

# University of Mumbai

## Examination 2020

Program: Civil Engineering

Curriculum Scheme: Rev2012

Examination: Second Year Semester IV

Course Code: CE-C405 and Course Name: CT

Time: 1 hour

Max. Marks: 50

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

Q1.	_____ is not use to make Portland Cement (PC)
Option A:	Calcareous Rocks
Option B:	Argilloalcalcareous Rocks
Option C:	Argillaceous Rocks
Option D:	Sand
Q2.	The development of first 28 days strength is on account of the hydration of _____
Option A:	C2S
Option B:	C3S
Option C:	C3A
Option D:	C4AF
Q3.	What is hydration of cement?
Option A:	Chemical reaction of cement with acid
Option B:	Chemical reaction of cement with base
Option C:	Chemical reaction of cement with water
Option D:	Chemical reaction of cement with salt, and acid
Q4.	Which compound gives the colour to the cement?
Option A:	Lime
Option B:	Silica
Option C:	Iron Oxide
Option D:	Alumina
Q5.	When concrete is to be laid under water _____ is to used.
Option A:	Rapid Hardening Cement
Option B:	Ordinary Portland Cement
Option C:	Quick Setting Cement
Option D:	Low Heat Cement
Q6.	How many times in each layer of concrete rodded in a slump cone?
Option A:	75
Option B:	25
Option C:	12 to 15
Option D:	35 to 65
Q7.	What is the size of coarse aggregates?
Option A:	4.75mm
Option B:	< 4.75mm

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Option C:	> 4.75mm
Option D:	12mm
Q8.	Bulking _____ with increase in moisture
Option A:	Increase
Option B:	Decrease
Option C:	First increase then decrease
Option D:	First decrease then increase
Q9.	Which of the following statement is incorrect about the function of admixtures?
Option A:	To increase the strength of concrete by reducing the water content and by densification of concrete
Option B:	To increase the durability of concrete to enhance its resistance to special conditions of exposure
Option C:	To increase the capillary flow of water through concrete and to increase its impermeability to liquids
Option D:	To control the alkali-aggregate expansion or alkali silica reaction
Q10.	Admixtures which cause early setting, and hardening of concrete are called _____
Option A:	Plasticizers
Option B:	Retarders
Option C:	Super plasticizer
Option D:	Accelerators
Q11.	Super plasticizers reduce water requirement by _____ %.
Option A:	12-30
Option B:	10-15
Option C:	30-42
Option D:	48
Q12.	Workability of concrete is measured by _____
Option A:	Vicat apparatus test
Option B:	Slump test
Option C:	Minimum void method
Option D:	Talbot Richard test
Q13.	After finishing concrete surface must be kept _____
Option A:	Dry
Option B:	First dry it and then wet it
Option C:	First wet it and then dry it
Option D:	Wet
Q14.	Well cured concrete _____ thermal, plastic & drying shrinkage cracks.
Option A:	Doesn't affect
Option B:	Maximize
Option C:	Minimize
Option D:	Create

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Q15.	Strength of concrete is proportional to _____
Option A:	Sand content
Option B:	Water cement ratio
Option C:	Aggregate ratio
Option D:	Cement water ratio
Q16.	_____ has designated the concrete mixes into a number of grades as M10, M15
Option A:	IS 456-2000
Option B:	IS 456-2010
Option C:	IS 513-1999
Option D:	IS 465-2000
Q17.	What is the approx. mix proportion for M20?
Option A:	1:3:6
Option B:	1:2:4
Option C:	1:1.5:3
Option D:	1:1:2
Q18.	Determine the amount of cement per unit volume of concrete from _____
Option A:	Slump value
Option B:	The maximum size of aggregate
Option C:	The amount of mixing water
Option D:	The maximum size of aggregate and the amount of mixing water
Q19.	This cement content should _____ the cement content required based on durability criteria.
Option A:	Be more than
Option B:	Be equal to
Option C:	Be less than
Option D:	Not be less than
Q20.	The aim of the designer should always be to get concrete mixtures of optimum strength at _____ cement content and _____ workability.
Option A:	Maximum, Nonacceptable
Option B:	Minimum, Nonacceptable
Option C:	Maximum, acceptable
Option D:	Minimum, acceptable
Q21.	Which test is used to determine the dimensions of any object?
Option A:	Ultrasonic test
Option B:	Torsion test
Option C:	Eddy current test
Option D:	Compression test
Q22.	For walls, columns and vertical faces of all structural members, the form work is

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	generally removed after _____
Option A:	24 to 48 hours
Option B:	3 days
Option C:	7 days
Option D:	14 days
Q23.	Quality control helps to _____ the risks of overdesign that _____ the overall cost.
Option A:	Maximize, Increase
Option B:	Minimize, Increase
Option C:	Maximize, Decrease
Option D:	Minimize, Decrease
Q24.	The cement concrete, from which entrained air and excess water are removed after placing it in position, is called _____
Option A:	Vacuum concrete
Option B:	LWC
Option C:	Prestressed concrete
Option D:	Sawdust concrete
Q25.	No fines concrete is manufactured by _____
Option A:	By adding no fines materials from normal concrete
Option B:	By eliminating no fines materials from normal concrete
Option C:	By reducing its strength
Option D:	By increasing its strength