

**DEMAND****PAVIATH INTEGRATED SOLUTION****CIVIL ENGG****CIVIL POLY****ESTIMATING AND COSTING - II****Paviath ONLINE****◆ CIVIL POLY ◆ III YEAR V SEM ◆ CODE CEM54****OBJECTIVE**

- MENTION THE SPECIFICATIONS FOR VARIOUS MATERIALS AND FOR DIFFERENT ITEMS OF WORKS.

- WRITE TECHNICAL REPORTS ON THE PROPOSED PROJECTS.
- WRITE A REPORT ON WATER SUPPLY SYSTEM FOR A VILLAGE
- PREPARE DATA FOR VARIOUS ITEMS OF WORKS USING STANDARD DATA & SCHEDULE OF RATES.
- PREPARE THE STANDARD RENT AND FAIR RENT OF BUILDING
- EXPLAIN CLASSIFICATION OF PROPERTIES AND TYPES OF LEASES
- PREPARE DETAILED ESTIMATE OF QUANTITIES OF VARIOUS ITEMS OF WORK FOR P.H. ENGINEERING STRUCTURES USING TRADE SYSTEM.
- PREPARE DETAILED ESTIMATE OF QUANTITIES OF VARIOUS ITEMS OF WORKS FOR BRIDGES AND ROAD WORKS USING TRADE SYSTEM.
- PREPARE DETAILED ESTIMATE OF QUANTITIES OF VARIOUS ITEMS OF WORKS FOR WATER BOUND MACADAM ROAD, SINGLE SPAN SLAB CULVERT AND TEE BEAM BRIDGE USING TRADE SYSTEM.
- CALCULATE THE VALUE OF A BUILDING / PROPERTY. TO FIX RENT FOR A BUILDING ADOPTING SUITABLE METHODS.

1.1 SPECIFICATION WRITING

SPECIFICATION - NECESSITY - IMPORTANCE OF SPECIFICATIONS - TYPES OF SPECIFICATIONS - GENERAL SPECIFICATION, DETAILED SPECIFICATION AND STANDARD SPECIFICATION - ESSENTIAL REQUIREMENTS OF SPECIFICATIONS - GENERAL AND TECHNICAL PROVISIONS OF DETAILED SPECIFICATIONS - SPECIFICATIONS FOR VARIOUS MATERIALS LIKE CEMENT, SAND, BRICK, TIMBER, STONE, AGGREGATE, REINFORCEMENT STEEL, TILES, BITUMEN, WATER ETC. GENERAL SPECIFICATION FOR A BUILDING - GENERAL SPECIFICATION FOR A CULVERT - GENERAL SPECIFICATION FOR A CONCRETE / TAR ROAD PROJECT - EXAMPLES - DETAILED SPECIFICATIONS FOR WORKS SUCH AS EARTH WORK EXCAVATION, FOUNDATION CONCRETE, STONE / BRICK MASONRY, DOORS / WINDOWS, RCC IN COLUMNS / BEAMS / SLABS, PLASTERING, FLOORING, PAINTING / VARNISHING, OPC, A.C SHEET ROOFING, RAINWATER PIPES, CENTERING FOR ROOFING, WEATHERING COURSE, UNDER REAMED PILES, WATER BOUND MACADAM / TAR ROADS, SURFACE DRESSING WITH BITUMEN, REVENEMENTS, ETC-EXAMPLES- STEPS INVOLVED IN WRITING STANDARD SPECIFICATION - ADVANTAGES OF STANDARD SPECIFICATIONS - WRITING STANDARD SPECIFICATIONS WITH REFERENCE TO TAMIL NADU BUILDING PRACTICE / INDIAN STANDARDS/ NBC- EXAMPLES - TENDER - TTT ACT - E TENDER - PREPARATION OF TENDER NOTICE AND DOCUMENT

2.1 VALUATION

VALUE - DIFFERENCE BETWEEN COST AND VALUE - PURPOSE OF VALUATION - DEFINITION OF TERMS: CAPITAL COST, GROSS INCOME AND NET INCOME, OUTGOINGS, CAPITALIZED VALUE AND CAPITAL VALUE, SCRAP VALUE, SALVAGE VALUE, OBSOLESCENCE, SINKING FUND, DEPRECIATION, YEARS PURCHASE, BOOK VALUE, MARKET VALUE, RATABLE VALUE, DEFERRED VALUE OF LAND, LEASE, MORTGAGE, ANNUITY, AMORTIZATION - FACTORS AFFECTING THE VALUE OF A PROPERTY - CLASSIFICATION OF PROPERTIES - TYPES OF LEASES - PROBLEMS ON DETERMINATION OF SINKING FUND- PROBLEMS ON CALCULATION OF DEPRECIATION - METHODS OF VALUATION OF BUILDINGS - VALUATION BASED ON COMPARISON / RENT / PROFIT / PRESENT VALUE - METHODS OF VALUATION OF LANDS - MATHEMATICS OF VALUATION - VALUATION TABLES - PROBLEMS ON VALUATION OF BUILDINGS / PROPERTIES

2.2 RENT CALCULATION

FIXATION OF RENT - DEFINITION OF TERMS: STANDARD RENT, FAIR RENT OR REASONABLE RENT, ECONOMICAL RENT, MARKET RENT, RENT CERTIFICATE - RENT CONTROL - FACTORS INFLUENCING THE RENT OF A BUILDING - PROBLEMS ON RENT CALCULATION - FIXING RENT OF A PRIVATE BUILDING USED BY GOVERNMENT - FIXING RENT OF A GOVERNMENT BUILDING USED BY ITS EMPLOYEES - FIXING RENT OF A GOVERNMENT BUILDING RENTED TO PRIVATE PARTIES

3.1 ANALYSIS OF RATES FOR SANITARY AND WATER SUPPLY WORKS

EARTH WORK IN TRENCHES - TIMBERING OF TRENCHES - LAYING STONEWARE / RCC / GI PIPES - LEAD JOINT FOR CAST IRON PIPES - CUTTING AND JOINTING G.I. PIPES, PVC PIPES AND STONEWARE PIPES - CONSTRUCTING A MAN HOLE IN THE SEWAGE LINE OF A RESIDENCE - PROVIDING A DISPERSION TRENCH FOR THE SEPTIC TANK OF A RESIDENTIAL FLAT- SUPPLYING A FERRO CEMENT CIRCULAR RING FOR WELL SINKING - LAYING PVC PLUMBING LINES CONCEALED INTO BRICK MASONRY WALLS - SUPPLYING AND FIXING INDIAN TYPE WATER CLOSERS WITH FLUSHING TANKSP

3.2 ANALYSIS OF RATES FOR BRIDGE, ROAD WORKS AND MISCELLANEOUS ITEMS

RANDOM RUBBLE STONE MASONRY IN ABUTMENTS AND PIERS - PROVIDING FORMWORK FOR DECK SLABS - R.C.C FOR COLUMNS / BEAMS / DECK SLAB - PARAPETS - HAND RAILS - EARTH FILLING IN EMBANKMENTS - SOLING FOR A WB MROAD - LAYING WBM ROAD OVER THE EXISTING SOLING - SURFACE DRESSING - SURFACE BLINDING - PROVIDING PREMIX CARPET - LAYING CONCRETE ROADS - APRON AND REVENEMENT WORKS IN CANALS - WOODEN FRAMES FOR DOORS - PANELED DOORS - GLAZED WINDOWS - STEEL GRILL GATES - STEEL GRILLS FOR WINDOWS - SUPPLYING AND FIXING ALUMINUM PARTITIONS - PROVIDING WOODEN SHUTTERS TO LOFTS- EXPANSION JOINT IN R.C. ROOF (EXPOSURE TO USE

4.1 TAKING OFF QUANTITIES OF P.H. ENGINEERING STRUCTURES USING TRADE SYSTEM

PREPARING DETAILED ESTIMATE USING TRADE SYSTEM AND TAKE OFF QUANTITIES FOR ALL ITEMS OF WORKS IN THE FOLLOWING P.H. ENGINEERING STRUCTURES:

1. SEPTIC TANKS WITH DISPERSION TRENCH / SOAK PIT
 2. OPEN WELL WITH MASONRY STEINING
 3. SQUARE RCC OVER HEAD TANK ON FOUR COLUMNS WITH STAGINGS
 - 5.1 TAKING OFF QUANTITIES OF ROAD / BRIDGE STRUCTURES USING TRADE SYSTEM AND IRRIGATION WORKS
- PREPARING DETAILED ESTIMATE USING TRADE SYSTEM AND TAKE OFF QUANTITIES FOR ALL ITEMS OF WORKS IN THE FOLLOWING ROAD / BRIDGE STRUCTURES:
1. WATER BOUND MACADAM ROAD
 2. CEMENT
 3. CONCRETE ROAD WITH SIDE DRAINS
 4. SINGLE SPAN SLAB CULVERT
 5. TEE BEAM BRIDGE. ESTIMATION OF IRRIGATION WORKS - AQUEDUCT, SYPHON, FALL, ESTIMATE OF RETAINING WALLS CULVERTS.

TEXT BOOK:

1. RANGAWALA, - ESTIMATING & COSTING, CHARTOTER PUBLISHING;

2. N.A. SHAW, - QUANTITY SURVEYING & VALUATION, KHANNA PUBLISHERS;

3. L.N. DUTTA, - ESTIMATING & COSTING, DHANPAT RAI & SONS

REFERENCE BOOK:

1. BRIDIE, - ESTIMATING & COSTING

2. INDIAN STANDARD CODE OF PRACTICE IS: 1200.

3. CIVIL ESTIMATING, COSTING AND VALUATION - KALSON PUBLICATION LUDHIYANA.

4. VAZIRANI & CHANDOLU, ESTIMATING AND COSTING II 2001

**APM Civil Engineering****STC APM**

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

MATHS ILLUSTRATION - GEOMETRY EXPRESSIONS**ASCON RENG**

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

MECHANICAL EXPRESSIONS - ANALYTIX CAMS**ARCADIA BIM**

**FEATURES
TRAINING BY IND. PROFESSIONAL
INDUSTRY APPLICATION
TRAINER OPPORTUNITY
CERTIFICATION**