

Name:

## Agricultural Science

### End of unit Test – Soil Science

**Directions:** Answer all 70 questions with one of the **four** suggested answers, lettered (A), (B), (C) and (D). Read each question carefully, decide which choice best, and circle it. There is only one correct answer to each question.

**1) which of the following is an example of an igneous rock?**

- (A) Granite
- (B) Limestone
- (C) Marble
- (D) Slate

**2) Which of the following is an example of a sedimentary rock?**

- (A) Basalt
- (B) Marble
- (C) Sandstone
- (D) Slate



**3) Which of the following is an example of a metamorphic rock?**

- (A) Basalt
- (B) Granite
- (C) Sandstone
- (D) Slate

**4) Which of the following types of rock is formed after being subjected to great pressure and heat?**

- (A) Igneous
- (B) Sedimentary
- (C) Metamorphic
- (D) Slate

**5) Which of the following rocks is formed from volcanic material and is usually light in colour?**

- |                 |                 |
|-----------------|-----------------|
| (A) Igneous     | (C) Metamorphic |
| (B) Sedimentary | (D) slate       |

**6) Which of the following types of rock is formed from shells of small sea animals which are compressed and cemented?**

- |                 |                 |
|-----------------|-----------------|
| (A) Igneous     | (C) Metamorphic |
| (B) Sedimentary | (D) slate       |

**7) The breakdown of rocks into smaller particles in the soil is referred to as**

- |                              |
|------------------------------|
| (A) biological weathering    |
| (B) chemical weathering      |
| (C) physical weathering      |
| (D) physiological weathering |



**8) Which of the following causes physical weathering?**

- |                 |                 |
|-----------------|-----------------|
| (A) Carbonation | (C) Oxidization |
| (B) Hydrolysis  | (D) Temperature |

**9) Which of the following causes chemical weathering?**

- |                 |                 |
|-----------------|-----------------|
| (A) Carbonation | (C) Temperature |
| (B) Pressure    | (D) Wind        |

**10) When water combines with a substance to form another substance, this reaction is called**

- |                 |                   |
|-----------------|-------------------|
| (A) carbonation | (C) hydration     |
| (B) evaporation | (D) transpiration |

**11) The smallest particles in the soil are particles of**

- |            |          |
|------------|----------|
| (A) clay   | (C) sand |
| (B) gravel | (D) slit |

**12) Which of the following soil types has the poorest water holding capacity?**

- |                    |          |
|--------------------|----------|
| (A) clay           | (C) sand |
| (B) organic matter | (D) slit |

**13) Which of the following soil -types swells when it is wet and shrinks when it is dry?**

- |                    |          |
|--------------------|----------|
| (A) clay           | (C) sand |
| (B) organic matter | (D) slit |

**14) Soil bacteria are normally referred to as**

- |                |                |
|----------------|----------------|
| (A) macrofauna | (C) microfauna |
| (B) macroflora | (D) microflora |

**15) Which of the following groups of soil organisms contains chlorophyll?**

- |                   |              |
|-------------------|--------------|
| (A) Actinomycetes | (C) Bacteria |
| (B) Algae         | (D) Fungi    |

**16) A beneficial effect of soil organisms in the soil is**

- |  |
|--|
| (A) decomposition of organic matter              |
| (B) decomposition of in organic matter           |
| (C) the breakdown of rock into smaller particles |
| (D) the control pf plant diseases                |

**17) Which of the following organisms can fix atmospheric nitrogen?**

- |                |               |
|----------------|---------------|
| A) Amoebae     | (C) Protozoa  |
| (B) Centipedes | (D) Rhizobium |

**18) A soil profile indicates**

- (A) the number or organisms in the soil
- (B) the chemical components of soil
- (C) the soil fertility
- (D) the physical structure of the soil

**19) A soil horizon is**

- (A) a layer of the soil
- (B) a type of test carried out
- (C) the soil insect population
- (D) the topography of the soil



**20) In a soil profile, the parent material is found in the**

- |               |               |
|---------------|---------------|
| (A) D horizon | (C) B horizon |
| (B) C horizon | (D) A horizon |

**22) In a soil profile, the topsoil is found in the**

- |               |               |
|---------------|---------------|
| (A) D horizon | (C) B horizon |
| (B) C horizon | (D) A horizon |

**23) The B horizon is composed of**

- |                     |             |
|---------------------|-------------|
| (A) bedrock         | (C) subsoil |
| (B) parent material | (D) topsoil |

**24) Which of the following factors does not limit the use of land?**



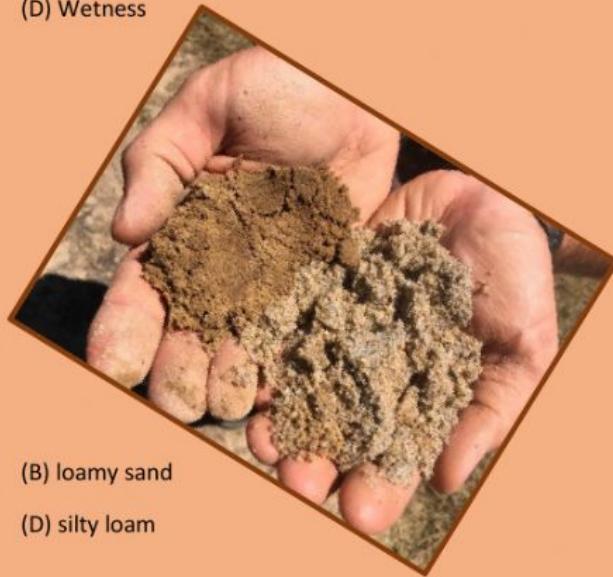
**25) Loams are**

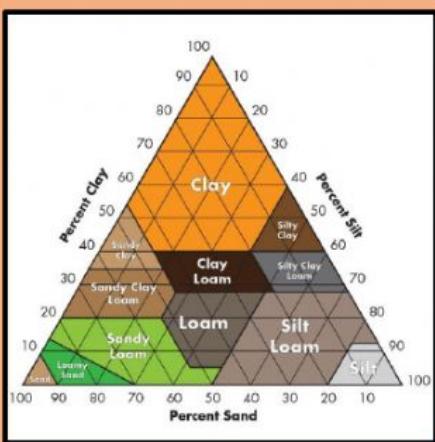
- (A) clay soils
  - (B) sandy soils
  - (C) silt soils
  - (D) a combination of sand, silt, and clay soil

**26) An example of a fine-texted soil is a**



27) Most crops thrive best in a pH range of





**28) The above diagram is called a**

- |                           |                             |
|---------------------------|-----------------------------|
| (A) fertilizer triangle   | (B) soil sample triangle    |
| (C) soil texture triangle | (D) soil structure triangle |

**29) Putrefying bacteria act upon compounds of which of the following elements?**

- |            |              |
|------------|--------------|
| (A) Carbon | (B) Nitrogen |
| (C) Oxygen | (D) Sulphur  |

**30) which of the following elements can be toxic when applied to acidic soils?**

- |               |               |
|---------------|---------------|
| (A) Calcium   | (B) Magnesium |
| (C) Potassium | (D) Aluminum  |

**31) How many elements do plants require for healthy growth?**

- |       |        |
|-------|--------|
| (A) 4 | (C) 12 |
| (B) 8 | (D) 16 |

**32) Which of the following is referred to as a macronutrient?**

- |              |          |
|--------------|----------|
| (A) Nitrogen | (C) Iron |
| (B) Boron    | (D) Zinc |

**33) Which of the following s referred to as a micronutrient?**

- |                |                |
|----------------|----------------|
| (A) Phosphorus | (B) Potassium  |
| (C) Nitrogen   | (D) Molybdenum |

**34) Which of the following Is referred to as a primary nutrient?**

- |             |              |
|-------------|--------------|
| (A) Calcium | (B) Nitrogen |
| (C) Iron    | (D) Boron    |

**35) The availability of plant nutrients is determined by all of the following, except**

- (A) soil colour
- (B) soil pH
- (C) soil temperature
- (D) soil texture

**36) soil erosion in the Caribbean is mostly caused by**

- |                  |          |
|------------------|----------|
| (A) wild animals | (C) snow |
| (B) rain         | (D) wind |

**37) Soil erosion can be best controlled by**

- |                |                   |
|----------------|-------------------|
| (A) drainage   | (B) fertilization |
| (C) harvesting | (D) tillage       |

**38) The primary nutrients supplied by most commercial fertilizers are**

- |              |              |
|--------------|--------------|
| (A) N, P, K  | (B) P, Cu, N |
| (C) K, N, Mn | (D) Zn, N, P |

**39) The most abundant nutrient supplied by limestone is**

- |              |                |
|--------------|----------------|
| (A) calcium  | (C) phosphorus |
| (B) nitrogen | (D) potassium  |

**40) A bag of fertilizer weighing 100kg, with a label 20-24-12 would indicate that it contains**

- (A) 20 kg [ N], 24 kg [ P<sub>2</sub>O<sub>5</sub>], 12 kg [K<sub>2</sub>O]
- (B) 20 kg [ P<sub>2</sub>O<sub>5</sub>], 24 kg [N], 12 kg [ N], 12 kg [K<sub>2</sub>O]
- (C) 20 kg [N], 24 kg [ K<sub>2</sub>O], 12 kg [ P<sub>2</sub>O<sub>5</sub>]
- (D) 20 kg [K<sub>2</sub>O], 24kg [N], 12 kg [ N], 12kg [ P<sub>2</sub>O<sub>5</sub>]



**41) Soil samples should be taken**

- (A) at the Centre of the field
- (B) across the diameter of the field
- (C) at the edge of the field
- (D) at random throughout the field

**42) A soil pH of 7.5 is considered**

- |              |             |
|--------------|-------------|
| (A) acid     | (C) fertile |
| (B) alkaline | (D) neutral |

**43) Micronutrients are most commonly applied by**

- |                   |                     |
|-------------------|---------------------|
| (A) broadcasting  | (B) row placement   |
| (C) side dressing | (D) foliar spraying |

**44) Which of the following methods is used when a large amount of fertilizer is applied to the soil?**

- |                   |                    |
|-------------------|--------------------|
| (A) Broadcasting  | (B) Row placement  |
| (C) Side Dressing | (D) Soil injection |

**45) Which of the following methods of applying fertilizers is used in flooded rice production?**

- |                   |                     |
|-------------------|---------------------|
| (A) Broadcasting  | (B) Row placement   |
| (C) Side Dressing | (D) Foliar dressing |

**46) Which of the following methods of applying fertilizers is generally used for corn?**

- |                   |                    |
|-------------------|--------------------|
| (A) Broadcasting  | (B) Row placement  |
| (C) Side dressing | (D) Soil injection |

**47) Which of the following elements is not mobile in the soil?**

- |                |               |
|----------------|---------------|
| (A) Calcium    | (B) Nitrogen  |
| (C) Phosphorus | (D) Potassium |

**48) When side dressing, the fertilizer should be**

- (A) in contact with the seed
- (B) incorporated under the seed
- (C) on top of the seed
- (D) two inches to the side and two inches below the seed

**49) Which of the following increases the water holding capacity of the soil?**

- |                |                |
|----------------|----------------|
| (A) composting | (B) Drainage   |
| (C) Harvesting | (D) Irrigation |

**50) Which of the following factors does not affect the activities of soil organisms**

- (A) Air
- (B) Light
- (C) Temperature
- (D) Water