

PART A: MULTIPLE CHOICE (10 MARKS)

1	2	3	4	5	6	7	8	9	10
c	a	c	d	c	d	a	d	b	b

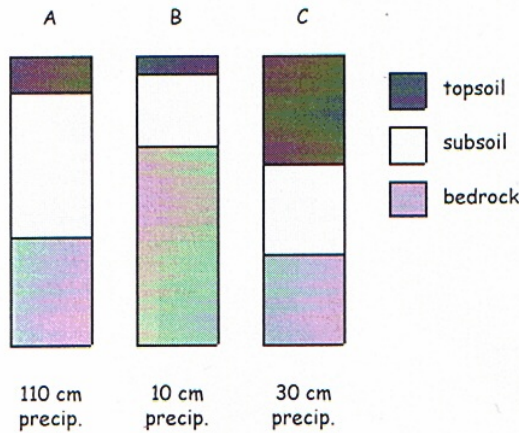
PART B: MATCH (5 MARKS)

1	2	3	4	5
C	E	J	A	D

PART C: SHORT ANSWER (20 MARKS)

Answer the following questions in the space provided. If more space is needed use the back of this sheet.

1. Use the diagram below, which shows data gathered about soil samples from three different biomes, to answer the following questions.



- (6) (a) Identify soil profiles A, B, and C as coming from tundra, boreal forest, or grassland. Give a brief explanation for your choices.

A boreal forest - better than tundra but grassland better (conifers & poor topsoil)
 B tundra - very little topsoil or precipitation
 C grassland - lots of topsoil but variable rainfall

- (2) (b) Which soil type could support more plants? Give reasons.

C - more topsoil so more nutrients (ie food)

2. The data in the table to the right was collected from three different litter and soil samples. The study areas for each sample was 200 cm X 200 cm.

	Sample #1	Sample #2	Sample #3
Amount of water held by 100 g of soil (mL)	10	25	5
mass of litter above soil (g)	12.1	35.3	2.2
soil temperature (°C)	23°C	19°C	30°C
earthworms	2	8	0
beetles	1	3	0
centipedes	0	1	0
millipedes	2	3	0

- (3) (a) Match each soil sample to one of the following biomes: Desert, Grassland, or deciduous Forest.

#1 G #2 F #3 D

- (2) (b) State 2 abiotic factors that provide a favourable environment for the earthworms in sample 2?

① mass of litter (food)
 ② soil temperature / moisture

- (2) (c) State 2 biotic factors that provide a favourable environment for the earthworms in sample 2?

① food (living) sources
 ② ie various plants, ...

- (5) 3. Biological, chemical & physical forms of pollution can be grouped into 5 broad categories. List them.

① organic solid waste
 ② disease causing organisms
 ③ inorganic solids & dissolved minerals
 ④ heat
 ⑤ organic chemicals