Problems based on Q, U and W

1. Work done in the given P-V diagram in the cyclic process is(a) PV

(b) 2PV

(c) PV/2

(d) 3PV

2. Which of the following is not a thermodynamics co-ordinate(a) P (b) T (c) V (d)

3. Which of the following can not determine the state of a thermodynamic system [AF
2001]

(a) Pressure and volume (b) Volume and temperature

(c) Temperature and pressure (d) Any one of pressure, volume or
temperature

4. In the figure given two processes A and B are shown by which a thermo-dynamical
goes from initial to
final state F. If
QA
and
QB
are respectively the heats supplied to the systems then(a)
QA QB
(b)
QA QB
(c)
QA QB
(d)
QA QB

5. In the cyclic process shown in the figure, the work done by the gas in one cycle
28 p1V1
(b)
14 p1V1
(c)
18 p1V1
(d)
9 p1V1

6. The internal energy of an ideal gas depends upon [RPMT 1997; MP PMT 1999]

(a) Specific volume (b) Pressure (c) Temperature (d) Density

(P, 2V)
(2P,
2V)
(2P,
V)
(P, V)
P
V
P
V
i
A
B
f
V1 4V1