COST ON MATERIALS TESTING

TESTS ON SOIL SAMPLES

S.N	Item Description	Unit	Rate($)
1.0	**General tests**		
	Natural moisture content	1	**10**
	Atterberg limits	1	**40**
	Sieve analysis + (Hydrometer)	1	**80**
	Sieve Analysis (wet sieve)	1	**40**
	Sieve Analyisis(dry sieve)	1	**30**
	Soil pH	1	**40**
	Shrinkage Limit (Linear)	1	**30**
	Specific gravity	1	**40**
	Organic matter	1	**60**
	Dynamic penetrometer test	1	**40**
	Sulfates test	1	**65**
	Chloride test	1	**65**
1.2.	**Compaction test**		
	a) standard-protor 100 mm dia mould	1	**50**
	b) modified protor 100 mm dia mould	1	**55**
	c)Triaxial test	1	**100**
	d)Unconfined compressive test(drained)	1	**120**
1.3.	**CBR Test(100% MDD)**		
	a) unsoaked	1	**40**
	b)soaked 2 days	1	**50**
	c) soaked 4 days	1	**60**
	d)Insitu CBR without (truck)	1	**70**
1.4	**Bulk density (field method)**		
	a) sand replacement per test	1	**50**
	b) water balloon per test	1	**40**
	c)Core cutter	1	**30**
1.5.	Direct Shear test	1	**65**
1.6	Permeability test	1	**60**
1.7	Consolidation(Oedometer)	1	**130**
1.8	**SAMPLING**		
1.8.1	a)Opening of trial pit 1x1m wide up to 1.5m deep b)Exeeding 1.5m	m deep m deep	**70** **40**
1.8.2	Boring using hand Augers and sampling	m deep	**40**
1.8.3	Mobilisation of Staff & Equipment to and from site a)Within 25km(with truck) b)Within 25km(without tuck) c)Beyond 25km(@every Km exceeding 25Km)	LS	 **120** **90** **2**
1.8.4	Per-diem for works outside a)Geotechnical Engineer b)Senior Technician c)Lab Attendant	 M.day M.day M.day	 **70** **70** **25**
1.8.5	Geological description of soil profile	1	**70**

TESTS ON AGGREGATES, CEMENT,SAND AND CONCRETE SAMPLES

S.N	DESCRIPTION OF EXPERMENT	Unit	Rate US$
1.0	**AGGREGATES**		
1.1	Sieve Analysis Test	N°	20
1.2	Organic Imprities test	1	20
1.3	Soundness test	1	20
1.4	Specific Gravity	1	30
1.5	Bulk Density	1	15
1.6	Water Absorbtion	1	20
2.0	**CEMENT**		
2.1	**Specific Gravity test**	1	12
2.2	Consistency test	1	6
2.3	Setting time test	1	12
2.4	Soundness test	1	20
2.5	Fineness test	1	12
2.6	Compressive strength test	1	40
3.0	Compressive strength of morter/block	1	25
4.0	**STEEL BAR**		
4.1	Tensile strength	1	10
4.2	Bending test	1	15
5.0	**CONCRETE**		
5.1	Concrete mix design test		
	-Concrete 2 Materials	1	30
	-Concrete 3 Materials	1	48
5.2	**COMPRESSIVE STENGTH TEST**		
	-Cube sample set of 3	1	5
	-Cylindical sample set of 3	1	8
5.3	Slump test	1	10
5.4	Flow test	1	10
5.5	Compacting factor test	1	10
5.6	Vee-Bee consistometer	1	10
5.7	**Concrete specific gravity test**	1	14
5.8	Concrete tensile strength	1	20
5.9	Permeablity test	1	6
5.10	Absorption test	1	3
5.11	**Rebound hammer test** (non-destructive)	1	15

TESTS ON AGGREGATES AND BITUMEN SAMPLES

S/N	ITEM DESCRIPTION	UNIT	RATE
1.1	**TEST ON AGGREGATE**		**(US $)**
1.1.1.	Sieve analysis on fine and coarse aggregates	1	20
	Flakiness test	1	20
1.1.2.	Elongation test	1	20
1.1.3.	Shape Index	1	20
1.1.4.	Aggregate Crushing Value(ACV)	1	20
1.1.5.	Aggregate Impact Value(AIV)	1	50
1.1.6.	Los-Angeles Abrasion Value	1	50
1.1.7.	Coating and stripping	1	50
1.1.8.	(bitumen adhesion)	1	25
	Preparation of rock samples	1	20
1.1.9.	Organic impurities	1	20
1.1.10.	Rock Strength Value(Point load test)	1	22
1.1.11.			
1.2	**TEST ON BITUMEN**		**(US $)**
1.2.1.	Softening point	1	25
1.2.2.	Penetration test	1	20
1.2.3.	Flash and fire Point	1	45
1.2.4.	Ductility Value	1	50
1.2.5	Kinematic viscosity	1	60