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**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. **(10)**  
b) Describe various types of defects in building. **(5)**
- Q8** a) Briefly explain various types of plastering and pointing. **(10)**  
b) Explain the methods of termite proofing. **(5)**
- Q9** **Write short notes on any TWO.** **(7.5 x 2)**  
a) Construction estimating  
b) False work and temporary work  
c) Self compacting concrete  
d) DPC