



**UNIVERSITY OF JOHANNESBURG**

**DEPARTMENT OF GEOGRAPHY, ENVIRONMENTAL MANAGEMENT & ENERGY STUDIES**

<b>MODULE:</b>	<b>GR1BFET Geography for Education Introduction to Geography</b>
<b>CAMPUS:</b>	<b>APK</b>
<b>ASSESSMENT:</b>	<b>SEMESTER TEST OCTOBER 2021</b>

**DATE: 14 OCTOBER 2021**

**SESSION: 8:00 – 09:30**

**ASSESSOR:**

**Ms D Greenberg**

**MODERATORS:**

**Prof. C. Kelso**

**DURATION: 90 MINUTES  
PAGES INCLUDING COVER: 3**

**MARKS: 60**

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**SURNAME** \_\_\_\_\_ **INITIALS** \_\_\_\_\_

**STUDENT NUMBER** \_\_\_\_\_

**Please read the following instructions carefully:**

1. Answer ALL questions
2. All questions must be answered in your test booklet.
3. Please number your answers clearly
4. This question paper must be handed in with your answer booklet

**QUESTION 1 - MISSING WORDS**

- 1.1) In the southern hemisphere, the   (a)   occurs on or around the 21 December. At this time, the Subsolar point is over the   (b)  . (2)
- 1.2) In the southern hemisphere, the   (a)   occurs on or around the 21 March. At this time, the Subsolar point is over the   (b)  . (2)
- 1.3) In the southern hemisphere, the   (a)   occurs on or around the 21 June. At this time, the Subsolar point is over the   (b)  . (2)
- 1.4) The \_\_\_\_\_ is the location where insolation is perpendicular to the surface. (1)
- 1.5) If the water table is lower than the stream channel, we call this \_\_\_\_\_ conditions. (1)
- 1.6) Other than ice sheets and glaciers, the largest repository of *fresh water* is located in the \_\_\_\_\_. (1)
- 1.7) \_\_\_\_\_ water is water held in the micropores of the soil due to surface tension properties (cohesion and adhesion are stronger than the force of gravity). (1)
- 1.8) The upper limit of the water that collects in the saturation zone is the \_\_\_\_\_. (1)
- 1.9) A/an \_\_\_\_\_ is a rock layer that is permeable to groundwater flow in usable amounts. (1)
- 1.10) \_\_\_\_\_ temperature is the temperature at which a given mass of air becomes saturated and net condensation begins to form water droplets. (1)

**[13]****QUESTION 2 - DEFINE THE FOLLOWING TERMS**

(Take note of the mark allocations and please number your answers carefully)

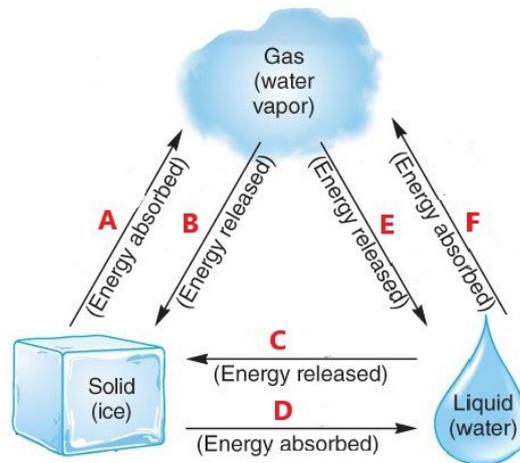
- 2.1) Aphelion (1)
- 2.2) Kinetic energy (1)
- 2.3) Refraction (2)
- 2.4) Humidity (3)
- 2.5) Transpiration (1)
- 2.6) Wetland (2)
- 2.7) Insolation (1)
- 2.8) Temperature inversion (1)

**[12]**

**QUESTION 3**

The figure below shows the phase changes of water. Label the letters A to F.

(6)

**[6]****QUESTION 4 - DIAGRAM**

The atmosphere is comprised of layers based on temperature. Draw **and** label a detailed diagram showing the atmospheric temperature profile and how the temperature changes.

**[12]****QUESTION 5**

(Number your answers carefully)

5.1) List the following wavelengths in order from shortest (high energy) to longest (low energy). (7)

(a) Visible light	(b) Microwaves	(c) Gamma rays	(d) Radio waves	(e) X-rays	(f) UV rays	(g) Infrared
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5.2) List the five (5) physical factors responsible for the variations in the seasons. (5)

5.3) Name any two sources of natural air pollutants (2)

5.4) Name any two sources of anthropogenic air pollution (2)

5.5) Which type of fog moves across large areas and can last for several days? (1)

**[17]****TOTAL [60]**