1) The Concrete Reinforcing Steel Institute (CRSI) recommends that a reinforcing bar (rebar) inspection program be established for all construction projects where reinforcing bars are used. An appropriate checklist for rebar inspection is recommended that includes which of the following items, in addition to those listed below? a) Construction schedule, b) Certified mill test and/or bar coating report, c) Material shipment schedule, d) Potential concerns (possible discrepancies, drawing errors), e) Critical tolerances, f) Periodic meeting schedule

1. Independent testing laboratory reports
2. Approved placing drawings
3. A. and B.
4. None of the above

2) Which of the following statements are true with regards to bits and bytes?

1. A byte consists of a single numeric value; a bit is a sequence of bytes.
2. A bit consists of a single numeric value; a byte is a sequence of bits.
3. A bit consists of a single numeric value; a byte consists of an alphanumeric value.
4. None of the above

3) Euler’s Formula is used to determine which of the following properties related to a simply-supported column?

1. Maximum bending moment
2. Critical buckling load
3. Shear stress
4. None of the above
4) What is the composite C value for the following drainage area for a 10-year storm recurrence interval? Drainage area: 0.25 acres of residential lots with 40% imperviousness (C = 0.49) 0.25 acres of lawn with 0.95% slope with 0% imperviousness (C = 0.22) 0.10 acres of impervious pavement (C = 0.95)

1. 0.20
2. 0.45
3. 0.55
4. Not enough information provided

5) When consuming drinking treated water, which of the following may be an indicator of water quality problems within a finished water storage facility?

1. Poor taste
2. Odor
3. Water temperature
4. All of the above

6) What is the total volume of a grit chamber designed to handle an average daily flow of 3 million gallons with a peak flow ratio of 2.5, and a detention time of 3 minutes?

1. 540 ft³
2. 1,350 ft³
3. 2,079 ft³
4. 6,250 ft³

7) What is the passing sight distance for a section of 60 mile per hour (mph) 2-lane rural highway with a 1740-foot vertical sag curve where a bridge passes over at 16.8 feet? (Assume S > L and A = 3.15)

1. 870 feet
2. 2,210 feet
3. 2,273 feet
4. 3,389 feet
8) In which of the following cases would an open-pit excavation to construct a spread footing not be permitted?

1. Not in or near open water
2. Soil material is adequately stable
3. Soil moisture content varies widely
4. There is no threat of compromising the stability of nearby structures

9) What is the amount of tension that should be applied to the spring balance of the end of a steel tape to yield the proper tension to the 75-ft increment? (Assume the final measurement in the line of tape is 75 ft and the normal 100-foot tape tension is 10 pounds (lbs.).)

1. 7.5 lbs
2. 10 lbs
3. 75 lbs
4. None of the above

10) Fill in the blank: C++, Java, Visual Basic, and FORTRAN are examples of ________.

1. Computer hardware
2. Programming languages
3. Graphical user interfaces
4. Coffee flavors

11) What is the sum of the exterior angles of an eight-sided traverse?

1. 180°
2. 1,440°
3. 1,800°
4. None of the above