Assignment 5

The due date for submitting this assignment is pasted.

1. a) If a blood level test, the minimum content at 55 bottles was 86% and that of 56 bottles was 90%. What is the basic level of the test?
   
   
   
   
   b) No, the answer is incorrect.
   
   Answer: 87.98%

   2. b) The minimum water content at which the soil remains in liquid state and possess minimal resistance to flow is __________.

   
   
   
   
   a) Liquidity limit
   
   b) Plastic limit
   
   c) Liquidity index
   
   d) Plastic index

   No, the answer is incorrect.

   Answer: a) Liquidity limit

   3. a) What will be the dry density obtained if the density increasing portion of the graph plotted between volume of specimen (V) and water content (W) is plotted in a liquid limit test is: a) inelastic to the
   
   
   
   
   b) No, the answer is incorrect.
   
   Answer: 67.98% c) No, the answer is incorrect.

   4. a) If the slope of the graph plotted between water content (W) and number of terms (t) in log paper is greater for well A contained more than B. Which is the internal condition of both?

   
   
   
   
   a) Well A has greater soil strength reduction with water content compared to well B.
   
   b) Well A has lesser soil strength reduction with water content compared to well B.
   
   c) No difference can be made out of it.

   No, the answer is incorrect.

   Answer: a) Well A has greater soil strength reduction with water content compared to well B.

   5. a) During an irrigation system, the flow of irrigation water from the source to the field is __________.

   
   
   
   
   a) Fitted with a reservoir
   
   b) Fitted with an irrigation system
   
   c) Fitted with a reservoir and irrigation system

   No, the answer is incorrect.

   Answer: c) Fitted with a reservoir and irrigation system

   6. a) During irrigation, the flow of irrigation water from the source to the field is __________.

   
   
   
   
   a) Fitted with a reservoir
   
   b) Fitted with an irrigation system
   
   c) Fitted with a reservoir and irrigation system

   No, the answer is incorrect.

   Answer: c) Fitted with a reservoir and irrigation system

   7. a) The following assertions are true:

   
   
   
   
   a) Moisture in the boundary between vadose zone and saturated zone
   
   b) Moisture in the vadose zone is not under tension
   
   c) Soil in the saturated zone will have higher pressure compared to that of the vadose zone

   No, the answer is incorrect.

   Answer: a) Moisture in the boundary between vadose zone and saturated zone

   8. a) The following assertions are true:

   
   
   
   
   a) Moisture in the boundary between vadose zone and saturated zone
   
   b) Moisture in the vadose zone is not under tension
   
   c) Soil in the saturated zone will have higher pressure compared to that of the vadose zone

   No, the answer is incorrect.

   Answer: a) Moisture in the boundary between vadose zone and saturated zone

   9. a) A new 3-12 size bucket is the saturated zone consists of saturated sand with a unit weight of 19 kN/m³. What is the effective stress at 4 m below the top of the soil?

   
   
   
   
   a) 25 kPa
   
   b) 45 kPa
   
   c) 90 kPa
   
   d) 120 kPa

   No, the answer is incorrect.

   Answer: b) 45 kPa

   10. a) It is possible to compress a self-filling specific granular, 0-0.50 mm and rede soils, e=0.65 at a water content w= 10%?

   
   
   
   
   a) Yes
   
   b) No, the answer is incorrect.
   
   Answer: b) No, the answer is incorrect.

   11. a) Calculate the maximum dry unit weight of a soil mass having a void ratio of 1.73 and Gs=2.65, if the optimum moisture content is 11%?

   
   
   
   
   a) 16.8 kN/m³
   
   b) 14.8 kN/m³
   
   c) 10.7 kN/m³
   
   e) 9.7 kN/m³

   No, the answer is incorrect.

   Answer: e) 9.7 kN/m³

   12. a) It is a standard proctor test, the weight of hammer considered is 3 kg instead of 3.6 kg and the number of compaction layers are 6 instead of 3. What will be the new compaction energy transferred to soil (kJ/kN/m²)?

   
   
   
   
   a) 863
   
   b) 714
   
   c) 358
   
   d) 1147

   No, the answer is incorrect.

   Answer: d) 1147