

# ADP Scheme - 778 (110489) (Package - 2)

GPI, Mardan  
Petrochemicals Lab

S#	Name of Items	Unit	For one college Qty	Unit Price (Both in Figures and words ) Inclusive all taxes	Total Price (both in Figures and words) Inclusive all taxes
1	<b>Beakers</b> 100ml		50		
2	<b>Beakers</b> 250 ml		50		
3	<b>Beakers</b> 500 ml		25		
4	<b>Beakers</b> 1000ml		10		
5	<b>Glass Rod</b> 8 inches	ft	25		
6	<b>Funnel</b> 3 inches		25		
7	<b>China Dish</b> 60cc		25		
8	<b>Filter paper sheets</b> 10 x 12 inches	sheets	100		
9	<b>Sprit Lamp or Bunsen Burner</b> With stop cork		50		
10	<b>Tripod stand</b> 8inches/6inches		50		
11	<b>Thermometer</b> (110 °C)		50		
12	<b>Capillary tubes</b>	Packs	5		
13	<b>Universal pH Paper</b> Rang (1-14)	Packs	20		
14	<b>Chromatograph Tank</b>		50		
15	<b>Cork with hook</b>		25		
16	<b>Watch Glass</b> 3"		50		
17	<b>Glass pipe</b>	m	10		
18	<b>Ostwald's Viscometer</b>		50		
19	<b>Pipette</b> 10ml		50		
20	<b>Specific Gravity Bottle</b> 25 ml		25		
21	<b>Analytical / Electronic Balance</b> 0.1 gm to 500 gm		6		
22	<b>Crucible with lid</b>		10		
23	<b>Stop watch</b> Digital		25		
24	<b>Pipette sucker</b>		25		
25	<b>Stalagmometer</b>		50		
26	<b>Pinch Cock</b>		50		
27	<b>Rubber Tubes</b> ½ "	ft	50		
28	<b>Hoffman's Voltameter</b>		10		
29	<b>Connecting Wires</b>	Pkt	20		
30	<b>Battery (12 V) D.C /Adapter</b> 300 milli ampere		10		
31	<b>Distilled Water Plant. (Gas or Electric)</b> 5 liter /h		2		
32	<b>Copper Foils</b> (5cm x 2cm)		10		
33	<b>Ammeter</b> 0-3 ampere		10		
34	<b>Test Tubes</b> 16 x 150 mm		300		
35	<b>Test Tubes Stands</b>		25		
36	<b>Tube Test Brush</b>		25		
37	<b>Test Tube Holder</b>		25		
38	<b>Platinum wire</b>		25		
39	<b>Measuring Flask</b> 1 Litre		10		

40	<b>Measuring Flask</b> 500 ml		10		
41	<b>Measuring Flask</b> 250 ml		10		
42	<b>Measuring Flask</b> 100 ml		10		
43	<b>Graduated Cylinder</b> 100 ml		25		
44	<b>Graduated Cylinder</b> 50 ml		25		
45	<b>Kipp's Apparatus</b> 250 ml		4		
46	<b>Desiccators</b> 150 mm		2		
47	<b>Conical Flask</b> 250 ml		50		
48	<b>Burette</b> 50 ml		50		
49	<b>Iron stand with clamps</b>		50		
50	<b>Wire Gauze</b>		50		
51	<b>Hot Plate</b> 8"		2		
52	<b>Fusion tubes</b>		250		
53	<b>Pestle and Mortar</b>		2		
54	<b>Wash Bottle - plastic</b>		20		
55	<b>Dropper</b>		20		
56	<b>Glass Stirrer</b>		50		
57	<b>Steal Spatula</b>		25		
58	<b>Water Bath</b>		20		
59	<b>Burette Stand</b>		25		
60	<b>Tongs</b>		25		
61	<b>Reagent Bottles</b> 250ml Narrow Mouth		10		
62	<b>Reagent Bottles</b> 250ml		10		
63	<b>Reagent Bottles</b> 500ml		10		
64	<b>Reagent Bottles</b> 1000ml		10		
65	<b>Titration Flask</b> 250ml		10		
66	<b>Water still:</b> electric type output liters per hour, 3.8 to 4.5 consumption per hour 3Kw approximate height 29/1/2" for 230 V 50 Hz , single phase		1		
67	<b>Balance students:</b> with graduated brass deam and agate bearing capacity 250 gma. Sensitivity 1 mg mounted in polished wood case fitted with rider manipulator		1		
68	<b>Balance:</b> single pan triple beam sliding weight weighing to 1110 gms x 0.1 gm rear beam divided 1000 cus x 100 gms and frot beam 10 gms x 0.1 gm. Attachment weight to increase total capacity to 2110 grms with stainless steel pan		1		
69	<b>Petrol gas generator:</b> standard model full tank fitted with filler plug and contents gauge capacity equivalent to 10 hours continuous running gas delivered to the gans holder under a pressure adjustable to a maximum of 5" water gauge holder fitted with mercury switch controlling the motor which stops and starts with rise and fall of gas holder gas/ air mixture adjustable from normal rich mixture of 5% air use on 230 V 50 Hz single Phase motor tropicalised.		1		
70	<b>Barometer</b> mercurial: fortni type scale in cue vernier reading upto 0.01mm		1		
71	<b>Peumatic trough:</b> stout borosilicate glass circular		15		

	for collection of gases over water on or for storage				
	of specimens diameter 25 cm height 12 cm				
	<b>Kippker gas generators:</b>		1		
	borosilicate glass central				
	bulb 1 litre capacity with ground in stock cock				
	lower acid reservoir with stapped ground tubulure				
	upper bulb fitted with rubber stopper and SAF-TY				
	funner ground in conical tube to prevent solid matter falling into lower acid reservoir in returnable				
72	case				
	<b>Dropping bottles:</b>		15		
	amber glass with ground in				
73	glass stopper nominal capacity M1100				

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GPI, Mardan  
Petrochemical Technology DAE 1  
BASIC GEOLOGY AND DRILLING LAB

Sr. No.	Name of Item with Specifications	For one college Qty	Unit Price (Both in Figures and words) Inclusive all taxes	Total Price (both in Figures and words) Inclusive all taxes
1	<b>Hydrometers API</b>	02 set		
	1-11API			
	9-21API			
	19-31API			
	29-41API			
	39-51API			
	49-61API			
	59-71API			
	69-81API			
	79-91API			
	89-101API			
2.	<b>Saybolt Viscometer (Universal Orifice)</b>	1		
	DIGITALSTOPWATCH, hand-held, 0.1s resolution,			
	SAYBOLT VISCOSITY KIT (E102), comprises Cup Adaptor (qty 2),			
	Saybolt viscometer Cup (qty 2),			
	Universal Orifice Tip (qty 2),			
	Withdrawl Tube,			
	Thermometers 0-150c (qty 2),			
	Thermometer Support (qty 2),			
	Filter Funnel,			
	60ml Receiving Flask (qty 2),			
	Displacement Ring (qty 2),			
	Cover (qty 2),			
	Spirit Level (qty 2).			
	1000W heater, Cooling coil			
3.	<b>Saybolt Viscometer (Furrol Orifice) ( Petrotest / Equivalent )</b>	1		

	DIGITALSTOPWATCH, hand-held, 0.1s resolution,	
	SAYBOLT VISCOSITY KIT (D88), comprises Cup Adaptor (qty 2),	
	Saybolt Viscometer Cup (qty 2),	
	Furrol Orifice Tip (qty 2),	
	Withdrawl Tube,	
	Thermometers 50-300c (qty 2),	
	Thermometer Support (qty 2),	
	Filter Funnel,	
	60ml Receiving Flask (qty 2),	
	Displacement Ring (qty 2),	
	Cover (qty 2),	
	Spirit Level (qty 2).	
	1000W heater, Cooling coil	
4	<b>ASTM Distillation Apparatus</b>	2
	With ISO 3405-2007	
	Distillation range, ambient to 400°C	
	Mains supply 220 V	
	Heater power 750 W	
	Overall dimensions (W x D x H) 450 x 450 x 535 mm	
5	<b>Microscope</b>	1
	Microscopes can be equipped for phase contrast or dark field applications.	
	• Solid and stable stand	
	• SMP semi-plan and PL plan DIN	
	objectives for a high resolution	
	and a flat image	
	• Inverted equipped with infinity-type objectives	
	• Compensating KHWF 10x DIN	
	eyepieces - field no. 20 - correct the	
	image of the objective and produce a large field of view	
	• Flat-top mechanical stage - fitted	
	with ball-bearings - 171 x 140 mm	
6	<b>Vernier Caliper (digital)</b>	2
	With inside , outside and depth = 150 mm measurement range	
7	<b>Mud Balance</b>	2

	4-Scale Mud Balance, Machined ARM,	
	Complete W/Case	
8	<b>Marsh Funnel</b>	2
	12-Mesh Half Circle Screen	
	Plastic Measuring Cup, 1000 mL	
	Stainless Steel Measuring Cup, 1000 mL	
	Thermometer w/Metal Dial, 5" Stem, 0-220°F	
	Thermometer w/Metal Dial, 5" Stem,	
	Dual Scale, 50/500°F, 0/250°C	
	T-Handle Reamer 3/16"	
	Digital Stopwatch	
9	<b>Filter Press</b>	1
	Filter Press With Dead Weight Assy	
10	<b>DIGITAL MICROMETER</b>	2
	For direct reading to 0.01 mm carbide tipped anvil & spindle , face lightly polished, friction -locking device, suitable for	
	With inside , outside and depth = 150 mm	
	measurement range	

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## Fluid Mechanics Lab

Sr. No.	Name of Item	Specifications	For one college Qty	Unit Price (Both in Figures and words) Inclusive all taxes	Total Price (both in Figures and words) Inclusive all taxes
1	<b>Hydraulic Bench</b>	<ul style="list-style-type: none"> <li>· Self-contained fully mobile unit, with flat top area for conduct of different practical.</li> <li>· Corrosion resistance glass reinforce plastic.</li> <li>· Sump tank capacity: 140~250 liters.</li> <li>· Volumetric tank</li> <li>· Height of working surface above floor level: one meter.</li> <li>· Pump: centrifugal type/submersible.</li> <li>· Max flow: 1 to 1.35 L/Sec</li> </ul> <p>Power Supply 220-240 V, 50 Hz, single phase. It should be provide means for mounting and connecting accessories for experiments as listed below:</p> <ul style="list-style-type: none"> <li>· Flow over weir</li> <li>· Losses in pipe</li> <li>· Bernoulli's theorem</li> <li>· Hydrostatic pressure</li> </ul> <p>Complete with accessories: stop watch. Pump with on-off switch. Control valve etc and instruction manual</p>	1		
2	<b>Venturimeter Apparatus</b>	<ul style="list-style-type: none"> <li>• Transparent acrylic.</li> <li>• Manometer range 0 to 290/300mm.</li> <li>• No. of transparent manometer tubes 8 to 11.</li> <li>• Throat diameter: 10-12 mm.</li> </ul> <p>Complete with: manometer tubes; manifold with air bleed valve; base plate with foot screws; plastic outlet tube; flow regulator valve; and instruction manual.</p> <p><b>Compatible with Hydraulic Bench.</b></p>	1		
3	<b>Manometer (U-Tube)</b>	Free water manometer, standard length one meter, glanded glass manometer tubes, engraved plastic scale, calibrated in metric units.	5		
4	<b>Pitot Tube</b>	<p><u>Experimental Capabilities:</u></p> <ul style="list-style-type: none"> <li>• Static and Dynamic pressure measurement</li> <li>• Determination of velocity profile in a tube flow</li> <li>• Pitot static tube complete with scale for positioning within the tube</li> <li>• Pipe section made of transparent acrylic</li> <li>• Manometer Hose Coupling</li> </ul>	2		

		Compatible with hydraulic bench.			
5	<b>Bourden Guage</b>	Pressure Gauge (Bourdon Type) Dial Size 4 inch only Ranges 0 to400 Psi (-)1 to 0 kg/cm2 or (-)760 mm HG Vac. (-)1 kg/cm2 or (-)760 mm Hg to 15 kg/cm2 Standard Accuracy ± 0.25% of F S D Master guage - 200 mm dial size with all Stainless steel internal & system ± 0.5% of F S D Test guage - Available 200 mm dial size with all stainless Steel internals & systems ± 1% of F S D Quality guage -200 mm dial size with all Stainless steel internals & system. ± 2% of F S D Quality guage - 200 mm dial size with all Stainless steel internals. Standard Degree of Protection 1P-65 Sensing Element Bourdon Tube Shape of Bourdon Tube In C P< 100kg/cm2	5		
6	<b>Centrifugal Pump</b>	Suction Head 2 inch dia. Closed Impeller Mounted with one phase motor	1		
7	<b>Reciprocating Pump (Double Acting)</b>	Suction Head 2 inch dia Mounted with one phase motor	1		
8	<b>Rotary Pump</b>	Suction Head 2 inch dia Mounted with one phase motor	1		
9	<b>Centrifugal Compressor</b>	Suction Head 2 inch dia Mounted with one phase motor	1		
10	<b>Reciprocating Pump (Single Acting)</b>	Suction Head 2 inch dia Mounted with one phase motor	1		
11	<b>Series of 5 water pump rotors</b>	( on base )	1		
12	<b>Cut Section</b>	Self-priming high-lift centrifugal electric pump with built-it ejector	1		



		( on base )			
13	<b>Cut Section</b>	Multistage centrifugal pump ( on base )	1		
14	<b>Cut Section</b>	Reciprocal compressor ( on base )	1		