TERM 3 PHYSICS HOLIDAY PACKAGE

ATTEMP ALL THE QUESTIONS

* Indicates required question

1. NAME: *

2. CLASS *

3. Parent's Phone nuber *

4. 1. Which of the following is a **fundamental** quantity in the SI system? * 2 points

Mark only one oval.

- A, Energy
- B. Volume
- C.Temperature
- D. Area

5. 2.A vehicle travels 540 km in 6 hours. If it rests for 30 minutes during the journey, what is its **average speed** excluding rest time? * 2 points

Mark only one oval.

- A) 90 km/h
- B) 108 km/h
- C) 80 km/h
- D) 85km/h

6. 3. The **power rating** of a machine that lifts 1500 N to a height of 4 m in 5 seconds is: * 2 points

Mark only one oval.

- A) 120 W
- B) 1000 W
- C) 900 W
- D) 1200 W

7. 4. Which of the following is a derived SI unit * 2 points

Mark only one oval.

- A) Second
- B) Kilogram
- C) Pascal
- D) Metre

8. 5. An object of mass 2 kg is pushed with a force of 10 N. What is its **acceleration**? * 2 points

Mark only one oval.

- A) 20 m/s²
- B) 25 m/s²
- C) 2 m/s²
- D) 0.2 m/s²

9. 6. When a body is lifted vertically upwards, the **work done** against gravity depends on: * 2 points

Mark only one oval.

- A) Mass and height
- B) Mass and acceleration
- C) Time taken
- D) Displacement only

10. 7. The **unit of energy** used in electricity billing is: * 2 points

Mark only one oval.

- A. Joule
- B. Watt
- C. Kilowatt-hour
- D. Newton-meter

11. 8. A force acts on a 3 kg object and changes its velocity from 2 m/s to 8 m/s in 3 s. What is the magnitude of the force? * 2 points

Mark only one oval.

- A. 6 N
- B. 12 N
- C. 15 N
- D. 18 N

12. 9. The instrument that best measures the **internal diameter** of a narrow test tube is: * 0 points

Mark only one oval.

- A. Meter rule
- B. Ruler
- B. Micrometer screw gauge
- C. Vernier caliper

13. 10. What is the **kinetic energy** of a body of mass 10 kg moving at 15 m/s * 2 points

Mark only one oval.

- A. 1125 J
- B. 750 J
- C. 1500 J
- D. 2250 J

14. 11. Which of the following is **true** about scalar quantities? * 2 points

Mark only one oval.

- A. They must act in a particular direction
- B. They include acceleration and displacement
- C. They are fully described by magnitude alone
- D. They always change with direction

15. 12. The slope of a **distance-time graph** gives: * 2 points

Mark only one oval.

- A. Acceleration
- B. Speed
- C. Displacement
- D. Velocity

16. 13. The slope of a **distance-time graph** gives * 2 points

Mark only one oval.

- A. Acceleration
- B. Speed
- C. Displacement
- D. Velocity

17. **14.** Which one of these is **not** a property of a good thermometer? * 2 points

Mark only one oval.

- A. Fast response
- B. High specific heat capacity
- C. Uniform scale
- D. Wide range

18. **15.** When an object is freely falling, which of the following remains **constant** (ignoring air resistance)? * 2 points

Mark only one oval.

- A. Acceleration
- B. Speed
- C. Force
- D. Kinetic energy

19. **16.** A ball of mass 0.5 kg is dropped from a height of 20 m. What is its speed just before impact? ($g = 10\ m/s^2$) * 2 points

Mark only one oval.

- A. 10 m/s
- B. 20 m/s
- C. 25 m/s
- D. 20 m/s

20. **17.** The **gravitational potential energy** of a 2 kg object placed 3 m above the ground is: * 2 points

Mark only one oval.

- A. 30 J
- B. 6 J
- C. 60 J
- D. 20 J

21. **18.** A car slows down from 30 m/s to 10 m/s in 5 s. What is its **acceleration**? * 2 points

Mark only one oval.

- A. 3.14 m/s^2
- B. 4 m/s^2
- C. 3.6 m/s^2
- D. 3.06 m/s^2

22. 19. The following are sources of energy. Which of them are the only renewable source of energy on the list? Coal, wind ,Gas, hydropower and oil * 2 points

Mark only one oval.

- A) Coal ,Gas and hydropower
- B) Coal ,Gas and wind
- C) Wind ,oil, hydropower
- D) Wind and hydropower

23. 20. When a body is falling the kind of energy it possesses * 3 points

Mark only one oval.

- A) Mechanical energy
- B) Kinetic energy
- C) Potential Enery
- D) both potential and kinetic energy

24. 21. A ball of mass 1kg bounces off the ground to a height of 2m after falling from a height of 5m, find the energy lost. * Dropdown 4 points

Mark only one oval.

- 50 J
- 40 J
- 30 J
- 20 J

25. 22. A car is uniformly accelerated from rest and after 10s acquires a speed of 20m/s. It maintains the speed for the next five seconds. What is the total distance it covers? * 4 points

Mark only one oval.

- 1) 200 m
- 2) 300 m
- 3) 225 m
- 4) none of the above

26. 30. A spring is compressed by 0.1 m with a spring constant of 200 N/m. What is the potential energy stored? * 2 points

Mark only one oval.

- A. 2 J
- B. 20 J
- C. 1 J
- D. 0.5 J

27. 23. Using the kinetic theory, Explain in terms of (a) the arrangement of particles (b) motions of particles and (c) kinetics internal energy in each of the following: solids, liquids and gases. * 6 points

28. 24. Explain what happens to a person seated in a vehicle when it is suddenly brought to rest . * 4 points

29. 25. Give three situations in which newton second and third law in which newton's law of motion is applied. 3 points

30. 26. An electric bulb rated 100 W operates for 3 hours. The **energy consumed** is: * 2 points

Mark only one oval.

- A. 0.3 kWh
- B. 3.0 kWh
- C. 0.1 kWh
- D. 0.3 kWh

31. **27.** A man exerts a force of 100 N on a lever and lifts a load of 400 N. What is the **mechanical advantage** of the lever? * 2 points

Mark only one oval.

- A. 0.25
- B. 4
- C. 2
- D. 0.5

32. 28. What is the **acceleration due to gravity** on the moon compared to Earth? * 2 points

Mark only one oval.

- A. Equal
- B. About 1/6
- C. Double
- D. 9.8 m/s²

33. Match the following quantity and it's intrument of measurement * 14 point

Mark only one oval per row.

	A. Thermometer	B. Micrometer Screw Gauge	C. Vernier Caliper	D. Voltmeter	E. Stopwatch	F. Ammeter	Dyna
Diameter of a wire							
Voltage							
Time							
Electric current							
Length of a small object							
Force							
Temperature							

34. 29. A metal block of density 8000 kg/m³ and volume 0.002 m³ has a mass of: * 2 points

Mark only one oval.

- A. 4 kg
- B. 16 kg
- C. 6 kg
- D. 20 kg

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