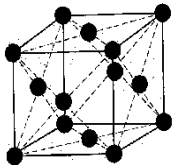
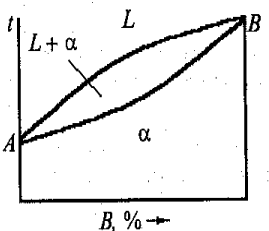


Demonstration version

Direction:
22.04.01 Material science and technology

Task		Points
1. What type of crystal structure?	<ol style="list-style-type: none"> 1. BCC 2. FCC 3. Cub 4. Diamond 	5
2. What is the phenomenon consists in the heterogeneity of the properties material in different directions?	<ol style="list-style-type: none"> 1. Isotropy 2. Anisotropy 3. Texture 4. Polymorphism 	5
3. Which of the following group of metals refers to transition metals?	<ol style="list-style-type: none"> 1. Au, Pt, Ag, Os 2. Mg, Be, Al, Pb 3. Cr, Fe, Co, Ni 	5
4. The phase transition type II include:	<ol style="list-style-type: none"> 1. The transition from the ferromagnetic to the paramagnetic state and back 2. Melting 3. Martensitic transformation 4. None of the above 	5
5. What does means the line "liquidus" on the phase diagram?	<ol style="list-style-type: none"> 1. Line of the end of crystallization 2. Line of the beginning of crystallization 3. Line of the magnetic transition 4. Line eutectoid transformation 	5

<p>6. What are the lattices do not apply to dense spherical packing:</p> <ol style="list-style-type: none"> 1. FCC 2. BCC 3. Diamond 4. None of the above 	5
<p>7. List a line defects such as dislocations in crystal structure:</p> <ol style="list-style-type: none"> 1. Edge dislocation 2. Screw dislocation 3. Surface dislocation 4. Mixed dislocation 	15
<p>8. Describe the basic mechanisms of diffusion of interstitial atoms and substitution in the solid solutions.</p>	15
<p>9. Describe the mechanism of crystallization.</p>	20
<p>10. Theoretical bases used in the performance of your final work. The main results of the work.</p>	20