**JETS PHYSICS JUNIOR QUIZ**

1. What physical quantity describes the rate of change of displacement with time?

ANS: Velocity

2. Two bulbs each of resistance 2Ω are connected in series. If the total voltage across the bulbs is 7.2V, calculate the current through the circuit? ANS; 1.8A

3.What makes the filament of the bulb white hot when its working?

ANS: High Resistance

4. What do we call a pair of equal but opposite forces that are not acting through the same point?

ANS: Couple

5.The energy contained by a bag due to its position above the ground is called?

ANS: Gravitational potential Energy

6. What is the S.I unit for Loudness of sound? ANS: Decibels

7.What is the acceleration of of a car of mass 1000kg moving at a constant velocity of 40m/s?

ANS; Zero

8. What do we call the radiation that comes from Space? ANS: Cosmic Radiation

9.Which theory assumes that matter is in a constant random motion? ANS: Kinetic Theory of matter

10. Name the three basic physical Quantities? ANS: Mass,Length and Time

11.A boy wants to measure the thickness of a plain paper. What instrument should he use? (one attempt) ANS: Micrometer Screw Gauge

12.What is referred to as “the Ratio of mass of any Volume of a substance to the mass of an equal Volume of water? ANS: Relative Density

13. A man walks 7km east stops and then walks 5km west. What is his Displacement? ANS: 2km East

14. A tank 3m long ,1m wide and 0.5m deep is filled with oil which weighs 12000n. What is the pressure on the base of the tank due to the oil? ANS: 400pa

15. What type of energy is released whan Atoms regroup? ANS: Chemical/ fuel energy

16. A cube with sides 2cm long is made from a material of density 8g/cm3.What is the mass of the cube?

ANS: 64g

17. What is the name given to the unit Kgm/s2 ? ANS: Newton

18.What is a Pipette used to measure? ANS: Fixed Volume of a liquid

19. What value of resistance could you obtain if you where supplied with three cells each of resistance 2Ω when they are connected in series? ANS: 6Ω

20. What name is given to the ratio of speed of light in air ton that in another material? ANS: Refractive Index

21. The splitting of white light into its component colours is known as \_\_\_\_\_\_\_\_\_\_\_\_\_\_

ANS: Dispersion

22. Which property of waves explains why you hear your voice after shouting in a big building?

ANS: Reflection of Sound

23. Which instrument is mostly used in the laboratory when studying Sound waves? ANS: Tunning Folk

24.Why is it that shiny smooth surfaces are able to produce a clear sharp image than rough surfaces?

ANS:Its due to regular reflection which occurs on surfaces which are smooth

25.In which medium would you expect the speed of light to be greater :in air,or in a vacuum? (one attempt) ANS: It is the same

26.When you look into the mirror,your left hand appears to be the right hand while the right appears to be the left hand.This property is referred to as\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ANS: Lateral Inversion

27. A lightening thunder is heard 6s after the the flash of light is seen. If the speed of sound in air is 340m/s how far is the lightening from the observer? ANS; 2040m

28. When a stone of mass 40g was lowered into a measuring cylinder containing 30cm3 of water,the level of water rose to 100cm3.What is the volume of the stone? ANS: 70cm3

29. What is reduced by the step down transformer? ANS: Voltage

30. The property of mass which resists motion is referred to as\_\_\_\_\_\_\_\_\_\_\_\_ ANS: Inertia

31.When brakes are used to stop the car ,Name the type of energy into which most of the Kinetic energy is converted? ANS: heat energy

32.The process by which energy from the sun reaches the earth is\_\_\_\_\_\_\_\_\_\_ANS: Radiation

33.Name one property of an object that does not change by the application of force? ANS: Mass

34. State the S.I unit of measurement for Electric Resistance.? ANS: Ohm

35. What name is given to a device that protects an electrical appliance from damage when the current flowing through the circuit exceeds a certain value.? ANS :Fuse

36. How is a Voltmeter ,connected in an electrical circuit? ANS: In parallel across a resistor

37. A 20g stone is lowered into a beaker containing 50cm3 of water .What is the density of the stone if the Volume of water in the beaker is now 75cm3? ANS: 0.8g/cm3

38. Name two processes that take place simultaneously at the point where the incident ray of white light strikes the side of a glass prism? ANS: Dispersion & Refraction

39. An electric kettle is rated 250V, 1000W. What is the resistance of the kettle in Ohms? ANS: 62.5 Ohms

40. Name the test for Magnetism? ANS: Repulsion

41. What invisible rays come immediately after RED in an electromagnetic spectrum? ANS: Infra-red Rays

42. Carbon Dioxide and Iodine are said to exist in two states only. What name is given to such substances? ANS: Sublimates

43. The rate of change of Velocity is known as\_\_\_\_\_\_\_\_\_\_\_\_ANS: Acceleration

44. What is the name of physical quantities that require both magnitude and direction to specify them?

ANS: Vector Quantities

45. A pull or push acting on an object is known as\_\_\_\_\_\_\_\_\_\_\_\_ ANS: A Force

47. What law of motion is also known as a law of Inertia? ANS: Newtons 1st law of motion

48. The force due to gravity that acts on an object is known as \_\_\_\_\_\_\_\_\_\_\_\_ ANS: Weight

49.What is the name of the velocity which results when the air resistance becomes equal to the Weight of the falling object? ANS: Terminal Velocity

50. A group of Lines of forces of a magnet is known sa\_\_\_\_\_\_\_\_\_\_\_\_\_ ANS: Magnetic Flux

51. In conversional current electrons are assumed as moving from\_\_\_\_\_\_\_\_\_\_\_ to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ terminals. ANS: Positive to Negative

52. The commercial unit used for selling electricity by Zesco is\_\_\_\_\_\_\_\_\_\_\_ ANS: Kilowatt- Hour ( KWH)

53. What is the name of the double walled copper vessel used to determine the Upper fixed point of the thermometer? ANS: A Hypsometer

54. What is the basic unit of Light intensity? ANS: Candella

55. Name the atmospheric zone which is scientifically a key in pilfering harmful rays of the sun? ANS: Ozone Ray

56. What name is given to the part that controls the amount of light that enters the eye? The Iris

57. What is the third colour in the spectrum of light?(one attempt) ANS: Yellow

58. Name one part of the electromagnetic spectrum which is used together with mercury vapour to produce light? ANS: Ultra Violet rays

59.What is the frequency of the wave having a period of 0.2 seconds? ANS: 5 Hz

60. State the range of normal audible frequency for a humans ear? ANS 20Hz to 20000Hz

61. What is the nature of a sound wave? ANS: Longitudinal Wave

62.In space there is no sound because there is no \_\_\_\_\_\_\_\_\_\_\_\_\_ANS: Media

63.What type of image is produced by a converging lens on the screen? ANS: REAL (inverted/ Upside down)

64. The process by which electrons are emmited in a cathode ray oscilloscope is known as\_\_\_\_\_\_\_\_\_\_\_\_\_ ANS: Thermionic Emmision

65. Find the current in a circuit when a charge of 40 C passes in a conductor for 5 seconds? ANS: 8A

66. How long will it take a car take which is moving at 20m/s to reach 50m/s at a constant acceleration of 2m/s2 ? ANS: 15 seconds

67. A stone of mass 2000kg and volume 2000m3 What is its density in Kg/m3 ? ANS: 1kg/m3

68. An electrical motor can lift a weight of 200N through a height of 2m .What is the work done by the motor? ANS: 400j

69. What is the source of alpha particles (24 He) ? ANS: Americium 241

70.The bending of light as it moves from one medium to another is called\_\_\_\_\_\_\_\_\_ ANS: Refraction

71. The magnetic field in a Bar magnet moves from\_\_\_\_\_\_\_\_\_\_\_ ANS: North to South

72. When is the net force of the body in equilibrium? ANS: Zero

73. What is the S.I unit of temperature? ANS: Kelvin

74.What is the Density of 2g/cm3 in Kg/m3? ANS: 2000 kg/M3

75. What is the Weight of a 40 kg mass on the moon? ANS: 64 N

76. The tendency of a body to resist changing its state of rest or uniform motion in a straight line is called \_\_\_\_\_\_\_\_\_\_\_ ANS: Inertia

77. The friction between a falling body and air particles is called\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ ANS: Air Resistance

78. What is the name of the type of radiation with the longest range in air? ANS: Gamma

79. Give the unit for electric charge? ANS: COULOMB

80. Name the particle emitted from a hot cathode in a cathode ray oscilloscope ( C.R.O)? ANS: Electron

81. The ratio of the mass of a given volume of a substance to the mass of an equal volume of water is called\_\_\_\_\_\_\_\_\_\_\_ANS: Relative Density

82. Give the size of the force on a body thrown upwards at its maximum height? ANS: 0 N

83. For a communications satellite to stay on the same spot on the earths surface it must be in a\_\_\_\_\_\_\_\_ ANS: Geostationary Orbit

84. Sudden and temporary increase in power in a circuit often caused by electrical storms or by components failing is called? ANS: Power Surge

85. What do the letters UHF stand for on a TV (television) Set? ANS: Ultra High Frequency

86. What name is given to two equal forces pulling in opposite directions on a bar or wheel? ANS: Couple

87. Given that the definition of Area = Length × Width Determine the Derived unit of area? ANS: Metre2 or m2

88. When the potential Difference across the resistor increases, Current also increases provided that the temperature is constant. This relationship can be summarized in which law? ANS: Ohms Law

89. A group of Light rays is known as \_\_\_\_\_\_\_\_\_\_\_\_\_ ANS: Dispersion

90. The Highness or Loudness of sound is called\_\_\_\_\_\_\_\_\_\_\_\_ ANS: Pitch

91. Name the fundamental quantity that is measured in Kilograms? ANS: Mass

92. How many Kilowatts make 1 Megawatts? ANS: 1000KW

93. Name the principle that states that the Upthrust on an object immersed in a fluid is equal to the weight of the displaced fluid? ANS: Archimedes Principle

94. What name is given to a ray of light that leaves the refracting material? ANS: Emergent or Emerging Ray

95. To which class of Levers does a clow hammer belong ? (one attempt) ANS: 1st Order or Class

96. The phenomenon of producing electricity without any batteries by using magnets or magnetic fields is called\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ ANS: Electro Magnetic Induction

96. A boy is standing 2m in front of the Mirror. How far is the Boy from his Image? ANS: 4m

97. The Celsius scale thermometer was originally developed by a Swedish Scientist Anders Celsius in which year? ANS: 1742

98. A person rides a bicycle 2Km east then 2Km north.The trip takes 2Hours .What is his average speed?

ANS: 2km/hr

99. What is the name of an apparator that can be used to reflect light into its components? ANS: Glass Prism

100. Give one example of a longitudinal Wave? ( one attempt) ANS: Sound Waves / Spring Waves