

Unit 6 - Week 4

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Assignment 4

The due date for submitting this assignment has passed.
As per our records you have not submitted this assignment.

Due on 2020-10-14, 23:59 IST.

1) Strength of concrete is denoted by MPa. What is the SI unit of MPa? 1 point

- A. N/m^2
B. KN/mm^2
C. N/mm^2
D. KN/m^2

- A
 B
 C
 D

No, the answer is incorrect.
Score: 0

Accepted Answers:
C2) The step by step procedure of making concrete is 1 point

- A. Batching-Mixing-Placing-Compacting-Transporting-Curing
 B. Batching-Transporting-Mixing-Placing-Compacting-Curing
 C. Batching-Transporting-Compacting-Placing-Mixing-Curing
 D. Batching-Mixing-Transporting-Placing-Compacting-Curing

No, the answer is incorrect.
Score: 0

Accepted Answers:
D. Batching-Mixing-Transporting-Placing-Compacting-Curing3) The reason that very fine graded sand should not be used in the mix 1 point

- A. It coats the cement particles and enhances the process of binding.
 B. It coats the cement particles and does not allow binding.
 C. It contains salt which reacts with cement particles and leads to segregation.
 D. Neither it coats the cement particles nor does it allow binding.

No, the answer is incorrect.
Score: 0

Accepted Answers:
B. It coats the cement particles and does not allow binding.4) Fineness modulus for the size of aggregate of 40 mm and below lies in the range between 1 point

- A. 6.9 to 7.5
 B. 7.5 to 8.0
 C. 8.5 to 9.0
 D. 9.0 to 9.5

No, the answer is incorrect.
Score: 0

Accepted Answers:
A. 6.9 to 7.55) Given below are some properties of the compound C4AF 1 point

- (i) Imparts strength to the cement
(ii) Helps in rapid hydration
(iii) Increases the furnace temperature
(iv) Gives color to the cement

The correct properties from the alternatives

- A. (i) & (ii)
 B. (ii) & (iii)
 C. (i) & (iv)
 D. (ii) & (iv)

No, the answer is incorrect.
Score: 0

Accepted Answers:
D. (ii) & (iv)6) Gel-space ratio is defined as 1 point

- A. $(Vol. \text{ of hydrated cement paste}) / (Vol. \text{ of hydrated cement paste} + Vol. \text{ of capillary pores})$
 B. $(Wt. \text{ of hydrated cement paste}) / (Wt. \text{ of hydrated cement paste} + Wt. \text{ of capillary pores})$
 C. $(Vol. \text{ of capillary pores}) / (Vol. \text{ of hydrated cement paste} + Vol. \text{ of capillary pores})$
 D. $(Wt. \text{ of capillary pores}) / (Wt. \text{ of hydrated cement paste} + Wt. \text{ of capillary pores})$

No, the answer is incorrect.
Score: 0

Accepted Answers:
A. $(Vol. \text{ of hydrated cement paste}) / (Vol. \text{ of hydrated cement paste} + Vol. \text{ of capillary pores})$ 7) Strength of concrete at any water-cement ratio is a function of 1 point

- A. Degree of hydration & Workability
 B. Degree of hydration & the temperature at which hydration occurs
 C. Degree of hydration & proportion of the mix
 D. Degree of hydration & size of coarse aggregates.

No, the answer is incorrect.
Score: 0

Accepted Answers:
B. Degree of hydration & the temperature at which hydration occurs8) The water-cement ratio for a workable concrete lies in the range of 1 point

- A. 0.35-0.45
 B. 0.40-0.50
 C. 0.45-0.55
 D. 0.55-0.65

No, the answer is incorrect.
Score: 0

Accepted Answers:
C. 0.45-0.559) The shape of aggregates that produces minimum voids in concrete 0 points

- A. Rounded and Irregular
 B. Angular and Rounded
 C. Irregular and Angular
 D. Angular and Flaky

No, the answer is incorrect.
Score: 0

Accepted Answers:
B. Angular and Rounded10) M30 grade of concrete implies 1 point

- A. the tensile strength is $30 N/mm^2$
B. the compressive strength is $30 N/cm^2$
C. the shear strength is $30 N/mm^2$
D. the compressive strength is $30 N/mm^2$

- A
 B
 C
 D

No, the answer is incorrect.
Score: 0

Accepted Answers:
D11) Match the following and select the correct combination. 2 points

Cement Constituents	Percentage in cement
P. C3S	i. 50
Q. C3A	ii. 12
R. CSH2	iii. 25
S. C2S	iv. 5
T. C4AF	v. 8

- A. P-ii; Q-i; R-v; S-iii; T-iv
 B. P-v; Q-iv; R-ii; S-iii; T-i
 C. P-v; Q-iii; R-i; S-iv; T-ii
 D. P-i; Q-ii; R-iv; S-iii; T-v

No, the answer is incorrect.
Score: 0

Accepted Answers:
D. P-i; Q-ii; R-iv; S-iii; T-v12) Match the following Admixtures added to concrete with their respective functions given below 2 points

Admixtures	Function
P. NaCl	(i) Act as cost and weight reducer in a mix.
Q. Gypsum	(ii) Act as an accelerator in the casting process.
R. Chromium Oxide	(iii) Is a colouring agent.
S. Egg Shell dust	(iv) Act as a retarder in the casting process.
T. $CaCl_2$	

The correct match from the set of options given below

- A. P-(iii); Q-(iv); R-(iii); S-(i); T-(ii)
 B. P-(i); Q-(ii); R-(iv); S-(iii); T-(i)
 C. P-(iii); Q-(i); R-(ii); S-(iv); T-(iv)
 D. P-(iv); Q-(iii); R-(i); S-(ii); T-(iii)

No, the answer is incorrect.
Score: 0

Accepted Answers:
A. P-(i); Q-(iv); R-(iii); S-(i); T-(ii)13) Following are some important characteristics of aggregates up-to 10mm sizes. 2 points

- (i) Used in thin sections and shells in concrete casting
(ii) There is no restriction in flow due to reinforcement.
(iii) Clear cover provided is 15 mm. Identify the correct option given below.

- A. (i) & (ii) is correct but (iii) is incorrect
 B. (ii) & (iii) is correct but (i) is incorrect
 C. (i) & (iii) is correct but (ii) is incorrect.
 D. All the statements are in-correct.

No, the answer is incorrect.
Score: 0

Accepted Answers:
C. (i) & (iii) is correct but (ii) is incorrect.14) The Fineness modulus of one kilogram sample of sand having the following readings when passed through sieve is: 2 points

Diameter of sieve	Weight of sand (gm)
4.75mm	0
2.36mm	100
1.18mm	300
0.6mm	200
0.3mm	300
0.15mm	100

- A. 2.75
 B. 2.95
 C. 3.00
 D. 3.25

No, the answer is incorrect.
Score: 0

Accepted Answers:
C. 3.0015) A bulked sand sample measures 125mm in a cylindrical glass container. After adding sufficient water it comes down to 110mm. What is the bulking in percentage? 2 points

- A. 11.36
 B. 13.63
 C. 1.363
 D. 12

No, the answer is incorrect.
Score: 0

Accepted Answers:
B. 13.63