Quizlet NAME _____

25 Multiple choice questions

1. that region of space in which a mass experiences a force of attraction from other masses
    a. gravitational constant
    b. gravitational acceleration
    c. geostationary orbits
    d. gravitational field

2. orbits with an altitude that ranges from 250 km to 1000 km above the surface of the Earth
    a. aether wind
    b. geostationary orbits
    c. g-forces
    d. low-Earth orbits

3. the force of attraction between two or more masses
    a. metre
    b. aether
    c. gravity
    d. g-forces

4. the constant in Newton's Law of Universal Gravitation
    a. gravitational constant
    b. gravitational field
    c. gravitational potential energy
    d. gravitational acceleration

5. where the length of a moving rod appears to contract in the direction of motion relative to a stationary observer
    a. mass dilation
    b. aether wind
    c. length contraction
    d. low-Earth orbits

6. the acceleration due to gravity on Earth
    a. gravitational acceleration
    b. centripetal acceleration
    c. gravitational field
    d. gravitational constant

7. directed towards the centre of a circle required for an object to travel in a circular path
    a. Einstein, Albert
    b. aether wind
    c. centripetal acceleration
    d. centripetal force

8. orbits in which the satellite has a period of 24 hours, but does not orbit in the equatorial plane about the Earth
    a. geostationary orbits
    b. low-Earth orbits
    c. escape velocity
    d. geosynchronous orbits

9. the idea that mass and energy are different forms of the same entity
    a. measurement
    b. mass-energy
    c. aether
    d. metre

10. German-born physicist best known for his work on relativity
    a. mass-energy
    b. Einstein, Albert
    c. measurement
    d. centripetal force

11. an experiment conducted to measure the speed of the Earth through the aether
    a. Michelson-Morley experiment
    b. centripetal force
    c. frames of reference
    d. measurement

12. the work done to move an object a very large distance away to a point in a gravitational field
    a. gravitational acceleration
    b. gravitational potential energy
    c. gravitational constant
    d. gravitational field

13. objects or coordinate systems with respect to which we take measurements
    a. mass-energy
    b. measurement
    c. inertial frame of reference
    d. frames of reference

14. orbits in which the satellite has a period of 24 hours and orbits in the equatorial plane about the Earth
    a. geosynchronous orbits
    b. gravitational field
    c. low-Earth orbits
    d. geostationary orbits

15. traverse waves composed of alternating electric and magnetic fields, the components of which are perpendicular to each other and to the direction of the energy flow
    a. electromagnetic waves (radiation)
    b. length contraction
    c. centripetal acceleration
    d. mass dilation

16. measurements in units of the Earth's gravitational acceleration
    a. g-forces
    b. metre
    c. aether
    d. gravity

17. directed towards the centre of a circle about which an object is moving
    a. gravitational acceleration
    b. length contraction
    c. centripetal acceleration
    d. centripetal force

18. a hypothetical non-material formally hypothesised to permeate all space, having the property of propagating electromagnetic waves
    a. aether wind
    b. metre
    c. aether
    d. g-forces

19. this was predicted as the result if the Earth moved through the aether
    a. measurement
    b. aether wind
    c. metre
    d. aether

20. the process of comparing some quantity such as length, mass or time to a selected standard
    a. mass-energy
    b. measurement
    c. aether wind
    d. metre

21. a frame of reference which is at rest or moving with constant velocity; a frame in which Newton's Laws of Motion are valid
    a. geostationary orbits
    b. inertial frame of reference
    c. frames of reference
    d. centripetal force

22. the velocity needed for an object to escape from the Earth
    a. mass dilation
    b. gravity
    c. escape velocity
    d. aether wind

23. the idea that the mass of a moving object increases in relation to a stationary observer
    a. measurement
    b. mass-energy
    c. metre
    d. mass dilation

24. the distance travelled by light in 1/299 792 458 of a second
    a. g-forces
    b. aether
    c. metre
    d. gravity

25. the movement of an object in a circular path
    a. circular motion
    b. gravity
    c. mass dilation
    d. aether wind