



# K L UNIVERSITY

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## **Model Questions for Entrance Test for PhD Admissions Department of Electronics and Communications**

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1. A light ray originating inside a transparent liquid is incident at an angle of 45 degrees and is totally internally reflected when it strikes the surface of the liquid. From this we can conclude that the index of refraction of the liquid is:  
(a) equal to 1.414, (b) greater than 1.414, (c) less than 1.414, (d) none of them
2. How many slits would a diffraction grating need to be able to resolve two wavelengths: 500.0 nm and 500.1 nm in the second order?  
( a ) 5000, (b) 50,000, (c) 2500, (d) 25,000, (e) none of them
3. ATM breaks all traffic into 53-Byte cells because  
A.53-Byte cells are the ideal size for the voice communication  
B.53-Byte cells are the ideal size for data communication  
C.53-Byte cells are the ideal size for circuit switching  
D.53-Byte cells are the compromised size for both voice and data communication
4. What gives ATM network the ability to operate at different data rates and why?  
A.Its short, fixed length cells: Allows the prediction of the size of buffers to be used.  
B.Its short, fixed length cells: Enables the cells to be transported via different routes.  
C.Its short, fixed length cells: Short delays for voice traffic.  
D.it's short, 5-Byte header: Less delay for routing the cells.
5. Which of the following is not true about the difference of B-ISDN as compared to ISDN?  
A.B-ISDN provides for communication services with very high bit rate requirements such as digital television  
B.B-ISDN uses optical fibre cable whereas ISDN makes us of the existing infrastructure.  
C.B-ISDN uses only packet switching whereas ISDN does not perform packet switching.  
D.The bit rate for ISDN is prespecified unlike B-ISDN
6. What advantage does ATM have over STM ?  
A.Unlike ATM, time slots provided by STM for a particular user cannot be grabbed by another user.  
B.It is cheaper to implement.  
C.ATM is suitable for real time traffic but not ATM



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D.Time slots for STM occurs at regular intervals.