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Total Number of Pages: 02

B.Tech  
PCI31002

3<sup>rd</sup> Semester Regular/Back Examination 2017-18

Construction Technology

BRANCH: CIVIL

Time: 3 Hours

Max Marks: 100

Q.CODE: B860

Answer Question No.1 and 2 which are compulsory and any four from the rest.  
The figures in the right hand margin indicate marks.

**Q1** Answer the following questions: *multiple type or dash fill up type* (2 x 10)

- The size of boulders are more than i) 20 mm ii) 200 mm iii) 1000 mm iv) 2000 mm
- For DPC at plinth level, which grade of concrete is used?  
i) M<sub>10</sub> ii) M<sub>15</sub> iii) M<sub>20</sub> iv) M<sub>25</sub>
- The light-weight concrete is prepared by i) mixing Portland cement with sawdust in specified proportion in the concrete ii) using coke-breeze, cinder or slag as aggregate in the concrete iii) mixing aluminium in the concrete iv) none of the above
- The compaction factor value is always i) more than 1 ii) less than 1 iii) more than 0.85 iv) less than 0.85
- Super plasticized concrete reduces water content up to i) 5-15 % ii) 20-30% iii) 15-30% iv) 20-40%
- The formation of very small loose mass on plastering surface is i) flaking ii) blistering iii) peeling iv) none of the above
- The normal weight of light weight concrete in kg/ m<sup>3</sup> i) 2100-2500 ii) 2000-2100 iii) 300-1600 iv) 500-1000
- The foundations are placed below ground level, to increase i) strength ii) workability iii) stability of structure iv) all of the above
- In prestressed concrete structures the prestressing of the concrete is done to compensate the stresses caused by i) dead load ii) working load iii) live load iv) dynamic load
- Turpentine oil is used in paints as i) thinner ii) vehicle iii) drier iv) base

**Q2** Answer the following questions: *Short answer type* (2 x 10)

- Define segregation and bleeding.
- Explain shotcrete .
- Write down the advantages and disadvantages of H- section pile .
- What are the factors affecting workability?
- Define pitched roof.
- Differentiate facing and glazing.
- What is construction joint in concrete? Why it is used?
- Explain the role of admixture in concrete.
- What do you mean by self compacting concrete?
- Name any two different types of fitting.

**Q3** a) Briefly explain about impact pile driving method. (10)  
b) Write the advantages and disadvantages of pre cast concrete piles. (5)

**Q4** a) Explain about different types of scrapers and bulldozers. (10)  
b) What are the points to be considered during selection of earth work equipment? (5)

- Q5

What are the causes, sources and defects of dampness in building?

(15)
- Q6

Briefly describe about non destructive test of hardened concrete.

(15)
- Q7

a) Explain extreme weather concreting.

b) Describe various types of defects in building.

(10)

(5)
- Q8

a) Briefly explain various types of plastering and pointing.

b) Explain the methods of termite proofing.

(10)

(5)
- Q9

Write short notes on any TWO.

a) Construction estimating

b) False work and temporary work

c) Self compacting concrete

d) DPC

(5 x 2)