

Total No. of Questions—8]

[Total No. of Printed Pages—2

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[5352]-501

**S.E. (Civil) (I Sem.) EXAMINATION, 2018**  
**BUILDING TECHNOLOGY AND MATERIALS**  
**(2015 PATTERN)**

**Time : Two Hours**

**Maximum Marks : 50**

- N.B. :—** (i) Solve Q. No. 1 or Q. No. 2, Q. No. 3 or Q. No. 4,  
Q. No. 5 or Q. No. 6, Q. No. 7 or Q. No. 8.  
(ii) Figures to the right indicate full marks.  
(iii) Assume suitable data, if necessary.  
(iv) Use of non-programmable scientific calculator is allowed.

- Q 1 a) Write a short note on : causes of failure of foundations. 5  
b) Explain in depth Reinforced Brick Masonry. 5  
OR  
Q 2 a) Write a short note on silica bricks, considering following points: ingredients, 6  
properties, applications.  
b) Write a short note on "slip formwork" 4  
Q 3 a) Write a short note on :functional requirements of flooring. 4  
b) Explain in depth i) folding doors ii) casement window. 6  
OR  
Q 4 a) Write a short note on pneumatic structures. 5  
b) Write a short note on "construction of an arch" 5  
Q 5 a) Write a short note on i) lifts and ii) escalators . 8  
b) Explain in depth , "pointing". 7  
OR  
Q 6 a) Design a dog legged staircase using following data: i) Floor to floor height- 3.2 m, 7  
ii) Riser- 160 mm, iii) Tread : 275 mm, iv) Landing width- 1.2 m (observed on  
either side of flight). Find the internal dimensions of staircase room. Draw the  
plan for the same.  
b) Write a short note on "wall cladding and white washing"; considering following 8  
points- meaning, purpose, material, process.

P.T.O.

- Q 7 a) Write a short note on :application of i) ceramic and ii) ecofriendly materials in construction industry. 8
- b) Explain in depth "Shoring". 7
- OR
- Q 8 a) Write a short note on : application of i) aluminum and ii) timber in construction industry. 8
- b) Write a short note on "causes and prevention of accidents" on construction site. 7