Lecture 14: Sedimentary Rocks II

14. A short time break or a change in sediment type in a depositional environment results in the creation of (1) ______ between individual beds. A very long time break produces (2) ________ in the rock record.

A. (1) an unconformity  (2) a graded bed
B. (1) an unconformity  (2) a bedding plane
C. (1) a bedding plane  (2) a graded bed
D. (1) a bedding plane  (2) an unconformity
E. (1) a graded bed  (2) an intrusive contact

14. Which of the following is NOT a type of sedimentary structure?
A. mudcracks
B. graded bedding
C. ripple marks
D. rock color
E. cross-bedding

14. The type of sedimentary structure that describes a layer of sediment in which the grain size steadily decreases from the bottom to the top of the layer is called:
A. bedding
B. cross-bedding
C. graded bedding
D. stratification
E. a bedding plane

14. Which of the following descriptions is NOT correct when talking about graded bedding?
A. it is a gravitational effect produced when sediment drops out of flowing water
B. there is a gradual change in sediment size throughout a bed
C. small sediment grains are at the bottom and large grains are at the top
D. graded beds are often associated with turbidity currents on ocean slopes
E. graded beds can be formed on a river bed during floods

14. Which of the following options are NOT related to the characteristics or development of graded bedding?
A. turbidity currents
B. ripple marks
C. gravity
D. gradual change in sediment size throughout the bed
E. coarsest sediment at the bottom of the bed

14. Which of the following sedimentary structures is common in sand dunes?
A. cross-bedding
B. trace fossils
C. graded bedding
D. mudcracks
E. all of the above

14. Cross-bedding is useful to geologists because:
A. it can be used to determine paleocurrent directions
B. it always indicates whether the bed formed by water or by wind currents
C. it allows regular bedding to be more easily distinguished
D. it indicates whether a current flowed in one direction only or back and forth
E. it makes rocks much more interesting to look at

14. The correct combination of ripple shape and potential environment in which the ripple developed is:
A. symmetric / single direction wind flow
B. symmetric / river channels
C. asymmetric / ocean waves
14. Which of the following statements about paleocurrents is FALSE?
A. cross-bedding can be used to determine a paleocurrent
B. cross-beds are inclined downwards in the direction of the paleocurrent
C. a paleocurrent refers to an ancient wind or water flow direction
D. ripple marks are indicators of paleocurrents
E. symmetric ripples indicate a constant, one-directional paleocurrent direction

14. An example of a trace fossil:
A. leaf imprint
B. fossilized shells
C. fossilized bones
D. dinosaur footprint
E. fossilized seeds

14. Which of the following is NOT a type of trace fossil?
A. worm trails
B. burrows
C. animal footprints
D. shells
E. all of the above are trace fossils

14. Which of the following changes in a depositional environment will NOT cause a change in the appearance of the resultant sediment that gets deposited?
A. change from an oxidizing to a reducing environment
B. rise or fall in sea level
C. advance or retreat of glacial ice
D. rivers changing their course through time
E. all of the above will cause changes in the sediment appearance

14. The order of sedimentary facies when moving from a beach towards deep water is:
A. carbonate facies – mud facies – sand facies
B. carbonate facies – sand facies – mud facies
C. sand facies – mud facies – carbonate facies
D. sand facies – carbonate facies – mud facies
E. mud facies – carbonate facies – sand facies

14. Which of the following is NOT a marine depositional environment?
A. alluvial fan
B. delta
C. continental shelf
D. continental slope
E. beach