

## Some possible questions for test

What is the definition of meter or kilogram or second?  
What is the meaning of prefix?  
What are the meaning of femtosecond, nanometer, kilogram, etc  
What is ether?  
Please, put the x coordinate of Lorentz transformation!.  
Please, put the time (t) coordinate of Lorentz transformation!.  
What is the time dilatation?  
What is the length contraction?  
What is relativistic momentum? Put formula!  
What is relativistic energy? Put formula!  
What is Planck hypothesis? Put formula!  
Please, explain photoelectric effect!  
Put 1D Schrödinger equation! What are meanings letters of eq.?  
What is probability of finding?  
Put the energy level formula of harmonic linear oscillator!  
What zero-point energy?  
What is the main assumption of Bohr model for H atom?  
Put 3D Schrödinger equation! What are meanings letters of eq.?  
Why are 4 quantum numbers of H atom? Meanings?  
What is -- for example – the meaning of  $3p^1$  for electrons?  
What type of electrons has a carbon atom (6 electron)?  
What is Heisenberg uncertainties principle?  
What is deBroglie wavelength?  
What is the band structure of insulators?  
What is the band structure of good conductors?  
What is the band structure of semiconductors?  
What is the definition of superconductor  
What is „doping“?  
.....  
And everything what has been mentioned during semester.  
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