

KATHMANDU UNIVERSITY
End Semester Examination [C]
May/June, 2019

Marks Scored:

Level : B.E./B.Tech.
Year : II

Course : CIEG 201
Semester : I

Exam Roll No. :

Time: 30 mins.

F. M. : 10

Registration No.:

Date 05 JUN 2019

SECTION "A"

[20Q. × 0.5 = 10 marks]

Choose the most appropriate answer among the given options and **encircle** the letter of your choice.

1. The rocks which are formed due to cooling of magma at a considerable depth from earth's surface are called
 - a. Plutonic rocks
 - b. Hypabyssal rocks
 - c. Volcanic rocks
 - d. Igneous rocks
2. Plywood has the advantage of
 - a. Greater tensile strength in longer direction
 - b. Greater tensile strength in shorter direction
 - c. Same tensile strength in all directions
 - d. High compressive and tensile strength
3. The constituent of cement which is responsible for all the undesirable properties of cement is
 - a. Di-calcium silicate
 - b. Tri-calcium silicate
 - c. Tri-calcium aluminate
 - d. Tetra calcium alumino ferrite
4. Inner part of a timber log surrounding the pitch, is called
 - a. Sapwood
 - b. Cambium layer
 - c. Heart wood
 - d. Bark
5. If 'P' is the percentage of water required for normal consistency, water to be added for determination of initial setting time, is
 - a. 0.70 P
 - b. 0.75 P
 - c. 0.80 P
 - d. 0.85 P
6. The basic purpose of a retarder in concrete is
 - a. To increase the initial setting time of cement paste in concrete
 - b. To decrease the initial setting time of cement paste in concrete
 - c. To render the concrete more water tight
 - d. To improve the workability of concrete mix
7. Clay and silt content in a good brick earth must be at least
 - a. 50 %
 - b. 40 %
 - c. 30 %
 - d. 25 %
8. Which of the following cements contains maximum percentage of di-calcium silicate?
 - a. Ordinary Portland cement
 - b. Low heat cement
 - c. Rapid hardening cement
 - d. Sulphate resisting cement
9. Bitumen paints offer
 - a. Pleasing surface
 - b. Hard surface
 - c. Smooth surface
 - d. Protective surface

10. The portion of the brick cut across its width and having its length equal to that of a full brick, is known as
a. Closer b. Queen closer c. King closer d. Bat
11. Which of the following is the purest form of iron?
a. Cast iron c. Mild steel
b. Wrought iron d. High carbon steel
12. The condition not applicable to water cement ratio law, is
a. Internal moisture conditions on hydration continue till complete strength is gained
b. Concrete specimens may be tested at any temperature
c. Concrete specimens need be of same age
d. Concrete specimens need be of same size
13. The grade of concrete M 25 means that compressive strength of a 15 cm cube after 28 days, is
a. 100 kg/cm² b. 150 kg/cm² c. 200 kg/cm² d. 250 kg/cm²
14. In case of hand mixing of concrete, the extra cement to be added is
a. 5 % b. 20 % c. 15% d. 10 %
15. 1 % of voids in a concrete mix would reduce its strength by
a. 5 % b. 10 % c. 15 % d. 20 %
16. The strength of concrete after one year as compared to 28 days strength is about
a. 10 to 15 % more c. 20 to 25 % more
b. 15 to 20 % more d. 25 to 50 % more
17. Strength of concrete increases with
a. Increase in water – cement ratio c. Decrease in curing time
b. increase in fineness of cement d. decrease in size of aggregate
18. Approximate value of shrinkage strain in concrete is
a. 0.003 b. 0.0003 c. 0.00003 d. 0.03
19. What is the allowed reduction of water with super plasticizers without reducing workability?
a. 10 % b. 20 % c. 30 % d. 40%
20. Pick up the incorrect statement from the following:
a. Admixtures accelerate hydration c. Admixtures make concrete acid proof
b. Admixtures make concrete water proof d. Admixtures give high strength