

**Subject Code: ---SELECT---**

**Date: 2025-03-16**

**Subject Name:**

**Time Duration: 108.0 minutes**

**Total Marks: 108**

---

**Instructions:**

---

**The reason for Sea Level rise is**

**Marks: 2**

- ☐ Depletion of ozone layer
- ☐ Global warming
- ☐ Smog
- ☐ Acid Rain

**The type of generator used in HAWT which supply power to the grid line is**

**Marks: 2**

- ☐ Synchronous Induction Generator
- ☐ D.C Generator
- ☐ A.C. Generator
- ☐ Asynchronous Generator

**Atmosphere of big cities is polluted by**

**Marks: 2**

- ☐ Household Waste
- ☐ Radioactive Fallout
- ☐ Pesticides
- ☐ Automobile Exhaust



### **BOD Measures**

**Marks: 2**

- ☐ content of bacteria
- ☐ Content of inorganic matter
- ☐ Carbonic matter in domestic sewage
- ☐ OUD

### **BOD stands for**

**Marks: 2**

- ☐ Biochemical Oxygen Dissolution
- ☐ Biochemical Oxygen Demand
- ☐ Biochemical Oxidation Demand
- ☐ Biological Oxygen Demand

### **The component of environment made of sea, rivers, lakes, etc is called**

**Marks: 2**

- ☐ Atmosphere
- ☐ Hydrosphere
- ☐ Biosphere
- ☐ Lithosphere

### **In which atmospheric layer do most cloud form ?**

**Marks: 2**

- ☐ Stratosphere
- ☐ Atmosphere
- ☐ Mesosphere
- ☐ Troposphere



**Which type of clouds are responsible for thunderstorm**

**Marks: 2**

- ☐ Cirrus
- ☐ Stratus
- ☐ Cumulonimbus
- ☐ Nacreous

**Which is the lowest layer of the atmosphere**

**Marks: 2**

- ☐ Stratosphere
- ☐ Mesosphere
- ☐ Troposphere
- ☐ Thermosphere

**The ozone layer is mainly found in which atmospheric layer**

**Marks: 2**

- ☐ Troposphere
- ☐ Stratosphere
- ☐ Mesosphere
- ☐ Exosphere

**In which layer do most airplanes fly ?**

**Marks: 2**

- ☐ Stratosphere
- ☐ Troposphere
- ☐ Thermosphere
- ☐ Mesosphere



**The hottest layer of the atmosphere is**

**Marks: 2**

- ☐ Troposphere
- ☐ Stratosphere
- ☐ Thermosphere
- ☐ Mesosphere

**Which layer is known as the "ionosphere" due to its charged particles ?**

**Marks: 2**

- ☐ Troposphere
- ☐ Stratosphere
- ☐ Thermosphere
- ☐ Mesosphere

**The outermost layer of the Earth's atmosphere is called ?**

**Marks: 2**

- ☐ Troposphere
- ☐ Mesosphere
- ☐ Thermosphere
- ☐ Exosphere

**In a food chain**

**Marks: 2**

- ☐ energy flows from tropic level-1 to tropic level-4
- ☐ energy flows from tropic level-4 to tropic level-1
- ☐ energy does not flow
- ☐ energy flows from tropic level-4 to tropic level-3



**Which fuel used in automobiles produce least pollution ?**

**Marks: 2**

- ☐ CNG
- ☐ LPG
- ☐ Diesel
- ☐ Petrol

**Coal is the main contributor of**

**Marks: 2**

- ☐ CO■
- ☐ SO■
- ☐ N■
- ☐ CO

**Which gas is mainly responsible for green house effect ?**

**Marks: 2**

- ☐ CO■
- ☐ CFC
- ☐ CH■
- ☐ N■O

**Hydrogen fuel cell**

**Marks: 2**

- ☐ produce electric power by burning of hydrogen gas
- ☐ works like a battery
- ☐ Does not require recharging
- ☐ All of above



**What is typical number of blades in most modern HAWTs ?**

**Marks: 2**

- ☐ 1
- ☐ 2
- ☐ 3
- ☐ 6

**What happens if the wind speed exceeds the turbine's cut-out speed ?**

**Marks: 2**

- ☐ The turbine speeds up
- ☐ The turbine stops to prevent damage
- ☐ The turbine stores extra energy
- ☐ The turbine reverses its rotation

**What is the main function of the yaw mechanism in a HAWT ?**

**Marks: 2**

- ☐ To adjust the blade pitch
- ☐ To rotate the nacelle to face the wind
- ☐ To slow down the rotor speed
- ☐ To generate electricity directly

**Where are the most HAWTs installed ?**

**Marks: 2**

- ☐ Underground
- ☐ Offshore and Onshore
- ☐ Inside buildings
- ☐ In urban rooftops



**What is the main advantage of a HAWT over a VAWT (Vertical Axis Wind Turbine) ?**

**Marks: 2**

- ☐ Can operate in all wind direction without orientation
- ☐ More efficient at converting wind energy
- ☐ Require less land area
- ☐ Works better in low wind speed

**In horizontal axis Wind Turbine (HAWT) where generator is placed ?**

**Marks: 2**

- ☐ In the nessel
- ☐ Above the tower
- ☐ At ground level
- ☐ In the gearbox

**Which of the following solid waste disposal methods is ecologically most acceptable ?**

**Marks: 2**

- ☐ Sanitary land fill
- ☐ Inclineration
- ☐ Composting
- ☐ Pyrolysis

**In a HAWT, the rotor shaft is aligned in which direction ?**

**Marks: 2**

- ☐ Horizontal
- ☐ Vertical
- ☐ Diagonal
- ☐ Perpendicular to wind Flow



**What does HAWT stand for ?**

**Marks: 2**

- ☐ Horizontal Axis Wind Turbine
- ☐ Horizontal Axis Wind Tubeline
- ☐ Horizontal Airflow wind Turbine
- ☐ Hybrid Axis Wind Technology

**Which is the most common material used for morden HAWT blades ?**

**Marks: 2**

- ☐ Carbon Fibre
- ☐ Fibreglass - reinforced plastic
- ☐ Pure aluminium
- ☐ Titanium Alloy

**The biggest pollutant receptor or sink on the earth is**

**Marks: 2**

- ☐ Hyrdosphere
- ☐ Lithosphere
- ☐ Atmosphere
- ☐ Biosphere

**As per IS Code, the acceptable noise level in urban residential area is**

**Marks: 2**

- ☐ 35-45 dBA
- ☐ 45-55 dBA
- ☐ 30-40 dBA
- ☐ 40-50 dBA





**Which is the largest ecosystem on the earth ?**

**Marks: 2**

- ☐ Forests
- ☐ Sea
- ☐ Deserts
- ☐ Grasslands

**In biogas plant, digestion takes place in the absense of**

**Marks: 2**

- ☐ Oxygen
- ☐ Carbon dioxide
- ☐ Hydrogen
- ☐ Methane

**The daily cover of MSW landfills consists of which of the following**

**Marks: 2**

- ☐ Compacted Soil
- ☐ Geomembrane
- ☐ Geotextile
- ☐ Geocomposite

**In the atmosphere reaction between Nitrogen oxides, hydrocarbon and sunlight produces**

**Marks: 2**

- ☐ Sulphur Dioxide
- ☐ Benzene
- ☐ CO
- ☐ PAN



**Noise pollution is measured in**

**Marks: 2**

- ☐ Decibel
- ☐ Newton
- ☐ Dyne
- ☐ ECO

**Vegetables, grass, trees, etc are which type of biotic components ?**

**Marks: 2**

- ☐ Producers
- ☐ Consumers
- ☐ Decomposers
- ☐ Transformers

**Nacelle is used in**

**Marks: 2**

- ☐ Darious wind turbine
- ☐ Savonious wind turbine
- ☐ Horizontal axis wind turbine
- ☐ Water pumping wind mill

**Due to 'Ozone hole' in the earth's atmosphere, which ray comes to earth surface ?**

**Marks: 2**

- ☐ Laser rays
- ☐ X-rays
- ☐ Ultravoilet rays
- ☐ None of these



**Less of removal of the superficial layer of soil by the action of water, wind, or by the human activities are termed as**

**Marks: 2**

- ☐ Soil Erosion
- ☐ Soil Pollution
- ☐ Desertification
- ☐ Salination

**Minamata disease is caused by \_\_\_\_\_**

**Marks: 2**

- ☐ Mercury
- ☐ Lead
- ☐ Zinc
- ☐ Manganese

**Which of the following is an artificial ecosystem ?**

**Marks: 2**

- ☐ Forests
- ☐ Desert
- ☐ Fish house
- ☐ Pond



**Which pollutant is primarily responsible for causing respiratory problems and cardiovascular diseases in humans ?**

**Marks: 2**

- ☐ Lead
- ☐ Benzene
- ☐ Carbon Monoxide (CO)
- ☐ Particulate matter (PM10)

**What is the approximately range of modern solar photovoltaic (PV) panels in converting sunlight in to electricity ?**

**Marks: 2**

- ☐ 5-10%
- ☐ 15-20%
- ☐ 20-30%
- ☐ 40-50%

**CFCs are not recommended to be used in refrigerator because they \_\_\_\_\_**

**Marks: 2**

- ☐ Increase Temperature
- ☐ Deplete Ozone
- ☐ Affect Environment
- ☐ Affect Human Body



**Clouds are present \_\_\_\_ in layer of atmosphere.**

**Marks: 2**

- ☐ Stratosphere
- ☐ Troposphere
- ☐ Thermosphere
- ☐ Mesosphere

**Which pollutant is commonly associated with blue baby syndrome in infants ?**

**Marks: 2**

- ☐ Lead
- ☐ Arsenic
- ☐ Mercury
- ☐ Nitrate

**Which disease is known as 'pain-pain-diseases' due to severe bone pain and fractures ?**

**Marks: 2**

- ☐ Black Lung Disease
- ☐ Itai-Itai Disease
- ☐ Silicosis
- ☐ Fluorosis

**Which occupational disease is caused by inhaling coal dust over a long period ?**

**Marks: 2**

- ☐ Asbestosis
- ☐ Silicosis
- ☐ Black Lung Diseases
- ☐ Eutrophication



**What is the primary pollutant responsible for Fluorosis ?**

**Marks: 2**

- ☐ Fluoride
- ☐ Lead
- ☐ Sulfur dioxide
- ☐ Arsenic

**The Bhopal Gas Tragedy was caused due to which leakage of gas ?**

**Marks: 2**

- ☐ Carbon Monoxide
- ☐ Methyl isocyanate (MIC)
- ☐ Sulfur dioxide
- ☐ Nitrogen dioxide

**Which disease is associated with inhaling silica dust ?**

**Marks: 2**

- ☐ Silicosis
- ☐ Asbestosis
- ☐ Itai-Itai Disease
- ☐ Blue Baby Syndrome

**Acid Rain is mainly caused by which pollutants ?**

**Marks: 2**

- ☐ Carbon monoxide and Lead
- ☐ Nitrogen oxide and Sulphur dioxide
- ☐ Fluoride and Mercury
- ☐ Ozone and PM2.5



**What is the main source of Cadmium Contamination leading to Itai-Itai diseases**

**Marks: 2**

- ☐ Fertilizer runoff
- ☐ Industrial wastewater
- ☐ burning of fossil fuels
- ☐ Oil spills

