

# University of Mumbai

## Examination 2020

Program: Civil Engineering

Curriculum Scheme: Rev2016

Examination: Second Year Semester IV

Course Code: CE-C405 and Course Name: BMCT

Time: 1 hour

Max. Marks: 50

For the students:- All the Questions are compulsory and carry equal marks .

Q1.	Asbestos
Option A:	Is an excellent conductor for heat and electricity
Option B:	Is a natural fibrous mineral substance
Option C:	Is composed of hydrous silicates of Potassium and Sodium( $\text{KSiO}_3$ , $3\text{NaSiO}_3$ )
Option D:	Contains iron oxide and silica
Q2.	The standard size of masonry bricks is
Option A:	18 cm x 8 cm x 8 cm
Option B:	19 cm x 9 cm x 9 cm
Option C:	20 cm x 10 cm x 10 cm
Option D:	21 cm x 11 cm x 11 cm
Q3.	Gypsum consists of
Option A:	$\text{H}_2\text{S}$ and $\text{CO}_2$
Option B:	Lime and $\text{H}_2\text{O}$
Option C:	$\text{CO}_2$ and calcium
Option D:	$\text{CaSO}_4$ and $\text{H}_2\text{O}$
Q4.	Due to attack of dry rot, the timber
Option A:	Cracks
Option B:	Shrinks
Option C:	Reduces to powder
Option D:	Bulges
Q5.	Excess of alumina in brick earth makes the brick
Option A:	Impermeable
Option B:	To crack and warp on drying
Option C:	Brittle and weak
Option D:	Lime
Q6.	The constituent of cement which is responsible for all the undesirable properties of cement is
Option A:	Di-calcium silicate
Option B:	Tri-calcium silicate
Option C:	Tri-calcium aluminate
Option D:	Tetra calcium alumino ferrite
Q7.	Inner part of a timber log surrounding the pitch, is called
Option A:	Sapwood
Option B:	Cambium layer

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Option C:	Hardwood
Option D:	Heart wood
Q8.	For testing compressive and tensile strength of cement, the cement mortar is made by mixing cement and standard sand in the proportions of
Option A:	1 : 2
Option B:	1 : 3
Option C:	1 : 4
Option D:	1 : 6
Q9.	The basic purpose of a retarder in concrete is
Option A:	To increase the initial setting time of cement paste in concrete
Option B:	To decrease the initial setting time of cement paste in concrete
Option C:	To render the concrete more water tight
Option D:	To improve the workability of concrete mix
Q10.	The stretcher bond in brick masonry can be used only when the thickness of wall is
Option A:	90mm
Option B:	180mm
Option C:	200mm
Option D:	230mm
Q11.	Strength of cement concrete primarily depends upon
Option A:	Quality of water
Option B:	Quantity of aggregate
Option C:	Quantity of cement
Option D:	Water-cement ratio
Q12.	Hydraulic lime is obtained by
Option A:	Burning of lime stone
Option B:	Burning of kankar
Option C:	Adding water to quick lime
Option D:	Calcination of pure clay
Q13.	For testing compressive strength of cement, the size of cube used is
Option A:	50mm
Option B:	70.6mm
Option C:	100mm
Option D:	150mm
Q14.	Air entrainment in concrete increases _____
Option A:	Strength
Option B:	The effect of temp variations
Option C:	Workability
Option D:	The unit weight
Q15.	What is water proofing admixtures?

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Option A:	Water repellent materials
Option B:	Water fair material
Option C:	Water absorption material
Option D:	Water adsorption material
Q16.	The pH of Concrete is approximately between _____
Option A:	2-3
Option B:	5-7
Option C:	8-11
Option D:	12-13
Q17.	Which of the following ingredients of the brick earth enables the brick to retain its shape?
Option A:	Alumina
Option B:	Silica
Option C:	Iron
Option D:	Magnesia
Q18.	The main ingredients of Portland cement are
Option A:	Silica and alumina
Option B:	Lime and alumina
Option C:	Lime and silica
Option D:	Lime and iron
Q19.	In a mortar, the binding material is
Option A:	Cinder
Option B:	Cement
Option C:	Surkhi (brick-dust)
Option D:	Sand
Q20.	A good building stone should not absorb water more than
Option A:	5%
Option B:	10%
Option C:	15%
Option D:	20%
Q21.	Le-Chatelier's device is used for determining the
Option A:	Setting time of cement
Option B:	Soundness of cement
Option C:	Tensile strength of cement
Option D:	Compressive strength of cement
Q22.	To retard the initial setting time of cement, the compound responsible, is
Option A:	Tri-calcium silicate
Option B:	Gypsum
Option C:	Di-calcium silicate
Option D:	Tri-calcium aluminate

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Q23.	Seasoning of timber is done for
Option A:	Increasing strength of timber
Option B:	Increasing moisture content
Option C:	Decreasing moisture content
Option D:	Smoothing the surface
Q24.	The frog of the brick in a brick masonry is generally kept on
Option A:	Top Face
Option B:	Bottom Face
Option C:	Short Face
Option D:	Long Face
Q25.	The portion of the brick cut across its width and having its length equal to that of a full brick, is known as
Option A:	Closer
Option B:	King closer
Option C:	Queen closer
Option D:	Prince closer