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**Course Title: Introduction to Artificial Intelligence**

**Home Work-01**

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The full form of PEAS:

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P: Performance measure

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E: Environment

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A: Actuators

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S: Sensors

Some Agents Task Environments are given bellow:

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| --- | --- | --- | --- | --- |
| **Task** | **Performance**  **Measurement** | **Environment** | **Actuators** | **Sensors** |
| Mushrooms  Picking robot | Percentage of good  Mushrooms in correct  bins | Conveyor belt with mushroom,  bins | Jointed arm and hand | Camera,  Joint angle sensors |
| Autonomous Mars rover | Collect, analyze and explore samples on Mars | Mars, vehicle | Collection , analysis, and motion devices, radio transmitter | Video camera, audio receivers, communication links |
| Theorem-proving assistant | Time requirement, degree of correction | The theorem to prove, existing axioms | Accept the right theorem, reject the wrong theorem, infer based on axioms and facts | Input device that reads the theorem to prove |
| Satellite Image Analysis System | Correct categorization | Downlink from orbiting satellite | Display categorization of scene. | Colour pixel arrays. |
| Refinery Controller | Maximize purity,  Yield, safety | Refinery, operators | Valves, pumps,  Heaters, displays | Temperature, pressure, chemical sensors |