

EXTRA COPIES .

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TEST -1 EXAMINATION- Sept. 2017

B. Tech. VII Semester

COURSE CODE: 10B13CE736

MAX. MARKS: 15

COURSE NAME: Underground Technology

COURSE CREDITS: 3

MAX. TIME: One Hr

Note: All questions are compulsory. Carrying of mobile phone during examinations will be treated as case of unfair means.

1. At Bombay High, off the coast of Mumbai, the offshore oil production platforms in water depth of 70m are made of steel and they rest on pile foundation made of open ended steel pipes having diameters in excess of 1.0 m driven to depths of 90 m or more below the seabed. Give 3 reasons why such piles have been chosen in preference to concrete piles.

[6]

2. Discuss the advantages and disadvantages of

(i) Driven Cast – in- situ concrete piles

(ii) Bored Cast – in – situ concrete piles

[2+2 = 4]

3. A zone of buried trash has been found at a proposed construction site. The total volume of this trash appears to be about 100 m³ and all of it appears to be within 3m of the ground surface. This trash is weak and compressible, thus would not provide adequate support for the proposed construction. The remainder of the site is underlain by ML and SM soils and the groundwater table is at a depth of 15 m. Recommend a method of solving this problem.

[5]