Name..........
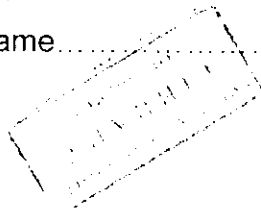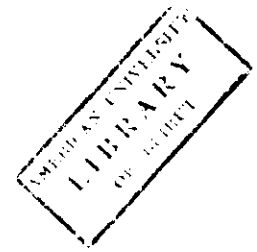
Geology 102: Environmental Physical Geography
Final Exam

University exam rules apply
Time allowed: 2 hours

Section A (60 marks)

Please answer the questions in this section on the answer sheet provided. Note that two marks will be given for each correct answer and half a mark will be deducted for each incorrect answer.

1) If the continents were to be given in size order from the smallest to the largest, the order would be?
   a) Australia, Antarctica, S. America, Eurasia, Africa, N. America
   b) Australia, Antarctica, Africa, S. America, N. America, Eurasia
   c) Australia, Antarctica, S. America, N. America, Africa, Eurasia
   d) Antarctica, Australia, N. America, S. America, Africa, Eurasia
   e) Antarctica, Australia, Africa, S. America, N. America, Eurasia

2) The large expanses of low relief ocean floor that exist beneath the deep oceans are known as?
   a) Continental slopes
   b) Continental shelves
   c) Continental rises
   d) Abyssal planes
   e) Seamounts

3) There are 360 degrees in a circle. How many seconds are there?
   a) 180.
   b) 360.
   c) 21600.
   d) 1296000.
   e) None of the above.

4) A Mercator projection is best described as?
   a) A type of conic projection in which the lines of latitude are unequally spaced
   b) A type of conic projection in which the lines of longitude are equally spaced
   c) A type of planar projection in which the lines of latitude are equally spaced
   d) A type of cylindrical projection in which the lines of latitude are unequally spaced
   e) A type of equal area projection in which both the lines of latitude and longitude are unequally spaced

5) An alien sitting on a planet 113.52 trillion kilometres away is looking at the Earth with a powerful telescope. What Earth day does he see?
   a) The present day
   b) June 19th 1992
   c) June 19th 1987
   d) June 19th 1982
   e) June 19th 1977

13) What do 0°C, 32°F and 273°K have in common?
    a) Nothing
    b) They represent lines of latitude in different time zones
    c) They are temperatures (different scales) at which mercury boils
    d) They are temperatures (different scales) at which water freezes
    e) They represent lapse rates in different countries

14) The deflection caused by the Coriolis force is zero at:
    a) 90° latitude
    b) 90° longitude
    c) 0° latitude
    d) 0° longitude
    f)   The deflection caused by the Coriolis force is never zero.

15) The Subtropical High in the Northern Hemisphere is represented by?
    a)   The Bermuda and Pacific Highs
    b)   The Canadian and Siberian Highs
    c)   The Aleutian and Icelandic Highs
    d)   A and B are both correct
    e)   B and C are both correct

16) The dry Monsoon in India is caused by?
    a)   The ITCZ moving north in winter
    b)   The ITCZ moving south in summer
    c)   The SE Trade winds blowing across India from Africa
    d)   The NE Trade winds blowing across India from the Asian landmass
    e)   There is no such thing as a dry Monsoon

17) Gyres are best described as?
    a)   Rising cold water from the ocean depths
    b)   Cell like circulations of the Ocean currents
    c)   Oceanic meanders
    d)   Slow moving oceanic currents
    e)   Oceanic convection cells

18) High altitude wispy clouds are known as
    a)   Stratus
    b)   Cumulus
    c)   Cirrus
    d)   Nimbus
    e)   Altus

19) Relative humidity is measured using a:
    a) Thermometer
    b) Barometer
    c) Anometer
    d) Radiosonde
    e) Psychrometer

26) The major problem facing people who live and work in B type climates is:
   a) Deforestation
   b) Acid rain
   c) El-Nino
   d) Urban dust domes
   e) Desertification

27) The Holocene epoch represented:
   a) A 10, 000 year glacial period
   b) The little ice age
   c) The Medieval Optimum
   d) An interglacial period
   e) None of the above

28) The Savanna climate type is denoted by which of the following letters in the Koppen classification scheme?
   a) ET
   b) Dfb
   c) Csa
   d) H
   e) Aw

29) Which of the following is not a primary gaseous pollutant :
   a) CO_2
   b) CO
   c) SO_2
   d) NO_2
   e) O_3

30) If the ration of O^{16} to O^{18} decreases in oceanic sediments what can you deduce?
   a) Nothing
   b) Global temperatures are increasing
   c) Global temperatures are decreasing
   d) There is no life on Earth
   e) Large areas of the Earth have become desertified.

1	A	B	C	D	E	11	A	B	C	D	E	21	A	B	C	D	E
2	A	B	C	D	E	12	A	B	C	D	E	22	A	B	C	D	E
3	A	B	C	D	E	13	A	B	C	D	E	23	A	B	C	D	E
4	A	B	C	D	E	14	A	B	C	D	E	24	A	B	C	D	E
5	A	B	C	D	E	15	A	B	C	D	E	25	A	B	C	D	E
6	A	B	C	D	E	16	A	B	C	D	E	26	A	B	C	D	E
7	A	B	C	D	E	17	A	B	C	D	E	27	A	B	C	D	E
8	A	B	C	D	E	18	A	B	C	D	E	28	A	B	C	D	E
9	A	B	C	D	E	19	A	B	C	D	E	29	A	B	C	D	E
10	A	B	C	D	E	20	A	B	C	D	E	30	A	B	C	D	E

Section B (20 marks)

Using fully labeled diagrams, and where possible, examples, explain what is meant by the following terms: **(Remember: No diagram = No grade)**

1) A line symbol

2) Isolines

3) Jet streams

4) Classification of air masses

5) Secondary pollutants

Section C (20 marks)

Using labelled diagrams, and where possible, examples, explain what happens next in each of the following cases. **(Remember: No diagram = No grade)**

1) ☀ 36"c
        80% humidity   🌙 22"c

        👶   ➡

2)

                                    What happens ?.

Wind direction   Town
⇒   ▨

3) Pleistocene Age   Tree

        Micro-organisms

        ⊳⊙   * Corals

4)

Global temperatures ↑

Years ➡