BILL OF QUANTITY

ITEM	DESCRIPTION	UNITS	Contract Rate ($)
	QUANTITY IN THE B.Q ARE PROVISIONAL ONLY AND SUBJECTED TO FINAL MEASUREMENT ON SITE ON COMPLETION OF WORKS Supply all labour, equipment, materials and tools including transportation to do the following supply/ installation/ maintenance / repairworks to its good operational conditions and to current good practice and make good to all works distributed to match the existing or to S.O' s satisfaction. Work covered comprises operation and maintenance, troubleshooting and repair, replacement or supply, delivery, installation, testing and commisioning c/w necessary accesories and works require for a proper installation and equipment to function in order and accordingly, acceptable by S.O in charge as follows :- **SECTION 1 : Fire Protection Services.** **SECTION 2 : Mechanical - Related Mechanical Works** **SECTION 3 : Plumbing - Related Plumbing Works** All the works carried out, materials, equipment supplies etc, for the above installation shall be strictly in accordance with the local authority standards and original equipment specification. Standards to comply :- 1. Fire Safety Order, 2016, Brunei Fire Rescue Departement. 2. FIR guideline or current NFPA. 4. BS 5306 Standards. 5. PBD12: 2017. 6. EIR DES Electrical Standards or latest IEE wiring regulations. **IMPORTANT NOTE :** * Contractor should first provide **pre-inspection** checking /survey & to produce report before starting the works. * The contractor undertakes to carry out the services with reasonable care and skill using appropriately **qualified and supervised person.** * Contractor to **liase with Brunei Fire Rescue Department [BFRD]** to obtain advice and approval of works to be carried out. Necessary submisions such as permits, drawings and layouts to be available by contractor for approval. To comply with necessary drawing revisions as per ordered by BFRD. Estate UBD and BFRD approval is required before work commences. * All materials/fittings offered as per DES/ DME/ ABCi/ Bomba **approved type only.** *All **work done and completed shall be duly verified and certified** by Brunei Fire and Rescue Department [BFRD] on site complete with Service Reports, drawings where necessary and all relevant supporting documents. *Maintain **binded service records** of work done and updated technical data and details. *Ensure that the maintenance personnel are **available on a 24-hour basis** to provide emergency assistance. Contractor shall within 30 mins of receipt notice from S.O to provide assistance and dispatch of qualified engineer or technician on site. * **Rate** shall include prices for transportation, troubleshooting, inspection, labour, all required materials, accessories and tools (test equipment, cleaning materials and lubricants used) for servicing and replacement of equipment as per appropriate standard to the specification of the equipment and to BFRD standard, rules and regulations. *During the continuance of this contract, the contractor shall maintain **stocks availability** of equipment and spare parts to the same specifications or at very least be functionally equivalent to existing removed parts. All removed parts/ equipments must be returned to the respective Government Building with relevant service report verified and endorsed. *Dismantle and removal from site unused/damaged existing equipment and accessories as per instructed by S.O. Contractor to **clean and clear debris off site** as per instructed by S.O and to patch up and make good any work disturbed after work completed. *If the units under repair are consider **beyond economical repair**, the Superintendent Engineer must be notify immediately so that inspection can be carry out to verify the report. If in the opinion of the Superintendent Engineer that the units still can be repair, the contractor have to repair it accordingly to working order. Those units which had been consider beyond economical repair will be omitted temporarily from the maintenance lists until new replacement is available.		

	SECTION 1 : FIRE PROTECTION SERVICES		
A	**ROUTINE MAINTENANCE INSPECTIONS OF FIRE PROTECTION SERVICES** To perform checking inspections include general cleaning and service, calibrating, troubleshooting, adjusting, realigning, testing and reporting as ordered by S.O of :- [Contractor to submit work request and schedule of work. Report must be verified by S.O]		
1	**Fire Alarm Systems** and other related accessories. Routine service shall be carried out in accordance to **Schedule A.1.**		
2	**Smoke Ventilation System** and **Smoke Curtain System** and other related accessories. Routine service shall be carried out in accordance to **Schedule A.2.**		
3	**Extingusher** and other related accessories. Routine service shall be carried out in accordance to **Schedule A.3**		
4	**Fire Hose Reels System** and other related accessories. Routine service shall be carried out in accordance to **Schedule A.4**		
B	**REPLACEMENT, INSTALLATION AND REPAIR OF FIRE PROTECTION SERVICES** **[APPROVED TYPE ONLY]** **I . FIRE ALARM PANEL AND ACCESSORIES** **II. DETECTORS AND ACCESSORIES** **III. WET RISER AND HOSE REEL SYSTEM** **IV. FIRE PUMPS AND CONTROL** **V. FIRE EXTINGUSHER** **VI. SUNDRIES ITEM** **VII. SMOKE CURTAINS** **VIII. FIREMEN INTERCOM** **IX. SMOKE VENTILATION** **X. ELECTRICAL ITEMS** **XI. OTHER ITEM NOT INCLUDED** **Replace Or Supply, installation, testing and commisioning c/w necessary accessories and works required.** **Equipment supplied and installations shall be approved by BFRD only.** **Supplier of Equipment shall be from approved BFRD Suppliers / Contractors only.** **All wirings works shall be done by an approved Electrical Contractors.** **Finishes shall be RED in colour unless otherwise stated.** **Maintenance and new installation work shall have Inspection Sticker & Tag for Extingusher and Fire Alarm Panel.**		

I	**FIRE ALARM PANEL AND ACCESSORIES**		
	Conventional Fire Alarm Control Panel c/w battery and charger		
1	2 zone	No	800.00
2	4 Zone	No	1,000.00
3	8 Zone	No	1,500.00
4	16 Zone	No	2,000.00
5	32 Zone	No	3,900.00
	Addressable Fire Alarm Control Panel c/w battery and charger		
6	2 zone	No	900.00
7	4 Zone	No	2,800.00
8	8 Zone	No	3,000.00
9	16 Zone	No	3,200.00
10	20 Zone	No	3,500.00
11	32 Zone Repeater Panel	No	3,800.00
12	Mother PCB Board Conventional Type	No	250.00
13	Mother PCB Board Addressable Type	No	480.00
14	Zone Module Card Conventional Type	No	180.00
15	Zone Module Card Addressable Type	No	250.00
16	Interface card	No	105.00
17	Battery Charger Unit	No	105.00
18	3A-5A 24V Automatic Battery Charger Unit	No	400.00
19	5A-10A 24V Automatic Battery Charger Unit	No	650.00
20	12V Sealed Lead Acid Battery (up to 20AH)	No	156.00
21	12V Sealed Lead Acid Battery (above 20AH to 50AH)	No	169.00
22	24VDC Indicating Lamp	No	5.00
23	Indicating Lamp Holder	No	3.00
24	2 Loop Addressable Fire Alarm Panel	No	6,200.00
25	4 Loop Addressable Fire Alarm Panel	No	7,110.00
26	Loop Card	No	650.00
27	Ram Card	No	180.00
28	I/O card	No	105.00
29	Printer	No	455.00
30	Printer Paper	Roll	45.00
31	Digital communication/ Auto Dailer	No	585.00
32	Line Isolator	No	250.00
33	Panel Key	No	8.00
34	End Line Resistor	No	8.00
35	Fault Buzzer	No	40.00
36	Programming, Configuration, Testing & Commissioning (Ziton, AES, Menvier & Zettler)	Lot	3,800.00
II	**DETECTORS AND ACCESSORIES**		
1	Alarm Bell	No	80.00
2	Weatherproof Back Box for Alarm Bell	No	50.00
3	Strobe Light	No	2,800.00
4	Manual Call Point (handle)	No	45.00
5	Manual Call Point, Weatherproof (handle)	No	300.00
6	Sounder Beacon	No	80.00
7	Manual Breakglass unit	No	60.00
8	Conventional Smoke Detector	No	60.00
9	Conventional Heat Detector	No	52.00
10	Addressable Beam Smoke Detector	No	150.00
11	Addressable Smoke Detector	No	150.00
12	Addressable Heat Detector	No	150.00
13	Digital Commmunicator	No	600.00
14	Spare Glass for Breakglass Unit	No	5.00
15	Detector Base	No	45.50
16	Remote indicator	No	50.00
17	Metal hammer c/w chain for breakglass	No	50.00
18	Fire resistance cable 1.5mm dia	Roll	45.00
19	Fire resistance cable 2.5mm dia	Roll	55.00
20	Mimic Diagram c/w necessary accessories	No	200.00
21	Hand Operated Alarm Bell c/w bolt & nut	No	50.00
22	Battery Operated Smoke Detector	No	20.00
23	Battery Operated Heat Detector	No	20.00

III	WET RISER & HOSE REEL SYSTEM		
1	68 Degree Celcius Sprinkle Head	No	25.00
2	141 Degree Celcius Sprinkle Head	No	25.00
3	2 Way Fire Brigade Breeching Inlet	No	250.00
4	4 Way Fire Brigade Breeching Inlet	No	450.00
5	Air Release Valve	No	80.00
6	2 Way Piller Hydrant	No	300.00
7	3 Way Pillar Hydrant	No	450.00
8	Hydrant Sluice Valve	No	250.00
9	65mm dia 30m long Layflat Fire Hose c/w Male/Female Instantanous Coupling	No	450.00
10	Fire Hydrant Key and Bar	No	100.00
11	Hand Wheel for Hydrant	No	28.00
12	65 dia Diffuser Nozzle with Male Instantanous	No	210.00
13	19mm dia fix/Swing Type Hose Reel Drum complete with 30m Rubber Hose, Nozzle and Clip	No	200.00
14	25mm dia fix/Swing Type Hose Reel Drum complete with 30m Rubber Hose, Nozzle and Clip	No	200.00
15	19mm dia fix/Swing Type Hose Reel Drum (excluding Rubber Hose, Nozzle and Clip)	No	150.00
16	25mm dia Swing Type Hose Reel Drum (excluding Rubber Hose, Nozzle and Clip)	No	150.00
17	19mm dia 30m long Rubber Hose for Hose Reel Drum	No	90.00
18	20mm dia 30m long Rubber Hose for Hose Reel Drum	No	90.00
19	19mm dia Hose Reel Nozzle	No	20.00
20	25mm dia Hose Reel Nozzle	No	20.00
21	Stop Nozzle with Nozzle Locking Device	No	25.00
22	25mm dia Bronze Gate Valve	No	20.00
23	50mm dia Bronze Gate Valve	No	25.00
24	75mm dia Bronze Gate Valve	No	40.00
25	100mm dia Bronze Gate Valve	No	60.00
26	50mm dia Non-Return Valve	No	85.00
27	100mm dia Non-Return Valve	No	200.00
28	50mm dia Bronze Ball Float Valve	No	150.00
29	80mm dia Bronze Ball Float Valve	No	400.00
30	50mm dia Flexible Expansion Joint	No	120.00
31	100mm dia Flexible Expansion Joint	No	150.00
32	150mm dia Flexible Expansion Joint	No	200.00
33	Fire Hose Reel Cabinet	No	150.00
34	Hosereel Wall Bracket	No	3.50
35	Hosereel Clip	No	3.50
36	Hose Guide	No	10.00
37	Hosereel Notice Bilingual as Bomba Spec	No	30.00

IV	FIRE PUMPS AND CONTROL		
	Fire Hosereel Electric Pumps c/w necessary accessories & works, fittings, piping and connection		
1	capacity up to 1.0HP	No	620.00
2	capacity up to 2.5HP	No	680.00
3	capacity up to 2.0HP	No	850.00
4	capacity up to 2.5HP	No	980.00
	Diesel Engine Pump capacity up to 2.5HP c/w necessary accessories & works, fittings, piping and		
5	capacity up to 1.0HP	No	3,000.00
6	capacity up to 2.5HP	No	3,300.00
7	capacity up to 2.0HP	No	4,000.00
8	capacity up to 2.5HP	No	4,500.00
9	Pump gland packing, Any size or type. Per linear centimetre	No	30.00
10	Pump Bearing. Any size or make	No	150.00
11	Pump Impeller	No	300.00
12	Pump shaft seals	No	500.00
13	Automatic submersible pump, 2800 rpm, single phase	No	1,000.00
14	Domestic water pressure booster pump c/w all necessary fitting	No	1,500.00
15	Approved Pump impeller up to 8 inch dia	No	500.00
16	Approved Flow switch for pumped system	No	150.00
17	Approved Pressure switch for pumped system	No	150.00
18	Incoming Power Supply Isolating Switch	No	150.00
19	Approved relay for pump control	No	100.00
20	Approved contactor for pump control	No	100.00
21	Approved timer for pump control	No	100.00
22	Approved indicator lamp for pump control	No	10.00
23	Approved indicator lamp complete with holder for pump control	No	20.00
24	Approved flow switch of any type and size	No	150.00
25	Flexible Joint	No	80.00
26	Stop Valve	No	50.00
27	Check Valve	No	80.00
28	Gate Valve 25-75mm	No	100.00
29	Relay	No	50.00
30	Contactor	No	100.00
31	Selector switch	No	80.00
	FIRE PUMP ENGINE		
32	Approved fuel oil filter for Fire Pump Engine	No	30.00
33	Approved air filter for Fire Pump Engine	No	30.00
34	Top up diesel fuel	Ltr	1.00
35	Top up lubrication oil	Ltr	6.00
36	Flushing off existing lube from the system and replace with new lubrication oil	per service	60.00
37	Approved drive belt	No	35.00
38	Engine start battery	No	200.00
39	Pump Stop Solenoid	No	300.00
40	Shut off valve c/w accessories for diesel engine fire pump	No	100.00
	FIRE PUMP MOTOR		
	To remove existing / Supply and fix new pump motor including reconection, testing and		
41	Up to 1kw	No	700.00
42	Up to 2kw	No	800.00
43	Up to 3 kw	No	950.00
	To remove existing pump motor, rewind motor, replace bearings and seals, perform geneal		
44	Up to 1kw	No	420.00
45	Up to 2kw	No	460.00
46	Up to 3 kw	No	480.00
47	Up to 5 kw	No	920.00
48	Up to 7.5 kw	No	940.00
49	Up to 10 kw	No	1,200.00
50	Up to 15 kw	No	1,800.00
51	Up to 20 kw	No	2,200.00
52	Approved direct-on-line starter. Any rating.	No	180.00
53	Approved auto transformer. Any rating.	No	200.00
54	Approved capacitor for motor. Any rating.	No	200.00

V	FIRE EXTINGUSHER		
	EXTINGUSHER		
	To supply extingusher c/w discharge hose & nozzle, safety pin, inspection sticker and hook bracket, to be hung and hooked securely placed on galvanised form bracket fastened to wall height 1 mtr from floor level to the handle unless otherwise stated.		
	Dry Chemical Powder		
1	1.0 - 1.9 kg	No	25.00
2	2.0 - 2.9 kg	No	30.00
3	3.0 - 3.9 kg	No	40.00
4	4.0 - 5.0 kg	No	50.00
5	9.0 kg	No	80.00
6	25.0 kg trolley type	No	600.00
7	50.0 kg trolley type	No	850.00
	Water CO_2 Cartridge		
8	9 litres cartridge type	No	65.00
	Carbon Dioxide (CO_2)		
9	2.0 - 2.9 kg	No	70.00
10	3.0 - 3.9 kg	No	90.00
11	4.0 - 5.0 kg	No	120.00
12	30.0 kg trolley type	No	900.00
13	45.0 kg trolley type	No	1,200.00
	Foam CO_2 Cartridge		
14	9 litres cartridge type	No	100.00
15	9 litres pressurized	No	70.00
	Refilling of Fire Extinguishers		
16	1 kg of Dry Chemical powder	No	7.00
17	1 kg of CO_2	No	7.00
18	1 kg of FM200	No	60.00
19	1 kg of aluminium sulphate	No	7.00
20	1 kg of sodium bicarbonate	No	7.00
21	Refill 9 litres H_2O	No	15.00
22	Refill 9 litres Foam (ANB)	No	15.00
23	Refill 9 litres Foam (AFF)	No	25.00
	Accessories/Parts		
24	Safety Pin	No	3.00
25	Adhesive Label	No	8.00
26	Instruction Label	No	8.00
27	O-ring	No	3.00
28	Quad ring	No	4.00
29	Pressure gauge 12 bar	No	11.00
30	Pressure gauge 14 bar	No	13.00
31	Dip tube for H_2O type	No	4.00
32	Dip tube for Dry Chemical type	No	4.00
33	Dip tube for CO_2 type	No	4.00
34	Discharge hose for H_2O type	No	13.00
35	Discharge hose for Dry Chemical type	No	12.00
36	Discharge hose for CO_2 type	No	15.00
37	Valve body for CO_2 type	No	23.00
38	55 gm CO_2 cartridge	No	26.00
39	75 gm CO_2 cartridge	No	32.50
40	Refill 55 gm CO_2 cartridge	No	9.00
41	Refill 75 gm CO_2 cartridge	No	9.00
42	Sticker/Stencil	No	3.00
43	Indoor Fire Extinguisher Cabinet	No	80.00
44	Outdoor Fire Extinguisher Cabinet	No	80.00
45	Galvanised Metal Bracket c/w expansion bolt	No	20.00

	Servicing of Fire Extinguisher		
46	Servicing per fire extinguisher cylinder	No	3.00
47	Hydrostatic Test for cylinder below 10kg/9 litres	No	25.00
48	Hydrostatic Test for cylinder 10 kg - 25 kg	No	35.00
49	Hydrostatic Test for cylinder 25 kg - 50 kg	No	40.00
50	Respray to Bomba Spec per cylinder	No	6.00
	GAS EXTINGUISHING SYSTEMS (FM200, CO2 AND INSERT GAS)		
	Gas System Control Panel		
51	Twin Gas Extinguishing Panel	No	800.00
52	Fire Zone Module Card	No	120.00
53	Battery Charger	No	150.00
54	24V sealed lead acid battery up to 20AH	No	250.00
55	24V sealed lead acid battery up to 20 - 50AH	No	350.00
56	24VDC Relay	No	60.00
57	Indicator Lamp	No	5.00
58	Fuse	No	1.00
	Accessories/Parts		
59	Smoke Detector	No	30.00
60	Heat Detector	No	30.00
61	Manual Call Point	No	10.00
62	Spare Glass for Manual Call Point	No	10.00
63	Gas Discharged Sign Lamp	No	50.00
64	Evacuate Area Sign Lamp	No	50.00
65	Gas Discharge Hose	No	50.00
66	Gas Discharge Nozzle	No	80.00
67	Manual Actuator	No	150.00
68	Level operated control lever	No	50.00
	Refilling of Gas Cylinder		
69	1 kg of FM200 gas	No	100.00
70	1 kg of CO_2 gas	No	8.00
	Servicing of Gas Extinguishing System		
71	Repair and Services charges (per building per call)	No	30.00
	Hydrostatic Test for each cylinder :-		
72	Cylinder capacity 20 - 40 kg	No	80.00
73	Cylinder capacity 41 - 70 kg	No	80.00
74	Cylinder capacity 71 - 100 kg	No	80.00
75	Installation and commissioning charges	No	50.00

	OTHERS		
76	Recharge FM200 cyclinder	kg	80.00
77	Recharge 100lbs CO2 cyclinder	cyc	300.00
78	Thermal link for CO2 system	No	48.00
79	Lever operated control head	No	300.00
80	19mm Actuator Hose	No	30.00
81	25mm Gas Discharged Hose	No	50.00
82	Manual Gas Release Station for CO2 or FM200 System	No	150.00
83	Outdoor Manual Gas Release Station for CO2 or FM200 System	No	300.00
84	Abort gas release Station for CO2 or FM200 System	No	250.00
85	Pressure Operated Switch	No	200.00
86	Discharge nozzle for CO2 system	No	50.00
87	Gas Release Control Panel	No	1,500.00
88	Photoeletric Smoke Detector	No	100.00
89	Fixed Tempreture Heat Detector	No	70.00
90	Multione Horn/Strobe	No	150.00
91	Gas Discharged Sign	No	80.00
92	Evacuate Area Sign	No	80.00
VI	**SUNDRIES ITEM**		
1	Fire Blanket to Bomba Specification.	No	30.00
2	Warning notices / instructions in Malay and English.	No	30.00
3	Maximun Occupancy' Signages to Bomba Specification.	No	40.00
4	'No Smoking / Highly Flammable' Signages to Bomba Specification.	No	40.00
5	Reflective 'EXIT' Signages to Bomba Specification 120mm x 300mm, 3mm Acrylic Plate, 3m Green Sticker & 3m White Sticker.	No	40.00
6	Yellow Paint on the Road for Fire Engine Access Sign measurement 3mtr by 15 mtr to Bomba Specification	lot	100.00
7	Fire Engine Access Signboard c/w 1.5 mtr ht pole and concrete plinth to Bomba Specification	No	200.00
8	Assembly Point Signboard 1mtr X 0.7mtr c/w 1.5 mtr ht pole and concrete plinth to Bomba Specification	No	200.00
	Instruction Signboard to Bomba Specification		
9	"EMERGENCY Do Not Use Elevator In Case of Fire"	No	40.00
10	"IN CASE OF FIRE DO NOT USE ELEVATOR USE THE STAIRS ONLY "	No	40.00
	Fire rated door (minimum of 1hour rating) inclusive of fire rated door panel, fire rated frame, hardware, glazing (viewing glass with georgian wire), fire rated door tag, label of classified, FSD warning notice, intumescent seal strip and all other necessary accessories needed to complete proper installation. (Work to include remove/dismantle existing doors including frame/jamb and clear offsite)		
10	Single leaf	No	380.00
11	Double leaf	No	600.00
	Design, fabricate and install mild steel type construction of **security grille cage** which includes swing door inclusive of hinges, roofing aluminium sheet, approve painting, padlock, hacking for allowance of gas hose/pipe and all other necessary accessories needed to complete proper installation including support/hard standing/base recommended for safe station.		
12	suitable for 2 nos of domestic gas cylinder	No	250.00
13	suitable for 2 nos of commercial gas cylinder	No	350.00

VII	**SMOKE CURTAINS**		
1	Smoke Curtain	m2	12.00
2	Curtain Motor capacity up to 5kw	No	650.00
3	Smoke Curtain control panel	No	1,650.00
VIII	**FIREMEN INTERCOM**		
1	Breakglass	No	80.00
2	Handset	No	80.00
3	Complete handset of fire intercom	No	250.00
IX	**SMOKE VENTILATION**		
1	Fan Blade	No	160.00
2	Fan Motor capacity up to 5kw	No	1,200.00
3	Fan Motor capacity above 5kw	No	1,500.00
4	Motor Bearings	No	250.00
X	**ELECTRICAL ITEMS**		
1	1x18W Emergency Light Fitting c/w 2hrs (minimum) battery duration.	No	40.00
2	2x18W Emergency Light Fitting c/w 2hrs (minimum) battery duration.	No	55.00
3	LED Emergency Light Fitting c/w 2 hrs (minimum) battery duration.	No	50.00
4	1x8W 'KELUAR' or 'EXIT' Sign Fitting c/w 2 hrs (minimum) battery duration.	No	40.00
5	2x8W 'KELUAR' or 'EXIT' Sign Fitting c/w 2 hrs (minimum) battery duration. LED 'KELUAR' or 'EXIT' Sign Fitting c/w 2 hrs (minimum) battery duration.	No	55.00
6	Wire / Chain Suspended	No	55.00
7	Wall / Ceiling / Side Mounted	No	55.00
8	Wiring point using 3x1.5mm2 pvc cable in conduit/casing.	No	55.00
9	Wiring emergency button using 2x1.5mm2 PVC cable in pvc casing/conduit c/w emergency push button, contactor and other necessary accessories.	No	55.00
XI	**OTHER ITEM NOT INCLUDED**		
	Any other related item not specified, please mentioned :- i)..... ii)..... iii).....	....	....
	SECTION 2 : MECHANICAL		
A	**ROUTINE MAINTENANCE INSPECTIONS OF MECHANICAL SYSTEMS.** To perform checking inspection includes general cleaning and service, calibration, troubleshooting, adjusting, realigning, testing and reporting as ordered by S.O. of :- [Contractor to submit proposed work program and schedule of work.		
1	**Building Water Pump System** and related accessories. Inspection per Faculty/Department.	lot	100.00
2	**Fire Hose Reel Water Pump System** and related accessories. Routine service shall be carried out in accordance to **Schedule A.5.** Inspection per Faculty/Department.	lot	100.00
B	**REPLACEMENT, INSTALLATION AND REPAIR OF MECHANICAL SYSTEMS.** **[APPROVED TYPE ONLY]**		
	I. PUMPS AND RELATED WORKS **II. BATTERY** **III. OTHER ITEM NOT INCLUDED**		
	Replace Or Supply, installation, testing and commisioning c/w necessary accessories and works All equipment supplied DES/DME/ABCi/ Bomba approved type only. Finishes shall be RED in colour unless otherwise stated.		
I	**PUMPS AND RELATED WORKS** New Pumps shall be factory aligned complete units comprising of pump and motor, coupled together on a common base plate and shall be mounted on fabricated steel base c/w with necessary accessories and work required. Provide flanges and flexible pipe connectors to suction and discharge connection of pumps. Provide air cocks, drain plugs and a pressure gauge on both side of pump. A drain pipe shall be extented from the gland discharge to a floor trap (for heavy duty pump). Pumps shall be properly lablled with :- a. Manufacturer's name, pump serial number, model serial number and date of manufacture. b. Tender/Quotation number, installer company profile and installation or service date.		

	Replace or Supply, installation, testing and commisioning c/w necessary accessories & works, fittings, piping and connection to service pipe for a proper installation:-		
1	0.5 HP [0.3kw]	No	500.00
2	1 HP [0.7kw]	No	600.00
3	1.5HP [1.1kw]	No	700.00
4	3 HP [2.2kw]	No	1,800.00
5	4 HP [3.0kw]	No	2,000.00
6	10 HP [7.5kw]	No	3,800.00
7	15 HP [11.1kw]	No	4,500.00
8	Pressure tank 18 L	No	250.00
9	Pressure tank 60 L	No	650.00
10	Pressure tank 100 L	No	750.00
11	Pressure tank 300 L	No	900.00
12	Pressure tank 500 L	No	1,800.00
13	1HP Single phase water pump Hydraulic Electronic System Automatic Control	No	325.00
14	3phase, 3kw to 4kw vertical multistage heavy duty water pumpset	No	3,800.00
15	Booster pumpset	No	3,000.00
16	Submersible auto pump Aprox 1.5kW / 2 hp 220V/50Hz 1P 68 speed 2850 r/min c/w desludging	No	1,500.00
17	Submersible auto pump Aprox 5.0 kW / 3 ph / 400V/50Hz, 4 pole IP68, 30L/s at 9m head c/w	No	6,000.00
18	Fire Hosereel Pumps capacity up to 2.5HP c/w accessories	No	600.00
19	Diesel Engine Pump capacity up to 2.5HP c/w accessories	No	4,500.00
20	20 - 25UF pump capacitor	No	50.00
21	Pump PLC c/w programming & setting	No	300.00
22	Pump presure controller c/w necessary works	No	500.00
23	Pump pressure switch c/w necessary works	No	100.00
24	Float switch c/w hanger	No	150.00
25	Water level sensor c/w necessary works	No	175.00
26	Electronic Electrode Holder Sensor set	No	150.00
27	One way valve c/w necessary works required	No	230.00
28	4 core/ 3mm2 Armoured Cable c/w accessories required	1 mtr	20.00
29	Cable tray c/w necessary works	1 mtr	10.00
30	Motor pump bearing	No	180.00
31	Pump coupling set	Set	300.00
32	Rubber bush	Set	30.00
33	Soft Starter for 30KW pump motor	No	600.00
34	Pressure gauge meter	No	150.00
35	Waterpump housing zinc covers c/w accessories	No	50.00
36	Pump water seal leak c/w seal back, bearing and necessary	No	900.00
37	Water pump instrumentation c/w revolving light	No	500.00
38	Pumpset control panel c/w necessary accessories	No	1,800.00
39	Fire Hosereel Pump Control Panel up to 4kw	No	2,500.00
40	Water pump control panel c/w PLC, soft starter, ammeter voltmeter, selector switches, ELR, Indicating light, soft starter controller / time and pressure base controller.	No	2,500.00
41	40A TPN Floor Standing control panel IP54 c/w necessary accessories. [sewerage pump]	No	3,000.00
42	Wiring water pump point using 3x2.5mm2 pvc cable in conduit/casing c/w 20A DP Switch.	No	$ 120.00
43	Wiring water pump point using 3x2.5mm2 pvc cable in conduit/casing c/w 20A SPN	No	$ 150.00
44	Wiring 3 phase water pump using 5x6mm2 pvc cable in conduit/casing c/w 35A TPN	No	$ 350.00
II	**BATTERY**		
	Maintence and installation of battery includes :- 1. Cleaning battery and battery tray, clean corrosion off the metal clamps and battery cables. 2. DC voltage testing. 3. Necessary accessories and works required for the proper maintenance and installation. 4. Battery shall be properly labelled with :- a. Tender/Quotation number, installer company profile and date of installation.		
	Replace or Supply, installation, testing and commisioning c/w necessary accessories & works and connection for proper installation:-		
1	Seal Lead Acid Type 12V **110AH** Battery	No	120.00
2	Seal Lead Acid Type 12V **120AH** Battery	No	120.00
3	Seal Lead Acid Type 12V **150AH** Battery	No	150.00
4	Seal Lead Acid Type 12V **200AH** Battery	No	220.00
5	24V Maintenance Free Battery	No	250.00
6	Engine start battery	No	250.00
7	**40-70 AH** 12V Nicd Battery	No	180.00
8	**80-100 AH** 12V Nicd Battery	No	220.00
III	**OTHER ITEM NOT INCLUDED**		
	Any other related item not specified, please mentioned :-		
	i).....	.....	.....
	ii).....	.....	.....
	iii).....	.....	.....

	SECTION 3 : PLUMBING		
A	**ROUTINE MAINTENANCE INSPECTIONS OF PLUMBING SYSTEMS** To perform checking inspections include general cleaning and service, calibrating, troubleshooting, adjusting, realigning, testing and reporting as ordered by S.O of :- [Contractor to submit proposed work program and schedule of work. Report must be verified by S.O]		
1	**Water Tanks** and other related accessories. Routine service shall be carried out in accordance to **Schedule A.6.**	lot	150.00
B	**REPLACEMENT, INSTALLATION AND REPAIR OF PLUMBING SYSTEM** **I. PLUMBING** **II. ACCESSORIES AND ANCILLARIES** **III. WATER TANK** **IV. RELATED WORK** **V. OTHER ITEM NOT INCLUDED** Replace Or Supply, installation, testing and commisioning c/w necessary accessories and works All equipment supplied DES/DME/ABCi/ Bomba approved type only. All plumbing works shall be done by an approved Plumbing Contractors. Finishes shall be RED in colour unless otherwise stated.		
I	**PLUMBING**		
	COLD WATER INSTALLATION Remove and replace with / Install new pipe cast/chased into concrete or brickwall or bracketed off walls or soffits with pipe clips Stainless Steel Pipes to BS 4127 fixed with stainless steel screwed and socketed joints fixing with and including suitable pipe clips as necessary.		
1	15mm diameter	m	14.00
2	22mm diameter	m	19.00
3	28mm diameter	m	25.00
4	35mm diameter	m	35.00
5	54mm diameter	m	50.00
	Galvanized Iron Pipes to BS 1387 (Medium Minimum Grade) and fittings to BS 143 and BS 1256 with screwed and socketed joints laid in trenches or cast/chased into concrete or brickwall fixing with and including suitable pipe clips and other necessary accessories.		
6	15mm diameter	m	8.00
7	20mm diameter	m	10.00
8	25mm diameter	m	11.50
9	32mm diameter	m	15.00
10	40mm diameter	m	17.00
11	50mm diameter	m	21.00
12	75mm diameter	m	27.00
13	100mm diameter	m	41.00

	Unplasticised PVC pipes; BS 3505 Class "E" solvent welded joints and fittings to BS 4346		
	Pipe cast/chased into concrete or brickwall or bracketed off walls or soffits with pipe clips		
14	12mm diameter pipes	m	7.00
15	20mm diameter pipes	m	9.00
16	25mm diameter pipes	m	12.00
17	32mm diameter pipes	m	16.00
18	40mm diameter pipes	m	20.00
19	50mm diameter pipes	m	25.00
	Extra over for all necessary fittings, sockets, connectors, reducers, plugs, elbow, tees, union, nipple, bush and other similar pipe fittings:		
	Copper/stainless steel compression joints		
20	15mm diameter	No	20.00
21	22mm diameter	No	24.00
22	28mm diameter	No	30.00
23	≥50mm diameter pipes	No	65.00
	Extra over for all necessary fittings, sockets, connectors, reducers, plugs, elbow, tees, union, nipple, bush and other similar pipe fittings:		
	Brass Compression joints		
24	15mm diameter	No	14.00
25	22mm diameter	No	16.00
26	28mm diameter	No	20.00
27	≥50mm diameter pipes	No	55.00
28	UPVC Compression Joints		
29	15mm diameter	No	10.00
30	20mm diameter	No	12.00
31	25mm diameter	No	15.00
32	≥50mm diameter pipes	No	45.00
	MDPE pipe to ISO 4427/DIN8074/8075/MS1058 Class PN 12.5 (12.5MPa) or other equal and approved higher pipe; fittings and joints to be compression type		
	Pipe cast/chased into concrete or brickwall or bracketed off walls or soffits with pipe clips		
33	20mm outer diameter pipes	m	15.00
34	25mm outer diameter pipes	m	16.00
35	63mm outer diameter pipes	m	25.00
	Extra over for all necessary fittings, sockets, connectors, reducers, plugs, elbow, tees, union, nipple, bush and other similar pipe fittings:		
36	>63mm outer diameter pipes	No	70.00
	MDPE pipe to ISO 4427/DIN8074/8075/MS1058 Class PN 12.5 (12.5MPa) or other equal and approved higher pipe; fittings and joints to be butt fusion/compression type		
	Laying in the ground		
37	110mm outer diameter pipes	m	50.00
38	125mm outer diameter pipes	m	60.00
	Extra over for all necessary fittings, sockets, connectors, reducers, plugs, elbow, tees, union, nipple, bush and other similar pipe fittings:		
39	>110mm outer diameter pipes	No	110.00

	Ductile iron pipe Extra over for all necessary fittings and sockets, connectors, reducers, plugs, elbow, tees, union, nipple, bush and other similar pipe fittings		
40	100mm	m	80.00
41	150mm	m	100.00
42	200mm	m	120.00
	Remove the existing and fix new including short waste, plug, chain and stay and all necessary hacking out concrete floor tile and make good		
	Bottle Trap/Tubular/P Trap		
43	UPVC - 38mm diameter bottle trap	No	12.00
44	UPVC - 45mm diameter bottle trap	No	14.00
45	UPVC - 50mm diameter Tubular "P" trap	No	20.00
46	UPVC - 75mm diameter "P" trap with rodding eyes	No	23.00
47	HDPE bottle trap	No	25.00
48	Stainless Steel - 50mm diameter 'P' trap	No	50.00
	Gully Trap Remove the existing and replace new with UPVC gully trap with rodding access to BS 4660 with metal removable flat grating cast into concrete		
49	100mm diameter	No	80.00
50	150mm diameter	No	100.00
	Remove the existing and replace new with UPVC floor traps with rodding access to B.S 4660 with all necessary connectors and jointing to pipes		
51	UPVC floor drain trap grating	No	10.00
52	150mm x 150mm UPVC hinge floor grating	No	15.00
53	> 150mm x 150mm UPVC hinge floor grating	No	20.00
	Stainless steel floor drain trap grating		
54	100mm diameter stainless steel floor grating	No	25.00
55	150mm diameter stainless steel floor grating	No	30.00
	Gulley Trap and Manhole Cover		
56	200 x 200mm top; hinged grating frame	No	20.00
57	Coated Cast Iron rectangular single seal cover and frame: in accordance to BS-EN 124, sealing cover in grease and fine sand	No	250.00
	Coated cast iron rectangular single seal cover and frame; light duty; BS 497 Grade C; weighing 38kg; bedding frame in mortar (1:3); sealing cover in grease and fine sand		
58	695 x 545 x 45mm thick	No	130.00

	Gulley Trap and Manhole Cover Coated cast iron rectangular single seal cover and frame; medium duty; BS 497 Grade B; weighing 142kg; bedding frame in cement mortar (1:3); sealing cover in grease and fine sand		
59	670 x 670 x 75mm overall	No	217.00
	Coated cast iron rectangular single seal cover and frame; heavy duty; BS 497 Grade B; weighing 210kg; bedding frame in cement mortar (1:3); sealing in grease and fine sand		
60	600 x 450mm overall	No	272.00
II	**ACCESSORIES AND ANCILLARIES**		
	Valves to BS 1010 and BS 1212 Remove the existing and fix new .Rate shall include all necessary connection, threading, hacking out concrete wall tile and make good to match:		
	Brass Gate Valve/Chrome Stop Valve		
1	15mm diameter	No	12.00
2	22mm diameter	No	17.00
3	28mm diameter	No	20.00
4	35mm diameter	No	25.00
5	54mm diameter	No	45.00
	Sluice Valve; including		
6	75mm diameter	No	350.00
7	100mm diameter	No	400.00
8	150mm diameter	No	500.00
	Non-return Valve; including		
9	75mm diameter	No	200.00
10	100mm diameter	No	250.00
11	150mm diameter	No	350.00
	Flexible Hose		
12	Remove existing flexible hose and replace new with :		
13	15mm diameter; connection to pipe	No	13.00
14	20mm diameter; connection to pipe	No	15.00
15	Remove water heater equipment supply and install flexible hose to connect supply and distribution pipeoutlet	No	50.00
	Repair pipe with new Collar Clamp		
16	50mm diameter pipes	No	100.00
17	65mm diameter pipes	No	150.00
18	80mm diameter pipes	No	200.00
19	100mm diameter pipes	No	250.00
20	150mm diameter pipes	No	300.00
	Repair pipe with new Split Collar Clamp		
21	50mm diameter pipes	No	100.00
22	65mm diameter pipes	No	150.00
23	80mm diameter pipes	No	200.00
24	100mm diameter pipes	No	250.00
25	150mm diameter pipes	No	300.00

III	**WATER TANK**		
1	Supply and fix new 1m x 1m x 1m Stainless steel panel tank and cover with all necessary perforations for pipes.	No	1,500.00
2	Supply and fix 1600 litres stainless steel water storage tank complete with metal stand, concrete base and other necessary support items.	No	1,000.00
3	Supply and fix 2000 litres stainless steel water storage tank complete with metal stand, concrete base and other necessary support items.	No	1,300.00
4	Fire Hosereel Rectangular water tank capacity up to 5000 L c/w lable and red paint, metal stand, concrete base and other necessary support items.	No	5,000.00
5	Fire Hosereel Rectangular water tank capacity up to 9,100 L c/w lable and red paint, metal stand, concrete base and other necessary support items.	No	8,500.00
6	Fire Hosereel Rectangular water tank capacity up to 30,000 L c/w lable and red paint, metal stand, concrete base and other necessary support items.	No	24,000.00
	Water Tank Fittings Brass Ball Float Valve c/w Polythene Ball		
7	25mm (1")	No	30.00
8	32mm (1 1/4")	No	35.00
9	50mm (2")	No	42.00
10	75mm (3")	No	50.00
11	100mm (4")	No	100.00
	Brass Ball Float Valve c/w Copper Ball		
12	75mm (3")	No	75.00
13	100mm (4")	No	130.00
IV	**RELATED WORKS**		
1	Repainting faded fire service piping	m	2.00
2	Repainting faded labeling	No	8.00
V	**OTHER ITEM NOT INCLUDED**		
	Any other related item not specified, please mentioned :- i)..... ii)..... iii).....	....	....

Validity Offer : **6 (six) months (from the date of quotation)**

Defect Liability period: **6 (six) months**

Liquidated and Ascertained Damages (LAD): **25.00/ day**
For each day the works remain incomplete
(If none stated, then the Contract Administrator
may certify a reasonable sum as compensation
for delay)

Contract / Address: (Official Chop / Signature)

Tel. (off)

H/phone

Fax. No

**** Class : I and above ** Category: E01,E02, KPME 05 & P04**

I/we, the undersigned, are willing to contract TERM CONTRACT OF CORRECTIVE WORKS FOR FIRE PROTECTION SYSTEM IN UNIVERSITI BRUNEI DARUSSALAM as may be ordered from time to time for the period of one (1) year or when needed not exceeding quotation limited, Which ever come first.

This quotation is open to contractor with valid registration **minimum class 1 & above and register with E02,KPME05,M03,P04 & P05**

(+)PLUS/(-) MINUS……% (…….Percentage)

Defect liability period shall be 6 months

Contract period:

1 year or not exceeding the amount of the quotation limit, which ever come first

Valid Offer

6(six) Months (from the date of the quotation)

From:……

Contract /Address

……
(Official chop/Signature)

…… Tel. (off):……

…… Mobile Phone:……

…… Fax No:……