
(choose the correct answer)

- A. data terminal equipment
- B. transmission media
- C. data communications equipment

D. remote system unit

Answer: B

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**QUESTION 5:**

Which device translates digital data into analog signals for transmission over voice circuits? (choose the correct answer)

- A. media access unit
- B. repeater
- C. modem
- D. hub

Answer: C

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**QUESTION 6:**

Which digital service consists of 30 channels for traffic, 1 channel for framing, and 1 channel for signaling? (choose the correct answer)

- A. DS1
- B. E1
- C. DS3
- D. E3

Answer: B

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**QUESTION 7:**

Which method permits transmission of data in only one direction? (choose the correct answer)

- A. simplex
- B. half-duplex
- C. bplex
- D. full-duplex

Answer: A

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**QUESTION 8:**

Which layer of the Open Systems Interconnect (OSI) model defines addressing and routing? (choose the correct answer)

- A. data link layer

- B. network layer
- C. session layer
- D. transport layer

Answer: B

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**QUESTION 9:**

What is the definition of a protocol?

- A. a set of rules that defines how data is transferred through a network
- B. a set of rules that defines how information is communicated between two devices.
- C. A set of rules that converts digital signals to analog signals.
- D. A set of rules that defines how the transmission media operates.

Answer: B

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**QUESTION 10:**

Which statements are characteristics of ATM?

- A. uses fixed length cells
- B. provides synchronous data transmission
- C. operates effectively on high-bit-error rate transmission facilities
- D. provides quality of service control

Answer: A,D

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**QUESTION 11:**

Frame relay is a connection-oriented protocol that operates at layer 2 of the OSI model.(choose the correct answer)

- A. true
- B. false

Answer: A

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**QUESTION 12:**

What protocols can be used as an interior gateway protocol? (select all correct answer)

- A. EBGp
- B. IBGP
- C. RIP
- D. OSPF

Answer: A,B,C

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**QUESTION 13:**

What does a router running RIP do with a packet that has exceeded its hop count?  
(choose the correct answer)

- A. send it to the default router
- B. returns it to the transmitting station
- C. discards it
- D. forwards it on all ports

Answer: C

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**QUESTION 14:**

A permanent virtual circuit requires call setup and tear- down for each connection (choose the correct answer)

- A. true
- B. false

Answer: B

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**QUESTION 15:**

In a Passport 7000 switch, you must have an ILS forwarder function processor to run ATM.(choose the correct answer)

- A. true
- B. false

Answer: B

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**QUESTION 16:**

What is an AALSP0 specifically designed for? (choose the correct answer)

- A. making many VCCs available to one trunk
- B. Increasing cell delay variation to improve QoS
- C. Reducing overhead for PORS/CBR traffic over trunks on voice
- D. Providing synchronizing information over ATM trunks

Answer: C

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**QUESTION 17:**

A Passport switch can operate simultaneously as a Frame switch and a Cell switch, and can perform the necessary conversions between the two formats. (choose the correct answer)

- A. true
- B. false

Answer: A

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**QUESTION 18:**

In a network, the queuing delay is dependent on the traffic and the trunk speed. (choose the correct answer)

- A. true
- B. false

Answer: A

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**QUESTION 19:**

Passport nodes support both loadspreading and loadsharing packet forwarding policies. (choose the correct answer)

- A. true
- B. false

Answer: A

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**QUESTION 20:**

Which statement defines transmission delay? (choose the correct answer)

- A. the time taken to clock out a frame or cell from the queue
- B. the time to route a frame or cell to an outgoing queue
- C. the time a frame or cell waits before starting to be transmitted (served)
- D. the time taken for any transmitted frame or cell to arrive at the destination end

Answer: A

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**QUESTION 21:**

Speech activity detection (SAD) is used to decrease the amount of bandwidth used by voice calls in a Passport network.(choose the correct answer)

- A. true
- B. false

Answer: A

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**QUESTION 22:**

Select two connection-oriented protocols.

- A. frame relay
- B. ATM
- C. IP
- D. IPX

Answer: A,B

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**QUESTION 23:**

Transmission or serialization delay is the time elapsed at egress before the cell begins to be transmitted. (choose the correct answer)

- A. true
- B. false

Answer: A

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**QUESTION 24:**

Which services are supported on a 16-slot Passport 7000 switch? (select all correct answer)

- A. frame relay
- B. ITI
- C. Voice
- D. ATM

Answer: A,B,C

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**QUESTION 25:**

Which services supported on a 16-slot Passport 15000 switch? (select all correct answer)

- A. FRATM
- B. CES
- C. Passport trunks over ATM
- D. ATM bearer services

Answer: C,D

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**QUESTION 26:**

Which statements are characteristic of a 16-slot Passport 15000 switch?(select all correct answer)

- A. must have two control processors
- B. slot 15 can only accommodate a control processor
- C. supports N+1 power sparing
- D. comprised of two 800 Mbit/s buses

Answer: C,D

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**QUESTION 27:**

Which voice features are supported on a Passport 7000 node? (select correct answer)

- A. compression
- B. speech activity detection
- C. echo cancellation
- D. fax modem/detection

Answer: A,B,C

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**QUESTION 28:**

Which services are supported on a 16-slot Passport 7000 switch ?  
(select all correct answer)

- A. ATM
- B. Voice services
- C. Apple Talk
- D. ITI

Answer: A,B

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**QUESTION 29:**

A 16-slot Passport 7000 switch supports CFP (choose the correct answer)

- A. true
- B. false

Answer: B



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**QUESTION 30:**

A 16-slot Passport 7000 switch supports C.P (choose the correct answer)

- A. true
- B. false

Answer: A

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**QUESTION 31:**

A 16-slot Passport 7000 switch supports spare C.P (choose the correct answer)

- A. true
- B. false

Answer: A

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**QUESTION 32:**

A 16-slot Passport 7000 switch is floor mountable.(choose the correct answer)

- A. true
- B. false

Answer: B

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**QUESTION 33:**

Which statements are characteristic of a 5-slot Passport switch? (select all correct answer)

- A. can house one or two control processors
- B. supports up to four functional processors
- C. has redundant backplane buses
- D. only supports AC poer

Answer: A,B,C

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**QUESTION 34:**

The Passport 7000 node is capable of routing IP network layer traffic. (choose the correct answer)

- A. true
- B. false

Answer: A

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**QUESTION 35:**

A fully populated Passport 15000 is comprised of (choose the correct answer)

- A. 2CPs ,14FPs, 2 expansion slots
- B. 2CPs, 16 FPs
- C. 1CPs, 14FPs, 2 EXPANSION SLOTS
- D. 2CPs, 12 FPs 4 expansion slots

Answer: A

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**QUESTION 36:**

Which network routing systems are supported on a Passport network?

- A. topology routing system
- B. path-oriented routing system
- C. dynamic packet routing system
- D. virtual networking system

Answer: B,C

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**QUESTION 37:**

What are all the function processors that are supported on a Passport 15000?

- A. OC12c/STM-4,OC48c
- B. DS3/E3, OC3c/STM-1, OC1c/STM-1
- C. OC3c/STM-1, OC12c/STM-4, DS3/E3
- D. OC3c/STM-1, OC12c/STM-4, DS3/E3,OC48c

Answer: D

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**QUESTION 38:**

What are the benefits of the Passport frame relay UNI resiliency feature?

- A. automatic routing to alternate end-user device
- B. automatic redirection to another path linking two frame relay networks
- C. no need for manual path setup
- D. no need to provision a call redirection server

Answer: A,C

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**QUESTION 39:**

Which of the following can be provided on all channelized FPs? (select all correct answer)

- A. All Passport trunk types
- B. FR
- C. PPP
- D. X.25

Answer: B,C

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**QUESTION 40:**

Which Passport function processors support frame relay UNI and NNI services?  
(Select all correct answer)

- A. HSSI
- B. OC-3 SM
- C. V.35
- D. Ethernet 10Base-T
- E. V-11

Answer: A,B,C

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**QUESTION 41:**

On a 16-slot Passport switch, redundancy is only supported on the control processor, power supply, cooling unit and backplane bus.(choose the correct answer)

- A. true
- B. false

Answer: B

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**QUESTION 42:**

How many DS1V or E1VFP cards are required to support 38 voice channels?  
(choose the correct answer)

- A. 1
- B. 2
- C. 3
- D. 4

Answer: B

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**QUESTION 43:**

How many DS1 or E1 facilities can the inverse multiplexing for ATM (IMA) feature inverse multiplex? (choose the correct answer)

- A. 4
- B. 10
- C. 6
- D. 8

Answer: D

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**QUESTION 44:**

AC and DC power supplies can be mixed on the same Passport 7000 shelf. (choose the correct answer)

- A. true
- B. false

Answer: B

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**QUESTION 45:**

Several combinations of Passport applications/services can be combined on a single functional processor. (choose the correct answer)

- A. true
- B. false

Answer: A

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**QUESTION 46:**

What type of sparing is supported for DS3/E3, ATM IP function processor on Passport 15000? (choose the correct answer)

- A. 1:4
- B. 1:6
- C. 1:2
- D. 1:8

Answer: B

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**QUESTION 47:**

How many power supplies are required to power up a fully equipped 16-slot Passport shelf? (choose the correct answer)

- A. 2
- B. 1
- C. 3
- D. 4

Answer: A

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**QUESTION 48:**

Which modes are supported for Passport trunks over ATM?(select correct answer)

- A. AAL-5 MUX mode
- B. SPO MUX mode
- C. Map mode
- D. AAL-1 MUX mode

Answer: A,B,C

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**QUESTION 49:**

Which services can carry CCS signaling information when running Passport voice transport? (select all correct answer)

- A. MCDN
- B. HTDS
- C. BTDS
- D. DPNSS

Answer: B,C

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**QUESTION 50:**

Which function processors are supported on a Passport 15000 node? (select all correct answer)

- A. OC-3
- B. ILS forwarder
- C. OC-12
- D. HSSI

Answer: A,C

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**QUESTION 51:**

Which of the following interfaces provides the highest bandwidth transmission?  
(choose the correct answer)

- A. T1/E1
- B. T3/E3
- C. OC-3/STM1
- D. OC-12/STM4

Answer: D

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**QUESTION 52:**

What is the total switching capacity (including overhead) of a Passport 7000 switch?  
(choose the correct answer)

- A. 800Mbit/s
- B. 1.6 Mbit/s
- C. 1.6 Gbit/s
- D. 1.5 Gbit/s

Answer: C

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**QUESTION 53:**

What is the total switching capacity (including overhead) of a Passport 15000 switch?  
(choose the correct answer)

- A. 40 Gbits/s
- B. 56.3 Mbit/s
- C. 56.3 Gbit/s
- D. 112.6 Gbit/s

Answer: C

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**QUESTION 54:**

Which of the following will load share over a link group if high congestion develops?  
(choose the correct answer)

- A. DPRS
- B. PORS
- C. PNNI and IISF with SPVCs
- D. OSPF

Answer: A

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**QUESTION 55:**

Which functions does the Passport 7000 standard control processor (CP1 and CP2) provide? (select all correct answer)

- A. control and management of the switch and its function processors
- B. communication with physical interfaces for trunk or access services
- C. routing table maintenance
- D. system timing

Answer: A,B,C

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**QUESTION 56:**

Which routing classes of services (RRCOS) are supported by the path-oriented routing system (POR)? (select all correct answer)

- A. cost
- B. through
- C. delay
- D. ubr

Answer: A,C

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**QUESTION 57:**

Which voice compression techniques are supported on a Passport 7000 node?(select correct answer)

- A. LD CELP
- B. CS ACELP
- C. CVSD
- D. ADPCM

Answer: A,B,C

---

**QUESTION 58:**

What is the switching capacity (user bandwidth only) of the Passport 15000 switch? (choose the correct answer)

- A. 56.3Gbit/s
- B. 40 Gbit/s

- C. 40mbit/s
- D. 20gbit/s

Answer: C

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**QUESTION 59:**

What ATM services are supported on the Passport 15000? (choose the correct answer)

- A. UNI,IISP,PNNI,ATM bearer service, logical trunks
- B. UNI,IISP,PNNI
- C. ATM nearer service, logical trunks
- D. UNI,PNNI,ATM bearer service, logical trunk

Answer: C

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**QUESTION 60:**

Which card(s) support single-mode AND multi-mode formats on the Passport 15000? (choose the correct answer)

- A. OC-3c/STM-1 OC-12c/STM-4, OC-48c
- B. OC-12c/STM-4
- C. OC-12c/STM-4,OC48c
- D. OC-3c/STM-1

Answer: D

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**QUESTION 61:**

What is the difference between a FRUNI and a FRDte? (CHOOSE THE CORRECT ANSWER)

- A. a FRDte provides only one DLCI whereas a FRUNI supports more than one DLCI
- B. a FRDte encapsulates payload whereas a FRUNI provides virtual circuit mapping
- C. a FRDte connects to a CSU/DSU whereas a FRUNI connects to Router
- D. a FRDte has an IP address whereas a FRUNI has an X.121 address

Answer: B

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**QUESTION 62:**

Which links are delay preferred? (see diagram) (choose all correct answer)

- A. Trunk A
- B. Trunk B



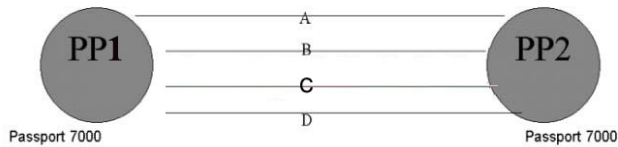
- C. Trunk C
- D. Trunk D

Answer: A, B

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**QUESTION 63:**

Exhibit



Trunk A  
Total bandwidth - 768 kbits/s  
POR reservation - 50%  
Delay - 5.2 ms

Trunk B  
Total bandwidth - 1536 kbits/s  
POR reservation - 100%  
Delay - 4.1 ms

Trunk C  
Total bandwidth - 512 kbits/s  
POR reservation - 50%  
Delay - 45.2 ms

Trunk D  
Total bandwidth - 1792 kbits/s  
POR reservation - 30%  
Delay - 8.3 ms

Which links throughput preferred? (see Exhibit) (choose the correct answer)

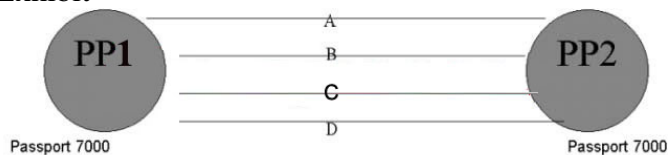
- A. Trunk A
- B. Trunk B
- C. Trunk C
- D. Trunk D

Answer: D

---

**QUESTION 64:**

Exhibit



Trunk A  
Total bandwidth - 768 kbits/s  
POR reservation - 50%  
Delay - 5.2 ms

Trunk B  
Total bandwidth - 1536 kbits/s  
POR reservation - 100%  
Delay - 4.1 ms

Trunk C  
Total bandwidth - 512 kbits/s  
POR reservation - 50%  
Delay - 45.2 ms

Trunk D  
Total bandwidth - 1792 kbits/s  
POR reservation - 30%  
Delay - 8.3 ms

Which link would frame relay traffic, using default provisioning, choose to use between

the two Passports? (see exhibit)  
(choose the correct answer)

- A. Trunk A
- B. Trunk B
- D Trunk C
- C. Trunk D

Answer: D

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**QUESTION 65:**

How much bandwidth is required if 64 kbit/s of bandwidth is required from site 1 to site 2 and 128 kbit/s is required from site 2 to site 1? Assume full-duplex links.  
(choose the correct answer)

- A. 192 kbit/s
- B. 128kbit/s
- C. 256kbit/s
- D. 96 kbit/s

Answer: B

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**QUESTION 66:**

If you reserve 60% bandwidth for PORS traffic, then voice can use up to 40% bandwidth.  
(Choose the correct answer)

- A. true
- B. false

Answer: B

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**QUESTION 67:**

Which items are traffic control mechanisms for ATM? (select all correct answer)

- A. connection admission control (CAC)
- B. traffic shaping
- C. peak cell rate (PCR)
- D. committed information rate (CIR)

Answer: A,B

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**QUESTION 68:**

How many traffic shaping queues does a Passport ATM FP have available without using scaling factors? (choose the correct answer)

- A. 7per port
- B. 28 total
- C. 16 total
- D. 4 per port

Answer: B

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**QUESTION 69:**

When is framed-aligned BTDS (FBTDS) service used? (choose the correct answer)

- A. when an 84-byte cell is used to carry the CBR data across the Passport network
- B. when the ordering of the CBR data must be preserved
- C. when the framing structure of the CBR data must be preserved
- D. when the CBR data requires a clock distribution strategy

Answer: C

---

**QUESTION 70:**

Which features does the Passport frame relay service support under network congestion? (select all correct answer)

- A. CIR rate enforcement
- B. Down speeding
- C. EFCI
- D. overflow routing

Answer: A,D

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**QUESTION 71:**

What is the flow of data if a trunk is transporting data? (choose the correct answer)

- A. voice, PORS trunks(non interrupting mode trunks)
- B. voice, PORS, trunks(interrupting mode trunks)
- C. voice, DPRS, trunks(non interrupting mode trunks)
- D. voice, DPRS, trunks(interrupting mode trunks)

Answer: B

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**QUESTION 72:**

What methods can be used to connect a FRDte to a FRUNI within the same Passport 7000? (select all correct answer)

- A. through a hairpin cable
- B. through a trunk
- C. through a virtual framer
- D. through an ATM VCC

Answer: A,C

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**QUESTION 73:**

Which of the following are the correct access service-addressing, numbering plan and routing system combinations? (select all correct answer)s

- A. FRUNI,X.121,DPRS
- B. PPP,LCN,PORS
- C. HTDS,MAC,DPRS
- D. ATMMpe,PNNI,NSAP

Answer: A,D

---

**QUESTION 74:**

A user running PC on a Ethernet LAN is transmitting IP packets to another user on another LAN using Passport trunks over ATM. What series of encapsulations would be required for this to function? (choose the correct answer)

- A. Ethernet>IP>ATMMpe>ATM
- B. IP>Ethernet>PORS>ATM
- C. Ethernet>IP>>VNS>ATM
- D. Ethernet>IP>ATM

Answer: A

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**QUESTION 75:**

Which items are considered when engineering Passport function processors? (select all correct answer)

- A. routing algorithms
- B. throughput numbers
- C. sparing requirements
- D. AC or DC power
- E. Combination of applications/services

Answer: A,B,C

---

**QUESTION 76:**

Which compression rates and algorithms are supported on the multipurpose voice platform (MVP) card? (choose the correct answer)

- A. 32 kbit/s using ADPCM, 24 kbit/s and 16 kbit/s using LD-CELP, 8 kbit/s using CS-ACELP
- B. 32 KBIT/S USING adpcm, 16 KBIT/S AND 24 KBIT/S USING ld-celp
- C. 32kbit/s and 24 kbite/s using ADPCM, 16 kbit/s using LD-CELP, 8 kbit/s using CS-ACELP
- D. 32 kbit/s, 24 kbit/s and 16 kbit/s using ADPCM, 8 kbit/s using CS-ACELP

Answer: C

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**QUESTION 77:**

A customer subscribes to a CIR of 7 Mbit/s between two nodes. The average frame size for the frame relay traffic is 256 bytes. Additional overhead for each frame is 17 bytes. The customer wants to use 5:1 as a ratio for over subscription. What is the bandwidth required to accommodate the offered traffic? (choose the correct answer)

- A. 10Mbit/s
- B. 1.49 Mbit/s
- C. 7 Mbit/s
- D. 35 Mbit/s

Answer: B

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**QUESTION 78:**

How many 16-slot Passport termination panels are required for the following configuration: three 8-port V.35 FP cards, two 8-port V.11FP cards, and 2 control processors? (choose the correct answer)

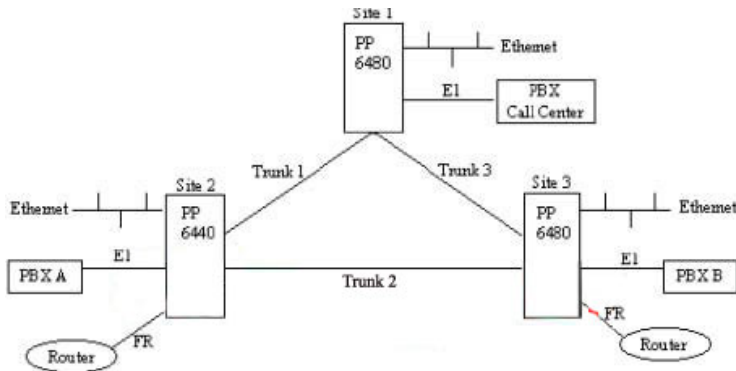
- A. 6
- B. 8
- C. 5
- D. 3

Answer: C

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**QUESTION 79:**

Exhibit, Certitel Network



## Exhibit, Case study

### Passport Network Engineering Case Study

The CertiTel Company has the following services at their three sites:

#### Site 1: The Call Center

This site has a 16-slot Passport switch. The site consists of

- a call center PBX with an E1 link to the Passport
- an Ethernet LAN with 350 kbit/s sent to site 2 and 350 kbit/s sent to site 3

#### Site 2: Branch Location

This branch location has a 5-slot Passport switch. The site consists of

- PBX A, which has a need for 10 voice channels to the call center
- an Ethernet LAN with 350 kbit/s sent to site 1 and 350 kbit/s sent to site 3
- frame relay router linking to a V.35 interface at site 2
- frame relay traffic is between the routers at sites 2 and 3

#### Site 3: Branch Location

This branch location has a 16-slot Passport switch. The site consists of

- PBX B, which has a need for 24 voice channels to the call center
- an Ethernet LAN with 350 kbit/s sent to site 1 and 350 kbit/s sent to site 2
- a frame relay router linking to a V.35 interface at site 3
- frame relay traffic is between the routers at sites 2 and 3

#### Assumptions:

- N x 64 kbit/s leased lines are available
- full-duplex lines
- frame-cell trunks using V.35
- maximum redundancy
- voice: compression is 32 kbit/s, assume 15% overhead, SAD turned off, CAS signaling
- all PBX-to-Passport links use E1
- LAN: traffic is distributed and random, assume 10% VNS overhead
- frame relay: traffic is 100 (low) - 300 (peak) kbit/s,

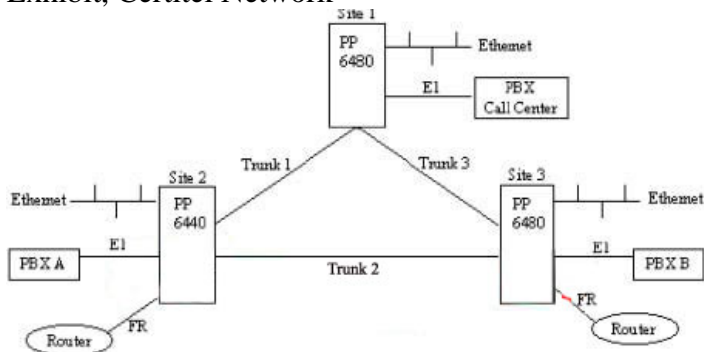
What is the voice traffic between sites 1 and 2?  
(choose the correct answer)

- A. 320 kbit/s
- B. 640 kbit/s
- C. 368 kbit/s
- D. 736 kbit/s

Answer: C

## QUESTION 80:

## Exhibit, Certitel Network



## Exhibit, Case study

## Passport Network Engineering Case Study

The CertiTel Company has the following services at their three sites:

## Site 1: The Call Center

This site has a 16-slot Passport switch. The site consists of

- a call center PBX with an E1 link to the Passport
- an Ethernet LAN with 350 kbit/s sent to site 2 and 350 kbit/s sent to site 3

## Site 2: Branch Location

This branch location has a 5-slot Passport switch. The site consists of

- PBX A, which has a need for 10 voice channels to the call center
- an Ethernet LAN with 350 kbit/s sent to site 1 and 350 kbit/s sent to site 3
- frame relay router linking to a V.35 interface at site 2
- frame relay traffic is between the routers at sites 2 and 3

## Site 3: Branch Location

This branch location has a 16-slot Passport switch. The site consists of

- PBX B, which has a need for 24 voice channels to the call center
- an Ethernet LAN with 350 kbit/s sent to site 1 and 350 kbit/s sent to site 2
- a frame relay router linking to a V.35 interface at site 3
- frame relay traffic is between the routers at sites 2 and 3

## Assumptions:

- N x 64 kbit/s leased lines are available
- full-duplex lines
- frame-cell trunks using V.35
- maximum redundancy
- voice: compression is 32 kbit/s, assume 15% overhead, SAD turned off, CAS signaling
- all PBX-to-Passport links use E1
- LAN: traffic is distributed and random, assume 10% VNS overhead
- frame relay: traffic is 100 (low) - 300 (peak) kbit/s.

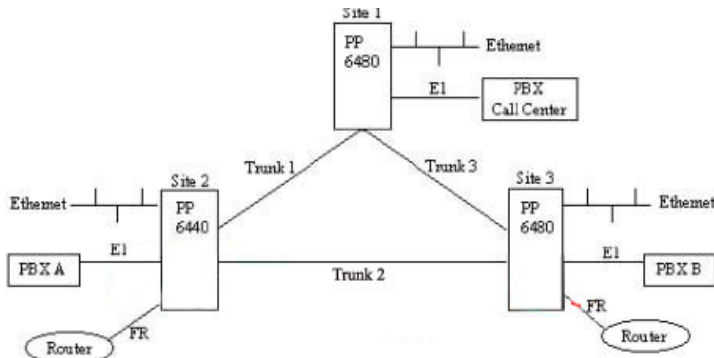
What is the Ethernet LAN traffic between sites 1 and 2? (show exhibit)  
(choose the correct answer)

- A. 736 kbit/s
- B. 385 kbit/s
- C. 770 kbit/s
- D. 350 kbit/s

Answer: B

## QUESTION 81:

Exhibit, Certitel Network



## Exhibit, Case study

### Passport Network Engineering Case Study

The CertiTel Company has the following services at their three sites:

Site 1: The Call Center

This site has a 16-slot Passport switch. The site consists of

- a call center PBX with an E1 link to the Passport
- an Ethernet LAN with 350 kbit/s sent to site 2 and 350 kbit/s sent to site 3

Site 2: Branch Location

This branch location has a 5-slot Passport switch. The site consists of

- PBX A, which has a need for 10 voice channels to the call center
- an Ethernet LAN with 350 kbit/s sent to site 1 and 350 kbit/s sent to site 3
- frame relay router linking to a V.35 interface at site 2
- frame relay traffic is between the routers at sites 2 and 3

Site 3: Branch Location

This branch location has a 16-slot Passport switch. The site consists of

- PBX B, which has a need for 24 voice channels to the call center
- an Ethernet LAN with 350 kbit/s sent to site 1 and 350 kbit/s sent to site 2
- a frame relay router linking to a V.35 interface at site 3
- frame relay traffic is between the routers at sites 2 and 3

Assumptions:

- N x 64 kbit/s leased lines are available
- full-duplex lines
- frame-cell trunks using V.35
- maximum redundancy
- voice: compression is 32 kbit/s, assume 15% overhead, SAD turned off, CAS signaling
- all PBX-to-Passport links use E1
- LAN: traffic is distributed and random, assume 10% VNS overhead
- frame relay: traffic is 100 (low) - 300 (peak) kbit/s,

What is the total traffic between sites 1 and 2? (show exhibit)  
(choose the correct answer)

- A. 1506 kbit/s
- B. 753 kbit/s
- C. 1340 kbit/s
- D. 670 kbit/s

Answer: B

## QUESTION 82:

Which CP and FP configurations would you configure for maximum redundancy at site 1?



Assure trunks are over v.35 links, only 1 EIV card and ethernet card does not support sparing. (show exhibit)  
(choose the correct answer)

- A. 2CPs, 1 E1VFP, 2 6-port Ethernet FPs, 1 8-port v.35
- B. 2CPs, 4 E1VFP, 1 6-port Ethernet FPs, 1 8-port v.35
- C. 2CPs, 4 E1VFP, 2 6-port Ethernet FPs, 1 8-port v.35
- D. 2CPs, 1 E1VFP, 2 6-port Ethernet FPs, 2 8-port v.35

Answer: C

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**QUESTION 83:**

You are connecting high performance routers over a Passport network with ATM trunks. You want to achieve maximum throughput. What additional FP would you require to make this configuration work? (Type the correct answer:

Answer: