UNIT-8 ENERGY SOURCES AND TRANSFER OF ENERGY
MULTIPLE CHOICE QUESTIONS

1. If force of 6N displaces an object 2m in the direction of force, then work done will be_____.
   a) 0 **b) 12 Joule**
   c) 3 Joule d) Both b and c
2. If a body of mass 1 kg is moving with velocity of 1m/sec then K.E of the body will be _____.
   a) Joules **b) 0.5 Joules**
   c) Joules d) 1 Joule
3. If a machine performs 20J of work in 10sec then its power is _____.
   a) 200 watt b) 20 watt
   c) 2watt d) 0.2 watt
4. A body of mass 1kg is lifted through a height of 1m. The energy possessed in the body will be_____.(consider g = $10ms^{-2}$)
   a) 1J **b) 10 Joule**
   c) 100 Joule d) 1000 Joule
5. The energy released during fission or fusion reaction is called _____.
   a) Solar energy b) Geothermal energy
   c) Tidal energy **d) Nuclear energy**
6. Which is the renewable source of energy
   a) Solar and wind b) Coal
   c) Natural gas d) Petroleum
7. The ratio of output to input is called
   a) Energy b) Work
   c) Power **d) Efficiency**
8. Work done per unit time is called _____.
   a) Efficiency b) Energy
   c) Power d) Force
9. Coal, gas and oil are all examples of_____.
   a) Tidal energy b) Nuclear energy
   c) Fossil fuel energy d) Biomass energy
10. _____ is not a renewable source of energy.
    a) Solar energy **b) Coal**
    c) Wind energy d) Geothermal energy

UNIT-2

EXAMS PRACTICE
MULTIPLE CHOICE QUESTIONS

Q1. A force of 20 N moves a body through 5 m in the direction of force. Work done is:

A) 25 J
B) 50 J
C) 100 J
D) 200 J

Answer: C) 100 J

Q2. A force of 10 N acts on a body at an angle of 60° with displacement of 4 m. Work done is:

A) 10 J
B) 20 J
C) 40 J
D) 80 J

Answer: B) 20 J

Q3. A man pushes a wall with a force of 50 N but wall does not move. Work done is:

A) 50 J
B) 100 J
C) 0 J
D) 500 J

Answer: C) 0 J

Q4. A body is displaced 10 m by a force of 15 N opposite to the direction of motion. Work done is:

A) 150 J
B) -150 J
C) 15 J
D) -15 J

Answer: B) -150 J

Q5. A 5 kg object is lifted to a height of 3 m. Work done against gravity is:

A) 15 J
B) 50 J
C) 100 J
D) 150 J

Answer: D) 150 J

Q6. A body of mass 2 kg moves with velocity 5 m/s. Its kinetic energy is:

A) 10 J
B) 20 J
C) 25 J
D) 50 J

Answer: C) 25 J

Q7. A 4 kg body has kinetic energy 200 J. Its velocity is:

A) 5 m/s B) 10 m/s
C) 20 m/s D) 25 m/s

Answer: B) 10 m/s

Q8. If the velocity of a body becomes double, its kinetic energy becomes:

A) Double B) Half
C) Four times D) Same

Answer: C) Four times

Q9. A body of mass 10 kg is moving with speed 2 m/s. Its kinetic energy is:

A) 10 J B) 20 J
C) 40 J D) 80 J

Answer: B) 20 J

Q10. A car of mass 1000 kg moves with velocity 20 m/s. Its kinetic energy is:

A) 100000 J B) 200000 J
C) 400000 J D) 500000 J

Answer: B) 200000 J

Q11. A body of mass 3 kg is raised to height 4 m. Its potential energy is:

A) 30 J B) 60 J
C) 100 J D) 120 J

Answer: D) 120 J

Q12. A 10 kg object has potential energy 500 J. Its height is:

A) 2 m B) 5 m
C) 10 m D) 50 m

Answer: B) 5 m

Q13. A body of mass 5 kg is at a height of 8 m. Its gravitational potential energy is:

A) 100 J B) 200 J
C) 300 J D) 400 J

Answer: D) 400 J

Q14. If height of a body is doubled, its potential energy becomes:

A) Half
B) Double
C) Four times
D) Same

Answer: B) Double

Q15. A 2 kg stone is taken to height 20 m. Its potential energy is:

A) 20 J
B) 40 J
C) 200 J
D) 400 J

Answer: D) 400 J

Q16. A body of mass 2 kg falls from height 10 m. Its potential energy at top is:

A) 20 J
B) 100 J
C) 200 J
D) 400 J

Answer: C) 200 J

Q17. A body of mass 5 kg moves with velocity 4 m/s. Find its kinetic energy.

A) 20 J
B) 40 J
C) 80 J
D) 100 J

Answer: B) 40 J

Q18. A force of 25 N does 100 J of work. Displacement in direction of force is:

A) 2 m
B) 4 m
C) 5 m
D) 10 m

Answer: B) 4 m

Q19. A body of mass 1 kg has kinetic energy 50 J. Its velocity is:

A) 5 m/s
B) 10 m/s
C) 20 m/s
D) 50 m/s

Answer: B) 10 m/s

Q20. A 4 kg object is lifted to height 5 m and then falls freely. Just before hitting the ground, its kinetic energy will be:

A) 50 J
B) 100 J
C) 200 J
D) 400 J

Answer: C) 200 J

Q21. Which of the following is a renewable source of energy?

A) Coal
B) Petroleum
C) Solar energy
D) Natural gas

Answer: C) Solar energy

Q22. Which of these is a non-renewable source of energy?

A) Wind energy
B) Hydropower
C) Coal
D) Biomass

Answer: C) Coal

Q23. Energy obtained from the sun is called:

A) Wind energy
B) Solar energy
C) Geothermal energy
D) Nuclear energy

Answer: B) Solar energy

Q24. Which energy source is produced from moving air?

A) Solar energy
B) Wind energy
C) Coal energy
D) Petroleum energy

Answer: B) Wind energy

Q25. Fossil fuels include:

A) Coal, petroleum and natural gas
B) Solar, wind and hydro
C) Biomass, wind and tidal
D) Geothermal, solar and hydro

Answer: A) Coal, petroleum and natural gas