

バングラデシュ人民共和国
食糧倉庫建設計画
基本設計調査報告書資料編

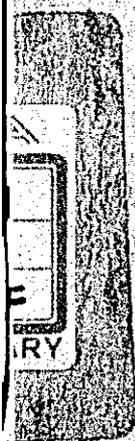
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バングラデシュ人民共和国 建設事情資料集

昭和60年9月

国際協力事業団

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国際協力事業団

国際協力事業団		
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資 料

1. 自然条件

1-1 気象条件

1) 気候圏、気候区

バングラデシュ国は、一般に典型的な亜熱帯モンスーン気候であると言われている。気候的特徴によって1年が、(1)ノースウエスタン期(夏季3~5月)、(2)モンスーン期(雨季6~8月)、(3)乾季(11~2月)の3期に区分される。気温は夏季の4月が最も高い、ダッカ地区における最高は、35.06°Cである。また最低は乾期の1月で、11.72°Cである。降雨量は雨季に集中していて、年間降雨量の約80%がこの時期に降っている。

降雨量は、一般的に東部地区に多く西部地区の方が少ない。

2) 温度 (Table - 1, Table - 2)

3) 湿度 (Table - 1, Table - 3)

4) 雨量 (Table - 4)

5) 風向、風速 (Table - 5, Table - 6)

6) 日照、日射 (Table - 7, Table - 8, Table - 9)

以上の資料は、1983/84 STATISTICAL YEARBOOK OF BANGLADESHによる。

1-2 地勢、地質

1) 一般的な地勢、地質

バングラデシュ国は、インド亜大陸の東端に位置している。国土の大部分は、ガンジス、ジャムナ、メグナの三大河川の下流河川部を占め、支流・分流が入り込む典型的なデルタ地帯の特徴を持っており、広大で低く殆んど平坦な沖積平野である。地質はシルト質の軟弱層である。

2) 面積

国土総面積 143,998 km²

陸地部分 134,615 km²

水域部分 9,383 km²

水域部分の総面積に対する比率は、約 6.6 % である。

3) 緯度、経度

バングラデシュ国は、北緯 20° 75' ~ 25° 75'、東経 88° 30' ~ 92° 75' の範囲にある。西はインドのウエストベンガル、北は同アッサム及びメハラヤ、東は同トリプラミゾラムの諸州に続き南東部テッタゴン地区山地においてビルマに接している。

4) 河川、山岳等の状況

バングラデシュ国は三つの大きな河川ガンジス、ジャムナ、メクナ河を中心とした大河川の堆積作用によって形成された国土である。河川は国土総面積の約 6.6 % を占めている。乾季と雨季における水位の差が非常に大きく、河川によっては 5 m ~ 8 m もの差が計測されている。雨季においては年間の総雨量の 80 % 近くもの雨が集中する。同時にこれらの河川の上流地域（アッサム、メハラヤ地方……インド）からの雨水も加わって水位は著しく上昇する。そのため護岸されていないこれらの河川は氾濫し、国土の大半が冠水することがたびたびある。同国は先述のように典型的なデルタ地帯であるため、高い山岳等は全く存在しない。一部北部及び東部で高地がある程度で南北 600 km の標高差は 40 m に過ぎない。

1-3 災 害

1) 災害の歴史

バングラデシュ国は雨季における河川の氾濫による農作物、道路、橋などへの被害や、サイクロンによる住宅、農作物などへの被害が最も多く、毎年のように繰返されている。又、逆に早ばつによる凶作にもたびたびみまわっている。その他の自然現象による被害はあまりない。

2) 地 震

過去における地震についてのデータはない。地震による被害は全くなかったものと思われる。

3) 風 水 害

水による被害について先述したが毎年雨季には、河川の氾濫で国土の大半が冠水することもあり、農作物、道路、橋などに多大の被害が出ている。又、インド洋に発生するサイクロンは年間数回におよび、特に南部を中心に高潮、塩害、潮害を及ぼしている。

4) 雷、たつまき

雷の発生は全国的に特に夏季に多い。雷は強い雨を伴った激しいものである。たつまきは年間数回発生し、かなりの被害をもたらしている。特にチッタゴン地区に多い。

5) その 他

乾季から夏季への季節の変わり目には時々ヒョウにみまわれ、車の硝子や作物などに被害をもたらしている。

2. 建築活動に関する条件

2-1 建築活動に関する統計等

(1) 建築着工量、除却量

バングラデシュ人民共和国においては、建築確認申請義務が有るが、建築の着工、除却量についてのデータはない。従って、数字については不明であるが、近年、都市部においては、建築建設工事が急増している。しかし、ほとんどのものが公共工事であり、民間プロジェクトも存在するが、小規模なものである。

(2) 建築費の推移

バングラデシュ人民共和国の公共事業の建設予算は、公共事業局が刊行している工事費単価表 (Table-13) をもとに積算される。この公共事業局の工事費単価表が実情に促していないことや、工事の遅れ又は資材の値上りなどの理由で、当初の建設予算を修正することがこの国では普通に行われているため、最終的な工事費がはっきりつかめないのが実情である。

2-2 建築に関する教育・訓練

(1) 技術教育の状況

バングラデシュ人民共和国の学校における技術教育は全て工学部門をもつ大学又は、単科大学で行われている。学校数及び卒業生数は他国に比べると非常に少ない (Table-10参照)。

(2) 学会などの状況

バングラデシュ人民共和国には、エンジニア協会と建築家協会が有り、会員数は、エンジニア協会約 5,000 人、建築家協会が約 300 人である。

2-3 建築に関する行政

(1) 建築物の規制

BUILDING ACT (建築基準法) が有り、ダッカの場合 DIT (DHAKA IMPROVEMENT TRAST) が担当の役所となる。

確認申請については、申請書類は図面並びにDITシートによる。申請受理後の検査は、着工後に1度図面との確認の為現地検査があるが、竣工検査は無い。

(2) 建築技術者の規制

現在、国家認定はない

(3) 建設業の規制

ライセンスとしては、TRADE LICENSE, REGISTER OF JOINTSTOCK COP, が必要で政府又は、それらの関係機関の仕事をする為には、PWD (公共営繕)、WASA (水資源開発) などの役所に対する指名願いが必要で有る。

2-4 公共営繕

(1) 公共営繕の組織

公共事業の立案計画は計画省 (Ministry of Planning) で行われる。設計、入札書作成及び監理などは担当省庁がそれぞれ独自に発注しているが、各省庁とも担当部局に人材が不足しており、計画、管理の能力に乏しく、事業のエバリュエーションには、かなりの時間を要する。

(2) 入 札

公共事業の入札は、入札委員会で審査されるが、同委員会に決定権はなく、最終的には5億円のプロジェクまでは大臣決定、5億円以上は大統領決定となっている。

2-5 建築活動の体制

(1) 建築設計機構

バングラデシュ人民共和国における設計事務所の数、人員数など詳細は不明である。一般的な事務所ビル、住宅などの比較的簡単なものについては同国の設計事務所設計されるが、特殊なものは何らかの外国の援助にたよっている。

(2) 施工体制

同国には現在100社以上の建設業者が存在するが、技術者、労務者などを常時雇用しているのは15社程度で、ほとんどの企業は小規模であり、プロジェクト毎に必要な人員を集めている。また、大部分の企業は大型建設機を保有しておらず、労働集約的な施工を行っている他、中東、東南アジアへの労務者派遣も行っている。同国には地震がなく、工法もレンガを主体としたもので、20階建て程度の中層建築物までの施工能力は擁しているが、全体に機械化、技術力の点ではかなり遅れている。また、設備業者があまりいない。現地業者リストをTable - 11に示す。

(3) 建設労務

建設に関連する技術労働人口は、1983/84年度時点で32.1万人である（一般労務者を除く、Table - 12）。最近の建設工事の増加につれ急速に属加しており、過去10年で実に9倍になっている。一般労務者に関しては、十分に同国で調達可能であるが、近年、有能な労務者は中近東、東南アジア地域へ出稼ぎに出ており、エンジニア、熟練工ともに調達にあたっては注意を要する。建設労務費は次のとおり。

建設労務費

(TK/日)

土 工	35	左 官	85
コンクリート工	85	ガラス工	-
型枠大工	85	建具工	85
鉄筋工	85	塗装工	85
鉄骨工	85	内装工	-
溶接工	100	電気工	100
板金工	-	配管工	90
レンガ・ブロック工	85	オペレーター	150
石工	-	雑役	30
タイル工	-	世話役	150

(1985年7月 ローカルコントラクターより事情聴取)

(4) 建設労務

一般的な建設工事は工期や仕上りの程度をあまり問題にしないのであれば、同国のもつ労務技術力で実施は充分可能である。しかし、複雑な工法、高度な技術を必要とするものについては、外国の援助を得なければならない。同国の建設技術や建設機械力は、他国と比べるとかなり劣っており、工事は豊富な人力が主力となっている。例えばコンクリート打では、コンクリートを鍋のような容器に入れて頭に乗せ運んでおり、コンクリート練もミキサー以外は全て人力で行っている。他の工種においても同様で、人力にたよるものが殆んどである。建設にたずさわる職工の就業時間は朝は早く、夕方は日の暮るまでと日本政府無償資金協力の建設現場で見ると限りでは良く働くように見うける。ただ、能率は非常に悪い。特に回教徒には、ラマダン（断食）といわれる宗教上の習慣があり、この期間には極端に労働力が低下する。

近年日本政府や他の機関などの、援助による建設工事が増えるに従って、サブコンとして参加する企業も多くなり日本や他国の建設技術をかなり習得して来ているので、同国における建設技術も近い将来に大きく向上することが考えられる。

2-6 建築活動に関する契約書

(1) 発注方式

バングラデシュ人民共和国の公共事業は全て入札によって業者が決定される。工事発注は、工事項目別や、資材別に発注される。入札は殆んど公開入札方式が多く、新聞紙上に工事内容など詳細が記載され、どの業者でも参加できるようになっている。日本のようにターンキー方式は殆んど行われていないので大手業者は公共事業の場合大規模なもの以外あまり参加していない。

(2) 契約方式

先述したように発注方式が工事項目別に行われるので、ターンキー契約方式はとられず工種別契約である。

(3) 積算

公共事業における工事費積算は公共事業局発行の工事費単価表（Schedule of Rate）

を基に行われている。工事単価は複合単価方式がとられている（Table - 13 参照）。しかし、この Schedule of Rate は実勢と大きくくいちがっている。以下に地元業者より聞き取った実勢価格を示す。

材工単価

工 種	単 位	単 価 (TK)
土 事	根切 (1.5m まで) 手掘り	m ³ 25
コンクリート工事	捨てコンクリート	m ³ 2,400
	鉄筋コンクリート	m ³ 3,030
	型 枠	m ² 160
鉄 筋 工 事	異形鉄筋 (加工共)	ton 26,700
組 積 工 事	レンガ (塗下)	m ² 430
左 官 工 事	床 モルタル塗	m ² 75
石 工 事	床 テラゾータイル	m ² 450
タ イ ル 工 事	磁器タイル	m ² 450
木 製 建 具 工 事	ドア (材料は日本産)	m ² 3,500
塗 装 工 事	エマルジョンペイント	m ² 50
内 装 工 事	天井 プラスターボード	m ² 190

(1985年7月 ローカルコントラクターより事情聴取)

(4) 標準工期

工事工期の決定規準について詳細は不明であるが、日本政府無償資金協力における先方負担分の工事を見る限りでは期間内に終ることは殆んどなく、工期設定に問題があるのか請負業者の能力に原因があるのかは分からないが、契約期日までに完了することはなかった。市内での建設工事を見る限り着工より完成までに数年かかっているものは普通である。

2-7 建築資材

セメント、鉄筋、砂、砂利、合板など建設資材のほとんどを同国内で生産しているが、それぞれに種類が少なく品質も悪い。また、国内の需給を賅うだけの生産量に達していないため価格も高い。しかし、国内産業保護の立場から、原則として国内産の建設資材の使用が義務付けられ、輸入禁止品が多い。また、輸入可能な資材に関しても、関税が高く、全体に100%前後の税金を課される。輸入禁止品、関税ともによく変わる為注意を要する。

建築資材の流通状況

○自由産資材, ●輸入資材, ◐自由産輸入品共販売

建築資材	セメント	◐	木材	◐	タイル	●
	骨材	○	合板	◐	スレート製品	◐
	コンクリート製品	○	木製建具	○	天井用ボード	●
	レンガ	○	鋼製建具	◐	ビニールタイル	●
	丸鋼	○	アルミ製建具	●	じゅうたん	◐
	異形鉄筋	◐	ガラス	●	石材	●
	形鋼	●	塗料	○	ワイヤー	●
設備資材	電線ケーブル	◐	塩ビ管	◐	天井扇	●
	配電管	●	ヒューム管	◐	ウィンドクーラー	●
	配管器具類	●	鉛管	●	業務用空調器	●
	盤類	●	衛生陶器	●	ダクト材	●
	照明器具	◐	バルブ	●	変電設備	●
	鋼管	●	ポンプ	●	電話交換器	●
	鋳鉄管	●	フアン	●		

(1985年7月現在)

主な建築資材の調達状況は以下のとおりである。

セメント：クリンカーを輸入し国内で焼成するが、容器にジュート袋を使用しているため、輸送中の目減りがひどく、また湿気のため所要コンクリート強度が出ない場合が

ある。セメントの購入には、2～3週間前に使用計画に発注者からのリコメン
デーションレターを添えて、関係委員会に提出、承認を受ける必要がある。

鉄筋：工場がダッカ、チッタゴンにあるが、量も種類も少ない。強度、品質等にばら
つきが多くコストも高価である。輸送上の問題で曲げて運ぶため、加工に際し
てひと手間余計にかかる。

木材：針葉樹は全くなく、全て落葉樹である。チーク材が家具、内装材として使用さ
れているが他は材質が悪く、高級な家具や精密さを要するものには使用出来な
い。合板は接着材が悪く剥れるものが多い。

レンガ：バングラデシュ人民共和国の建築は、レンガが主材料である。国内全域で生産
されている。仕上用のマシンメイドレンガは工場で、下地用のハンドメイドレ
ンガは川沿いの小規模工場で作られている。とくに下地用は雨期期間中、工場
が洪水の被害を受けることが多く、雨期前にストックしておく必要がある。

骨材：砂利の採取は、北部シレット及びドマール地方に限られ粒径がそろわず入手に
は非常に時間がかかる。コストも高価である。従って、コンクリートの骨材と
して自然の砂利を使用するより花崗岩系又は、石灰岩系の玉石を人力で割った
碎石又は、レンガ生産の過程で、焼きすぎのものを碎いて使用するが多い。

砂：コンクリート用細骨材に使用するのはシレット及びドマール地方産のものが好
ましい。他の地方産のものは粒度が細か過ぎ骨材としては適当でない。

テラゾー：大理石の種石を白セメントと練合せ砥石で研く床仕上げ材である。平板にした
ものをテラゾーブロックと呼び、同国の建物では殆んどこれを用いている。施
工技術も秀れている。

バルテックス：ジュートをチップ状にし圧縮してボードにしたもので、当国にて生産され
る唯一のボードである。調達は割に容易であるが、製品の均一製に欠けている。

主要建設費資材単価

資材名	単位	単価(TK)
セメント	(1袋 = 50 kg)	120
砂利	m ³	900
砂	m ³	450
鉄筋(丸鋼13φ)	トン	18,000
レンガ	1,000個	2,000
木材	m ³	6,500
合板	m ²	105
テラゾーブロック	m ²	350

(1985年7月 ローカルコントラクターより事情聴取)

2-8 建築物の維持管理

建物の維持管理は全般的に良くない。特殊な建物を除いては建物の外観も使用勝手も極めて不快な感じのするものが多い。食糧省の食糧倉庫の維持管理の例をみても、定期的な点検は行われておらず、欠陥が生じても、政府の予算金額が小さいため、十分な維持管理が行えないのが現状である。他についても同様なことがいえると思われる。

2-9 建築物あるいは建築活動に関する社会的慣習

1) 宗教上避けるべき事項

建物を設計する場合に特に便器の向に注意を要する。イスラム教の聖地が西方向であるため便器の向を東西に配置することは避けなければならない。その他、ラマザンの期間には緊急を要する作業や交渉などは避けた方がよい。

2) 建築儀式

建築工事において一般的に行われている儀式としては次のものがある。

① Earth Cutting Ceremony (根伐式)

工事着手時日本の地鎮祭にあたる。

② Concrete Casting Ceremony (コンクリート打式)

基礎コンクリート打の時

③ Completion Ceremony (竣工式)

儀式の規模は建設工事、施主、建設業者によっていろいろである。

資 料

Table - 1 Monthly normal temperature, humidity and rainfall by station.

Station	January						February					
	Max. Temp. °F	Mini. Temp. °F	Relative Humidity %			Rain-fall in inches	Max. Temp. °F	Mini. Temp. °F	Relative Humidity %			Rain-fall in inches
			00:00 GMT	03:00 GMT	12:00 GMT				00:00 GMT	03:00 GMT	12:00 GMT	
Chittagong	78.7	56.8	93	78	63	0.41	81.5	60.5	92	75	69	0.30
Cox's Bazar	79.8	56.1	—	71	68	0.42	82.1	50.7	—	70	68	0.48
Sylhet	77.1	55.0	93	78	67	0.94	80.3	57.1	88	75	57	1.65
Srimangal	78.5	47.4	96	86	75	0.43	82.2	52.3	95	80	62	1.29
Rangamati	79.7	50.3	99	84	59	0.57	84.1	55.2	95	75	50	2.43
Majidde Court	78.2	55.3	92	76	67	0.83	82.3	60.4	91	75	52	0.59
Comilla	79.5	53.8	95	80	64	0.41	83.0	58.5	94	75	54	1.73
Brahmanbaria	78.4	54.1	93	77	66	0.40	82.5	47.7	91	72	56	0.97
Dhaka	77.9	53.1	93	74	61	0.70	82.5	56.1	90	65	48	1.23
Narayanganj	79.5	55.9	91	75	60	0.56	83.1	60.3	88	71	52	1.12
Mymensingh	77.5	52.7	89	82	62	0.45	81.7	56.7	87	77	54	0.72
Faridpur	75.7	52.8	94	80	65	0.50	80.9	56.7	92	74	60	1.04
Khulna	79.3	56.4	90	73	62	0.47	84.1	60.5	91	71	55	0.66
Barisal	78.7	56.5	89	76	60	0.60	82.9	61.3	90	74	56	0.73
Jessore	77.9	50.6	92	81	67	0.54	83.2	55.5	92	77	59	0.85
Satkhira	79.8	53.5	91	77	62	0.61	84.2	58.6	90	74	58	0.77
Rangpur	75.9	51.9	92	83	67	0.49	80.6	55.1	89	75	54	0.58
Dinajpur	76.9	58.4	92	80	59	0.40	81.0	54.0	86	70	48	0.52
Pabna	78.3	52.7	91	77	68	0.43	82.9	56.7	89	71	55	0.81
Serajganj	76.8	53.5	94	77	76	0.53	82.4	56.2	90	69	60	0.65
Bogra	77.0	52.8	—	78	59	0.54	81.7	55.7	—	72	48	0.65

— contd.

Max. Temp. °F	Mini. Temp. °F	March				Rain-fall in inches	Max. Temp. °F	Mini. Temp. °F	April			Rain-fall in inches		
		Relative Hum. %			00.00 GMT				03.00 GMT	12.00 GMT	Relative Hum. %			
		00.00 GMT	03.00 GMT	12.00 GMT							00.00 GMT		03.00 GMT	12.00 GMT
86.8	68.3	91	78	73	3.50	89.6	74.3	91	75	76	2.67			
86.8	67.2	—	73	73	1.27	89.5	74.0	—	73	75	3.15			
87.1	63.4	83	63	51	2.60	91.1	71.2	87	70	63	7.57			
89.7	61.9	93	75	57	3.29	92.3	69.8	92	76	65	9.00			
88.7	62.3	95	69	51	3.09	95.2	72.9	91	68	53	0.22			
88.1	67.4	89	72	61	2.11	90.7	75.6	90	73	69	3.51			
90.6	67.5	93	74	55	2.07	92.4	73.8	93	75	65	6.24			
89.9	65.3	89	72	53	2.75	93.3	72.6	91	73	62	5.55			
90.5	65.9	88	64	44	2.29	95.1	74.2	91	70	54	4.04			
91.1	68.8	85	69	45	1.81	93.0	74.2	85	73	62	6.46			
89.8	64.6	86	73	49	1.66	93.0	71.5	88	76	56	5.30			
90.4	64.6	89	68	49	1.43	94.0	73.1	90	73	58	5.04			
91.9	69.1	91	73	53	1.35	94.2	75.5	93	76	65	3.56			
90.5	69.8	90	74	56	1.49	93.0	75.7	91	74	66	3.94			
92.3	65.2	90	72	52	1.36	96.6	73.6	91	75	57	3.47			
93.0	68.4	92	74	53	1.40	96.3	75.3	91	75	61	2.60			
88.1	61.4	82	60	42	0.89	94.6	71.3	83	67	47	3.31			
92.2	61.7	78	57	36	0.63	96.0	69.9	75	60	39	1.86			
92.2	64.7	86	67	44	1.39	97.4	72.7	87	71	41	2.17			
90.1	64.5	89	64	50	1.45	96.4	72.4	89	68	50	3.44			
91.4	63.3	—	63	37	1.07	96.4	71.7	—	67	42	2.49			

-contd.

Monthly normal temperature, humidity and rainfall by station.

Station	May						June					
	Max. Temp. °F	Mini. Temp. °F	Relative Humidity %			Rain-fall in inches	Max. Temp. °F	Mini. Temp. °F	Relative Humidity %			Rain-fall in inches
			00-00 GMT	03-00 GMT	12-00 GMT				00-00 GMT	03-00 GMT	12-00 GMT	
Chittagong	89.7	76.9	93	77	79	11.17	87.9	77.4	93	83	85	22.41
Cox's Bazar	90.0	76.6	—	76	79	11.52	86.8	76.8	—	85	86	30.34
Sylhet	87.9	72.3	93	84	79	27.41	87.5	76.3	96	85	82	53.93
Srimangal	90.0	73.8	93	81	77	17.26	89.3	76.0	94	87	85	20.36
Rangamati	94.5	76.1	89	71	67	8.53	89.7	76.3	93	81	82	16.51
Majdee Court	89.7	77.9	89	77	76	12.96	87.2	77.8	92	85	83	28.27
Comilla	91.1	76.4	92	79	75	12.45	88.3	77.8	94	84	83	18.84
Brahmanbaria	91.3	75.0	91	78	75	11.16	89.2	76.7	93	84	84	14.60
Dhaka	92.7	77.7	98	78	75	7.65	89.1	78.6	95	84	81	12.67
Narayanganj	91.7	76.9	89	76	74	9.47	89.9	78.5	91	82	80	13.71
Mymensingh	90.3	74.1	90	82	74	12.32	88.3	76.9	93	87	82	17.84
Faridpur	91.5	75.6	93	77	75	10.66	88.9	77.5	95	85	84	13.58
Khulna	93.4	77.8	93	78	74	7.25	90.8	78.9	94	83	82	12.20
Barisal	92.1	78.2	91	74	74	9.16	89.4	78.8	92	83	82	16.58
Jessore	95.0	76.6	91	79	71	7.44	91.3	78.0	95	85	82	10.81
Satkhira	95.3	77.9	90	76	70	7.40	91.8	78.7	93	84	79	11.59
Rangpur	92.5	74.4	90	78	65	11.93	89.5	76.3	95	86	81	20.44
Dinajpur	92.8	74.6	85	76	63	7.37	90.0	77.4	92	84	77	13.61
Pabna	95.2	76.3	91	79	61	7.12	91.8	78.0	95	85	81	11.52
Serajganj	92.5	76.2	93	80	71	9.27	88.9	77.9	96	87	86	12.98
Bogra	92.9	75.2	—	78	67	7.68	90.3	77.8	—	86	82	13.00

-contd.

July						August					
Max. Temp. °F	Mini. Temp. °F	Relative Hum. %			Rain-fall in inches	Max. Temp. °F	Mini. Temp. °F	Relative Hum. %			Rain-fall in inches
		00-00 GMT	03-00 GMT	12-00 GMT				00-00 GMT	03-00 GMT	12-00 GMT	
86.9	76.7	94	84	86	24.57	86.4	76.6	95	85	86	22.23
85.5	76.5	—	88	88	36.75	85.5	76.4	—	89	88	30.71
88.1	77.6	97	86	83	23.37	88.9	77.6	95	85	84	20.91
89.7	76.8	94	87	85	13.26	89.3	76.6	95	88	86	13.52
87.7	76.5	95	86	89	26.75	88.8	76.9	95	81	85	15.65
85.9	77.8	93	87	83	25.32	86.4	78.1	93	87	84	22.15
87.6	77.6	94	86	84	15.91	87.9	77.6	95	86	83	16.43
88.5	77.6	92	83	83	12.01	88.6	77.9	92	84	82	11.58
87.3	78.8	95	87	82	17.20	87.9	79.1	94	86	83	12.00
88.5	79.0	91	84	80	13.66	88.6	79.1	90	83	79	14.36
88.4	78.2	94	87	81	14.82	88.5	78.1	94	88	81	15.97
87.2	78.2	96	87	85	13.31	87.2	78.9	93	86	84	12.30
88.1	79.1	95	86	84	14.95	88.4	79.0	95	85	84	11.76
87.1	78.5	94	87	83	18.54	87.5	78.5	94	85	83	17.03
88.5	78.1	96	86	86	12.38	88.9	78.2	96	88	87	12.09
88.6	78.6	96	87	84	14.05	88.6	78.4	95	88	84	12.33
89.2	79.0	95	85	81	16.96	89.1	79.3	95	86	82	13.67
88.9	78.8	93	86	79	15.35	89.3	78.7	93	85	80	13.93
89.3	78.7	96	86	85	10.52	89.2	79.1	95	85	84	11.37
87.3	78.9	95	87	85	12.29	87.4	79.5	94	86	86	12.64
88.6	79.0	—	86	81	12.53	88.8	78.9	—	87	82	13.80

—contd.— Monthly normal temperature, humidity and rainfall by station.

(Station)	September						October					
	Max. Temp. °F	Mini. Temp. °F	Relative Humidity %			Rain-fall in inches	Max. Temp. °F	Mini. Temp. °F	Relative Hum. %			Rain-fall in inches
			00-00 GMT	03-00 GMT	12-00 GMT				00-00 GMT	03-00 GMT	12-00 GMT	
Chittagong	87.7	77.0	95	83	85	12.04	87.4	74.6	96	82	82	11.45
Cox's Bazar	86.6	76.3	—	85	85	17.45	87.6	74.4	—	78	80	10.83
Sylhet	87.5	76.3	95	86	85	25.80	86.4	72.4	96	85	84	10.80
Srimangal	89.6	76.0	96	87	87	11.01	87.9	71.0	95	85	88	7.57
Rangamati	88.7	76.3	97	83	87	11.09	88.3	74.7	97	85	83	10.45
Majdee Court	87.3	77.9	93	85	82	17.52	87.1	75.6	95	82	81	10.04
Comilla	88.9	75.5	95	84	82	13.27	88.1	74.6	86	80	80	8.89
Brahmanbaria	89.3	87.1	92	83	82	9.06	88.0	75.3	93	79	81	6.89
Dhaka	88.2	87.5	95	84	83	9.28	87.7	74.7	95	78	79	6.64
Narayanganj	89.7	79.2	90	81	79	9.57	89.4	75.9	92	76	75	5.78
Mymensingh	88.8	77.8	94	85	82	13.42	87.5	74.1	93	83	79	7.81
Faridpur	88.1	78.7	94	83	83	9.64	87.3	74.7	95	79	81	7.09
Khulna	89.2	78.7	95	83	83	8.78	88.2	75.6	94	78	78	6.01
Barisal	88.6	78.6	94	83	82	12.27	88.2	75.8	94	79	77	7.72
Jessore	89.8	77.6	96	87	86	7.40	88.9	73.1	95	84	83	5.35
Satkhira	89.4	78.1	95	84	84	9.14	89.3	74.5	96	80	80	5.84
Rangpur	89.0	78.2	95	84	82	12.03	87.4	72.8	93	83	77	6.53
Dinajpur	89.6	77.8	92	84	81	11.81	88.4	72.2	93	80	75	5.41
Pabna	90.2	78.6	95	84	85	9.24	89.4	74.0	95	79	81	6.64
Sirajganj	88.2	78.8	94	85	85	9.36	87.4	74.7	95	80	84	5.86
Bogra	89.4	78.5	—	85	82	10.83	87.8	73.8	—	81	76	7.07

—concl.—

(Station)	November						December					
	Max. Temp. °F	Mini. Temp. °F	Relative Hum. %			Rain-fall in inches	Max. Temp. °F	Mini. Temp. °F	Relative Hum. %			Rain-fall in inches
			00-00 GMT	03-00 GMT	12-00 GMT				00-00 GMT	03-00 GMT	12-00 GMT	
Chittagong	84.5	65.9	95	79	76	1.97	79.4	59.7	95	83	73	0.41
Cox's Bazar	85.0	66.9	—	75	71	2.49	86.0	59.9	—	74	70	1.29
Sylhet	83.7	62.8	93	74	75	0.28	79.5	57.4	95	79	73	0.22
Srimangal	84.0	59.8	96	84	86	1.69	79.6	50.8	97	87	83	0.12
Rangamati	84.1	61.9	99	90	69	0.84	80.7	56.1	99	91	67	0.93
Majdee Court	82.8	66.0	93	76	79	1.80	79.2	57.9	93	77	73	0.01
Comilla	84.6	65.0	95	77	75	1.77	80.3	56.8	95	80	70	0.10
Brahmanbaria	84.2	66.3	93	76	76	1.33	79.8	57.8	94	79	72	0.11
Dhaka	83.6	63.6	94	73	71	1.00	79.3	54.9	95	78	70	0.09
Narayanganj	85.6	66.6	91	73	69	1.21	80.9	58.6	91	76	66	0.08
Mymensingh	83.9	64.6	90	81	73	0.65	79.7	56.3	91	84	67	0.10
Faridpur	82.4	64.4	94	77	76	1.15	77.3	55.7	94	80	75	0.07
Khulna	84.2	66.2	91	72	69	1.28	80.0	58.4	91	72	67	0.09
Barisal	84.0	66.7	91	75	69	1.63	79.6	58.7	89	78	64	0.13
Jessore	84.4	61.5	95	80	74	0.88	79.7	52.3	93	82	74	0.06
Satkhira	84.5	63.6	93	75	70	1.23	80.2	55.6	92	77	66	0.09
Rangpur	83.5	61.7	93	80	74	0.44	77.9	55.5	94	86	77	0.08
Dinajpur	84.0	60.8	91	74	63	0.45	78.9	52.9	82	77	64	0.04
Pabna	84.8	63.3	94	75	76	0.74	79.8	55.1	95	76	75	0.06
Sirajganj	83.3	63.9	95	76	82	0.82	79.5	56.9	95	77	80	0.02
Bogra	83.5	63.5	—	78	69	0.53	78.5	55.6	—	79	65	0.08

Note: Based on data for 1931-1960

Source: Bangladesh Meteorological Department.

Table - 2 Maximum and minimum temperature at selected stations of Bangladesh.

(°F)

Met. Station	1976		1977		1978-79		1979-80		1980-81		1981-82		1982-83	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
Dhaka	104	47	96	47	105	48	103	48	96	50	100	52	102	53
Mymensingh	104	49	95	45	101	48	104	48	101	51	100	50	99	50
Faridpur	103	50	97	46	106	41	103	48	98	48	96	47	97	48
Chittagong	95	52	93	52	99	53	99	52	101	51	102	53	101	54
Rangamati	98	56	96	59	103	51	99	36	101	54	100	52	100	50
Majdee Court	95	53	100	53	105	51	...	...	...	...	...	...	98	49
Comilla	97	48	96	50	103	50	103	50	97	46	95	48	97	45
Sylhet	95	49	97	53	103	50	95	50	94	45	96	48	102	50
Rajshahi	108	49	101	47	111	48	97	44	95	47	97	48	100	52
Dinajpur	...	...	...	...	...	...	...	...	...	...	...	...	n.a.	n.a.
Rangpur	105	46	99	46	104	45	104	46	99	50	98	48	101	49
Bogra	104	46	98	50	109	51	106	46	98	45	99	47	100	50
Pabna (Ishurdi)	...	...	...	...	111	47	111	44	99	46	95	44	96	47
Khulna	103	52	100	53	106	52	99	48	95	48	94	46	99	49
Barisal	99	47	95	51	105	48	104	48	98	47	99	48	100	51
Jessore	105	45	102	47	109	48	106	46	98	44	100	51	102	54
Patuakhali	97(b)	53(b)	96	50	93	...	...	...	...	...	...	...	99	50

Notes : (a) Figures for March to May and Dec. are not available.

(b) Data for eight months.

(c) From 1978-79 onwards data have been shown on July-June basis.

Source : Bangladesh Meteorological Department.

Table - 3 Relative humidity at selected meteorological stations of Bangladesh.

(Percentage)

Met station	1974	1975	1976-77	1977-78	1978-79	1979-80	1980-81	1981-82	1982-83	
Dhaka	...	80	78	78	82	76	80	78	81	82
Mymensingh	...	84	80	80	81	75	80	80	82	83
Faridpur	...	76	78	77	79	75	78	79	80	78
Chittagong	...	82	80	80	82	78	79	80	81	82
Rangamati	...	83	80	80	81	76	79	78	79	78
Majdee Court	...	81	78	80	82	74	79	81	80	76
Comilla	...	86	80	69	82	77	80	81	82	83
Sylhet	...	82	79	79	81	77	79	80	78	83
Rajshahi	...	78	77	...	79	74	75	78	77	78
Dinajpur	...	78	77	80	79	...	...	...	...	75
Rangpur	...	86	87	...	...	78	77	80	79	77
Bogra	...	80	77	85	82	75	77	80	78	81
Pabna (Ishurdi)	...	80	76	76	80	74	76	77	80	78
Khulna	...	38	79	...	...	74	82	79	81	81
Barisal	...	78	80	78	81	76	78	80	79	80
Jessore	...	n.a.	77	77	79	75	78	81	80	79
Patuakhali	...	n.a.	n.a.	79	78	75	...	...	...	80

Notes: (a) Data for 8 months. Relative Humidity worked out by $(00:00 \text{ G.M.T} + 12:00 \text{ G.M.T.}) \div 2$ of 17 stations from 1976-79 (b) From 1976-77 onwards data have been shown on July-June basis.

Source : Bangladesh Meteorological Department.

Table - 4 Annual rainfall at selected stations of Bangladesh.

(In Millimetre)

Meteorological station	1974	1975	1976	1977	1978	1979	1980	1980-81 (a)	1981-82 (a)	1982-83 (a)	1983-84
Dhaka	M	M	2238	2115	2251	1943	1902	2408	1033	1514	2669
Mymensingh	849(6)	11(4)	831(7)	2847	1927	M	2345	1995	1142	—	2198
Faridpur	2209	1902	1925	2092(11)	1384	1818	2043	2375	1518	1385	2443
Chittagong M.M.O.	3741	2598	2628(11)	2484(11)	2517	2863	3375	2676	1918	2799	4041
Rangamati	1924(10)	2469	3030	2548	2373	1136	2318	2359	1391	2314	3042
Maijdee court	2924	2871	M	M	531(4)	1963	2591	1550	2138	705	3487
Comilla	2745	1818	1965	2125	M	1317	1387	2662	1181	1610	2272
Sylhet	5460	3444(10)	4387	3943	3396	5909(11)	5630	2911	3689	2735	3002
Rajshahi	1730	1154	1443	1919	1736	1923	M	1649	2152	774	1687
Dinajpur	M	M	M	M	M	M	M	—	—	—	1529
Rangpur	M	1767	1895	1993(9)	2133	1479	2063	1913	1479	965	3300
Bogra	1779	1940	1882	936(6)	1871(9)	2228	3293	1144	1357	1659	1965
Ishurdi	1365(11)	1505	2609	2755	1134(11)	1267	1381	1869	1518	1386	1601
Khulna	2679(11)	M	M	1048(8)	1987	3294	3991	2034	1009	961	2490
Barisal	2375	1450(9)	1847	1857	2503	3012	3711	2595	1771	1842	2859
Jessore	1640	1243	1179	1500	M	2529	3259	1775	3036	957	2070
Patuakhali	M	2019	M	1378(10)	3125	2033	M	3036	2573	2868	3026
Cox's Bazar	4319	3775	2449(11)	3946	3181(11)	2712	3636	—	—	—	—

Notes : Figure in the bracket indicates total months recorded in the year.

(a) Approximate (M) Indicates missing.

Source : Bangladesh Meteorological Department.

Table - 5 Maximum wind speed in knots with direction.

Year/ Station/Month	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1977												
Barisal	n/nw05	w/sw07	s10	sw15	e15	s12	se10	e15	e90	se05	e05	n05
Bogra	w05	nw07	se07	e15	n15	se12	e10	e/se07	e07	v03	w06	v04
Chittagong	nw22	v13	s25	v25	se25	s/se19	se25	se/s19	se19	se13	se13	nw09
Comilla	n/nw14	s15	s25	s35	s/sw25	se25	s/se19	s16	s17	ne10	n08	nw10
Cox's Bazar	n12	nw09	n10	s12	se16	s13	s16	s12	s11	s07	v03	ne07
Dinajpur	...	...	...	...	...	...	...	...	...	...	...	...
Faridpur	n05	s05	s05	e10	e25	s15	s05	e04	se07	s02	s02	n/ne02
Ishurdi	w13	nw12	ssw13	e40	nne18	se15	e15	e20	e20	s12	nne06	v05
Jessore	v12	n/se/sw13	s15	s23	s15	ssse18	e18	e/se15	se15	e11	sw10	n13
Maijdee Court	sw12	s25	ssw10	s17	nw19	sw19	se19	s13	s09	n09	s05	sw01
Mymensingh	...	nw02	v02	nw04	ne04	se02	se02	se02	se02	xxx	sw02	...
Rajshahi	n02	w03	wsw05	...	...	...	se12	e13	e12	s05	n05	nw03
Rangamati	n13	s09	s13	s19	s19	s19	s99	s13	s13	nw15	s09	w09
Rangpur	sw03	w03	w05	e05	ne07	se03	se05	e05	e02	e03	e05	ne02
Sylhet	se09	e10	e09	ne09	ne15	e07	se06	s12	ne05	ne08	e08	ne05
Khulna	nw09	sw10	s10	s17	sw14	se12	e09	e10	se08	s06	se06	ne/e05

-contd.

Maximum wind speed in knots with direction.

Year/ Station/Month	Jan	Feb	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1978												
Barisal	n05	ne05	n/sc05	nw15	ne12	v05	se09	se10	sw06	se09	sw05	n/nw03
Bogra	n05	n05	w07	xxx	e16	e06	s/e07	e06	ene09	ne09	w03	nw04
Chittagong	n09	ne07	ne12	sw09	s15	s16	s09	se10	se09	se12	n07	n05
Comilla	se07	n12	se06	s09	se19	s/se5	s17	s18	s/sw12	se13	s/se5	n07
Cox's Bazar	n14	nw12	n09	w09	s14	s10	s12	s10	s07	se10	nw07	n07
Dinajpur	...	...	...	...	...	...	...	...	...	...	...	...
Faridpur	n02	ne03	n05	w05	v05	s05	v05	se05	e/sc04	e/s04	ne02	v02
Ishurdi	n10	nw10	nw12	ese18	e15	ssw15	e15	e15	ese20	e18	v05	nw12
Jessore	nw07	n07	sw16	ene40	s21	ssw15	ese15	se16	se13	s15	sw07	v05
Maijdee Court	n05	n05	sw13	s15	s19	se27	s27	s22	s07	se13	n05	nw05
Mymensingh	nw07	nw09	e12	ne10	e11	ese12	s16	e11	se18	se09	e07	ne/e06
Rajshahi	nw09	ne08	n09	s19	s19	xxx	e13	e19	se17	e12	nw09	n09
Rangamati	nw09	n09	n13	s/nw09	e13	s13	n/sw09	s13	s13	s09	n/s09	n/nw05
Rangpur	v02	v02	e05	e/w13	se09	e13	se09	se05	ne/se09	ne09	v05	e09
Sylhet	e/ne07	ne08	ne09	w09	s06	s06	s06	s08	ne07	ne09	e07	ne99
Khulna	n05	n05	se07	v05	se12	s05	sw07	e08	se10	s06	n04	n04
1979												
Barisal	n05	v05	sw09	sw09	nw40	sw20	se09	e23	se10	s07	n05	ne05
Bogra	se09	w21	w16	w25	w17	e16	sw07	e12	e05	se03	ne03	n03
Chittagong	w17	nw19	tw24	s25	v19	s35	sw25	sw40	se15	se20	w09	n05
Comilla	nw12	13	s16	v13	s19	s18	s22	e20	s04	se07	se05	ne03
Cox's Bazar	n12	nw09	n16	s10	s07	s38	ssw12	sw28	s09	v15	sw08	n07
Dinajpur	...	...	...	...	...	...	...	...	...	...	...	...
Faridpur	ne05	ne05	s16	e15	sw09	sw15	sw09	e08	...	s03	n02	n02
Ishurdi	nw15	w18	sw18	nly60	se20	ws24	ws20	e16	e18	ssw10	nw20	nw10
Jessore	s38	nw13	sw13	e30	ese20	nw40	se15	ne32	se12	n27	n05	nne05
Maijdeecourt	n07	nnw05	s09	v07	s06	s12	s16	se17	s15	s05	s05	n03
Mymensingh	nw02	nw02	nw04	---	---	---	---	---	---	---	---	---
Rajshahi	nly16	v07	nly36	v14	w42	w17	ws17	ws23	ws13	ws17	ws07	sw07
Rangamati	n05	nnw05	s09	s09	s07	s21	v07	s20	s10	s17	s10	s10
Rangpur	w13	nnw25	wsw25	e13	sw25	e17	s10	se10	se10	ne09	ne05	ne07
Sylhet	e07	w09	ws09	se18	w09	s06	sw04	e09	s05	---	---	---
Khulna	n03	nw04	v05	w12	s12	sw15	sw08	e14	se03	se03	n07	ne04
Dhaka	v05	nw21	sw40	nw65	w50	e/sw25	se/s19	se25	se/s09	se/s13	n/ne13	nw05
1980												
Barisal	n05	sw05	sw05	sw14	s10	se07	se13	e10	se07	e07	n03	n03
Bogra	sw05	sw04	e09	ne10	s07	e06	se08	e12	se03	ssw06	nw04	nw04
Chittagong	ne16	ssw15	sw17	ne45	w35	sse44	s23	se25	sse22	s16	nw09	nw09
Comilla	n08	nw15	nw12	s20	n25	se14	se18	se16	e05	se13	n05	nw05
Cox's Bazar	n07	nw07	s12	s12	se12	s17	s19	s25	se16	e13	e08	n11
Dinajpur	...	...	...	...	...	...	...	...	...	...	...	...
Faridpur	n02	sw03	sw05	e15	n21	se13	w15	e13	e13	ne08	n03	n08
Ishurdi	nw10	sw20	s20	s15	e30	e25	e25	e18	e24	nw15	nw15	nw15
Jessore	n12	n40	s32	s50	s60	s25	ws30	ws25	se22	s25	ne10	ne12
Maijdeecourt	ne07	ne12	s05	s24	s20	se09	se16	se15	s12	e05	n03	n03
Mymensingh	ne06	se15	sw09	sse13	ene12	se12	se13	se12	se13	e05	ne03	e05
Rajshahi	ws07	ws09	ws18	ws18	ws54	ws36	ws18	ws14	e12	ws10	ws09	ws04
Rangamati	s06	s06	s07	s13	s13	s13	s13	s13	s09	s05	n05	---
Rangpur	w04	w16	ne09	s12	s07	e10	se11	e10	se:06	ne10	ne04	ne02
Sylhet	e05	e07	sw06	e08	se06	ne05	ne09	se06	sw04	sw08	e07	e07
Khulna	n05	se05	e05	s10	s10	se09	sw08	ws12	e07	ne05	nw03	ne05
Dhaka	nw05	ne/e45	se/sw52	s/nw74	se95	se/s38	se/s38	se15	se09	e15	n/nw05	nw05

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Maximum wind speed in knots with direction.

Year/ Station/Month	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1981												
Barisal	nw08	no9	nw012	nw014	n022	n.a	n.a	se012	se015	nw03	nw05	e018
Bogra	sw06	w013	sw014	se014	e016	se017	e012	e015	se07	w05	n04	ne017
Chittagong	n.a	n.a	n.a	n.a	n034	ssw022	ssw019	s022	s017	nw018	ene015	n.a
Comilla	n.a	n.a	n015	s020	e015	sw015	s015	se018	s010	s09	ne04	s035
Cox' Bazar	n.a	n.a	n030	nw027	nw015	s013	se017	n.a	n.a	n.a	n.a	n.a
Dinajpur	no10	w012	sw014	ne012	w012	s08	e08	w06	w06	w04	ne07	ne023
Faridpur	so12	wnw09	so12	se012	ee018	sw018	se016	e017	ne025	ne010	ne09	se021
Ishurdi	nnw020	e015	e018	ws035	se030	n020	se020	e028	se022	n010	n010	ne025
Jessore	n018	nne015	ne018	ne030	se018	e018	s018	se018	e025	s010	w010	ne030
Maijdee Court	n05	n03	nw015	s012	s013	n.a	s012	se017	s07	nnw05	n05	s022
Mymensingh	ne09	e08	w018	e018	e018	se022	se013	se016	se015	e08	n.a	n.a
Rajshahi	ne012	w010	nw018	ne014	e012	se046	e014	e018	se020	n04	n010	ne018
Rangamati	n.a	n.a	n.a	ne05	nne03	nne07	s05	s013	s013	n09	n09	sw019
Rangpur	ne012	w013	sw021	e014	se018	se09	n.a	n.a	n.a	n07	ne09	ne014
Sylhet	sw08	sw08	e010	e012	sw09	s09	sw07	w08	e012	e07	e012	e012
Khulna	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a
Dhaka	no15	sw013	nw019	se019	nw019	se020	s013	se013	se013	n09	w09	sw044
1982												
Barisal	nw05	ne07	s07	sw07	nw010	e015	s07	se010	se012	ne05	ne07	nw07
Bogra	nw07	w06	w014	sw018	nw010	e08	e014	e015	sw09	n06	nw04	nw05
Chittagong	n.a	n.a	n.a	n.a	n023	sw025	ssw019	e036	se030	nw010	n011	n.a
Comilla	n04	n07	n015	s020	se015	s09	s015	s018	se015	w012	nw07	s08
Cox's Bazar	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a
Dinajpur	w05	w010	n.a	se017	e07	ne015	e05	n021	nw05	w03	nw05	w05
Faridpur	n06	w04	sw013	sw020	s017	se08	s012	sw014	se013	s010	e05	w09
Ishurdi	n09	w010	n010	e020	n035	s070	e015	e015	se015	n010	nw010	w010
Jessore	ne09	e015	n019	sw024	n020	s016	ssw018	e020	e020	ws017	nne08	nw08
Maijdee Court	n02	s018	nw08	s023	e08	s07	s015	se015	se08	s06	nw05	n.a
Mymensingh	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a
Rajshahi	n06	w06	ws08	nw08	se020	n.a	n.a	e010	se010	se012	w08	n09
Rangamati	n09	sw05	n018	sw023	s030	s018	n013	s017	s022	nw07	n.a	s07
Rangpur	e09	w015	w016	w026	s08	s08	e08	e030	s06	e08	ne05	sw06
Sylhet	e06	e06	w014	w010	se09	ne08	w010	s012	s010	sw05	n04	n.a
Khulna	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a
Dhaka	nw010	w09	n013	w019	n019	se013	s018	s019	s09	sw09	e05	w09

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Station	January	February	March	April	May	June
1983						
Barisal	NW 8	N 18	S 12	SW 15
Bogra	NW 7	SW 15	W 21	E 20
Chittagong M.M.O.	NW/SW 10	SW 20	NW 28	N 38
Chittagong P.B.O.	NE 15	NNE 36	S 20	N 45
Comilla	NW 08	N 12	S 15	W 15
Cox's Bazar	N 13	N 18	S 18	ESE/SE 22
Dinajpur	NW 05	SW 08	W 10	W 15
Dhaka	S/NW 31	N 13	SE/W/S 13	SE/NNE/S 13
Faridpur	W 5	N 6	W/SW 8	S/ENE/SE 16
Ishurdi	N 15	N 25	NW/W/E 20	WSS 40
Jessore	n.a.	n.a.	n.a.	n.a.
Khulna	N 7	NE 15	S 45	S 27
Maijdee court	SW 03	N 36	N 12	S 17
Mymensingh	NW 14	W 9	n.a.	n.a.
Rajshahi	N 8	W 16	NW/W/NE 16	NW 31
Rangamati	N 36	S 12	SW 12	E/S 15
Rangpur	NE/W/SW/NW 6	W 10	W 13	W 16
Sylhet	SW 08	E 18	W/SW 15	S 10
					W 9	W 9

—contd.

Station	July	August	September	October	November	December
Barisal	SE 10	SW/S/SE 13	S 10	N 8	NE/NW/N 6	N/NW 8
Bogra	E 15	E 23	E 10	N/W/NW/E 5	N/NW/E/W 5	N/NW 7
Chittagong M.M.O.	S 23	S/SW 28	SSE 24	SW 28	N 26	NW 10
Chittagong P.B.O.	NE 24	SE 13	SE 9	SE 56	NE 18	NNW 9
Comilla	S 10	SE 20	SE 15	SE 20	N 13	N 12
Cox's Bazar	S 13	S 28	S 14	S 12	NW 9	N 12
Dinajpur	SE/N/S 4	NE 12	E 6	E 10	NE 5	N/W 3
Dhaka	S/SE 13	SE 13	SE 19	NW 9	N/NW 9	E/NE/NW5
Faridpur	S 10	E 10	E/SE 10	SE 9	E 6	N/NW 3
Iswardi	SE 33	E 32	E 30	S/E/N 16	N 24	N 16
Jessore	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Khulna	n.a.	S 25	SE 16	SE 17	NE 18	S 13
Majidde court	S 18	S 18	S 18	S 18	NNW 34	N 36
Mymensingh	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Rajshahi	E 16	E 18	NE 30	N 16	N 10	W 6
Rangamati	S 15	S 15	S 13	S 10	S 18	W 5
Rangpur	E 10	E 14	SE 10	E 10	NE 10	E 9
Sylhet	SE 7	NE 12	S 6	NE/SE/S/E 4	E 10	E 5

(...) data not available.

Source : Bangladesh Meteorological Department.

Table - 6 Average wind speed in different units and time intervals.

Station	Unit	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Barisal District :													
Barisal	KTS-(a)	1.9	2.3	3.5	4.5	4.9	4.8	4.9	4.1	3.2	1.6	1.2	1.0
	mi/hr	2.2	2.7	4.0	5.2	5.7	5.6	5.7	4.7	3.7	1.9	1.4	1.2
	km/hr	3.5	4.3	6.5	8.4	9.1	8.9	9.1	7.6	6.0	3.0	2.3	1.9
	m/sec	1.0	1.2	1.8	2.4	2.5	2.5	2.5	2.2	1.6	0.8	0.6	0.5
	ft/sec	3.2	3.9	6.0	7.6	8.2	8.1	8.2	7.0	5.4	2.7	2.0	1.7
	ft/min	192.8	233.2	354.5	456.0	496.8	486.6	496.6	415.2	324.2	162.2	121.4	101.0
Bogra District :													
Bogra	KTS	1.7	2.0	2.7	3.5	3.6	3.3	3.0	2.7	2.3	1.9	1.6	1.6
	mi/hr	2.0	2.3	3.1	4.0	4.2	3.8	3.5	3.1	2.7	2.2	1.9	1.9
	km/hr	3.2	3.7	5.0	6.5	6.7	6.1	5.6	5.0	4.3	3.5	3.0	3.0
	m/sec	0.8	1.0	1.4	1.8	1.9	1.7	1.5	1.4	1.2	1.0	0.8	0.8
	ft/sec	2.9	3.4	4.6	6.0	6.1	5.6	5.1	4.6	3.9	3.2	2.7	2.7
	ft/min	172.4	203.0	273.7	354.5	364.6	334.3	304.0	273.7	233.3	192.8	162.2	162.2
Chittagong District :													
Chittagong	KTS	3.0	3.5	4.8	7.1	6.7	9.0	8.1	7.1	5.4	3.2	2.2	2.3
	mi/hr	3.5	4.0	5.6	8.2	7.7	10.4	9.3	8.2	6.2	3.7	2.5	2.7
	km/hr	5.6	6.5	8.9	13.2	12.4	16.7	15.0	13.2	10.0	6.0	4.1	4.1
	m/sec	1.5	1.8	2.5	3.7	3.4	4.6	4.2	3.7	2.8	2.2	1.1	1.2
	ft/sec	5.1	6.0	8.1	12.0	11.4	15.2	13.7	12.0	9.1	5.4	3.7	3.9
	ft/min	304.0	354.5	486.6	719.2	678.7	912.0	821.1	719.2	547.4	324.2	223.2	223.3
Cox's Bazar	KTS	1.8	2.4	3.0	4.1	4.3	4.5	5.0	4.4	3.2	2.1	1.5	1.4
	mi/hr	2.1	2.8	3.5	4.7	5.0	5.2	5.8	5.1	3.7	2.4	1.8	1.6
	km/hr	3.3	4.5	5.6	7.6	8.0	8.4	9.3	8.2	6.0	3.9	2.8	2.6
	m/sec	0.9	1.2	1.5	2.2	2.3	2.4	2.6	2.3	1.6	1.1	0.8	0.7
	ft/sec	3.1	4.1	5.1	7.0	7.3	7.6	8.3	7.4	5.4	3.6	2.6	2.4
	ft/min	182.6	243.4	304.0	415.2	435.6	456.0	507.0	445.8	324.2	213.1	152.0	111.8
Comilla District :													
Comilla	KTS	1.4	1.9	3.9	6.0	6.4	6.1	6.3	5.6	3.6	2.1	1.2	1.1
	mi/hr	1.6	2.2	4.5	6.9	7.4	7.0	7.3	6.5	4.2	2.4	1.4	1.3
	km/hr	2.6	3.5	7.2	11.1	11.9	11.3	11.7	10.4	6.7	3.9	2.3	2.1
	m/sec	0.7	1.0	2.0	3.1	3.3	3.2	3.3	2.9	1.9	1.0	0.6	0.6
	ft/sec	2.4	3.2	6.6	10.1	10.8	10.3	10.6	9.4	6.1	3.6	2.0	1.9
	ft/min	141.8	192.8	394.9	608.0	648.4	618.1	638.0	567.6	364.6	213.1	121.4	111.2

(a) knots.

—contd.

Average wind speeds in different units and time intervals.

Station	Unit	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Dhaka District :													
Dhaka	KTS	2.8	3.2	5.0	7.1	8.6	7.3	7.5	6.4	6.5	4.8	2.8	3.0
	mi/hr	3.3	3.7	5.8	8.2	9.9	8.4	8.6	7.4	7.5	5.6	3.3	3.5
	km/hr	5.2	6.0	9.3	13.2	15.9	13.5	13.9	11.9	12.0	8.9	5.2	5.6
	m/sec	1.4	1.6	2.6	3.7	4.4	3.8	3.9	3.3	3.4	2.5	1.4	1.5
	ft/sec	4.8	5.4	8.3	12.0	14.5	12.3	12.6	10.8	11.0	8.1	4.8	5.1
	ft/min	384.8	324.2	507.0	719.2	871.6	739.6	760.0	648.4	658.5	486.6	984.8	3404.0
Dinajpur District :													
Dinajpur	KTS	1.0	1.4	2.1	3.0	3.3	3.0	2.8	2.4	1.8	1.3	0.9	1.0
	mi/hr	1.2	1.6	2.4	3.5	3.8	3.5	3.3	2.8	2.1	1.5	1.1	1.2
	km/hr	1.9	2.6	3.9	5.6	6.1	5.6	5.2	4.5	3.3	2.4	1.7	1.9
	m/sec	0.5	0.7	1.0	1.5	1.7	1.5	1.4	1.2	0.9	0.6	0.4	0.5
	ft/sec	1.7	2.4	3.6	5.1	5.6	5.1	4.8	4.1	3.1	2.2	1.5	1.7
	ft/min	101.0	141.8	213.1	304.0	334.3	304.0	384.8	243.4	182.6	131.6	90.9	101.0
Faridpur District :													
Faridpur	KTS	1.5	2.0	3.4	5.6	6.4	5.6	5.3	5.7	3.8	2.1	1.4	1.4
	mi/hr	1.8	2.3	3.9	6.5	7.4	6.5	6.1	6.6	4.4	2.4	1.6	1.6
	km/hr	2.8	3.7	6.3	10.4	11.9	10.4	9.8	10.6	7.0	3.9	2.6	2.6
	m/sec	0.8	1.0	1.7	2.9	3.3	2.9	2.8	3.0	2.0	1.0	0.7	0.7
	ft/sec	2.6	3.4	5.8	9.4	10.8	9.4	8.9	9.6	6.5	3.6	2.4	2.4
	ft/min	152.0	203.0	344.4	567.6	648.4	567.6	537.3	577.7	384.8	213.1	141.8	141.8
Jessore District :													
Jessore	KTS	1.7	2.2	3.5	5.5	5.9	4.8	4.1	3.8	2.9	1.8	1.3	1.5
	mi/hr	2.0	2.5	4.0	6.4	6.8	5.6	4.7	4.4	3.4	2.1	1.5	1.8
	km/hr	3.2	4.1	6.5	10.2	10.9	8.9	7.6	7.0	5.4	3.3	2.4	2.8
	m/sec	0.8	1.1	1.8	2.8	3.0	2.5	2.2	3.0	1.4	0.9	0.6	0.8
	ft/sec	2.9	3.7	6.0	9.2	9.9	8.1	7.0	6.5	4.9	3.1	2.2	2.6
	ft/min	172.4	223.2	354.5	557.5	597.9	486.6	415.2	384.8	293.9	182.6	131.6	152.0
Khulna District :													
Khulna	KTS	1.6	2.1	3.1	4.2	4.8	4.0	4.2	3.7	3.0	2.1	1.7	1.6
	mi/hr	1.9	2.4	3.6	4.8	5.6	4.6	4.8	4.3	3.5	2.4	2.0	1.9
	km/hr	3.0	3.9	5.8	7.8	8.9	7.4	7.8	6.9	5.6	3.9	3.2	3.0
	m/sec	0.8	1.0	1.6	2.2	2.5	2.1	2.2	1.9	1.5	1.0	0.8	0.8
	ft/sec	2.7	3.6	5.3	7.1	8.1	6.8	7.1	6.3	5.1	3.6	2.9	2.7
	ft/min	162.2	213.1	314.1	425.4	486.6	405.0	425.4	374.7	304.0	213.1	172.4	62.2

-concl.- Average wind speeds in different units and time intervals.

Station	Unit	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Mymensingh District :													
Mymensingh	KTS	1.2	1.5	2.1	2.8	3.2	2.7	2.7	2.5	2.0	1.6	1.2	1.0
	mi/hr	1.4	1.8	2.4	3.3	3.7	3.1	3.1	2.9	2.3	1.9	1.4	1.2
	km/hr	2.3	2.8	3.9	5.2	5.0	5.0	6.0	4.6	3.7	3.0	2.3	1.9
	m/sec	0.6	0.8	1.1	1.4	1.6	1.4	1.4	1.2	1.0	0.8	0.6	0.5
	ft/sec	2.0	2.6	3.6	4.8	5.4	4.6	4.6	4.2	3.4	2.7	2.0	1.7
	ft/min	121.4	152.0	213.1	384.8	324.2	273.7	273.7	253.5	203.0	162.2	121.4	101.0
Noakhali District :													
Maijdee Court	KTS	2.9	3.4	2.4	5.4	6.7	7.8	8.8	7.5	5.2	3.1	2.3	2.5
	mi/hr	3.4	3.9	2.8	6.2	7.7	9.0	10.2	8.6	6.0	3.6	2.7	2.9
	km/hr	5.4	6.3	4.5	10.0	12.4	14.4	16.3	13.9	9.7	5.8	4.3	4.6
	m/sec	1.4	1.7	1.2	2.8	3.4	4.0	4.5	3.9	2.7	1.6	1.2	1.2
	ft/sec	4.9	5.8	4.1	9.1	11.4	13.2	14.9	12.6	8.7	5.3	3.9	4.2
	ft/min	293.9	344.4	243.4	547.4	678.7	790.6	891.8	760.0	527.2	314.1	233.3	253.5
Noakhali District :													
Noakhali	KTS	2.9	3.4	4.5	5.4	6.7	7.8	8.8	7.5	5.2	3.1	2.3	2.5
	mi/hr	3.4	3.9	5.2	6.2	7.7	9.0	10.2	8.6	6.0	3.6	2.7	2.9
	km/hr	5.4	6.3	8.4	10.0	12.4	14.4	16.3	13.9	9.7	5.8	4.3	4.6
	m/sec	1.4	1.7	2.4	2.8	3.4	4.0	4.5	3.9	2.7	1.6	1.2	1.2
	ft/sec	4.9	5.8	7.6	9.1	11.4	13.2	14.9	12.6	8.7	5.3	3.9	4.2
	ft/min	293.9	344.4	456.0	547.4	678.7	790.6	891.8	760.0	527.2	314.1	233.3	253.5
Pabna District													
Sirajganj	KTS	1.6	1.8	2.7	4.1	4.5	4.0	3.8	3.2	2.6	1.7	1.2	1.4
	mi/hr	1.9	2.1	3.1	4.7	5.2	4.6	4.4	3.7	3.0	2.0	1.4	3.6
	km/hr	3.0	3.3	5.0	7.6	8.4	7.4	7.0	6.0	4.8	3.2	2.3	5.8
	m/sec	0.8	0.9	1.4	2.2	2.4	2.1	3.0	1.6	1.3	0.8	0.6	1.6
	ft/sec	2.7	3.1	4.6	7.0	7.6	6.8	6.5	5.4	4.4	2.9	2.0	5.3
	ft/min	162.2	182.6	273.7	415.2	456.0	405.0	384.8	324.2	263.6	172.6	121.4	314.1
Rangpur District :													
Rangpur	KTS	1.0	1.2	1.8	2.6	2.9	2.6	2.4	2.2	1.8	1.4	0.9	0.8
	mi/hr	1.2	1.4	2.1	3.0	2.4	3.0	2.8	2.5	2.1	2.6	1.1	1.0
	km/hr	1.9	2.3	3.3	4.8	5.4	4.8	4.5	4.1	3.3	5.8	1.7	1.5
	m/sec	0.5	0.6	0.9	1.3	1.4	1.3	1.2	1.1	0.9	1.6	0.4	0.4
	ft/sec	1.7	2.0	3.1	4.4	4.9	4.4	4.1	3.7	3.1	5.3	1.5	1.4
	ft/min	101.0	121.4	182.6	263.6	293.9	263.6	243.4	223.2	182.6	314.1	90.9	80.8
Sylhet District :													
Srimangal	KTS	1.3	1.5	2.7	3.2	2.7	2.9	3.0	2.7	2.0	1.3	1.0	1.0
	mi/hr	1.5	1.8	3.1	3.7	3.1	3.4	3.5	3.1	2.3	1.5	1.2	1.2
	km/hr	2.4	2.8	5.0	6.0	5.0	5.3	5.6	5.0	3.7	2.4	1.9	1.9
	m/sec	0.6	0.8	1.4	1.6	1.4	1.4	1.5	1.4	1.0	0.6	0.5	0.5
	ft/sec	2.2	2.6	4.6	5.4	4.6	4.9	5.1	4.6	3.4	2.2	1.7	1.7
	ft/min	131.6	152.0	273.7	324.2	273.7	293.9	304.0	273.7	203.0	131.6	101.0	101.0

Sources: (i) Bangladesh Meteorological Department and (ii) Agro-Climatic Survey of Bangladesh by Enginio B. Manalo, Bangladesh Rice Research Institute and International Rice Research Institute.

Table - 7 Average monthly cloud free days at selected stations of Bangladesh.

Met. Station	Jan	Feb	March	April	May	June	July	August	Sept.	Oct.	Nov	Dec
1. Barisal	20.3	15.5	13.1	5.6	3.0	0.2	0.2	0.0	0.5	5.7	19.5	19.9
2. Bogra	21.7	19.3	14.1	8.9	4.7	0.2	0.1	0.2	0.7	10.6	18.2	20.2
3. Bhola	16.8	18.6	13.4	6.9	6.9	0.4	0.0	0.0	1.5	11.5	17.9	21.3
4. Brahmanbaria	20.8	17.7	13.3	5.7	3.6	0.1	0.0	0.0	0.2	6.6	17.1	19.5
5. Chittagong	17.9	15.4	9.5	2.0	0.6	0.1	0.0	0.0	0.0	1.4	8.4	14.7
6. Chandpur	23.2	21.5	17.5	16.3	13.2	2.8	1.6	1.4	3.7	15.9	24.5	28.5
7. Comilla	22.0	19.3	13.8	8.6	6.3	2.1	1.3	1.4	3.7	14.1	21.4	20.7
8. Cox's Bazar	16.5	16.8	11.3	3.5	1.2	0.0	0.0	0.0	0.0	1.7	9.0	13.5
9. Dhaka	18.4	15.3	10.9	3.6	1.8	0.2	0.0	0.0	0.1	4.2	11.5	15.8
10. Dinajpur	24.7	22.0	22.1	17.0	11.3	2.3	1.0	0.8	6.0	18.0	2.30	25.2
11. Faridpur	21.0	18.9	15.2	7.8	4.3	0.5	0.1	0.1	0.7	8.3	18.6	21.2
12. Hatiya	17.6	17.3	10.2	6.2	4.7	0.3	0.0	0.1	0.7	10.2	18.1	19.1
13. Ishurdi	19.2	18.2	14.8	7.7	4.1	0.1	0.1	0.0	4.0	8.0	12.5	15.2
14. Jamalpur	26.0	24.2	21.5	14.0	13.2	8.2	6.9	3.1	7.4	17.7	24.7	24.4
15. Jessore	16.8	16.8	13.1	6.6	5.3	0.3	0.0	0.0	0.5	6.9	13.5	16.4
16. Kaptai	5.4	6.2	2.1	0.1	0.0	0.0	0.0	0.0	1.8	5.1	8.5	4.1
17. Khulna	23.2	19.1	15.9	10.0	10.5	2.4	2.0	2.3	1.5	7.7	17.9	21.0
18. Lalmanirhat	20.5	19.3	15.0	8.7	5.8	1.2	0.8	1.2	2.8	12.5	18.3	22.7
19. Majdee Court	24.6	20.0	17.0	8.6	6.2	0.7	0.4	0.1	1.0	8.7	22.1	26.6
20. Mymensingh	23.8	18.9	17.5	8.4	5.5	0.4	0.1	0.0	1.5	11.6	22.1	24.6
21. Narayanganj	21.6	19.0	13.7	5.0	3.1	0.2	0.0	0.1	0.4	7.0	17.0	21.5
22. Rangamati	9.6	13.3	9.6	5.0	1.8	0.1	0.0	0.0	0.0	0.6	2.2	4.7
23. Rangpur	21.9	18.3	17.5	11.6	4.3	0.5	0.1	0.1	0.5	7.8	15.1	20.8
24. Rajshahi	21.2	21.0	18.4	12.7	10.3	2.2	0.2	0.4	1.1	10.7	18.1	20.6
25. Rooppur	20.7	22.7	17.0	12.7	4.7	0.3	0.1	0.8	1.8	9.4	16.0	15.0
26. Satkhira	21.3	18.9	15.5	10.7	3.9	0.3	0.0	0.0	0.0	4.4	18.3	22.3
27. Sandwip	24.5	19.5	8.2	9.0	0.7	2.2	2.3	1.5	3.3	12.0	21.0	39.3
28. Serajganj	25.0	23.0	22.5	14.2	10.0	2.6	0.5	0.6	4.0	15.3	24.1	25.2
29. Srimangal	23.2	15.7	14.7	8.1	4.6	1.7	1.8	1.4	4.3	10.4	18.2	20.9
30. Sylhet	15.6	14.1	9.9	3.4	1.0	0.0	0.0	0.0	0.0	2.8	0.8	14.2

Notes: Data show average number of cloud-free days observed at 00.00 G.M.T., 03.00 G.M.T. and 12.00 G.M.T. and these are based on 1961-1970 data
 Source: Bangladesh Meteorological Department.

Table - 8

Average number of cloudy hours at Dhaka.

Year	Cloudy hours			
	6 a.m.	9 a.m.	6 p.m.	Average
1968-69	293	289	292	291
1969-70	293	293	315	300
1970-71	237	236	206	226
1971-72	250	249	247	249
1972-73	273	268	248	263
1973-74	267	255	265	262
1974-75	273	271	300	281
1975-76	n.a.	n.a.	n.a.	n.a.
1976-77	272	267	280	273
1977-78	261	263	274	226
1978-79	263	265	265	264
1979-80	268	271	276	272
1980-81	250	272	276	266
1981-82	251	249	268	256
1982-83	310	94	310	238

Notes: Observations were taken at three different hours i.e. 6 a.m., 9 a.m. and 6 p.m. (local time) in a day.
Source: Bangladesh Meteorological Department.

Table - 9

Hours of bright sunshine—1983.

Met. Station	Hours (per day)											
	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Dhaka	6.85	7.37	7.37	7.30	7.02	5.24	4.20	5.05	4.15	6.15 (30)	—	7.47
Faridpur	6.35	7.38 (27)	7.75	7.77 (29)	7.97	5.31	4.63	5.05	4.58	5.34	7.27	6.78
Rajshahi	6.75	8.00	8.75	7.74	7.13	6.59	5.01	5.78	4.51	6.21 (30)	8.55	8.12 (23)
Jessore	5.20	6.36	6.87	7.24	7.17	6.09	3.59	4.06	4.17	5.03	7.38	6.31
Rangpur	n.a.	8.46	9.08 (27)	6.38 (27)	6.21 (30)	6.24 (27)	5.36 (24)	5.94 (26)	5.46 (23)	6.31	9.28	6.81
Sylhet	7.33	7.93	7.29	6.20	6.42	3.81	3.25	3.56	3.59	6.37	9.00	8.00
Bogra	6.62	7.97	8.42	10.27	6.18	5.60	4.42	4.57	3.97	6.25	8.00	7.07

N B : Figures in the bracket indicate no. of days for which reading was available during the month.
Source: Collected from Bangladesh Meteorological department.

Table - 10 Number of teachers and students in the universities by departments.

Departments	Teachers						Students					
	1981-82			1982-83			1981-82			1982-83		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
1. English	57	16	73	68	12	80	680	242	922	681	253	934
2. Bengali	65	11	76	57	16	73	701	406	1107	744	551	1295
3. History	58	10	68	62	8	70	1053	444	1497	1005	473	1478
4. Islamic History	43	5	48	40	2	42	974	232	1256	991	283	1274
5. Philosophy	44	9	53	47	9	56	880	692	1572	862	400	1262
6. Economics	106	7	113	111	6	117	1423	332	1755	1542	406	1948
7. Political Science	66	10	76	67	12	79	1185	368	1553	1442	505	1947
8. Language	26	6	32	25	7	32	—	—	—	7	2	9
9. Sociology	55	10	65	55	11	66	957	717	1674	958	781	1739
10. Social Work	11	1	12	12	—	12	—	—	—	143	91	234
11. Physics	107	13	120	70	7	77	978	102	1080	1108	123	1231
12. Applied Physics	31	1	32	32	2	34	395	26	421	343	23	366
13. Chemistry	113	12	125	115	12	127	967	141	1108	980	162	1142
14. Applied Chemistry	24	3	27	26	2	28	421	50	471	393	62	455
15. Botany	55	11	66	63	10	73	475	178	653	477	151	628
16. Zoology	45	10	55	47	13	60	406	180	586	430	198	628
17. Psychology	31	12	43	31	14	45	543	183	726	467	207	674
18. Statistics	66	3	69	69	4	73	863	59	922	981	81	1062
19. Geography	52	8	60	51	8	59	702	205	908	771	208	979
20. Mathematics	74	6	80	72	6	78	673	42	715	802	52	854
21. Management	58	—	58	61	—	61	1243	105	1348	1570	119	1689
22. Accounting	64	2	66	64	3	67	1445	80	1525	1775	88	1863
23. Law	31	2	33	23	—	23	1123	138	1261	874	119	993
24. Geology and Mining	29	—	29	27	—	27	—	—	—	260	18	278
25. Marine Biology	8	—	8	10	—	10	—	—	—	38	4	42
26. Bio-Chemistry	25	—	25	27	—	27	183	38	221	208	40	248
27. Pharmacy	16	5	21	16	4	20	—	—	—	131	12	143
28. Journalism	25	—	25	11	1	12	83	15	98	85	19	104
29. Soil Science	26	—	26	25	—	25	120	30	150	65	1	66
30. Persian and Urdu	2	2	4	2	2	4	—	—	—	4	1	5
31. Sanskrit and Pall	7	1	8	8	2	10	90	34	124	95	54	149
32. Arabic and Isl. Studies	32	1	33	40	1	41	476	49	525	592	36	628
33. Int. Relations	9	—	9	11	—	11	76	51	127	76	56	132
34. Marketing	17	—	17	19	1	20	476	19	495	507	26	533
35. Finance	14	—	14	20	—	20	342	33	375	446	28	474
36. Military Science	—	—	—	4	—	4	—	—	—	—	—	—
37. Public Admnoistration	21	4	25	30	2	32	365	115	480	389	145	534
38. Social Welfare	11	6	17	10	7	17	—	—	—	301	136	437
39. Fine Art	9	1	10	11	—	11	—	—	—	31	17	48
40. Library Science	6	1	7	5	1	6	—	—	—	78	19	97
41. Civil engineering	64	—	64	68	—	68	956	22	978	1010	31	1041
42. Mechanical	35	—	35	34	—	34	581	3	584	645	3	648
43. Electrical	49	2	51	54	2	56	618	13	631	656	16	672
44. Chemical	15	1	16	17	1	18	134	7	141	141	12	153
45. Metallurgical	9	—	9	9	—	9	30	—	30	31	1	32
46. Naval, Arch.	7	—	7	7	—	7	41	—	41	48	—	48
47. Water Resources	20	—	20	23	1	24	39	1	40	56	2	58
48. Architecture	12	4	16	15	4	19	209	40	249	173	45	218
49. Urban and Regional Planning	8	—	8	9	1	10	54	13	67	63	17	80
50. Faculty of Agriculture	139	4	143	148	4	152	1462	73	1535	1609	84	1693

Table - 11 現地建設業者

- 建設
- . Concord Engineers & Construction Ltd.
 - . Rana Construction Co., Ltd.
 - . Bengal Development Corporation
 - . Civiling Engineers Ltd.
 - . Nirman International
 - . The Project Builder Ltd.
 - . Ana Enterprise
 - . Bastu Shilpi Limited
 - . Omar Sons Limited
 - . Rahman & Associates
 - . M.S. Hafar Consulting Architects & Engineer's Limited
 - . Nain Syndicate
 - . The Engineering
 - . New Generation Construction Co., Ltd.
- 空調
- . Ali Automobiles Ltd.
 - . Shahnawaz (Bangladesh) Ltd.
 - . Spencer & Co., Ltd.
 - . Shitatop Niyantran Sangstha
 - . M/S Jalil Brothers' Engineering Limited
 - . Technical Concern Ltd.
- 衛生
- . Bright Sanitary
 - . M.A. Hashem & Cons (Works) Ltd.
- 電気
- . Hasem Electric Company
 - . Upodesta Prokoushali
 - . General Electric Company (Bangladesh) Ltd.
- 地質調査
- . Soiltech International Ltd.
 - . Foundation Consultants Ltd.
 - . Subsoil Engineers

Table - 12 Employed population 10 years and over and growth rates by broad industry group, 1961, 1974 and 1983-84.

Broad Industry	Employed Population (Thousands of persons)			Growth Rates (percent)	
	1983-84	1974	1961	1974 to 1983-84	1961 to 1974
Total Employment	27972	21408	16828	2.7	1.9
Agriculture, Forestry, Fisheries	16389	16839	14239	-0.3	1.3
Mining, Quarrying	48	2	1	37.4	3.0
Manufacturing	2108	1026	810	7.5	1.8
Electricity, Gas, Water	107	8	11	29.6	-2.5
Construction	321	36	92	24.5	-7.2
Trade, Hotels, Restaurants	3271	841	619	14.6	2.4
Transportation, Storage, Communications	1209	351	204	13.2	4.3
Finance, Business Services	178	62	10	11.1	14.7
Community, Personal Services	3250	2242	774	3.8	8.5
Not reported	1089	*	68	...	...

*Less than 0.05%

...Not applicable.

Table - 13

PUBLIC WORKS DEPARTMENT

GOVERNMENT OF THE PEOPLE'S REPUBLIC OF BANGLADESH

SCHEDULE OF RATES

(WITH CONTRACTOR'S OWN SUPPLY OF MATERIALS)

FIFTH EDITION

EFFECTIVE FROM

1ST. DECEMBER, 1983

INTRODUCTION

As per recent decision of the Government to switch over from the existing system of issuing materials to the contractors to the "General contracting system" which envisages contractor's own supply of materials, it has been felt necessary to revise the existing schedule of rates. Revision is also required due to frequent price escalation of materials and labours.

Attempts have been made to cover general items of construction of buildings and roads with sufficient elaborations as far as possible. Steps have also been taken to make schedule of rates functional and realistic based on detailed analysis. Suggestions for modifications of rates and items were invited from the Superintending Engineers for improvement of the present schedule of rates. Accordingly some of their suggestions have been incorporated in this schedule. Present market rates have been verified and some common factors of the price and labours have been evolved in order to prepare this schedule.

Due scrutiny of all items have been made as far as possible in preparing this schedule showing separately the rates for Barisal, Patuakhali and the remaining districts including Dhaka. Some items of rates of materials and labours may vary from place to place and as such Superintending Engineers are requested to modify the rates, if required, with the approval of the Chief Engineer, P. W. D.

While analysing the rates the requirement of materials for different items have been considered as per standard calculations adopted earlier in the P. W. D. schedule of rates of 1975, 1979 and 1980.

As this schedule is based on the contractor's own supply of all materials, so their profit have been allowed @ 10% both over the materials and labours. It may be mentioned here that if the materials are available in the departmental

stock, provisions are to be made for issuing these materials in the tenders as per issue rates shown in this schedule and contractor's profits are to be deducted for the entire amount of the items which are to be issued and rates are to be modified accordingly by correcting with the analysis of rates.

In preparation of mosaic items, thickness of 3/8" finished) has been shown to use bigger sizes of chips as well as to stand more wear and tear for future use where required.

The import of some sanitary items have been banned by the Government. So, provisions have been made for supply of best quality locally available sanitary materials, fittings etc.

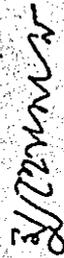
In no case the issue rates of materials is to be altered in this schedule without the prior approval of the Chief Engineer. The rates include all operations from the beginning to the end which are directly connected with the items of the works. In other words, rates are meant for the finished and completed works in all respects to the satisfaction of the department in accordance of the specifications, practices and convention.

It is the responsibility of the Engineer-in-charge of works to see during execution that the items as per schedule of rates are strictly followed with all its specifications in minutest detail. Field tests are to be made from random samples of cement, bricks, sand and M. S. Rods as per standard specifications. Random Cylindrical tests are to be made for concrete works of structural elements. No deviation of any items is allowed without the prior approval of the Superintending Engineer who in exceptional circumstances may allow certain additions and alterations to a limited scale. All concrete works of roofs, slabs, beams and columns should be done with mixer machines.

All materials supplied by the contractors should be of approved quality and kind. No materials should be used in works unless certified by the concerned Sub-Divisional Engineer. It is the overall responsibility of field staff to see that all materials as per specifications are procured by the contractor's for works which reach the site in time and in full quantity and properly used in the works for which they are meant. Under-specified materials should be removed from the sites within 24 hours at contractor's own cost. The items involving use of cement such as bricks-works, concrete work, plaster etc. should be properly cured.

All tools and plants will be supplied by the contractors or hired from this Department, if available on hire charges prevailing at that time. Contractor's will also make arrangement for lighting, water supply required for works and other incidental items during the execution of works at his own cost.

The field staff shall maintain site order book which will contain instructions, decisions, sketches or suggestions given during inspections of the work in progress.



M. H. Khan,
Superintending Engineer (OSD),
Public Works Department.

They should also maintain a Job Diary at each site which will contain accounts of receipts and use of materials at the site and other necessary details regarding day to day activity at site. Any delay, shortage of materials or suspension of works etc. should also be recorded in the Job Diary Book. All other important records such as drawing, schedule of items, estimate etc. should also be kept at site in the bound book for guidance of the field staff and also for the inspecting officers.

Public works Department will have to switch over from the existing F. P. S. system to Metric System shortly. Tables of conversions have been reproduced in this schedule of rates to get acquainted with the metric system which is simple and time saving. In the meantime every body should take all preparations to work with the help of Metric system.

The schedule of rates will come into force with effect from 1st. December, 1983.



A. H. M. A. Hal,
Chief Engineer,
Public Works Department.

(5)

COMPLETE CONVERSION TABLES
F P S INTO METRIC SYSTEM.

Conversion of current F P S unit into Metric system units.		Conversion of Metric system unit into F P S units.	
1 inch	= 2.54 cm.	1 cm.	= 0.3937 inch
1 foot	= 30.48 cm.	1 metre	= 39.37 in.
1 Mile	= 1.609 km.	1 km.	= 0.6211 mile
1 in. ²	= 6.452 cm. ²	1 cm. ²	= 0.155 in. ²
1 Ft. ²	= 929 cm. ²	1 metre ²	= 10.76 ft. ²
1 lb.	= 0.4536 kg.	1 kg.	= 2.205 lb.
1 lb./ft.	= 1.488 kg./m.	1 kg./m.	= 0.672 lb./ft.
1 lb./ft. ²	= 4.883 kg./m. ²	1 kg./m ²	= 0.205 lb./ft. ²
1 lb./in. ²	= 0.07 kg./cm. ²	1 kg./cm. ²	= 1.122 lb./in. ²
<hr/>			
1 lb./ft. ³	= 16 kg./m. ³	1 kg./m. ³	= 6.26 lb./ft. ³
1 ton	= 1.016 tonne	1 Tonne	= 0.984 ton
1 ton/ft.	= 3.333 tonnes/m.	1 Tonne/m.	= 0.300 ton/ft.
1 ton/ft. ²	= 10.937 tonnes/m. ²	1 Tonne/m. ²	= 0.0914 ton/ft. ²
1 ton/in. ²	= 0.1575 tonnes/cm. ²	1 Tonne/cm. ²	= 6.349 ton/in. ²
1 ft. lb.	= 0.138 kg. m.	1 kg. m.	= 7.23 ft. lb.
1 in. lb.	= 1.15 kg. cm.	1 kg./cm.	= 0.87 in. lb.

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(6)

Steel Reinforcement.

1 in.² = 6.45 cm.² ; 1 cm.² = 0.155 in.²

Allowable stresses in reinforced concrete works.

Compressive & Tensile Stresses.

600 lb./in. ²	=	42.2 kg./cm. ²
750 lb./in. ²	=	52.7 kg./cm. ²
950 lb./in. ²	=	66.8 kg./cm. ²
1150 lb./in. ²	=	80.8 kg./cm. ²
13,500 lb./in. ²	=	945 kg./cm. ²
18,000 lb./in. ²	=	1260 kg./cm. ²
20,000 lb./in. ²	=	1400 kg./cm. ²

Shear stresses.

75 lb./in. ²	=	5.3 kg./cm. ²
95 lb./in. ²	=	6.6 kg./cm. ²
115 lb./in. ²	=	8.1 kg./cm. ²

Bond stresses.

100 lb./in. ²	=	7 kg./cm. ²
112 lb./in. ²	=	7.9 kg./cm. ²
175 lb./in. ²	=	12.25 kg./cm. ²

A few common weights - F.L.S. to CGS units.

Concrete	144 lb./ft. ³	=	2308 kg./m. ³
Water	62 lb./ft. ³	=	1000 kg./m. ³
Steel	0.28 lb./in. ³	=	7.8 grams/cm. ³
Cement	90 lb./ft. ³	=	1540 kg./cm. ³
Earth	100 lb./ft. ³	=	1600 kg./cm. ³
Masonry	160 lb./ft. ³	=	2560 kg./cm. ³

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Concrete slabs materials required per m² for various thickness.

Nominal mix	Materials	100 mm thickness.	125 mm thick.	150 mm. thick.
1 : 3 : 6	Cement kg.	19.1	23.9	28.7
	Sand m. ³	0.010	0.050	0.060
	Coarse aggregates m. ³	0.080	0.100	0.120
1 : 2 : 4	Cement kg.	26.1	33.1	39.7
	Sand m. ³	0.037	0.045	0.055
	Coarse aggregates m. ³	0.074	0.092	0.110
1 : 1½ : 3	Cement kg.	32.2	41.5	49.9
	Sand m. ³	0.035	0.043	0.052
	Coarse aggregates m. ³	0.059	0.056	0.104
1 : 1 : 2	Cement kg.	44.8	55.9	67.1
	Sand m. ³	0.031	0.039	0.047
	Coarse aggregates m. ³	0.063	0.038	0.09

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F E E T T O M E T R E S

Feet	0	1	2	3	4	5	6	7	8	9
Metres										
0	0	0.305	0.610	0.914	1.219	1.524	1.829	2.134	2.438	2.743
10	3.048	3.353	3.658	3.962	4.267	4.572	4.877	5.182	5.486	5.791
20	6.096	6.401	6.706	7.010	7.315	7.620	7.925	8.230	8.534	8.839
30	9.144	9.449	9.754	10.058	10.363	10.668	10.973	11.278	11.582	11.887
40	12.192	12.497	12.802	13.106	13.411	13.716	14.021	14.326	14.630	14.935
50	15.240	15.545	15.850	16.154	16.459	16.764	17.069	17.374	17.678	17.983
60	18.288	18.593	18.898	19.202	19.507	19.812	20.117	20.422	20.726	21.031
70	21.336	21.641	21.946	22.250	22.555	22.860	23.165	23.470	23.774	24.079
80	24.384	24.689	24.994	25.298	25.603	25.908	26.213	26.518	26.822	27.127
90	27.432	27.737	28.042	28.346	28.651	28.956	29.261	29.566	29.870	30.175
100	30.480	30.785	31.090	31.394	31.699	32.004	32.309	32.614	32.918	33.223

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SQUARE FEET TO SQUARE METRES

Sq. ft.	0	1	2	3	4	5	6	7	8	9
	sq. metres									
0	0-0929	0-1858	0-2787	0-3716	0-4645	0-5574	0-6503	0-7432	0-8361	
10	0-9290	1-1148	1-2077	1-3006	1-3936	1-4865	1-5794	1-6723	1-7652	
20	1-8581	2-0439	2-1368	2-2297	2-3226	2-4155	2-5084	2-6013	2-6942	
30	2-7871	2-9729	3-0658	3-1587	3-2516	3-3445	3-4374	3-5303	3-6232	
40	3-7161	3-9 19	3-9948	4-0877	4-1806	4-2735	4-3664	4-4591	4-5523	
50	4-6452	4-8310	4-9239	5-0168	5-1097	5-2026	5-2955	5-3884	5-4813	
60	5-5742	5-7600	5-8529	5-9453	6-0387	6-1316	6-2245	6-3174	6-4103	
70	6-5032	6-6890	6-7819	6-8748	6-9677	7-0606	7-1535	7-2464	7-3393	
80	7-4322	7-6181	7-7110	7-8039	7-8968	7-9897	8-0825	8-1755	8-2684	
90	8-3613	8-5471	8-6400	8-7329	8-8258	8-9187	9-0116	9-1045	9-1974	
100	9-2903	9-4761	9-5690	9-6619	9-7548	9-8477	9-9406	10-0335	10-1254	

Useful tables

METRIC CONVERSION TABLES.

Inches	Milli-metres.	Miles	Kilo-metres.
0.039	1 25.4	0.021	1 1.609
0.079	2 50.8	1.243	2 3.219
0.118	3 76.2	1.864	3 4.828
0.157	4 101.6	2.486	4 6.437
0.197	5 127.0	3.107	5 8.047
0.236	6 152.4	3.728	6 9.656
0.276	7 177.8	4.350	7 11.265
0.315	8 203.2	4.971	8 12.875
0.354	9 228.6	5.592	9 14.484

Feet	Metres	Sq. feet	Sq. metres.
3.281	1 0.305	10.764	1 0.093
6.562	2 0.610	21.528	2 0.186
9.843	3 0.914	32.292	3 0.279
13.123	4 1.219	43.056	4 0.372
16.404	5 1.524	53.820	5 0.465
19.685	6 1.829	64.583	6 0.557
22.966	7 2.134	75.347	7 0.650
26.247	8 2.438	86.111	8 0.743
29.528	9 2.743	96.875	9 0.836

Yards.	Metres.	Sq. Yards.	Sq. metres.
1.094	1 0.914	1.196	1 0.836
2.187	2 1.829	2.392	2 1.672
3.281	3 2.743	3.588	3 2.508
4.375	4 3.658	4.784	4 3.345
5.468	5 4.572	5.980	5 4.181

Gallons.	Litres.	Tons	Tonnes (1,000 kg.)
0.220	1 4.546	0.921	1 1.016
0.440	2 9.092	1.842	2 2.032
0.660	3 13.638	2.763	3 3.048
0.880	4 18.184	3.684	4 4.064
1.100	5 22.731	4.605	5 5.080
1.320	6 27.277	5.526	6 6.096
1.540	7 31.823	6.447	7 7.112
1.760	8 36.369	7.368	8 8.128
1.980	9 40.915	8.289	9 9.144

1000 gram = 1 kg. : 1000 kg. = 1 Tonne

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USEFULL TABLES

Cu feet	Cu metres	Pounds	Kilograms
35-315	1	2-205	0-454
70-629	2	4-409	0-907
105-944	3	6-614	1-361
141-259	4	8-818	1-814
176-573	5	11-023	2-268
211-888	6	13-228	2-722
247-203	7	15-432	3-175
282-517	8	17-637	3-629
317-832	9	19-842	4-082

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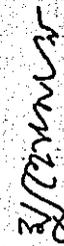
(15)

LABOUR RATES

1. Ordinary Labour	Tk. 25/- per day..
2. Skilled Labour	Tk. 30/- per day.
3. Head Mason	...	...	Tk. 60/- per day.
4. Mason	...	...	Tk. 50/- per day..
5. Carpenter/Painter	...	...	Tk. 55/- per day..
6. Plumber	Tk. 60/- per day.
7. Rod Mistry	Tk. 60/- per day..
8. Helper to Rod Mistry	Tk. 35/- per day..



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Superintending Engineer (OSD)
Public Works Department,
Dhaka, Bangladesh.

ISSUE RATES OF MATERIALS

(17)

Rate in Taka

Sl. No.	Description of Items	Unit of rate	Rate in Taka		
			All Districts Except Barisal & Patuakhali	Barisal	Patuakhali
1.	1st Class or picked jhama bricks.	per % Nos.	1200-00	1200-00	1200-00
2.	1st Class or picked jhama bats.	per % cft.	1020-00	1020-00	1020-00
3.	Machine made bricks 10 holes.	per % Nos.	1825-00	1825-00	1825-00
4.	Machine made bricks 17 holes.	per % Nos.	1625-00	1625-00	1625-00
5.	Ceramic facing bricks—8" x 4" x 2"	per % Nos.	2075-00	2075-00	2075-00
6.	Cement.	per bag.	115-00	115-00	115-00
7.	M. S. Rod and Structural steel (Angle Iron/F. I. bar) (B. S.—15 or B. S. S. 4360 of 1972)	per ton.	13000-00	13000-00	13000-00
8.	M. S. Window section (TZ section) (B. S. S. 4360 of 1972)	per ton.	17000-00	17000-00	17000-00
9.	C. I. Sheet. (24 B. W. G.)	per ton.	25000-00	25000-00	25000-00
10.	Asbestos sheet.	per sqt.	28-50	28-50	28-50
11.	Lime (slaked).	per maund.	35-00	35-00	35-00
12.	Stone lime.	per maund.	140-00	140-00	140-00

S A N D

1.	Best local sand (F. M.—1-5)	per % cft.	400-00	700-00	730-00
2.	Best local sand (F. M.—2-00)	per % cft.	500-00	800-00	830-00
3.	Sunamganj sand (Sylhet) (F. M.—2-5)	per % cft.	900-00	1000-00	1050-00
4.	Very fine local sand (F. M.—0-50) (not for coating, brick work & plastering works)	per % cft.	90-00	90-00	90-00

(18)

ISSUE RATES OF MATERIALS

Sl. No.	Description of Items	Unit of rate	Rate in Taka		
			All Districts Barisal & Patuakhali	Barisal	Patuakhali
<u>TIMBER.</u>					
Supplying of best quality well seasoned Teak Chamble wood plank as per Schedule free from sap, knots, fings, spots, cracks or any other defects to be delivered at the any PWD godown within Bangladesh including loading, unloading, carrying at both ends & stacking in suitable position with payment of all incidental charges & taxes now in force etc. complete as per direction of the Engineer-in-charge (Both ends shall be cut at right angle and must be free from crack)					
1.	Jam. (Cig.)	per cft.	170-00	170-00	170-00
2.	Su-dari.	per cft.	170-00	170-00	170-00
3.	Garjan. (Cig.)	per cft.	170-00	170-00	170-00
4.	Kathal.	per cft.	200-00	200-00	200-00
5.	Silkarai. (Cig.)	per cft.	230-00	230-00	230-00
6.	Jarul.	per cft.	250-00	250-00	250-00
7.	Local Sal wood (Moochupur)	per cft.	250-00	250-00	250-00
8.	Chapalish. (Cig.)	per cft.	240-00	240-00	240-00
9.	Gamar (Cig.)	per cft.	230-00	230-00	230-00
10.	Teak Chambal. (Cig.)	per cft.	280-00	280-00	280-00
11.	Telsu.	per cft.	300-00	300-00	300-00
12.	C. T. wood. (Cig. Teak Wood)	per cft.	500-00	500-00	500-00
13.	B. T. wood. (Burmah Teak Wood)	per cft.	1000-00	1000-00	1000-00

ISSUE RATES OF MATERIALS

(19)

Sl. No.	Description of Items	Unit of rate	Rate in Taka		
			All Districts Except Barisaj & Patuakhali	Barisaj	Patuakhali
<u>PAINT & COLOURING MATERIALS.</u>					
1.	Synthetic enamel paint.	per gallon	400-00	400-00	400-00
2.	Oil bound distemper.	do	230-00	230-00	230-00
3.	Plastic emulsion paint.	do	370-00	370-00	370-00
<u>MISCELLANEOUS ITEMS.</u>					
1.	Marble chips. (Indian Deraden)	per cwt.	240-00	240-00	240-00
2.	Marble dust.	per cwt.	160-00	160-00	160-00
3.	White cement. (Foreign)	per bag of 40 kg.	460-00	460-00	460-00
4.	Snow ceam. (Foreign)	per drum of 40 kg.	2500-00	2500-00	2500-00
5.	Snow ceam. (Bangladesh made)	per drum of 40 kg.	1400-00	1400-00	1400-00
6.	Distemper.	per gallon	230-00	230-00	230-00
7.	Stone Shingler. (Jallong/Bholaganj)	per % cft.	1400-00	1400-00	1400-00
8.	Stone Boulders.	per % cft.	1800-00	1800-00	1800-00
9.	Pea gravels.	per % cft.	1000-00	1000-00	1000-00
10.	Bitumen 80/100	per ton.	9000-00	9000-00	9000-00
11.	Coal.	per ton.	1800-00	1800-00	1800-00
12.	Bitumen Emulsion.	per ton.	8400-00	8400-00	8400-00

CARRIAGE OF MATERIALS

(21)

Rate in Taka.

Sl. No.	Description of items	Unit of item	Rate in Taka.							
			Dhaka & Mymn.	Ctg.	Comilla & Noakhali	Rajshahi & Pabna	Rangpur Bogra & Dinajpur	Khulna Jessore & Kusthia	Faridpur	Sylhet	C.H.T.	Barisal & Patuakhali

1. Carriage of materials except bricks & bats by motor trucks, bullock carts or any other means, including loading, unloading at both ends and stacking properly at site as per direction of the Engineer-in-charge.

(a) upto 1 mile	per ton.	31.50	36.00	45.00	45.00	45.00	45.00	45.00	54.00	54.00	54.00	The rates should be based on Analysis duly proposed by the E.E. & approved by the S. E.
(b) upto 2 miles	do	36.00	45.00	54.00	54.00	54.00	54.00	54.00	67.50	67.50	67.50	
(c) upto 3 miles	do	40.50	54.00	63.00	63.00	63.00	63.00	63.00	72.00	72.00	72.00	
(d) For each additional mile beyond 3 miles & upto 20 miles.	do	4.50	4.50	4.50	4.50	4.50	4.50	4.50	6.75	6.75	6.75	
(e) For each additional mile beyond 20 miles upto 50 miles.	do	3.38	3.38	3.38	3.38	3.38	3.38	3.38	4.50	4.50	4.50	
(f) Beyond 50 miles.	do	1.50	1.50	1.50	1.50	1.50	1.50	1.50	2.62	2.62	2.62	

2. Carriage of materials except bricks and bats by River Transport only including loading, unloading at both ends and stacking properly at site as per direction of the Engineer-in-charge. The rates should be based on analysis duly proposed by the Executive Engineer & approved by Saverintending Engineer.

3. Weighing at both ends for item No. 1 of Steel materials only @ Tk. 25.00 per ton.

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CARRIAGE OF MATERIALS

Sl. No.	Description of items	Unit of item	per %	Rate in Taka.										
				Dhaka & Mymn.	Ctg.	Comilla & Noakhali	Kajshali & Pabna	Rangpur Bogra & Dinajpur	Khulna Jessore Kushiya	Faridpur	Sylhet	C.H.T.	Barisal & Patuakhali	
4.	Carrriage of bricks & brick bats by motor truck, bullock carts or any means including loading and unloading at both ends, stacking properly at site as per direction of the Engineer-in-charge.	Nos. of Bricks & per % of bats.												
(a)	upto 1 mile	do		58.62	90.57	90.57	118.12	118.12	118.12	118.12	145.70	145.70	145.70	The rates should be based on Analysis duly proposed by the F. E.
(b)	upto 2 miles	do		98.45	118.12	118.12	145.70	145.70	145.70	145.70	201.95	201.95	201.95	
(c)	upto 3 miles	do		106.32	145.70	145.70	173.25	173.25	173.25	173.25	288.38	288.38	288.38	
(d)	For each additional miles beyond 3 miles and upto 20 miles.	do		11.82	11.82	11.82	11.82	11.82	11.82	13.77	13.77	13.77	16.07	
(e)	For each additional mile beyond 20 miles, upto 50 miles.	do		7.88	7.88	7.88	7.88	7.88	7.88	11.82	11.82	11.82	13.77	& approved by the S.E.
(f)	Beyond 50 miles.	do		2.00	2.00	2.00	2.00	2.00	2.00	2.50	2.50	2.50	3.75	

BUILDING ITEMS

Sl. No.	Description of items	Unit of rate	Rate in Takn		
			All Districts Except Barisal & Patuakhali	Barisal	Patuakhali
1.	Earth work in excavation of all kinds of soils of foundation trenches including levelling, ramming and preparing the base, bailing out water, if necessary, providing centre line and bench mark pillars, removing the spoils etc. to a lead not exceeding 200'-0".				
	(a) Upto 5'-0" depth.	% cft. per thousand cubic feet.	371-00	371-00	731-00
	(b) Extra for each additional foot of depth beyond 5'-0" ..	do	25-00	25-00	25-00
	(c) Extra for each additional 100'-0" lead beyond 200'-0" .	do	27-00	27-00	27-00
2.	(a) One layer of brick flat soling in foundation or floor with first class or picked jhama bricks, preparation of bed and filling the interstices with local sand.	% sft. per hundred sft.	457-00	457-00	457-00
	(b) One layer of Herring bone bond soling (Brick on edge).—do—	do	738-00	738-00	738-00
	(c) One layer of brick on end edging. —do— —do—	% rft. per hundred rft.	381-00	381-00	381-00
3.	(a) (6 : 3 : 1) Mass concrete in foundation with cement, sand and picked jhama chips, in/c. breaking chips, screening, mixing, laying, compacting to levels & curing.	% cft. per hundred cft.	3,400-00	3,565-00	3,582-00
	(b) (5 : 2 : 1) Lime concrete in foundation with brick chips, surki and lime in/c. breaking chips, screening, mixing, laying, compacting to levels & curing.	do	2,794-00	2,794-00	2,794-00
4.	1½" Thick damp proof courses (4 : 2 : 1) in cement concrete with cement, sand, picked jhama chips, including breaking chips, screening, centering, shuttering, casting and curing finished with a coat of bitumen.	% sft. per hundred sft.	670-00	685-00	690-00

Sl. No.	Description of Items	Unit of rate	All Districts Except Barisal & Patuakhali	Barisal	Patuakhali
5.	Sand filling in foundation trenches & plinth with fine local sand in 6" layers watering & consolidating each layer upto finished level.	per % cft. per hundred cft.	200.00	220.00	220.00
6.	Earth filling in foundation trenches and plinth in 6" layers, with earth available within 200'-0" of the building site, watering and consolidating each layer upto finished level.	per % cft. per thousand cft.	352.00	352.00	352.00
7.	(a) Earth filling in foundation trenches & plinth in 6" layers, with carted earth to be supplied by the contractors, watering & consolidating each layer upto finished level. (b) Site improvement with carted earth carried by Truck or any other means & throwing in 6" layers in/c. watering levels and consolidating each layer upto finished level.	per % cft. per thousand cft.	For Dhaka, Khulna & Ctg. City. 1,600.00	For all other places. 1,400.00	For Jsr. Myn. & Kushia. 1,000.00
8.	(a) Brick work with first class bricks in cement mortar (6:1) in foundation and plinth, racking out the joints and curing. (b) Brick work with first class brick in lime mortar (3:1) in foundation and plinth, racking out the joints and curing.	per % cft. per hundred cft.	For Dhaka & Ctg. city. 1,650.00	For all other Towns. 1,450.00	For -do- 1,050.00
		per % cft. per hundred cft.	2,330.00	2,448.00	2,460.00
		per % cft. per hundred cft.	2,360.00	2,360.00	2,360.00

Sl. No.	Description of items	Unit of rate	All Districts except Barisal & Patuakhali	Barisal	Patuakhali
9.	Brick walls of width one brick or one and a half brick length with first class bricks in cement mortar (6:1) in super-structure, racking out joints, scaffolding and curing: (measurement to be given as 10" width for one brick length and 15" for one and a half brick length).				
(a)	Ground floor:—	per % cft.	2,407-00	2,525-00	2,537-00
(b)	—do— —do— First floor.	per hundred cft.	2,432-00	2,550-00	2,562-00
(c)	—do— —do— 2nd floor.	do	2,457-00	2,575-00	2,587-00
(d)	—do— —do— Third floor.	do	2,482-50	2,600-00	2,612-00
9. (A)	For Auditorium, Godown, over-head water tank which does not cover under the above item (item No. 9) Description of the items is same as in item No. 9 above.				
(a)	Below plinth level and in ground floor (upto height 14'-0").	per % cft.	2,407-00	2,525-00	2,537-00
(b)	For each additional foot of height beyond 14'-0" upto 42'-0". { For extra amount on height, the total height from the top of plinth level to the top of roof to be measured then 14'-0" ft. to be deducted).	per foot.	0-25	0-25	0-25
10.	(a) Brick work with 12 holes machine made bricks of approved size having uniform colour, carefully laid in cement mortar (4:1) in super-structure of ground floor with uniform width and depth joints, true to vertical and horizontal lines including racking out joints, scaffolding, curing and pointing with cement mortar (2:1) for all floors upto 3rd floor.	per % cft.	3,581-00	3,710-00	3,720-00
(b)	Do —do— with 17 holes machine made bricks —do— —do— for all floors upto 3rd floor.	do	3,321-00	3,440-00	3,450-00

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Sl. No.	Description of items	Unit of rate	Rate in Taka		
			All Districts except Barisal & Patuakhali	Barisal	Patuakhali
11.	Providing brick work in facing in super-structure with 8" x 4" x 2" machine made ceramic pressed bricks of approved quality in cement mortar (4:1) including racking out joints cutting the bricks to required size wherever necessary including high class recessed pointing, cleaning, scaffolding, curing etc. complete for all floors upto 3rd floor.	per % sft.	2,295.00	2,326.00	2,336.00
12.	(a) 5" brick work with 1st class bricks in cement mortar (6:1) making bond with connected walls scaffolding racking out joints and curing in all floors.	per % sft.	1,105.00	1,160.00	1,165.00
	(b) 5" thick brick work with 1st class brick in cement mortar (4:1) --do-- for all floors upto 3rd floor.	do	1,208.00	1,263.00	1,268.00
13.	(a) 3" thick cement concrete (6:3:1) in flooring with cement, best quality coarse sand & picked jhama chips including breaking chips, screening, mixing, laying, compacting and curing.	per % sft.	878.00	939.00	943.00
	(b) 3" thick lime concrete (5:2:1) --do--	per % sft.	732.00	732.00	732.00
14.	(a) 1" thick artificial patent stone (4:2:1) flooring with cement, best quality coarse sand [3rd quantity of test local sand (F.M.-15) & 3rd quantity of Sylhet sand or coarse sand of equivalent (F.M.-25)] and picked jhama chips, including breaking chips, screening laying the concrete in alternate panels, compacting & finishing the top with neat cement and curing.	per % sft.	511.00	515.00	516.00
	(b) 1 1/2" thick artificial patent stone (4:2:1) --do--	per % sft.	677.00	690.00	692.00
	--do--	--do--	--do--	--do--	--do--

(29)

Rate in Taka.

Sl. No.	Description of item	Unit of rate	Rate in Taka.		
			All Districts Except Barisal & Patuakhali	Barisal	Patuakhali
15.	1" thick red oxide or any colour flooring (1 : 3) on 1" thick artificial patent stone flooring (4 : 2 : 1) with cement best quality coarse sand [(3rd quantity of best local sand (F. M.—1.5) and 1/2 quantity of Sylhet sand or coarse sand equivalent (F. M.—2.5)] & picked jhama chips in/c. breaking chips, screening laying the concrete in alternate panels, compacting, finishing and polishing the top & curing.	per hundred foot.	12.50	12.50	12.50
16.	(a) 1" thick (finished) silver grey situ mosaic with one part of marble chips & one part of mixture of white cement, marble dust and grey cement in proportion (1 : 1 1/2 : 3) on 1" thick artificial patent stone flooring (4 : 2 : 1) with cement, best quality coarse sand [3rd quantity of best local sand (F. M.—1.5) and 1/2 quantity of Sylhet sand or coarse sand of equivalent (F. M.—2.5)] and picked jhama chips, including breaking chips, screening, laying the concrete in alternate panels, compacting, curing, polishing the top with pumice stone and finishing with oxalic acid & wax-polish in all floors (including supply of all materials).	per sft.	22.90	23.00	23.02
	(b) 3/4" thick (finished) —do— —do— (in/c. supply of all materials).	per sft.	28.85	28.95	28.97
	(c) 1/2" thick (finished) —do— —do— (excluding the cost of marble chips, marble dust & white cement.)	per sft.	13.10	13.20	13.22
	(d) 3/4" thick (finished) —do— —do— (excluding the cost of marble chips, marble dust and white cement.)	per sft.	14.12	14.22	14.24
17.	(a) 1/2" thick (finished) silver grey situ mosaic with one part of marble chips, and one part of mixture of white cement marble dust and grey cement in proportion (1 : 1 1/2 : 3) on minimum 1/2" thick cement plaster				

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Sl. No.	Description of items	Unit of rate	Rate in Taka		
			All Districts Barisal & Patuakhali	Barisal	Patuakhali
17.	(a) (4 : 1) to walls including finishing corners and edges, curing, polishing the top with pumice stone and finishing with oxalic acid and wax-polish in all floors (including supply of all materials)	per sft. per square foot.	21.15	21.25	21.27
	(b) $\frac{3}{4}$ " thick (finished) —do— —do— (in/c. supply of all materials).	per sft.	27.10	27.20	27.22
	(c) $\frac{1}{2}$ " thick (finished) —do— —do— (excluding the cost of marble chips, marble dust and white cement.)	per sft.	11.35	11.45	11.47
	(d) $\frac{3}{8}$ " thick (finished) —do— —do— (excluding the cost of marble chips, marble dust and white cement.)	per sft.	12.40	12.50	12.52
18.	(a) $\frac{1}{2}$ " thick (finished) coloured mosaic in situ with one part of marble chips and one part of mixture of white cement, marble dust (1 : 1) and necessary quantity of colouring materials on 1" thick artificial patent stone flooring (4 : 2 : 1) with cement, best quality coarse sand [$\frac{2}{3}$ rd quantity of best local sand (F. M. - 1.5) and $\frac{1}{3}$ rd quantity of Sylhet sand or coarse sand of equivalent (F. M. - 2.5)] and picked jhama chips including breaking chips; laying the concrete in alternate panels, compacting, curing, screening, polishing the top with pumice stone and finishing with oxalic acid and wax-polish in all floors (including supply of all materials).	per sft. per square foot.	28.25	28.35	28.37
	(b) $\frac{1}{4}$ " thick (finished) —do— —do— (in/c. supply of all materials).	per sft.	36.85	36.95	36.97
	(c) $\frac{1}{2}$ " thick (finished) —do— —do— (excluding the cost of marble chips, marble dust and white cement.)	per sft.	14.80	14.90	14.92
	(d) $\frac{3}{8}$ " thick (finished) —do— —do— (excluding the cost of marble chips, marble dust and white cement.)	per sft.	15.65	15.75	15.77

Sl. No.	Description of items	Unit of rate	rate in taka		
			All Districts Barisal & Patuakhali	Barisal	Patuakhali
19.	(a) $\frac{1}{2}$ " thick (finished) coloured mosaic in situ with one part of marble chips, one part of mixture of white cement and marble dust (1:1) and necessary quantity of colouring materials on minimum $\frac{1}{2}$ " thick cement plaster (4:1) to walls including finishing corners and edges, polishing the top with pumice stone and finishing with oxalic acid and wax-polish in all floors (including supply of all materials). (b) $\frac{3}{4}$ " thick (finished) —do— (in/c. supply of all materials). (c) $\frac{1}{2}$ " thick (finished) —do— (excluding the cost of marble chips, marble dust and white cement). (d) $\frac{3}{4}$ " thick (finished) —do— (excluding the cost of marble chips, marble dust and white cement).	per sft. per sft. per sft. per sft.	26.50 35.10 13.05 14.95	26.60 35.20 13.15 15.05	26.62 35.22 13.17 15.07
20.	(a) Silver grey mosaic terrazo tiles (8" x 8" x $\frac{1}{4}$ ") flooring with $\frac{1}{4}$ " thick (finished) mosaic top with one part of marble chips and one part of mixture of white cement, marble dust and grey cement in proportion (1:1 $\frac{1}{2}$:3) machine pressed on cement mortar base (2:1) including preparing the base, setting the tiles in cement slurry and lime mortar with best quality lime and surki (1:3) polishing the top with pumice stone & finishing with oxalic acid & wax-polish in all floors (including supply of all materials.) (b) $\frac{3}{8}$ " thick (finished) —do— (in/c. supply of all materials). (c) $\frac{1}{2}$ " thick (finished) —do— (excluding the cost of marble chips, marble dust and white cement). (d) $\frac{1}{4}$ " thick (finished) —do— (excluding the cost of marble chips, marble dust and white cement)	per sft. per square foot. per sft. per sft.	24.05 30.00 14.25 15.45	24.15 30.10 14.35 15.55	24.17 30.12 14.37 15.57

Sl. No.	Description of items	Unit of rate	All Districts Except Barisal & Patuakhali		
			Barisal	Patuakhali	Patuakhali
21.	(a) Coloured mosaic terrazo tiles (8" x 8" x 3/4") flooring having 1/4" thick (finished) mosaic top with one part of marble chips and one part of mixture of white cement & marble dust in proportion (1:1) and necessary quantity of colouring materials machine pressed on cement mortar (2:1) base in/c. preparing the base, setting the tiles in cement slurry and lime mortar with best quality lime and surki (1:3) polishing the top with pumice stone and finishing with oxalic acid and wax-polish in all floors (including supply of all materials).	per sft.	29.40	29.50	29.52
		per square foot.			
		per sft.	38.00	38.10	38.12
		per sft.	15.95	16.05	16.07
22.	(b) 3/4" thick (finished) --do-- --do-- --do-- (including supply of all materials).	per sft.	17.80	17.90	17.92
		per sft.			
		per sft.			
22.	(c) 1/2" thick (finished) --do-- --do-- --do-- (excluding the cost of marble chips, marble dust and white cement).	per sft.	30.65	30.75	30.77
		per square foot.			
		per sft.	39.65	39.75	39.77
22.	(d) 3/4" thick (finished) --do-- --do-- --do-- (excluding the cost of marble chips, marble dust and white cement).	per sft.	17.45	17.55	17.57
		per square foot.			
		per sft.			

Sl. No.	Description of items	Unit of rate	Rate in Taka		
			All Districts Except Barisal & Patuakhali	Barisal	Patuakhali
22.	(d) $\frac{1}{2}$ " thick (finished) (excluding the coat of marble chips, marble dust and white cement)	per sft.	19.45	19.55	19.57
23.	3" thick reinforced brick work in cement mortar (4 : 1) with 2 Nos. $\frac{1}{4}$ " dia M. S. Rods at every 3rd layer, providing, bonds with connected walls in all floors in/c. curing etc. complete.	per % sft. per hundred square foot.	975.00	985.00	987.00
24.	Minimum $\frac{1}{2}$ " thick cement plaster (4 : 1) to dado & plinth wall upto 6" below ground level, neat cement finishing and finishing edges and corners and curing in all floors upto 3rd floors.	per sft.	338.00	350.00	352.00
25.	Minimum $\frac{1}{2}$ " thick cement plaster (6 : 1) to walls, both inner and outer surfaces, finishing corners and edges and curing in all floors upto 3rd floor.	per % sft. per hundred square foot.	278.00	301.00	304.00
26.	Minimum $\frac{1}{4}$ " thick cement plaster (4 : 1) to ceiling R. C. C. columns beams, surface of stair case, sunshades, cornices, railing, drop wall, louvers and fins in/c. cleaning the surfaces, finishing corners and edges and curing in all floors upto 3rd floor.	per % sft. per hundred square foot.	203.00	213.00	214.00
27.	Rules pointing to brick walls with cement mortar (2 : 1) raking out the joints and curing in all floors upto 3rd floor.	per % sft. per thousand square foot.	188.00	193.00	195.00
28.	White washing three coats with slaked lime, supply of gum, blue pigment and necessary cleaning before and after the wash for all floors upto 3rd floor.	per % sft. per thousand square foot.	190.00	190.00	190.00

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Rate in Taka

Sl. No.	Description of items	Unit of rate	All Districts Except Barisal & Patuakhali	Barisal	Patuakhali
29.	Colour wash with yellow ochre two coats over a prime coat of white wash with slaked stone lime, supply of gums, necessary cleaning before and after the wash for all floors upto 3rd floor.	per % sft. per thousand square foot.	300'00	300'00	300'00
30.	Reinforced concrete works (4 : 2 : 1) with cement, best quality coarse sand [3rd quantity of best local sand (F. M.-15) and 1/3rd quantity of Sylhet sand or coarse sand of equivalent (F. M.-25)] picked jhama chips, including breaking chips and screening, centering, shuttering, placing of rod in position, mixing the aggregates, casting in forms, compacting and curing (excluding the cost of reinforcement and its fabrication). In :— Individual and continuous footing of columns, rafts and floor slab at plinth level.	per cubic foot.	45'65	46'80	46'98
31.	Reinforced concrete works (4 : 2 : 1) with cement, best quality coarse sand [3rd quantity of best local sand (F. M.-15) & 1/3rd quantity of Sylhet sand or coarse sand of equivalent (F. M.-25)] picked jhama chips, including breaking chips, screening & centering shuttering placing of rod in position mixing the aggregates, casting in forms compacting and curing (excluding the cost of reinforcements and its fabrication). In :— Foundation beam.	per cubic foot.	50'65	51'80	51'98
32.	Reinforced concrete works (4 : 2 : 1) with cement best quality coarse sand [3rd quantity of best local sand (F. M.-15) and 1/3rd quantity of Sylhet sand or coarse sand of equivalent (F. M.-25)] picked jhama				

Sl. No.	Description of items	Unit of rate	Rate in Taka		
			All Districts Barisal & Patuakhali	Barisal	Patuakhali
32.	chips including breaking chips and screening, centering, shuttering, placing of rod in position, mixing the aggregates, casting in forms, compacting and curing (excluding the cost of reinforcement and its fabrication).				
	In:— Pedestals, columns, capitals, lift walls and walls.				
	(a) Below plinth level and in ground floor.	per cubic foot.	67-30	68-40	68-58
	(b) First floor.	do	68-30	69-40	69-58
	(c) Second floor.	do	69-30	70-40	70-58
	(d) Third floor.	do	70-30	71-40	71-58
32. A.	For Auditorium, Godown, over-head water tank which does not cover under the above item (item No. 32)				
	Description of the items is same as in item No. 32 above.				
	(Pedestals, columns, capitals, lift walls & walls).				
	(a) Below plinth level & in ground floor upto 14'-0" height.	per cubic foot.	67-30	68-40	68-58
	(b) For each additional foot of height beyond 14'-0" upto 42'-0" height.	do	0-32	0-32	0-32
	(For extra amount on height, the total height from the top of plinth level to the top of roof to be measured then 14'-0" ft. to be deducted).				
33.	Reinforced concrete works (4 : 2 : 1) with cement, best quality coarse sand [3rd quantity of best local sand (F. M.-15) 3rd quantity of Sylhet sand or coarse sand of equivalent (F. M.-25)] picked jhama chips, including breaking chips and screening, centering, shuttering, placing				

Sl. No.	Description of items	Unit of rate	Rate in Taka			
			All Districts except Barisal & Patuakhali	Barisal	Patuakhali	
33.	of rod in position, mixing the aggregates, casting in forms, compacting and curing (excluding the cost of reinforcement and its fabrication). In:— Tie Beams and lintels.					
(a)	Ground floor.	per cubic foot.	56.00	57.15	57.33	
(b)	First floor.	do	57.00	58.15	58.33	
(c)	Second floor.	do	58.00	59.15	59.33	
(d)	Third floor.	do	59.00	60.15	60.33	
34.	Reinforced concrete works (4:2:1) with cement best quality coarse sand [3rd quantity of best local sand (F. M.-15) 3rd quantity of Sylhet sand or coarse sand of equivalent (F. M.-of 25)] picked jhama chips in/c, breaking chips & screening, centering, shuttering placing of rod in position mixing the aggregates, casting in forms, compacting & curing (excluding the cost of reinforcement and its fabrication).					
	In:— Tee Beams Ell beams, Rectangular Beams. (Exposed breadth and width of ribs to be measured only).					
(a)	Ground floor.	per cubic foot.	66.75	67.90	68.08	
(b)	First floor.	do	67.75	68.90	69.08	
(c)	Second floor.	do	68.75	69.90	70.08	
(d)	Third floor.	do	69.75	70.90	71.08	

Sl. No.	Description of item	Unit of rate	Rate in Taka.		
			All Districts Except Barisal & Patuakhali	Barisal	Patuakhali
34. (A)	For auditorium, Godown, over-head water Tank or other type of tall structures which do not cover the above item (item No. 34) Description of the items is same as in item No. 34 above.				
	(a) Below plinth level in ground floor :—	per cubic foot.	66.75	67.90	68.08
	(b) For each additional foot of height beyond 14'-0" upto 20'-0" height.	do	1.50	1.50	1.50
	(c) For each additional foot of height beyond 20'-0" upto 42'-0" height. (For extra amount on height, the total height from the top of plinth level to the top of roof to be measured then 14'-0" ft. to be deducted).	do	1.60	1.60	1.60
35.	Reinforced concrete works (4 : 2 : 1) with cement best quality coarse sand [3rd quantity of best local sand (F. M. - 1.5) and 3rd quantity of Sylhet sand or coarse sand of equivalent (F. M. - 2.5)] picked jhama chips including breaking chips & centering, shuttering, placing of red in position, mixing the aggregates, casting in form, compacting & curing (excluding the cost of reinforcement & its fabrication). In :— Roof slab of all types, cantilever slabs and drop panels, excluding floor slab of ground floor at plinth level.				
	(a) Ground floor.	per cubic foot.	59.30	60.45	60.63
	(b) First floor.	do	60.30	61.45	61.63
	(c) Second floor.	do	61.30	62.45	62.63
	(d) Third floor.	do	62.30	63.45	63.63

Sl. No.	Description of items	Rate in Taka			
		Unit of rate	All Districts except Barisal & Patuakhali	Barisal	Patuakhali
35.	(A) For Auditorium, Godown, over-head water tank other type of all structures which do not cover the above item (item No. 35). Description of the items is same as in item-35 above. (a) For ground floor (upto 14'-0" height including plinth level.) (b) For each additional foot of height beyond 14'-0" upto 12'-0" height. (For extra amount on height, the total height from the top of plinth level to the top of roof to be measured then 14'-0" ft. to be deducted.)	per cubic foot. do	59.30 0.66	60.45 0.66	60.63 0.66
36.	Reinforced concrete works (4 : 2 : 1) with cement, best quality coarse sand [3rd quantity of best local sand (F. M.-1.5) and 3rd quantity of Sylhet sand or coarse sand of equivalent (F. M.-2.5)] picked jhina chips, including breaking chips and screening, centering, shuttering, placing of rod in position, mixing the aggregates, casting in forms, compacting & curing (excluding the cost of reinforcement & its fabrication). In :— Sunshades, cornices, railings, door walls, louver and fins for all floors upto third floors average 2 1/4" to 3 1/2" thick.	per sft.	18.85	19.15	19.20
37.	Reinforced concrete works (4 : 2 : 1) with cement, best quality coarse sand [3rd quantity of best local sand (F. M.-1.5) & 3rd quantity of Sylhet sand or coarse sand of equivalent (F. M.-2.5)] picked jhina chips in/c. breaking chips & screening, centering, shuttering, placing of rod in position, mixing the aggregates, casting in forms, compacting & curing (excluding the cost of reinforcement & its fabrication). In :— Stair case slabs & steps for all floors upto third floors.	per cubic foot.	62.75	63.58	64.03

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Rate in Taka

Sl. No.	Description of items	Unit of rate	All Districts Barisal & Patuakhali	Barisal	Patuakhali
38.	2 1/2" thick precast or cast in situ R.C.C. Jally work (4 : 2 : 1) with cement, best quality coarse sand (1/3rd quantity of best local sand (F. M. - 1-5) & 1/3rd quantity of Sylhet sand or coarse sand of equivalent (F. M. - 2-5)) picked Jhama chips including breaking chips, screening, making forms, mixing the aggregates, casting it with reinforcement in position, setting the Jally with cement mortar (4 : 1) for precast works & Minimum 3/4" thick cement plaster (4 : 1) for finishing the edge and corners (without the cost of M. S. Rod & fabrication) for all floors upto third floors.	per sft.	22-40	23-00	23-05
39.	Reinforced concrete works with a mix of proportion (3 : 1 1/2 : 1) to give a minimum of 3,000 psi, concrete strength of 6" dia & 12" long cylinder from a machine mixed typical batch with fresh cement, best quality coarse screen Sylhet sand of minimum (F. M. - 2-5) and 3/4" down graded crushed stone chips (including cost of breaking chips) in/c screening through proper sieves, cleaning & washing thoroughly, centering, shuttering, with M. S. sheet and steel forms, placing of reinforcement cage in position, mixing the aggregates in mixture machine, casing in steel forms using noxcrete, of similar suitable chemical, compacting by Mechanical Vibrators and tapered rods and curing as per direction of the Engineer-in-Charge, complete in all respects (excluding the cost of reinforcement & its fabrications), all R.C.C. surface to be fair face finished and smooth and no plastering will be permitted thereon .	per cubic foot.	57-85	57-95	58-15

(a) In :- individual & continuous footing of columns rafts and floor slab at plinth level.

Sl. No.	Description of items	Unit of rate	Rate in Taka		
			All Districts Except Barisal & Patuakhali	Barisal	Patuakhali
39.	(h) —do— in foundation beams.	per cubic foot.	62.55	62.95	63.15
	(c) —do— in pedestals, colonnades, capitals, lifts walls and walls.				
	(i) Below plinth level & in ground floors. ...	per cubic foot.	76.40	76.85	77.05
	(ii) First floor. ...	do	77.40	77.85	78.05
	(iii) Second floor. ...	do	78.40	78.85	79.05
	(iv) Third floor. ...	do	79.40	79.85	80.05
	(d) —do— —do— In Tee Beams and lintels. —				
	(i) Ground floor. ...	per cubic foot.	67.85	68.30	68.50
	(ii) First floor. ...	do	68.85	69.30	69.50
	(iii) Second floor. ...	do	69.85	70.30	70.50
	(iv) Third floor. ...	do	70.85	71.30	71.50
	(e) —do— —do— In Tee Beams, Beams, Rectangular Beams. (Exposed breadth and width of ribs to be measured only) :—				
	(i) Ground floor. ...	per cubic foot.	73.75	74.20	74.40
	(ii) First floor. ...	do	74.75	75.20	75.40
	(iii) Second floor. ...	do	75.75	76.20	76.40
	(iv) Third floor. ...	do	76.75	77.20	77.40
	(f) —do— —do— In roof slab of all types, cantilever, slabs & drop panels, excluding floor slab of ground floor at plinth level.				
	(i) Ground floor. ...	per cubic foot.	73.90	74.35	75.65

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Rate in Taka

Sl. No.	Description of items	Unit of rate	Rate in Taka		
			All Districts Except Barisal & Patuakhali	Barisal	Patuakhali
39.	(i) First floor. ...	per cubic foot.	74.90	75.35	76.65
	(ii) Second floor. ...	do	75.90	76.35	77.65
	(iii) Third floor. ...	do	76.90	77.35	78.65
	(g) do—do— In sunshades, cornices, railings drop walls, louvers, and fins for all floors upto third floors (Average 2½" to 3½" thick).	per square foot.	21.80	21.92	21.95
(h) do—do— In stair case slabs and steps for all floors upto third floors.	per cubic foot.	75.40	75.85	76.05	
40.	Reinforced concrete works (4:2:1) with cement, best quality coarse sand of equivalent (F. M. -200) picked jhama chips in/c. breaking chips and screening, centering, shuttering, placing of rod in position mixing the aggregates, casing in forms, compacting and curing (Excluding the cost of reinforcement and its fabrication). (When used with approval of the S. E. concerned) in inaccessible place for less important works and modern economically viable works etc.				
	(e) In individual and continuous footing of columns, rafts and floors slab at plinth level.	per cubic foot.	45.35	46.80	46.95
	(b) do—do— In foundation beams.	per cubic foot.	50.35	51.80	51.95
	(c) do—do— In pedestals, columns, capitals, lift walls and walls.				
	(i) Below plinth level & in ground floors. ...	per cubic foot.	67.00	68.45	68.60
	(ii) First floor. ...	do	68.00	69.45	69.60
	(iii) Second floor. ...	do	69.00	70.45	70.60
	(iv) Third floor. ...	do	70.00	71.45	71.60

Sl. No.	Description of items	Unit of rate	Rate in Taka		
			All Districts Except Barisal & Patuakhali	Barisal	Patuakhali
40.	(d) -do- -do- In Tee Beams and Lintels.				
	(i) Ground floor. ...	per cubic foot.	55'65	57'10	57'25
	(ii) First floor. ...	per cft.	56'65	58'10	58'25
	(iii) Second floor. ...	per cft.	57'65	59'10	59'25
	(iv) Third floor. ...	per cft.	58'65	60'10	60'25
	(e) -do- -do- In Tee Beams, Ell Beams, Rectangular Beam (Exposed breadth and width of ribs to be measured only).				
	(i) Ground floor. ...	per cubic foot.	66'40	67'85	68'00
	(ii) First floor. ...	per cft.	67'40	68'85	69'00
	(iii) Second floor. ...	per cft.	68'40	69'85	70'00
	(iv) Third floor. ...	per cft.	69'40	70'85	71'00
	(f) -do- -do- In Roof slab of all types, cantilever slabs drop panels excluding floor slab of ground floor at plinth level.				
	(i) Ground floor. ...	per cubic foot.	58'95	63'40	63'55
	(ii) First floor. ...	per cft.	59'95	64'40	64'55
	(iii) Second floor. ...	per cft.	60'95	65'40	65'55
	(iv) Third floor. ...	per cft.	61'95	66'40	66'55
	(g) -do- -do- In sunshades, cornices, railings, drop walls, louvers & fins for all floors upto 3rd floors (average 2½" to 3½" thick).				
	(h) -do- -do- In stair case slabs and steps for all floors upto 3rd floor.	per sqft.	18'75	19'05	19'05
		per cubic foot.	62'45	63'90	64'05

Sl. No.	Description of items	Unit of rate	Rate in Taka		
			All Districts - Except Barisal & Patuakhali	Barisal	Patuakhali
40.	(1) 2½" thick precast or cast in situ R. C. C. Jally work (4 : 2 : 1) with cement, best quality coarse sand of equivalent (F. M. - 200) picked jhama chips including breaking chips, screening, making forms, mixing the aggregates, casting it with reinforcement in position setting the jally with cement mortar (4 : 1) for precast work and minimum ½" thick cement plaster (4 : 1) finishing the edge and corners (without the cost of M. S. Rod and its fabrication) all floors upto 3rd floors.	per square foot.	22.35	22.50	22.55
41.	Supplying, fabrication and fixing to details as per design mild steel rod reinforcement in concrete or brick work or wherever prescribed with straightening and cleaning the rust if any binding in position with supply of wires, for all floors upto third floors.	per cwt.			
42.	Supplying and laying of single layer polythene sheet weighing one pound per thirty square feet in floor below cement concrete reinforced concrete slab etc. complete in all respects as per direction of the Engineer-in-charge.	per hundred weight.	790.00	790.00	790.00
43.	Constructing expansion joints, 1½" gaps in R. C. slabs or beams with 10' high shoulders on both side of the gaps, cast monolithic providing copper sheet with loop notch and inserted 6" in concrete shoulder, the gap being filled up with mixture of hot bitumen and sand (2 : 1) with surface finished with minimum ½" cement plaster (4 : 1) and curing in all floors upto third floors.	per % sft. per hundred square foot.	155.00	155.00	155.00
44.	Precast ventilators (1" thick) of any design with cement mortar (2 : 1) fitted and fixed in position, finished with cement plaster (6 : 1) and curing in all floors.	per rft. per running foot. per square foot.	149.00	150.55	150.75
			23.00	23.40	24.55

Sl. No.	Description of items	Unit of rate	Rate in Taka		
			All Districts except Barisal & Patuakhali	Barisal	Patuakhali
45.	Constructing 1'-6" clear width depth up to 12" brick masonry surface drain with 5" thick check wall in cement mortar (6:1) on 3" thick cement concrete base (6:3:1) over one layer of brick flat soling the surfaces having a minimum ½" thick cement plaster (3:1) and neat cement finishing curing in/c. excavation of all kinds of soils, back filling with fine sand consolidating & dressing.	per rft.	56'00	56'90	57'05
46.	Constructing surface drain of 2'-0" (av.) depth & 9" clear width at the bottom and 1'-9" at the top having 5" thick cement concrete (4:2:1) curb up to 1'-0" from the bottom and the side slopes of the remaining 1'-0" height provided with 5" thick lat class brick work in cement mortar (6:1) including minimum ½" thick cement plaster (3:1) and neat cement finishing the surfaces and the back of the drain up to 6" below ground level and curing including excavation of all kinds of soil, back filling with sand, consolidating & dressing.	per rft.	106'60	110'00	110'30
47.	(a) Av. 4" thick beaten lime terracing (7:2:2) on roof slab, mixing, laying to slopes and consolidating making ghordy, neat finishing with ½" thick lime mortar (2:1) and curing. (b) Av. 2½" thick (half lime terracing) --do-- (c) Renewing ½" thick water proofing for inclined roof only with premixed bituminous emulsion over the roof surface one layer of Henson cloth 12/OZ/Yd. over a tack coat @ 15 lbs. per % sft. of the roof surface then providing one coat bituminous paint over the Hessian cloth @ 25 lbs. per % sft., ½" thick premixed bituminous carpeting @ 4 cft.	per % cft. per hundred cubic foot. per % cft.	3833'00 4188'00	3833'00 4188'00	3833'00 4188'00

Sl. No.	Description of items	Unit of rate	All Districts except Barisal & Patuakhali	Barisal	Patuakhali
47. (c)	Sunamganj sand (F. M.-25) to be mixed with 20 lbs. of hot bitumen per % sft. and laying the same over % sft. of roof surface in/c. maintaining proper slopes and grade then applying bituminous seal coat @ 10 lbs. per % sft. after 24 hours 1 (one) cft. of dry Sunamganj sand (F. M.-25) to be applied per % sft. of roof surface etc. complete in all respect including proper compacting with kunny to make it harden as per direction of the Engineer-in-charge in/c. cleaning mosses from the existing roof surface before applying the water proofing etc. all complete.	per hundred square foot.	600-00	600-00	600-00
48.	3" cornice of brick Masonry 3" thick in cement mortar (6:1) having minimum $\frac{1}{4}$ " thick cement plaster (6:1) and curing for all floors upto third floor.	per running foot.	6-25	6-70	6-75
49.	Supplying 1/2" dia Mild steel rod, fabrication and fixing in position in all floors.	Each.	24-00	24-00	24-00
50.	Supplying 4" dia iron rain water down pipes fitted and fixed in position with sockets, head and shoe bends, clamps and nails for all floors upto third floors.	per running foot.	65-35	65-35	65-35
51.	Supplying 4" dia best quality R. C. rain water down pipes fitted and fixed in position with sockets, head and shoe bends, clamps and nails for all floors upto third floors.	per running foot.	20-00	20-00	20-00
52.	Supplying 4" dia asbestos rain water down pipes fitted & fixed in position with sockets, head and shoe bends, clamps and nails for all floors upto third floors.	per running foot.	44-25	44-25	44-25

Sl. No.	Description of items	Unit of rate	Rate in Taka.		
			All Districts Except Barisal & Patuakhali	Barisal	Patuakhali
53.	Providing bearing joints fixed or free with 10" x 15" x 3/4" M. S. shoe plate fitted in the truss, angles with 3/4" dia M. S. Rod counter sunk rivets and anchored to 10" x 15" x 3/4" M. S. Sole plate by two Nos. 3/4" dia M. S. "U" Rod embedded in the bed of the lintel around the reinforcement clearing and greasing the joints for all floors upto 3rd floors.	Each.	500.00	500.00	500.00
54.	(a) 24 B. W. G. galvanized iron corrugated sheet roofing, fitted and fixed on M. S. Sections or wooden purline with screws, limpet washers and putty etc. all complete. (b) Supplying, fitting & fixing 1/2" thick corrugated Asbestos sheet roofing, end lapping of sheet not less than 6", fitted and fixed on 3" x 3" size well seasoned garjan wood purlins and fixed with 1/2" dia G. I. anchor hook with necessary wooden block as per required size in/c. supplying necessary nuts, bolts, nails, washers etc. complete as per direction of the Engineer-in-charge.	per % sft. per hundred square foot.	1985.00	1985.00	1985.00
55.	Galvanized iron plain sheet ridging with 12" lap on either side fitted and fixed with galvanized bolts & nuts etc. complete.	per square foot. per running foot.	37.00	37.00	37.00
56.	Mild steel work in roof truss, supplying and fabrication of mild steel sections as per design, hoisting fitting, fixing in position with bolts and nuts or rivets or welded and providing two coats of anticorrosive paint over a prime coat of red oxide paint (measurement to be given for solid steel section).	per cwt.	1045.00	1045.00	1045.00

(47)

Sl. No.	Description of items	Unit of rate	Rate in Taka		
			All Districts Except Barisal & Patuakhali	Barisal	Patuakhali
57.	Wood work in door and window frames, painting two coats of coalter to the surface in contact with walls, fitted and fixed in position mending good the damages if any.				
(a)	--do-- Jam, Garjan, Sundari wood.	per cubic foot.	248-00	248-00	248-00
(b)	--do-- Kathal wood.	do	281-00	281-00	281-00
(c)	--do-- Jarul wood.	do	336-00	336-00	336-00
(d)	--do-- Local Sal wood (Modhupur).	do	336-00	336-00	336-00
(e)	--do-- Telshu wood.	do	391-00	391-00	391-00
(f)	--do-- Silkarai wood.	do	314-00	314-00	314-00
58.	Supplying, fitting & fixing M. S. Flat bar clamp 1" x 3" x 1/4" x 1/4" bifurcated ends to door and window frames with screws encasing inside the wall with cement concrete (4 : 2 : 1).	per piece.	21-00	21-00	21-00
59.	Labour for driving wooden bullah piles in foundation to depth as per design by any system with the arrangement of slinging & hoisting (the dia of the piles being between 5" & 6" measured at 5" from the thin end).	per rft.	9-00	9-00	9-00
60.	Labour for wood work in door and window frames, painting two coats of coalter to the surface in contact with the walls, fitted and fixed in position, mending good the damages if any.	per cft.	62-00	62-00	62-00
61.	Supplying, fitting & fixing 1 1/2" thick solid wood door shutter having closed joints and provided with best quality 3 Nos. 4" iron hinges, 2 (two) Nos.				

(48)

Sl. No.	Description of items	Unit of rate	Rate in Tahn		
			All Districts Except Barisal & Patuakhali	Barisal	Patuakhali
61.	best quality $\frac{1}{2}$ " dia 1'-0" and 9" long iron tower and socket bolts, heavy type brass handle, hinged cleats, buffer blocks and finished with sand papering for all floors. (Single leaf door).	per square foot.	49.00	49.00	49.00
	(a) Kathal wood.	do	53.35	53.35	53.35
	(b) Silkarai wood.	do	53.35	53.35	53.35
	(c) Gammar.	do	92.30	92.30	92.30
	(d) C. T. wood.	do	164.45	164.45	164.45
	(e) B. T. wood.	do	54.80	54.80	54.80
	(f) Chapalish wood.	do	60.55	60.55	60.55
	(g) Teak Chambal wood.	do			
62.	Supplying, fitting & fixing $1\frac{1}{2}$ " thick wood flush door shutter having a frame of top, lock and bottom rails of section $4" \times 1\frac{1}{2}"$, styles $4" \times 1\frac{1}{2}"$ covered with $4" \times 1\frac{1}{2}"$ plank screwed to each face and provided with best quality 3 Nos. 4" iron hinges, 2 (two) Nos. best quality 1'-0" and 9" long iron tower and socket bolts, heavy type brass handles, hinged cleats, buffer blocks and finished with sand papering for all floors (single leaf door).	per square foot.	45.00	45.00	45.00
	(a) Kathal wood.	do	43.60	48.60	48.60
	(b) Silkarai wood.	do	48.60	48.60	48.60
	(c) Gammar wood.	do	80.66	80.66	80.66
	(d) C. T. wood.	do	140.00	140.00	140.00
	(e) B. T. wood.	do	50.00	50.00	50.00
	(f) Chapalish wood.	do	54.50	54.50	54.50
	(g) Teak Chambal wood.	do			

Sl. No.	Description of items	Unit of rate	Rate in Taka		
			All Districts Except Barisal & Patuakhali	Barisal	Patuakhali
63.	Supplying, fitting & fixing 1½" thick wood panel door shutter, top rail and styles of section 4" x 1½", lock rail 5" x 1½" and bottom rail 9" x 1½" panelling 1½" thick both sides raised, provided with best quality 3 Nos. 4" iron hinges, 2 (two) Nos. best quality ¾" dia 1'-0" and 9" long iron tower and socket bolts, heavy type brass handle hinged cleats, buffer blocks and finished with sand papering for all floors (Double leaf).				
(a)	--do--	per square foot.	56.60	56.60	56.60
(b)	--do--	do	61.60	61.60	61.60
(c)	--do--	do	61.60	61.60	61.60
(d)	--do--	do	106.80	106.80	106.80
(e)	--do--	do	190.70	190.70	190.70
(f)	--do--	do	63.30	63.30	63.30
(g)	--do--	do	70.00	70.00	70.00
64.	Supplying, fitting & fixing 1½" thick wood panel door shutter, top rail and styles of section 4" x 1½", lock rail 5" x 1½" & bottom rail 9" x 1½", panelling 1" thick one side raised, provided with best quality 3 Nos. 4" iron hinges, 2 (two) Nos. best quality ¾" dia 1'-0" and 9" long tower & socket bolts, heavy type brass handle hinged cleats, buffer blocks and finished with sand papering for all floors. (Double leaf).				
(a)	--do--	per square foot.	48.95	48.95	48.95
(b)	--do--	do	53.15	53.15	53.15

Sl. No.	Description of items	Unit of rate	Rate in Taka			
			All Districts Except Barisal & Patuakhali	Barisal	Patuakhali	
64.	(c) --do-- (d) --do-- (e) --do-- (f) --do-- (g) --do--	p: r square foot. do do do do	53-15 161-30 91-00 54-55 60-15	53-15 161-30 91-00 54-55 60-15	53-15 161-30 91-00 54-55 60-15	
65.	Supplying, fitting & fixing 1" thick Kathal wood door and window shutters having 3" x 1" 'Z' battens, provided with best quality 3 Nos. 4" iron hinges, 2 (two) Nos. 2½" dia iron ring fitted with nuts, 2 Nos. 1'-0" and 9" iron tower bolts and socket bolts (½" dia), hinged cleats, buffer blocks and finished with sand papering for all floors.	per square foot.	39-60	39-60	39-60	
66.	Supplying, fitting & fixing 1½" thick wood glazed window shutters having horizontal and vertical sections of 3½" x 1½" and sash bar 1½" x 1½" fitted with 3 m. m. glass panes with putty and nails and provided with best quality ½" dia 9" and 6" long iron tower and socket bolts brass handle, 9" long catch hooks or hinged cleats, buffer blocks and finished with sand papering for all floors.	per square foot.	49-90 52-55 52-55 76-50 120-80 53-45 57-00	49-90 52-55 52-55 76-50 120-80 53-45 57-00	49-90 52-55 52-55 76-50 120-80 53-45 57-00	
	(a) --do-- (b) --do-- (c) --do-- (d) --do-- (e) --do-- (f) --do-- (g) --do--					

(51)

Rate in Taka.

Sl. No.	Description of items	Unit of rate	All Districts except Barisal & Patuakhali	Barisal	Patuakhali
67.	Supplying, fitting & fixing of 1½" thick wood window shutters, one third glazed & 1½" thick two third both sides raised panelling having horizontal vertical sections of 3½" x 1½" and sash bars 1½" x 1½" fitted with 3 m. m. glass panes with putty & rails and provided with best quality 4" iron hinges 4 (four) Nos. best quality ½" dia 9" long iron tower and socket bolts, brass handle, 9" long catch hooks or hinged cleats, buffer blocks and finished with sand papering for all floors.				
(a)	--do--	per square foot.	53.15	53.15	53.15
(b)	--do--	do	57.45	57.45	57.45
(c)	--do--	do	57.45	57.45	57.45
(d)	--do--	do	91.20	91.20	91.20
(e)	--do--	do	168.25	168.25	168.25
(f)	--do--	do	58.90	58.90	58.90
(g)	--do--	do	64.65	64.65	64.65
68.	Extra for using brass fittings in place of iron fittings in doors and windows for all floors.				
(a)	For Doors :--	per square foot.	5.50	5.50	5.50
(b)	For Windows :--	do	5.00	5.00	5.00
69.	Supplying, fitting & fixing window grills made of ½" dia M. S. rods @ 4" C/C, fitted with M. S. plate (1½" x 1½") three Nos. horizontal including fabrication, welding or re-velting and painting two coats of paint, over a coat of priming for all floors.				
		per square foot.	40.70	40.70	40.70

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Sl. No.	Description of items	Unit of rate	Rate in Taka			
			All Districts except Barisal & Patuakhali	Barisal	Patuakhali	
70.	Supplying, fitting & fixing window grills of any design made of mild steel section ($2\frac{1}{2}'' \times \frac{1}{2}''$) with outer frame of F. I. bar ($1'' \times \frac{1}{4}''$), fabricating, welding, painting with two coats of paint, over a coat of priming for all floors.	per square foot.	40-90	40-90	40-90	
71.	Supplying, fitting & fixing steel glazed window shutter with frames as per design having $2\frac{1}{4}'' \times 3\frac{1}{4}'' \times \frac{1}{4}''$ 'Z' section in frame and 'T' section for horizontal dividers of shutters and $1'' \times \frac{1}{4}''$ F. I. bar for middle vertical members of frames including all cost of charges for fabrication and manufacture by welding, re-venetting etc. supplying all essential fittings like stopper, handle 12'' long, adjustable cleats, iron pins, hinges, clamps, for fitting frame including supplying and fitting, fixing 3 m. m. glass panes by pucca putty and painting the window two coats of synthetic enamel paint over a coat of anticorrosive priming, making necessary holes in walls and R. C. C. works as necessary filling with C. C. (4 : 2 : 1) and mending good the damages including all cost of carriage and labour in fitting, fixing etc. complete as per direction of the Engineer-in-charge and as per drawing and design.	per square foot.	97-65	97-65	97-65	97-65
72.	Wood work in frames of roof truss with wall plates as per design supplying, fabricating, hoisting, fitting & fixing in position with bolts and nuts etc. complete.	per square foot.	253-00	253-00	253-00	253-00
(a)	--do--	--do--	319-00	319-00	319-00	319-00
(b)	--do--	--do--	396-00	396-00	396-00	396-00
(c)	--do--	--do--	341-00	341-00	341-00	341-25
(d)	--do--	--do--	341-00	341-00	341-00	341-20
(e)	--do--	--do--				

Sl. No.	Description of items	Unit of rate	Rate in Taka		
			All Districts Except Barisal & Patuakhali	Barisal	Patuakhali
73.	Painting to door and window frames & shutters, two coats with synthetic enamel ready mixed paint of best quality and approved colour over a coat of priming including finishing and polishing with sand paper.	per % sft. per hundred square foot.	255.00	255.00	255.00
74.	Oil bound distemping two coats over a coat of priming of chalk wash with glue including cleaning and sand papering the surface.	per % sft.	180.00	180.00	180.00
75.	Plastic painting of best quality and approved colour to walls and ceiling three coats with putty work cleaning and sand papering the surface.	per % sft.	210.00	210.00	210.00
76.	French polishing to door and window frames and shutter three coats over a coat of priming including finishing and polishing with sand paper.	per % sft.	225.00	225.00	225.00
77.	(a) Snow cem washing of approved quality and colour (Bangladeshi made) 2 coats over a coat of priming including cleaning and sand papering the surface etc. all complete in all respect. (b) —do— —do— —do— (Foreign made) —do— —do— —do—	per % sft. per % sft.	175.00 264.00	175.00 264.00	175.00 264.00
78.	Providing barbed wire fencing with R. C. C. (4 : 2 : 1) pillars @ 8'-0" C/C. and of section 0'-4" x 0'-4" at top and 0'-6" x 0'-6" at bottom of 7'-0" total height 4'-6" above G. L. and 2'-6" below G. L. including 0'-6" thick 1'-6" square spread footings. (pillars reinforced with 4 Nos. 3/4" dia main rods and 1/2" dia stirrups @ 6" C/C. footing reinforced with 5 Nos. 3/4" dia rods both ways) supplying, fitting & fixing 8 lines of	per % sft.	264.00	264.00	264.00

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Sl. No.	Description of items	Unit of rate	Rate in Taka		
			All Districts Except Barisal & Patuakhali	Barisal	Patuakhali
78.	barbed wire horizontally (fixed with the post through $\frac{1}{4}$ " dia rods embedded into the post) and two lines diagonally from post to post with 12 B. W. G. 2 ply barbed wire, with 4 points barbs @ at least $4\frac{1}{2}$ " C/C. including $\frac{1}{4}$ " thick (4:1) cement plaster upto 5'-0" length of the pillars etc. complete as per direction of the Engineer-in-charge.	per foot of fence.	46.65	46.65	46.65
79.	Providing barbed wire fencing with average 4" dia salbullah post of 6'-6" total height (4'-6" above G. L. & 2'-0" embedded in the ground) placed at 6'-0" C/C. with 9 Nos. horizontal lines and 2 Nos. diagonal lines of 12 B. W. G. 2 ply barbed wire with 4 points barbs @ at least $4\frac{1}{2}$ " C/C. in each way of 6'-0" including digging holes and embedding the post tightly in ground stretching the wires and fixing with the post with the help of minimum 2 $\frac{1}{2}$ " long G. I. nails and supply of all materials etc. complete as per direction of the Engineer-in-charge.	per foot of fence.	24.85	24.85	24.85
80.	Providing apron with 2" thick cement concrete (4:2:1) with cement, coarse sand and picked jhama chips in/c. breaking chips and one layer of brick flat soling at bottom with 1st class or picked jhama bricks including cutting earth for preparation of bed and filling the interstices with local sand including finishing the top surface with neat cement finishing, curing etc. all complete.	per % sft. per hundred square foot.	1297.00	1305.00	1310.00
81.	Providing drip course/nosing/throating at the edge of sunshade or cornice with cement mortar (2:1) including, scaffolding, curing etc. complete for all floors.	per rft. per running foot.	3.40	3.40	3.40

—: E N D :—

ROAD & PAVEMENT WORKS

MISCELLANEOUS ITEMS

F-15

(57)

Sl. No.	Description of items	Unit of rate	Rate in Taka		
			All Districts, Except Barisal & Patuakhali	Barisal	Patuakhali
1.	Earth work in road embankment upto a lift of 5'-0" in all kinds of soil including cutting & throwing earth in layers not exceeding 6" in thickness, breaking clods upto 1 1/2" size in each layer, tamping, levelling & dressing as per required side slope with earth borrowed from the road side Govt. acquired land for all leads and maintaining the embankment true to level and side slopes as per profile for one year from the date of completion as per direction of the Engineer-in-charge, including making dug bailing, profiling etc. complete.				
	(a) For initial lift of 5'-0"	per %o cft.	344-00	344-00	344-00
	(b) For additional lift of 3'-0" from 5'-0" upto 8'-0"	do	385-00	385-00	385-00
	(c) For additional lift of 3'-0" from 8'-0" upto 11'-0"	do	426-00	426-00	426-00
	(d) For additional lift of 3'-0" from 11'-0" upto 14'-0"	do	467-00	467-00	467-00
	(e) For additional lift of 3'-0" from 14'-0" upto 17'-0"	do	509-00	509-00	509-00
	(f) For additional lift of 3'-0" from 17'-0" upto 20'-0"	do	550-00	550-00	550-00
2.	(a) Earth work in box cutting upto 1'-0" depth & in all types of soil, removing soils to a safe distance, maintaining proper camber and grade as per drawing and as per direction of the Engineer-in-charge.	per % sft.	41-00	41-00	41-00
	(b) —do— upto 1'-6" depth	do	55-00	55-00	55-00
3.	Turfing the side slopes and top of embankment with good quality turf not less than 9" square, watering till the grass grown including all leads and lifts etc. complete.	per %o sft.	147-00	147-00	147-00

(58)

Rate in faka

Sl. No.	Description of items	Unit of rate	All Districts Except Barisal & Patuakhali	Barisal	Patuakhali
4.	Single brick flat soling with 1st class or picked jhama bricks as per camber and grade including filling joints with sand (F. M.—0-50) complete as per direction of the Engineer-in-charge including cost of all materials.	per % sft.	453'00	453'00	453'00
5.	Brick on edges pavement in Herring bone bond with 1st class or picked jhama bricks as per camber and grade over ½" thick sand cushion (F. M.—0-50) including filling the joints with the same sand in/c. cost of all materials.	per % sft.	738'00	738'00	738'00
6.	Double brick flat soling with 1st class or picked jhama bricks as per camber & grade and filling the joints with fine sand (F. M.—0-50) & also providing 1" thick sand cushion in between the two flat layers of bricks with the same quality of sand including cost of all materials.	per % sft.	928'00	928'00	928'00
7.	Brick on end edging (3" across the road) with 1st class or picked jhama bricks & filling the gaps with fine sand (F. M.—0-50), cutting trenches, removing earth, filling and rearming the sides properly as per direction of the Engineer-in-charge including cost of all materials.	per % sft.	375'70	375'70	375'70
8.	Breaking picked jhama, 1st class bricks or bats including cost of bricks and bats and stacking in measurable sizes at site as per direction of the Engineer-in-charge.				
	(a) For 2½'—1½' size.	per % cft.	1218'00	1218'00	1218'00
	(b) For 1½'—1" size.	do	1216'00	1246'00	1216'00

(59)

Sl. No.	Description of items	Unit of rate	Rate in Taka		
			All Districts Except Barisal & Patuakhali	Barisal	Patuakhali
9.	Labour for compacted water bound Macadam base course with graded metal of crushed well burnt, picked jhama 1st class bricks & bats having compacted thickness made as per specifications including local handling and spreading uniformly to proper grade, camber and super-elevation, hand packing, rolling properly with 8 to 10 ton power driven Road Roller and watering profusely for proper consolidation. Bijniding with binding materials etc. all complete as per direction of the Engineer-in-charge.	per % cubic foot.	121.00	121.00	121.00
10.	(a) 2" compacted premixed bitumenous carpeting with specified graded stone chips @ 21 cft. of stone chips mixed with 84 lbs of heated bitumen per cft. of stone chips spread uniformly over the 100 sft. of surface, rolled with 8 to 10 ton Roller compacted fully in proper grade & camber spreading 4 cft. sand (F.M.—150) on % sft. etc. all complete as per direction of the Engineer-in-charge.	per % sft.	961.00	972.00	973.00
	(b) 1½" thick compacted premixed bitumenous carpeting with specified graded stone chips @ 15.70 cft. of stone chips mixed with 63 lbs. of heated bitumen per cft. of stone chips, spread uniformly over 100 sft. of surface rolled with 8 to 10 ton Roller compacted fully in proper grade and camber and spreading 4 cft. sand (F.M.—150) on % sft. etc. all complete as per direction of the Engineer-in-charge.	per % sft.	765.00	778.00	779.00
	(c) 1" thick compacted				
	--do--				
	--do-- 42 lbs.				
	--do-- @ 10.50 cft.				
	--do--				
	--do--		532.00	540.00	542.00

Sl. No.	Description of items	Unit of rate	Rate in Taka		
			All Districts - except Barisal & Patuakhali	Barisal	Patuakhali
11.	Providing tack coat @ 15 lbs. of bitumen per % sft. 10/c. heating bitumen upto 350 °F to 370 °F and spreading etc. all complete (cost of bitumen included).	per % sft.	93-00	93-00	93-00
12.	Providing seal coat @ 15 lbs. of bitumen per % sft. of road surface including supplying and spreading of 3 cft. of sand (F. M.—1-50) heating bitumen upto 350 °F to 375 °F and spreading etc. all complete (cost of bitumen included) as per direction of the Engineer-in-charge.	per % sft.	114-50	125-00	126-00
13.	Premixed bitumenous seal coat with 4 cft. of pea gravels mixed with 5 lbs. of bitumen per cft. of pea gravel and laid over % sft. of road surface including spreading with proper camber and grade and blinding with dry sand (F. M.—2-5) @ 3 cft. for % sft. including cost of all materials rolling with 8 to 10 tons power driven Roller etc. all complete as per direction of the Engineer-in-charge.	per % sft.	246-00	250-00	251-00

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Sl. No.	Description of items	Unit of rate	Rate in Taka		
			All Districts Barisal & Patuakhali	Barisal	Patuakhali
1.	Earth work in excavation of tank of any dimension in all kinds of soil including cutting upto required depth including bailing out water and throwing on the embankment in 9" layer, breaking clods rramming and levelling, dressing with maintaining the side slope and level of both tank and the embankment as per design and direction of the Engineer-in-charge.				
	(a) Initial lead of 100'-0" and lift of 5'-0"	per % ^o cft. per thousand cubic foot,	344.00	344.00	344.00
	(b) For each additional lift of one foot beyond 5'-0" and upto 10'-0"	do	17.00	17.00	17.00
	(c) For each additional lift of one foot beyond 10'-0" and within 15'-0"	do	25.00	25.00	25.00
	(d) For each additional lift of one foot beyond 15'-0" and upto 20'-0"	do	33.00	33.00	33.00
	(e) Extra for each additional lead of 100' or part thereof beyond initial lead: 100'-0"	do	55.00	55.00	55.00

-- END --

SANITARY AND WATER SUPPLY ITEMS

Item No.	Description	Quantity	Unit	Price	Total
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Sl. No.	Description of items	Unit of rate	Rate in Taka		
			All Districts Barisal & Patuakhali	Barisal	Patuakhali
1.	Supplying, fitting and fixing European type white glazed porcelain commode "p" or "S" type "SUPER" (525 x 370 x 420 mm.) "Bangladesh made" with low down white vitreous China Cistern in/c. all internal fittings with abnrite (heavy type) plastic seat cover, $\frac{1}{2}$ " dia C. P. stop cock, $\frac{1}{2}$ " dia plastic pipe with brass coupling and preparing the base with cement concrete and with wire net or rcd, if necessary, in all floors including making holes wherever required and mending good the damages and fitting, fixing complete with all necessary fittings, and connection as per direction of the Engineer-in-charge:—				
	(a) Do— —do— White "SUPER" —do— —do—	each.	3,428.00	3,428.00	3,428.00
	(b) Do— —do— Coloured "SUPER" —do— —do—	each.	3,985.00	3,985.00	3,985.00
2.	Supplying, fitting and fixing Bangladesh pattern "SUPER" 20" long pan (515 x 420 mm.) (Orissa type pan with foot rest and syphone) "Bangladesh made" with white vitreous China, preparing the base of pan in cement concrete with wire net or rods, if necessary in all floors where necessary and mending good the damages and supplying 3 gallons capacity C. I. cistern and fitting, fixing the same in position with C. I. brackets, including, supplying of 1 $\frac{1}{2}$ " dia P. V. C. flush pipe with brass coupling, (not exceeding 6'-0" in length) $\frac{1}{2}$ " dia plastic connection pipe with brass coupling, $\frac{1}{2}$ " dia brass stop cock, $\frac{1}{2}$ " dia ball cock and pulling chain etc. all complete as per direction of the Engineer-in-charge:—				
	(a) Do— —do— White "SUPER" —do— —do—	each.	1,802.00	1,802.00	1,802.00
	(b) Do— —do— Coloured "SUPER" —do— —do—	each.	2,016.00	2,016.00	2,016.00

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Rate in Taka

Sl. No.	Description of items	Unit of rate	All Districts Except Barisal & Patuakhali	Barisal	Patuakhali
3.	Supplying fitting and fixing Bangladesh pattern "SUPER" 21" long pan (Tapered 530 x 302 mm.) Simple type "Bangladesh made" with white vitreous China, including Syphone, preparing the base of pan in cement concrete with wire net or rods if necessary in all floors including making holes in walls and floors where necessary and mending good the damages and supplying 3 gallon capacity C. I. cistern and fitting fixing the same in position with C. I. brackets including supplying of 1 1/2" dia PVC flush pipe with brass coupling (not exceeding 6'-0" in length), 1/2" dia plastic connection pipe with brass coupling, 1/2" brass stop cock, 1/2" dia ball cock and pulling chain etc. all complete as per direction of the Engineer-in-charge.				
(a)	Do— do— White "SUPER"	each.	1,315.00	1,315.00	1,315.00
(b)	Do— do— Coloured "SUPER"	each.	1,399.00	1,399.00	1,399.00
(c)	Do— do— White "SUPER" 23" long pan (580 x 265 mm)	each.	1,279.00	1,279.00	1,279.00
(d)	Do— do— Coloured "SUPER" 23" long pan (580 x 262 mm)	each.	1,355.00	1,355.00	1,355.00
4.	Supplying "SUPER" quality (Bangladesh Made) white glazed porcelain footrest (265 x 135 x 30 mm.) (10 1/2" x 5 1/4" x 1 1/8" size) including fitting, fixing in position.				
(a)	Do— do— White "SUPER"	per pair.	131.50	131.50	131.50
(b)	Do— do— Coloured "SUPER"	per pair.	155.00	155.00	155.00

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Rate in Taka

Sl. No.	Description of items	Unit of rate	All Districts Except Barisal & Patuakhali		
			Barisal	Barisal	Patuakhali
5.	Supplying, fitting and fixing "SUPER" white glazed vitreous W/H Basin (Bangladesh Made) of 22" x 16" size (565 x 410 mm) including fitting fixing the same in position with heavy type C.I. brackets, 1 1/4" dia PVC waste water pipe with brass coupling, (not exceeding, 2'-6" in length), 1/2" dia plastic connection pipe with brass coupling, 1/2" dia brass stop cock, 1/2" dia chromium plated pillar cock, 1 1/4" dia C.P. Basin waste with Chinu plug in/c. making holes in walls and fitting with wooden blocks, screws and mending good the damages, etc. all complete as per direction of Engineer-in-charge.	each.	1,138-00	1,138-00	1,138-00
	(a) Do-- --do-- White "SUPER" --do-- --do--	each.	1,301-00	1,301-00	1,301-00
	(b) Do-- --do-- Coloured "SUPER" --do-- --do--				
6.	Supplying, fitting and fixing "SUPER" quality (Bangladesh Made) pedestal (size 600 x 220 x 210 mm)	each.	901-00	901-00	901-03
	(a) Do-- --do-- White "SUPER" --do-- --do--	each.	1,080-00	1,080-00	1,080-00
	(b) Do-- --do-- Coloured "SUPER" --do-- --do--				
7.	Supplying, fitting and fixing "SUPER" European type white glazed vitreous standing urinals (497 x 384 mm) (Bangladesh Made) in/c. fitting, fixing the same in position after making holes in walls and floors, providing 1 1/4" dia plastic waste pipe with brass coupling upto grading below, 1/2" dia plastic connection pipe with brass coupling, 1/2" dia brass stop cock, including mending good the damages etc. all complete as per direction of the Engineer-in-charge.	each.	855-00	855-00	855-00
	(a) Do-- --do-- White "SUPER" --do-- --do--	each.	988-00	988-00	988-00
	(b) Do-- --do-- Coloured "SUPER" --do-- --do--				

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Rate in Taka.

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Sl. No.	Description of items	Unit of rate	All Districts Except Barisal & Patuakhali	Barisal	Patuakhali
8.	Supplying, fitting and fixing "SUPER" white glazed vitreous China squatting or Flat Urinals (597 x 355 mm) (Bangladesh made) with flashing inlet fitted in cement concrete with cast iron painted body ; one gallon automatic flushing cistern in each group etc. $\frac{1}{2}$ " brass controlling valve, $1\frac{1}{2}$ " dia PVC. flush pipe with brass coupling, $\frac{1}{2}$ " dia plastic connection pipe including mending good the damages etc. all complete as per direction of the Engineer-in-charge.	each.	1,572-00	1,572-00	1,572-00
(a)	Do— —do— White "SUPER" —do— —do—	each.	1,771-00	1,771-00	1,771-00
(b)	Do— —do— Coloured "SUPER" —do— —do—	each.	1,771-00	1,771-00	1,771-00
9.	Supplying, fitting and fixing (508 x 381 x 279 mm. size) "SUPER" porcelain sink (Bangladesh made) fitted and fixed with heavy type C. I. brackets, $\frac{1}{2}$ " dia C. P. bib cock, $1\frac{1}{2}$ " dia C. P. chain plug, $1\frac{1}{2}$ " dia C. P. waste, $1\frac{1}{2}$ " dia PVC. waste pipe with brass coupling, (2'-6" length) including making holes in walls and floors and mending good the damages etc. all complete as per direction of the Engineer-in-charge.	each.	1,645-00	1,645-00	1,645-00
(a)	Do— —do— White "SUPER" —do— —do—	each.	1,645-00	1,645-00	1,645-00
(b)	Do— —do— Coloured "SUPER" —do— —do—	each.	1,905-00	1,905-00	1,905-00
10.	Supplying, fitting and fixing 24" x 5" plate glass shelf of $\frac{1}{2}$ " thickness with C. P. brackets, screws and frames including making holes in walls and mending good the damages etc. all complete as per direction of the Engineer-in-charge.	each.	90-00	90-00	90-00

Sl. No.	Description of items	Unit of rate	Rate in Taka		
			All Districts except Barisal & Patuakhali	Barisal	Patuakhali
11.	Supplying, fitting and fixing C. P. Towel rail of 24" x 1/2" size with C. P. holder including making holes in walls and mending good the damages etc. all complete as per direction of the Engineer-in-charge.	each.	95.00	95.00	95.00
12.	Supplying, fitting and fixing Belgium mirror 18" x 12" with hard board at the back including making holes in the walls and mending good the damages etc. all complete as per direction of the Engineer-in-charge.	each.	100.00	100.00	100.00
13.	(a) Supplying, fitting and fixing 4" dia H. C. I. soil pipe with all fittings and specials like plain bend, Tees, reducing sockets, junctions, door bends, Cowels antisyphone etc. including gasket and cement joints, making holes in walls mending good the damages etc. all complete as per direction of the Engineer-in-charge. (The rate will be inclusive of 4" cement (6:3:1) allaround the soil pipe under ground upto the I. P. only and earth cutting wherever necessary.	per running foot.	86.00	86.00	86.00
13.	(b) Supplying, fitting and fixing 2" dia H. C. I. ventilation pipe with all fittings and specials like plain bends, Tees, cowels etc. including gasket with cement joints and mending good the damages etc. all complete as per direction of the Engineer-in-charge.	per running foot.	46.50	46.50	46.50
14.	(a) Supplying, fitting and fixing 4" dia asbestos soil pipe with all fittings and specials like plain bend. Tees, reducing sockets, junctions, door bends, Cowels, antisyphone etc. including gasket with cement joints, making holes in walls and mending good the damages etc. all				

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Sl. No.	Description of items	Unit of rate	Rate in Taka		
			All Districts Except Barisal & Patuakhali	Barisal	Patuakhali
14.	(a) complete as per direction of the Engineer-in-charge. (the rate will be inclusive 4" cement concrete (6 : 3 : 1) alaround the soil pipe under ground upto the (6 : 3 : 1) alaround the soil pipe under ground upto the I. P. only and earth cutting wherever necessary (To be used in temporary and unimportant works).	per running foot.	60'00	60'00	60'00
14.	(b) Supplying, fitting and fixing 3" dia Asbestos Ventilation pipe with all fitting and specials like plain bend, Tees, Cowls etc. including gaskit with cement joints and mending good the damages etc. all complete as per direction of the Engineer-in-charge. (To be used in temporary and unimportant works).	per running foot.	49'00	49'00	49'00
15.	Supplying, fitting, fixing and laying 6" dia R. C. C. pipe over 4" thick cement concrete (6 : 3 : 1) at base and sides including single brick flat soiling including gaskit and cement mortar joints, cutting and filling trenches upto required depth etc. all complete in all respects as per type plan and as per direction of the Engineer-in-charge.	per running foot.	40'50	40'50	40'50
16.	Supplying, fitting and fixing 5" dia C. I. grating in traps or in drains including making holes in walls and floors in/c. mending good the damages etc. all complete as per direction of the Engineer-in-charge.	each.	12'00	12'00	12'00
17.	Supplying, fitting and fixing 4" dia C. I. traps (Syhone trape or P/Trape) including making holes in walls and floors in/c. mending good the damages etc. all complete as per direction of the Engineer-in-charge.	each.	173'00	173'00	173'00

Sl. No.	Description of items	Unit of rate	Rate in Taka		
			All Districts except Barisal & Patuakhali	Barisal	Patuakhali
18.	Supplying, fitting and fixing G. I. pipe with all specials fittings, such as bends, elbows, sockets, reducing sockets, Tees, Unions, Joints etc. including cutting trenches where necessary and filling the same with earth duly rammed and fixing in walls with houlder bolts and making hole in floors and walls and consequent mending good the damages etc. all complete in all respects as per direction of the Engineer-in-charge.				
	(a) 2" dia G. I. pipe.	per running foot.	50-00	50-00	50-00
	(b) 1½" dia G. I. pipe.	do	38-80	38-80	38-80
	(c) 1½" dia G. I. pipe.	do	36-60	36-60	35-00
	(d) 1" dia G. I. pipe.	do	25-90	28-90	28-90
	(e) ¾" dia G. I. pipe.	do	23-90	23-90	23-90
	(f) ½" dia G. I. pipe.	do	19-25	19-25	19-25
19.	Supplying, fitting and fixing best quality and heavy type bib cock ½" dia.				
	(a) Brass bib cock.	each.	30-00	30-00	30-00
	(b) C. P. bib cock.	each.	41-00	41-00	41-00
	(c) ½" plastic bib cock with heavy iron thread.	each.	13-00	13-00	13-00
	(d) ¾" plastic bib cock with heavy iron thread.	each.	17-00	17-00	17-00
	(e) Plastic pillar cock with heavy iron thread.	each.	22-00	22-00	22-00
20.	Supplying, fitting and fixing best quality stop cock.				
	(a) (i) ¾" dia (Brass) stop cock.	each.	11-00	11-00	11-00
	(ii) ½" dia (Brass) stop cock.	each.	30-00	30-00	30-00
	(b) (i) ¾" dia (C. P.) stop cock.	each.	58-00	58-00	58-00
	(ii) ½" dia (C. P.) stop cock.	each.	47-00	47-00	47-00
	(c) (i) ¾" dia C. P. pillar cock.	each.	51-50	51-50	51-50

(73)

Rate in Taka

Sl. No.	Description of items	Unit of rate	Rate in Taka		
			All Districts Except Barisal & Patuakhali	Barisal	Patuakhali
24.	(a) Construction of masonry inspection pits inside mensurment (2' x 2') with 10" thick brick work in cement mortar (4:1) with 4" thick R. C. C. top slab (1:2:1) including necessary reinforcement, 18" dia water sealed R. C. C. M. H. cover including necessary earth work, side filling and one brick flat soiling, 3" thick (6:3:1) base concrete for the preparation of the invert including making invert channel and 1/2" thick (2:1) cement plaster with neat cement finishing etc. all complete upto a depth of 2'-6".	each.	1,098-00	1,098-00	1,098-00
	(b) Do— do— with 18" dia water sealed C. I. manhole cover with locking arrangement including necessary earth work etc.	each.	1,283-00	1,283-00	1,283-00
	—do— —do— —do— —do—				
25.	Painting C. I. cistern with anticorrosive paint of approved colour and quality.	each.	17-00	17-00	17-00
26.	Painting H. C. I. pipes 2 coats (4" to 2" dia) with approved anticorrosive paint over a coat of priming including cleaning rust.	per running foot.	2-00	2-00	2-00
27.	Painting G. I. pipes 2 coats (3" to 1/2" dia) with approved paint over a coat of priming (av. 2" dia) including cleaning rust.	per running foot.	1-30	1-30	1-30

Sl. No.	Description of items	Unit of rate	Rate in Taka		
			All Districts Except Barisal & Patuakhali	Barisal	Patuakhali
28.	Construction of septic tank of different sizes with brick work in cement mortar (6:1) as per approved type plan over a brick flat soiling and 6" thick cement concrete flooring (4:2:1) with 5" thick walls in partition and 3" thick cement plaster (4:1) to insides of walls with N. C. F. and 1' thick patent stone (4:2:1) flooring with N. C. F. including supplying, fitting and fixing of two R. C. C. Tees and providing 18" dia water sealed heavy type G. I. manhole cover with locking arrangement and 4" thick R. C. C. (4:2:1) Top slab with minimum 1% reinforcement including centering, shuttering, fabricating, curing and curing etc. complete upto required depth including necessary earth work in excavation and shoring, hauling out water, side filling and the cost of all materials, operations and incidental charges etc. all complete as per design and direction of the Engineer-in-charge.				
	(a) For 200 users with 3 manhole covers.	each.	31,661-00	32,781-00	32,908-00
	(b) For 100 users with 3 manhole covers.	each.	22,009-00	22,768-00	22,853-00
	(c) For 50 users with 3 manhole covers.	each.	15,189-00	15,707-00	15,758-00
	(d) For 30 users with 2 manhole covers.	each.	9,747-00	10,091-00	10,130-00
	(e) For 20 users with 2 manhole covers.	each.	7,598-00	7,905-00	7,940-00
	(f) For 10 users with 2 manhole covers.	each.	6,468-00	6,678-00	6,703-00

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Rate in Taka

Sl. No.	Description of items	Unit of rate	Rate in Taka		
			All Districts except Barisal & Patuakhali	Barisal	Patuakhali
29.	Construction of sunk well of different sizes with 10" thick solid brick work and 10" honey comb and brick work with cement mortar (6:1) as per design over R. C. C. (4:2:1) well curb with 1-5% reinforcement upto the depth as per drawing with 4" thick R. C. C. Top slab with 1% reinforcement including supplying, fitting and fixing 18" dia water sealed heavy type C.I. manhole cover with locking arrangement, filling the well upto the required with graded kion and sand including supplying and fabricating M. S. rod, casing, curing including necessary earth work in excavation, side filling and bailing out water. in/c. cost of all materials etc. all complete as per drawing, design and direction of the Engineer-in-charge.				
(a)	For 200 users.	each.	13,422-00	13,664-00	13,685-00
(b)	For 100 users.	each.	8,317-00	8,555-00	8,585-00
(c)	For 50 users.	each.	5,639-00	5,649-00	5,679-00
(d)	For 30 users.	each.	5,639-00	5,649-00	5,679-00
(e)	For 20 users.	each.	4,713-00	4,813-00	4,875-00
(f)	For 10 users.	each.	4,713-00	4,835-00	4,875-00

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Rate in Taka.

Sl. No.	Description of items	Unit of rate	All Districts except Barisal & Patuakhali	Barisal	Patuakhali
30.	Supplying and sinking 1½" dia G. I. tube well pipe including trial boring and with all necessary fittings as required etc. all complete as per direction of the Engineer-in-charge.				
	(a) (i) 1½" dia pipe upto 200'-0"	per running foot.	42-00	42-00	42-00
	(ii) 1½" dia pipe from 200'-0" upto 450'-0"	per running foot.	53-00	53-00	53-00
	(b) Supplying, fitting and fixing 1½" dia brass strainer 6'-0" long including supplying of all necessary fitting etc. all complete as per direction of the Engineer-in-charge.	each.	292-00	292-00	292-00
	(c) Supplying, fitting and fixing Moyn/Hydari or such other No. 6 pump for 1½" dia tube well with all necessary fittings etc. all complete as per direction of the Engineer-in-charge.	each.	528-00	528-00	528-00
	(d) Construction of platform with 3" thick cement concrete (6:3:1) over a brick flat soling and providing 5' x 3" brick band, alaround in/c. finished with ½" thick cement plaster (2:1) all complete with necessary outlet drain upto 10'-0" long.	per square foot.	35-00	36-10	37-12

—END—

**PLINTH AREA RATES OF BUILDING
EFFECTIVE FROM 1ST DECEMBER, 1983.**

On the publication of the New Schedule of Rates effective from 1st. December, 1983 rough estimates for all works, schemes, projects etc. should from now on be prepared on the basis of the following plinth area rates :—

1. First class buildings built in bricks with four storied foundation with brick flat soling, cement concrete (6 : 3 : 1) and brick work (6 : 1 including 1½" thick D. P. C.) in foundation and plinth : 10" thick brick-work in superstructure, doors and windows made of best local timber with standard window grills, R. C. C. works (4 : 2 : 1) in roof slab, beams lintels, stair-cases minimum ½" thick cement plaster (6 : 1) to both sides of superstructure walls, minimum ½" thick cement plaster (4 : 1) in plinth steps and dado, ½" C. P. (4 : 1) to ceiling, beams etc. white washing, colour washing and necessary earth work in foundation, earth and sand filling in plinth and other petty items as required. (If material are available within a distance of 1000'—0" ft.).

(a) Foundation including plinth	...	...	Tk. 95/- (Ninety five) only per square foot.
(b) Ground floor : (Superstructure only without foundation )	...	...	Tk. 165/- (one hundred sixty five) only per square foot.
(c) First floor	...	...	Tk. 175/- (one hundred seventy five) only per square foot.
(d) Second floor	...	...	Tk. 190/- (one hundred ninety) only per square foot.
(e) Third floor	...	...	Tk. 205/- (two hundred five) only per square foot.
(f) Lime Terracing and parapet	...	...	Tk. 14/- (Fourteen) only per square foot.

Item (f) to be added on the floor where top floor occurs.

If the Building is of more than 4 — storied, additional amount for foundation to be added as per requirement and design on the basis of actual calculation.

(78)

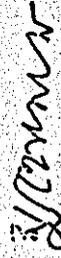
2. First class buildings built in bricks with general specifications as noted in item (1) together with special specification:—

- (i) For mosaic work in all rooms: Add @ Tk. 35/- (thirty five) only per square foot for each floor over item No. 1.
- (ii) For mosaic work in all rooms, doors and windows made of Teak wood with Sal wood Chowkates, designed window grills, discounter, snowcem and plastic painting.

Add @ Tk. 70/- (Taka seventy) only per square foot for each floor over item No. 1.

3. Semi-permanent buildings with C. I. sheet roofing on best local timber truss, brick flat soiling cement concrete (6 : 3 : 1) and brick works (6 : 1) (including 1½" thick D. P. C.) foundation and plinth 5" thick-panel brick work in superstructure with 10" x 10" intermediate pillar at 8'-0" to 10'-0" C/C doors and windows made of best local timber with standard window grills, R. C. C. work (4 : 2 : 1) in lintels, patent stone floorings (4 : 2 : 1) minimum ½" thick cement plaster (6 : 1) to both sides of superstructure walls and ¾" thick cement plaster (4 : 1) in plinth, steps and dado, white washing, colour washing and necessary earth work in foundation, earth and sand filling in plinth and other petty items, as required.

@ Tk. 180/- (One hundred eighty) only per square foot.



M. H. Khan.
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Public Works Department

JICA

