

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
- (B) Sedimentary
- (C) Metamorphic
- (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
- (B) Sedimentary
- (C) Metamorphic
- (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
- (B) Hydrolysis
- (C) Oxidization
- (D) Temperature



9) Which of the following causes chemical weathering?

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

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

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

11) The smallest particles in the soil are particles of

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

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

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

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

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

14) Soil bacteria are normally referred to as

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

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

- A) Actinomycetes
- (B) Algae
- (C) Bacteria
- (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?

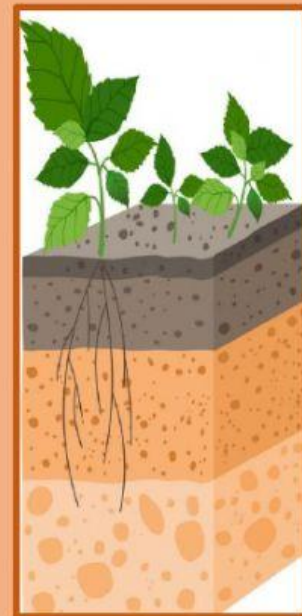
- A) Amoebae
- (C) Protozoa
- (B) Centipedes
- (D) Rhizobium

18) A soil profile indicates

- (A) the number of 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?

- (A) Soil type
- (B) Topography
- (C) Vegetation
- (D) Wetness

25) Loams are

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

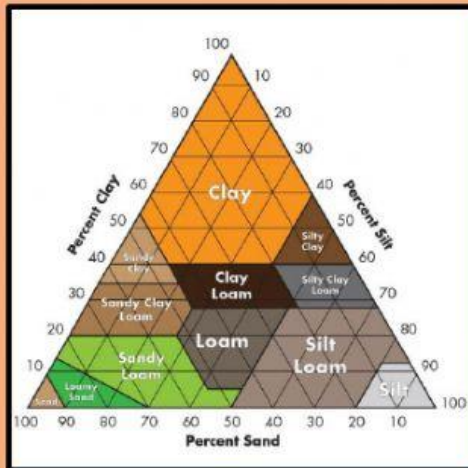


26) An example of a fine-textured soil is a

- (A) sandy loam
- (B) loamy sand
- (C) sandy clay
- (D) silty loam

27) Most crops thrive best in a pH range of

- (A) 4-6
- (B) 6-8
- (C) 8-10
- (D) 10-12



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) Born
- (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

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

37) Soil erosion can be best controlled by

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

38) The primary nutrients supplied by most commercial fertilizers are

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|--------------|--------------|
| (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_2O_5], 12 kg [K_2O]
- (B) 20 kg [P_2O_5], 24 kg [N], 12 kg [N], 12 kg [K_2O]
- (C) 20 kg [N], 24 kg [K_2O], 12 kg [P_2O_5]
- (D) 20 kg [K_2O], 24kg [N], 12 kg [N], 12kg [P_2O_5]



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

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

43) Micronutrients are most commonly applied by

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|-------------------|---------------------|
| (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?

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|-------------------|--------------------|
| (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?

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|-------------------|---------------------|
| (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