

Question 4 (12 marks)

A 55 year old Female with PMH of CCF and DM, is brought to your emergency department by ambulance with vomiting and drowsiness. here is no clinical signs to suggest trauma. Her Vital signs are :

BP	95/60	mmHg
HR	110	bpm
RR	28	bpm
O2Sat	94%	RA
T	37	deg celsius
GCS	14	(E3V5M6)

Her venous blood gas is shown in **PROPS BOOKLET; PAGE 6.**

a) What is the likely explanation for these gas results in this patient (2 marks)

1. Septis (eg. pneumonia)
2. Intracranial Haemorrhage
3. AMI
4. Gastrointestinal Fluid losses (Gastroenteritis)
5. Hypoglycaemic state (HHS/DKA)

b) Is anion gap normal or abnormal? show your calculation. (2 mark)

Abnormal - elevated

$144 - (90 + 19) = 35$

Question 4 (continued)

c) Calculate the Approximate Delta Gap and show your calculation. (2 marks)

$$\Delta AG / \Delta HCO_3 = \frac{35 - 12}{24 - 19} = \frac{23}{5}$$

$$\approx 4.5$$

d) What acid base disturbances does the Delta gap suggest? (1 mark)

$DG > 2 =$ concurrent metabolic

Metabolism.

e) List Four (4) expected changes with the ECG for Hypokalaemia. (4 marks)

1. Peaked P waves

2. Prolonged PR interval

3. ST depression

4. Broad Flat T wave

• U wave,

• QT prolongation

• supraventricular / ventricular arrhythmias

Question No	4
Total mark	11
Pass mark	
Candidate No)	Raw Mark (green = pass)
1	3/11
2	10/11
3(Absent)	
4	6/11
5	9/11
6	6/11
7(Absent)	
8	7/11
9	11/11
10	7/11
11	5/11
12	7/11
13	7/11
14	7/11
15	7/11
16	10/11
17	8/11
18	7/11
19	10/11
20	3/11
21	7/11
22(Absent)	
23	8/11
24	6/11
25	6/11
26	6/11
27	6/11
28(Absent)	
29	2/11
30	8/11
31	6/11
32	7/11
33	7/11
34	9/11
35	4/11

Mark	Number of candidates
0	
0.5	
1	
1.5	
2	1
2.5	
3	2
3.5	
4	1
4.5	
5	1
5.5	
6	7
6.5	
7	10
7.5	
8	3
8.5	
9	2
9.5	
10	3
10.5	
11	1
11.5	
12	
12.5	
13	
13.5	
14	
14.5	
15	
15.5	
16	
16.5	
17	
17.5	
18	

