



DEMAND

PAVIATH INTEGRATED SOLUTION

CIVIL ENGG

CIVIL UNIV

FOUNDATION ENGINEERING

Paviath ONLINE

◆ CIVIL UNIVERSITY ◆ THIRD YEAR II SEMESTER ◆ CODE AG0126

UNIT - I

SOIL EXPLORATION: NEED - METHODS OF SOIL EXPLORATION - BORING AND SAMPLING METHODS - PENETRATION TESTS - PLATE LOAD TEST - PRESSURE METER - PLANNING OF PROGRAMME AND PREPARATION OF SOIL INVESTIGATION REPORT.

UNIT - II

SLOPE STABILITY: INFINITE AND FINITE EARTH SLOPES - TYPES OF FAILURES - FACTOR OF SAFETY OF INFINITE SLOPES - STABILITY ANALYSIS BY SWEDISH ARC METHOD, STANDARD METHOD OF SLICES, BISHOP'S SIMPLIFIED METHOD - TAYLOR'S STABILITY NUMBER- STABILITY OF SLOPES OF EARTH DAMS UNDER DIFFERENT CONDITIONS.

UNIT - III

EARTH PRESSURE THEORIES: RANKINE'S THEORY OF EARTH PRESSURE - EARTH PRESSURES DIFFERENT SOILS AND LAYERED SOILS - COULOMB'S EARTH PRESSURE THEORY - CULMANN'S GRAPHICAL METHOD. RETAINING WALLS: TYPES OF RETAINING WALLS - STABILITY OF RETAINING WALLS AGAINST OVERTURNING, SLIDING, BEARING CAPACITY AND DRAINAGE FROM BACKFILL

UNIT - IV

SHALLOW FOUNDATIONS - STRENGTH CRITERIA - TYPES - CHOICE OF FOUNDATION - LOCATION OF DEPTH - SAFE BEARING CAPACITY - TERZAGHI, MEYERHOF, SKEMPTON AND IS METHODS SHALLOW FOUNDATIONS - SETTLEMENT CRITERIA - SAFE BEARING PRESSURE BASED ON N-VALUE - ALLOWABLE BEARING PRESSURE; SAFE BEARING CAPACITY - ALLOWABLE SETTLEMENTS OF STRUCTURES. PILE FOUNDATION: TYPES OF PILES - LOAD CARRYING CAPACITY OF PILES BASED ON STATIC PILE FORMULAE IN DIFFERENT SOILS- DYNAMIC PILE FORMULAE - PILE LOAD TESTS - LOAD CARRYING CAPACITY OF PILE GROUPS IN SANDS AND CLAYS - SETTLEMENT OF PILE GROUPS.

UNIT - V

WELL FOUNDATIONS: TYPES - DIFFERENT SHAPES OF WELLS - COMPONENTS OF WELLS - SINKING OF WELLS - TILTS AND SHIFTS.

TEXT BOOKS:

1. DAS, B.M., - (2012) PRINCIPLES OF FOUNDATION ENGINEERING - CENGAGE LEARNING
2. BASIC AND APPLIED SOIL MECHANICS BY GOPAL RANJAN & ASR RAO, NEW AGE INTERNATIONAL PVT. LTD, (2004).
3. GEOTECHNICAL ENGINEERING : PRINCIPLES AND PRACTICES OF SOIL MECHANICS AND FOUNDATION ENGINEERING BY VNS MURTHY, TAYLOR & FRANCIS GROUP.

REFERENCES:

1. ANALYSIS AND DESIGN OF SUBSTRUCTURES - SWAMI SARAN, OXFORD AND IBH PUBLISHING COMPANY PVT LTD 1998.
2. GEOTECHNICAL ENGINEERING BY S. K. GULHATI & MANOJ DATTA - TATA MC.GRAW HILL PUBLISHING COMPANY NEW DELHI. 2005.
3. TENG, W.C - FOUNDATION DESIGN, PRENTICE HALL, NEW JERSEY.
4. BOWLES, J.E., (1988) FOUNDATION ANALYSIS AND DESIGN - 4TH EDITION, MCGRAW-HILL PUBLISHING COMPANY, NEWYORK.



APM Civil Engineering

STC APM

SYLLABUS COACHING
TRAINING - 2/UNIT TRAINING
SELF - 4/UNIT ASSIGNMENT
PRESENTATION - 2/UNIT
SHOWTIME - 2/UNIT



ASCON RENG

SYLLABUS PERIOD
TRAINING - 2/2 HRS/UNIT
REMOTE - 2/2 HRS/UNIT
DURATION - SEMESTER
ONLINE/REMOTE ACCESS



ARCADIA BIM

FEATURES
TRAINING BY IND. PROFESSIONAL
INDUSTRY APPLICATION
TRAINER OPPORTUNITY
CERTIFICATION