

Name: Key
Date: _____ Block: _____

Biology 11 Practice Final Exam Questions

ANSWER the following questions and JUSTIFY your response.

1. Methods in science DO NOT include
- (a) experimentation
 - (b) developing a hypothesis
 - (c) trial and error testing
 - (d) collecting data

C

Use the following information to answer the next 3 questions.

The scientific name for a daffodil is: *Plantae Anthophyta Monocotyledonae Liliales Amarilideceae Narcissus pseudonarcissus*

2. What is the binomial name for the daffodil?

- (a) *Narcissus pseudonarcissus*
- (b) *Liliales*
- (c) *Amarilideceae*
- (d) *Monocotyledonae Liliales*

A

3. What is the order of the daffodil?

- (a) *Narcissus pseudonarcissus*
- (b) *Liliales*
- (c) *Amarilideceae*
- (d) *Monocotyledonae Liliales*

B

4. What is the family of the daffodil?

- (a) *Narcissus pseudonarcissus*
- (b) *Liliales*
- (c) *Amarilideceae*
- (d) *Monocotyledonae Liliales*

C

5. The genetic makeup of a population

- (a) always remains constant
- (b) must change with every new generation
- (c) may change over time
- (d) is dependent on the proportion of males to females

C

6. Which of the following IS NOT a density-independent limiting factor?

- (a) frost
- (b) sudden storms
- (c) unpredictable weather patterns
- (d) competition

D

7. Which is the correct order of steps regarding speciation?

- (a) geographic isolation/one species/reproductive isolation/divergent evolution/two species
- (b) two species/geographic isolation/one species/reproductive isolation/divergent evolution
- (c) one species/geographic isolation/divergent evolution/reproductive isolation/two species
- (d) reproductive isolation/one species/reproductive isolation/two species

C

8. Whenever an evolutionary tree branches, there is assumed to be

- (a) no living member of that group
- (b) always a living member of that group
- (c) a common ancestor
- (d) an embryo only

C

9. Sea lions, humans, and bats all have forelimbs that are:

- (a) convergent
- (b) analogous
- (c) vestigial
- (d) divergent

B

For the following 5 questions, match the correct term with the definition.

- | | |
|--|----------------------------|
| C10. survival of the fittest | (a) gene pool |
| A11. all genes in a population | (b) gradualism |
| D12. unrelated species become more alike | (c) natural selection |
| E13. brief periods of change interrupt long stable periods | (d) convergent evolution |
| B14. changes occur slowly throughout time | (e) punctuated equilibrium |

15. Which of the following is correct complimentary base pairing?

- (a) adenine-guanine
- (b) cytosine-thymine
- (c) guanine-thymine
- (d) thymine-adenine

D

16. Actual size is calculated by:
 (a) objective magnification times ocular magnification
 (b) fraction of field of view times diameter
 (c) drawing size times drawing magnification
 (d) objective plus ocular magnification
B
17. Which statement is NOT true about bacteria?
 (a) they lack mitochondria
 (b) they reproduce sexually by binary fission
 (c) they have a singular circular chromosome
 (d) they lack a nucleus but contain DNA
 (e) they occur in three basic shapes
B
18. An object fills up about 25% of the field of view under high power, and you draw a picture of it that is 14.2 cm long. What is the magnification of your drawing?
 (a) 1262X
 (b) 0.1262X
 (c) 126.2X
 (d) 1226X
A
19. The outer protective coat of a virus is mainly:
 (a) DNA
 (b) RNA
 (c) protein
 (d) spongin
C
20. A virus that attacks a bacterial cell is called a:
 (a) plaque
 (b) bacteriophage
 (c) vaccine
 (d) antibiotic.
B
21. A form of sexual reproduction that occurs in some bacteria is known as:
 (a) binary fission
 (b) endospores
 (c) capsids
 (d) conjugation
D
22. When viruses undergo a lysogenic cycle, they are said to be:
 (a) virulent
 (b) latent
 (c) phagocytes
 (d) temperate.
B
23. Viruses that are capable of producing disease in humans are:
 (a) pathogens (b) symbionts (c) saprophytes (d) methanogens
A
24. Which is not true of a virus
 (a) it is a noncellular particle
 (b) it has a nucleic acid core
 (c) it has a protein coat
 (d) it contains DNA and RNA
D
25. Bacteria are important because:
 (a) they are agents of decomposition
 (b) they can fix nitrogen from the air
 (c) they are used to produce certain of our foods
 (d) all of the above
D
26. Conjugation is important to bacteria because:
 (a) it produces different genetic combinations
 (b) it allows the organism to reproduce asexually
 (c) it assists in trapping food
 (d) it allows the organism to move from one area to another
A
27. Which of the following does NOT describe the shape of a bacterium?
 (a) bacilli (b) spirilla (c) cocci (d) amoeboid
D
28. Bacteria that grow best in oxygen but may also grow without oxygen are called:
 (a) facultative anaerobes (b) facultative aerobes
 (c) obligate anaerobes (d) obligate aerobes
BA
29. Which terms are associated with manerans?
 (a) Prokaryotic and mostly unicellular (b) eukaryotic and mostly unicellular.
 (c) Prokaryotic and often multicellular. (d) Eukaryotic and often multicellular.
A
30. When growth conditions become unfavourable, bacteria can form thick internal walls that enclose its DNA and a small portion of cytoplasm. This is called a(n):
 (a) prophage
 (b) bacteriophage
 (c) colony
 (d) endospore
D
31. Bacteria that use sunlight for energy and organic compounds for nutrition are
 (a) phototrophic autotrophs
 (b) chemotrophic autotrophs
 (c) phototrophic heterotrophs
 (d) chemotrophic heterotrophs
C

32. The appearance of both haploid and diploid forms in an algae's life cycle illustrates

- (a) homeostasis
- (b) phototropism
- (c) parasitism
- (d) symbiosis
- (e) alternation of generations

33. The role of algae in lichen is as

- (a) a decomposer
- (b) a producer
- (c) a parasite
- (d) a supporter and protector of the fungus
- (e) all of the above

34. The body form of mosses is

- (a) a medium sized plant with no actual roots
- (b) a tangled mass of hyphae
- (c) a green, red, or brown pigmented shade dwelling plant
- (d) a cellular or non cellular oozing mass
- (e) a short stalked plant with leaf like structures and rhizoids

35. Which of the following features do mosses and ferns share?

- (a) cuticles
- (b) rhizoids
- (c) vascular tissue
- (d) chlorophyll
- (e) both a and d

36. Which of the following IS NOT one of the main features of ferns?

- (a) the sporophyte consists of a rhizome with roots and upright leaves
- (b) they have a vascular system
- (c) their leaves are divided into leaflets with sporangia on the underside
- (d) the gametophyte is independent of the sporophyte

37. Which of the following are not tracheophytes?

- (a) ferns
- (b) mosses
- (c) gymnosperms
- (d) angiosperms

38. How are pine trees usually pollinated?

- (a) by bees
- (b) by the wind
- (c) by self pollination
- (d) by birds

39. Conifer needles have developed a compact shape with sunken stomata to

- (a) protect against animal grazing
- (b) help conserve water
- (c) aid in photosynthesis
- (d) help insects pollinate conifer flowers

40. Which of the following does not belong to the group?

- (a) filament
- (b) anther
- (c) pollen grains
- (d) stamen
- (e) ovary

41. Which of the following does not belong to the group?

- (a) ovule
- (b) stigma
- (c) style
- (d) stamen
- (e) pistil

42. The main photosynthetic layer in a leaf is called the

- (a) cuticle
- (b) palisade mesophyll
- (c) epidermis
- (d) spongy mesophyll

43. The tissue that is responsible for producing new xylem and phloem in the stem is called:

- (a) cork cambium
- (b) pith
- (c) vascular cambium
- (d) apical meristem

68. Which of the following IS NOT a characteristic of most amphibians?

- (a) aquatic as larva and terrestrial as adults
- (b) lack scales and claws
- (c) vertebrates
- (d) no cotyledons

69. What is the stem of a dicot?

- (a) monocot
- (b) dicot
- (c) both
- (d) neither

70. How many parallel veins are there in a leaf?

- (a) 7
- (b) 8
- (c) 9
- (d) 10

71. Flower parts are found in multiples of fours or fives

- (a) monocot
- (b) dicot
- (c) both
- (d) neither

72. Vascular bundles of xylem and phloem are arranged in a ring at the outside of the stem

- (a) monocot
- (b) dicot
- (c) both
- (d) neither

73. Xylem is found in an X in the center of the root and phloem is positioned between the arms of the X

- (a) monocot
- (b) dicot
- (c) both
- (d) neither

74. Stems and roots do not grow thicker from year to year

- (a) monocot
- (b) dicot
- (c) both
- (d) neither

75. Which of the following IS NOT a characteristic common to ALL mammals?

- (a) are endothermic
- (b) have fur, hair, and/or subcutaneous fat
- (c) have three middle ear bones
- (d) have a diaphragm

76. Within a sponge, the cells involved in digestion are:

- (a) collar cells and spicules
- (b) collar cells and amoebocytes
- (c) amoebocytes and trichocytes
- (d) spicules and amoebocytes

77. Which of the following IS NOT a function of amoebocytes?

- (a) digestion
- (b) transporting nutrients throughout the sponge
- (c) transporting sperm to eggs
- (d) synthesis of spicules
- (e) none of the above

78. Undigested wastes leave the sponge through the:

- (a) mouth
- (b) anus
- (c) osculum
- (d) pore cells

79. The stinging structures used by Cnidarians to capture prey are called:

- (a) nematocytes
- (b) trichocytes
- (c) flame cells
- (d) ocelli

80. Jellyfish and squid use the same method of movement, however jellyfish DO NOT:

- (a) have the same control that squid do in terms of the direction in which they move
- (b) move as fast as squid
- (c) use their tentacles for movement, but squid do
- (d) have the same control that squid do in terms of when they move

81. Which of the following phyla is believed to be the first group of organisms to evolve a separate entrance to an exit from the digestive system?

- (a) Porifera
- (b) Cnidaria
- (c) Platyhelminthes
- (d) Nematoda

56. Members of phylum Platyhelminthes reproduce:

- (a) sexually
- (b) asexually (via fission)
- (c) asexually (via fragmentation)
- (d) sexually and asexually (via fission)
- (e) sexually and asexually (via fragmentation)

57. Earthworms move by using

- (a) setae and muscles
- (b) nephridia
- (c) nematocysts
- (d) trichocysts
- (e) cilia

58. When an earthworm secretes a slime layer to receive the eggs and sperm, this secretion is produced by the:

- (a) setae
- (b) nephridia
- (c) prostomium
- (d) clitellum
- (e) seminal vesicles

59. All members of phylum Mollusca have the following characteristics EXCEPT:

- (a) foot
- (b) shell
- (c) mantle
- (d) head
- (e) visceral mass

60. The squid belongs to class:

- (a) Bivalvia
- (b) Cephalopoda
- (c) Unirama
- (d) Crustacean

61. What is the name of the feeding structure that many molluscs have that consists of tiny teeth that cover a piece of tissue stretched over a rod of cartilage?

- (a) beak
- (b) foot
- (c) radula
- (d) incisors

62. Which of the following life functions is the water-vascular system (of the starfish) NOT involved in?

- (a) feeding
- (b) respiration
- (c) movement
- (d) response

63. Starfish can reproduce:

- (a) sexually
- (b) asexually (via fission)
- (c) asexually (via fragmentation)
- (d) sexually and asexually (via fission)
- (e) sexually and asexually (via fragmentation)

64. Which phylum contains animals with jointed appendages?

- (a) Mollusca
- (b) Arthropoda
- (c) Porifera
- (d) Cnidaria

65. What is the name of the structure in members of subphylum Unirama that is involved in excretion?

- (a) nephridia
- (b) nematocysts
- (c) Malpighian tubules
- (d) gastric caeca

66. What is the function of a swim bladder in fishes?

- (a) buoyancy
- (b) hold urine
- (c) excretion
- (d) elimination

67. Fishes have a closed circulatory system that consists of a heart that has:

- (a) two ventricles and one atrium
- (b) ~~two~~ atria and one ventricle
- (c) two atria and two ventricles
- (d) no atria and three ventricles

68. Which of the following IS NOT a characteristic of most amphibians?

- (a) aquatic as larva and terrestrial as adults
- (b) lack scales and claws
- (c) vertebrates
- (d) are herbivorous as adults

69. Why do amphibians burrow in the mud when the weather is really hot or really cold?

- (a) to hide from predators
- (b) to sneak up on prey
- (c) to avoid a huge increase or decrease in their body temperatures as their bodies cannot regulate their temperature
- (d) to reproduce before they die

70. Which of the following vertebrates is most closely related (evolutionarily speaking) to reptiles?

- (a) amphibians
- (b) fishes
- (c) birds
- (d) mammals

71. What characteristics of a reptile enable it to live its entire life outside of water?

- (a) scaly skin
- (b) lungs
- (c) amniotic eggs
- (d) all of the above

72. What is the main function of the contour feathers on a bird?

- (a) flight
- (b) warmth
- (c) water repulsion
- (d) appearance (to attract mates)

73. Which of the following IS NOT a function of the crop in birds?

- (a) store food
- (b) moisten food
- (c) create food for young
- (d) grind food

74. Which of the following IS NOT a characteristic common to ALL mammals?

- (a) are endothermic
- (b) have fur, hair, and/or subcutaneous fat
- (c) are viviparous
- (d) have mammary glands

75. Whales breath using their:

- (a) lungs
- (b) gills
- (c) book gills and/or book lungs
- (d) skin