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 18ENG03/024
 CVT 307

CIVIL ENGINEERING MATERIALS	USES	PROPERTIES
① BRICK	i. Construction of walls of any size. ii. Construction of floors iii. Construction of arches and cornices	i. Hardness ii. Compressive strength iii. Absorption iv. Efflorescence.
② Cement	i. It is used for in construction for setting, hardening and adhering to other materials to bind them together. ii. It is also used to bind sand and gravel (aggregate) together.	i. Soundness ii. Consistency iii. Strength iv. Bulk density
③ Concrete	It is used in construction i. It is used for application of basic foundations. ii. It is used extensively in buildings, bridges, roads and dams.	i. Compressive strength ii. Durability iii. Porosity iv. Density
④ Mortar	i. Is a workable paste which hardens to bind building blocks ii. It is used in crushing and grinding ingredients	i. Workability ii. Bond
⑤ Timber	i. It is used in building and home construction. ii. It is also used with adhesives to generate sheets of plywood for sheathing.	i. Durability ii. Strength iii. Permeability iv. Hardness
⑥ Sand	i. It is used in construction for providing bulk ii. It is used to provide stability to other materials like asphalt, concrete, mortar	i. The grains should be sharp, angular and coarse. ii. The sand should be free from clay material and organic matters.
⑦ Glass	i. It is used as transparent glazing material in the building envelope. ii. It is used for internal partitions and as an architectural feature.	i. Hardness and brittleness ii. Weather resistance iii. Res insulation iv. Transparency.

<p>8) Steel</p>	<p>i. To build high rise buildings ii. To build industrial sheds iii. To build bridges</p>	<p>i. Strength ii. Toughness iii. Ductility iv. Durability</p>
<p>9) Concrete Lumber Aggregate</p>	<p>i. Is used for mixing with cement and other adhesives to form concrete or mortar. ii. It is used to give volume, stability and resistance to wear.</p>	<p>i. Grading ii. Durability iii. Particle shape iv. Surface texture.</p>
<p>10) Ceramics</p>	<p>i. Is used in making tiles ii. It is used in bricks</p>	<p>i. High melting points ii. Great hardness and strength iv. Durability.</p>