

Post Evaluation Ag-Bio 2005

Directions For Numbers 101- 125 : Read each of the following multiple-choice items and the possible answers carefully. Mark the letter of the correct answer on your answer sheet or as instructed by your teacher. Remember: Make no marks on this test.

101 The chemicals Guanine, Cytosine, Thymine and Adenine are known as:

- A Genes.
- B Chromosomes.
- C Nucleotides.
- D Isotopes.

102 The invention of the cotton gin led to:

- A More use of slave labor.
- B Less use of slave labor.
- C The industrialization of the South.
- D The ending of the Civil War.

103 In the nineteenth century, the center of the American textile industry was in:

- A San Francisco, California.
- B New York, New York.
- C Chicago, Illinois.
- D Lowell, Massachusetts.

104 Rachel Carson is credited with starting:

- A The green revolution.
- B The environmental movement.
- C Modern biotechnology.
- D The development of genetically modified foods.

105 One early use of biotechnology occurred in the Middle East. This involved:

- A Growing crops.
- B Brewing beer.
- C Burial mummification.
- D Manufacturing linen.

106 A substance that can be broken down into organic molecules by microorganisms is said to be:

- A Transgenic.
- B Biodegradable.
- C Arable.
- D Recombinant.

107 The entire genetic content of an organism is called its:

- A Genetic fingerprint.
- B Sugar-Phosphate matrix.
- C Genome.
- D Nucleotide index.

108 The person referred to as the father of the Green Revolution is:

- A Norman Borlaug.
- B Rachel Carson.
- C Gregory Mendel.
- D Ingo Potrykus.

Post Evaluation Ag-Bio 2005

- 109** Integrated Crop Management (ICM) is a system whose approach maintains that:
- A Pests should be completely eradicated.
 - B The complete eradication of pests is undesirable.
 - C Biotech foods will make fertilizer and pesticides obsolete.
 - D No agricultural method can be sustained for long periods.
- 110** What was the first approved genetically modified food?
- A Banana
 - B Peach
 - C Cucumber
 - D Tomato
- 111** A possible consequence of fertilizer runoff is:
- A Acid rain.
 - B Unwanted algae growth.
 - C Increased insect population.
 - D Decreased nitrogen content in surface water.
- 112** Recombinant Bovine Growth Hormone (rBGH) has the purpose of:
- A Making livestock grow faster.
 - B Increasing the nutritional value of beef.
 - C Eliminating the need for antibiotics.
 - D Causing cows to produce more milk.
- 113** The **MOST** important tools used to control the outbreak of SARS have been:
- A Quarantines and infection control.
 - B Genetically engineered vaccines and free inoculations.
 - C Spraying for mosquitoes and draining standing water.
 - D Sex education campaigns and free distribution of condoms.
- 114** Bio-manufactured products include which of the following?
- A Microscopes.
 - B Milk with longer shelf-life.
 - C Monoclonal antibodies.
 - D Seedless cotton.
- 115** Which inventor developed the seed drill?
- A Gregory Mendel
 - B Jethro Tull
 - C James Watson
 - D John Deere
- 116** Bt Cotton is identified with:
- A Where it is grown.
 - B The color of the lint.
 - C Its genetic modification.
 - D The type of the fiber.

Post Evaluation Ag-Bio 2005

For Numbers 117- 119, use the following Punnett square.

A capital **P** indicates a dominant allele for purple flowers. A lower case **p** indicates a recessive allele for white flowers.

Second Generation

This row and column show all the alleles from two parents	P	P	p	p
P	PP Purple Flower	PP Purple Flower	Pp Purple Flower	Pp Purple Flower
P	PP Purple Flower	PP Purple Flower	Pp Purple Flower	Pp Purple Flower
p	Pp Purple Flower	Pp Purple Flower	pp White Flower	pp White Flower
p	Pp Purple Flower	Pp Purple Flower	pp White Flower	pp White Flower

- 117** A Punnett square is useful for:
- A** Predicting with certainty the color of the next flower that blooms.
 - B** Approximating the number of times that a specific trait will appear when given the number of occurrences.
 - C** Predicting the rate of pollination.
 - D** Determining the total yield of the harvest.

- 118** The Punnett square shown indicates that, in this generation, the probability of a plant having white flowers is:
- A** One in eight.
 - B** One in six.
 - C** One in four.
 - D** One in two.

Post Evaluation Ag-Bio 2005

- 119** If the garden represented by the Punnett square shown has 600 plants, approximately how many will have purple flowers?
- A 300
 - B 350
 - C 400
 - D 450
- 120** In the period between 1790 and 1808 about 80,000 Africans were brought to America as slaves. The total population of America in the early 1800s was about 5 million people. About what percentage of the total population was the result of this historical event?
- A 0.625 %
 - B 1.60 %
 - C 6.25 %
 - D 16.0 %
- 121** Which statement reflects the prediction of Thomas Malthus?
- A An arithmetic progression will increase faster than a geometric progression.
 - B War and disease will tend to put limits on the world food supply.
 - C In time, the growth in human population will exceed the available food supply.
 - D In time, humans will have greater and greater food surpluses.
- 122** The banana must be liquefied in a blender before extracting its DNA in order to:
- A Break down the cell membrane.
 - B Improve its viscosity.
 - C Release the nitrogen and phosphates.
 - D Break down the cell wall.
- 123** The individuals credited with discovering the structure of DNA were:
- A Mendel and Darwin.
 - B Watson and Crick.
 - C Whitney and Potrykus.
 - D Borlaug and Carson.
- 124** Organisms that are modified by transferring traits from one species to another are called:
- A Transgenic.
 - B Clones.
 - C Domesticated.
 - D Inbred.
- 125** Before extracting DNA from plant matter, lysis solution is added to the mixture in order to break down the:
- A Cell membrane.
 - B Cell wall.
 - C Chlorophyll.
 - D Cellulose.

Post Evaluation Ag-Bio 2005

?	⊙	Answer/ Scale	Objective	?	⊙	Answer/ Scale	Objective
101	101	C	AB11.02 Science	114	114	C	AB11.03 Technology
102	102	A	AB11.03 Technology	115	115	B	AB11.03 Technology
103	103	D	AB11.03 Technology	116	116	C	AB11.03 Technology
104	104	B	AB11.03 Technology	117	117	B	AB11.01 Math
105	105	A	AB11.03 Technology	118	118	C	AB11.01 Math
106	106	B	AB11.03 Technology	119	119	D	AB11.01 Math
107	107	C	AB11.03 Technology	120	120	B	AB11.01 Math
108	108	A	AB11.03 Technology	121	121	C	AB11.01 Math
109	109	B	AB11.03 Technology	122	122	D	AB11.02 Science
110	110	D	AB11.03 Technology	123	123	B	AB11.02 Science
111	111	B	AB11.03 Technology	124	124	A	AB11.02 Science
112	112	D	AB11.03 Technology	125	125	A	AB11.02 Science
113	113	A	AB11.03 Technology				

Minimum points
required to achieve
mastery category

Total questions on test: 25

Objectives measured: 3	Items	Points	●	◐	Questions measuring this objective
AB11.02 Science	5	5	4	3	101 122 123 124 125
AB11.03 Technology	15	15	11	10	102 103 104 105 106 107 108 109 110 111 112
AB11.03 Technology					113 114 115 116
AB11.01 Math	5	5	4	3	117 118 119 120 121
Totals		25	19	16	

AB11

? = Test Question Number ⊙ = line on GP Form

Post Evaluation Ag-Bio 2005

Items used in test

?	Item name	?	Item name	?	Item name
101	AB11.02.00.01	110	AB11.03.00.03	118	AB11.01.00.02
102	AB11.03.00.02	111	AB11.03.00.07	119	AB11.01.00.03
103	AB11.03.00.06	112	AB11.03.00.09	120	AB11.01.00.04
104	AB11.03.00.01	113	AB11.03.00.04	121	AB11.01.00.05
105	AB11.03.00.13	114	AB11.03.00.15	122	AB11.02.00.05
106	AB11.03.00.05	115	AB11.03.00.14	123	AB11.02.00.02
107	AB11.03.00.08	116	AB11.03.00.12	124	AB11.02.00.03
108	AB11.03.00.10	117	AB11.01.00.01	125	AB11.02.00.04
109	AB11.03.00.11				

AB11

? = Test Question Number ● = line on GP Form