



Enrolment No. _____

HASMUKH GOSWAMI COLLEGE OF ENGINEERING, VAHELAL

MID SEMESTER EXAMINATION, SEPTEMBER-2016

Subject Code: 2170609

Date: 24/9/16

Subject Name: IE

Sem: 7TH

Time: 10:00 TO 10:50

Total Marks: 20

Instructions:

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- QUE.1** (A) Write any **2 benefits** of irrigation engineering and **2 ill effects** of irrigation **3**
(B) Explain 'Duty' and 'Delta'. Obtain the relationship between them. **3**
- QUE.2** (A) Explain (i) Culturable command area (ii) Silt Excluder (iii) Divided wall **3**
(B) **Enlist** different methods of irrigation and write **Any One** merits and demerit of each method. **4**
- OR**
- (B) Describe function of (i) divide wall (ii) silt excluder (iii) under sluice portion in diversion head work **4**
- QUE.3** (A) Explain Balancing depth of canals **3**
(B) List out limitations of Bligh's creep theory and Determine thickness of floor at 10m and 15m from u/s end if $b=28m$, $d_1=5m$, $d_2=6m$ and $H=4m$. **4**
- OR**
- (A) Describe causes and remedial measures of water logging. **3**
(B) The culturable command area of a water course is 1500 hectare. Intensities of irrigation of sugarcane and wheat crops is 25 % and 50 % respectively. The duties for the crops at the head of the water course are 700 hectare /cumec and 1750 hectares /cumec respectively. Find the discharge required at head of water course. **4**

***** ALL THE BEST *****