**Level 1 – Easy (30 Question**

1. Q: What is the main gas in Earth's atmosphere?

a) Oxygen (0)

b) Nitrogen (5 ✅)

c) Carbon dioxide (0)

d) Argon (0)

1. Q: The Moon completes one orbit around Earth in approximately how many days?

a) 7 days (0)

b) 27 days (5 ✅)

c) 365 days (0)

d) 14 days (0)

1. Q: You are walking on the Moon and your oxygen level drops suddenly. What should you do first?

a) Panic and run (0)

b) Check suit oxygen tank and alert mission control (5 ✅)

c) Remove helmet to breathe (0)

d) Ignore it and continue walking (0)

1. Q: Which planet is known as the Red Planet?

a) Venus (0)

b) Mars (5 ✅)

c) Jupiter (0)

d) Mercury (0)

1. Q: During a spacewalk, a tether becomes loose. What is the safest action?

a) Grab nearest handrail and secure yourself (5 ✅)

b) Call for help while floating freely (1)

c) Try to fix it without holding on (0)

d) Ignore it for now (0)

1. Q: Which telescope captured the 2.5-gigapixel image of the Andromeda galaxy?

a) Hubble Space Telescope (5 ✅)

b) James Webb Space Telescope (0)

c) Chandra X-ray Observatory (0)

d) Spitzer Space Telescope (0)

1. Q: While on the ISS, you notice a small leak in a water pipe. What should you do?

a) Seal the leak immediately and alert the crew (5 ✅)

b) Ignore it (0)

c) Attempt to fix it alone later (1)

d) Remove the pipe (0)

1. Q: Which color of light is used by the JWST to observe distant galaxies?

a) Infrared (5 ✅)

b) Ultraviolet (0)

c) Visible (0)

d) Gamma rays (0)

1. Q: You’re landing on Mars and detect dust storm approaching. Best action?

a) Proceed as planned (0)

b) Delay landing until storm passes (5 ✅)

c) Try to land inside storm (0)

d) Switch to autopilot without delay (1)

1. Q: The Moon’s surface is covered by:

a) Water oceans (0)

b) Regolith and craters (5 ✅)

c) Dense forests (0)

d) Sand dunes like Earth (0)

1. Q: If a solar flare occurs while on a lunar base, safest action is:

a) Take shelter in radiation-shielded area (5 ✅)

b) Continue outdoor work (0)

c) Cover with spacesuit only (1)

d) Ignore it (0)

1. Q: Which satellite provides daily global maps of Mars in multiple colors?

a) Voyager 1 (0)

b) Mars Reconnaissance Orbiter (5 ✅)

c) Lunar Reconnaissance Orbiter (0)

d) Hubble (0)

1. Q: During a Moon rover mission, wheels get stuck in regolith. First step?

a) Continue driving (0)

b) Analyze the terrain and use rover manipulator (5 ✅)

c) Leave rover and walk back (0)

d) Jump to free the wheels (0)

1. Q: How long does light take to reach Earth from the Sun?

a) 1 second (0)

b) 8 minutes (5 ✅)

c) 1 hour (0)

d) 24 hours (0)

1. Q: You’re on ISS and notice smoke. What’s your first action?

a) Try to locate source, use fire extinguisher (5 ✅)

b) Panic (0)

c) Open a window (0)

d) Ignore it (0)

1. Q: Hubble observes in which wavelengths?

a) UV, Visible, Near-IR (5 ✅)

b) Only IR (0)

c) Gamma rays (0)

d) Microwave (0)

1. Q: Which Moon feature is a lava plain?

a) Maria (5 ✅)

b) Crater (0)

c) Highlands (0)

d) Rille (0)

1. Q: You’re outside the ISS and suit alarm sounds oxygen low. What to do?

a) Return to airlock calmly (5 ✅)

b) Ignore alarm (0)

c) Remove helmet (0)

d) Float away (0)

1. Q: Mars has which main atmospheric gas?

a) CO₂ (5 ✅)

b) N₂ (0)

c) O₂ (0)

d) Ar (0)

1. Q: You detect a meteorite approaching lunar base. First action?

a) Evacuate to shelter (5 ✅)

b) Stand outside to observe (0)

c) Take photos (1)

d) Ignore (0)

1. Q: The largest Hubble image is of:

a) Andromeda Galaxy (5 ✅)

b) Orion Nebula (0)

c) Milky Way (0)

d) Jupiter (0)

1. Q: While on Moon, your light source fails during exploration. Best action?

a) Use backup lights and check location (5 ✅)

b) Walk in darkness (0)

c) Panic (0)

d) Signal ground and stay put (3)

1. Q: Which planet has Olympus Mons?

a) Mars (5 ✅)

b) Venus (0)

c) Jupiter (0)

d) Mercury (0)

1. Q: In lunar orbit, debris hits solar panel. Best response?

a) Assess damage, reroute power if needed (5 ✅)

b) Ignore (0)

c) Disconnect panel immediately (1)

d) Remove spacecraft from orbit (0)

1. Q: JWST focuses on which type of observation?

a) Infrared (5 ✅)

b) Ultraviolet (0)

c) Gamma (0)

d) X-ray (0)

1. Q: The Moon’s gravity compared to Earth is:

a) 1.62 m/s² (5 ✅)

b) 9.81 m/s² (0)

c) 3.71 m/s² (0)

d) 0.5 m/s² (0)

1. Q: On Mars, dust storms can last:

a) Days to months (5 ✅)

b) Few minutes (0)

c) Hours only (0)

d) Years (1)

1. Q: While outside ISS, tool drifts away. Best action?

a) Use tether or robotic arm to retrieve (5 ✅)

b) Ignore it (0)

c) Jump after it (0)

d) Signal ground only (3)

1. Q: Andromeda galaxy is how far from Earth?

a) 2.5 million light-years (5 ✅)

b) 2500 light-years (0)

c) 100 million light-years (0)

d) 10 billion light-years (0)

1. Q: You notice strange readings on lunar base sensors. What to do?

a) Investigate and alert mission control (5 ✅)

b) Ignore readings (0)

c) Reset sensors randomly (0)

d) Evacuate without checking (1)

**Level 2 – Medium (30 Questions)**

1. Q: While exploring a Martian canyon, you detect an unexpected gas leak near the rover. What is the safest immediate action?

a) Continue mission and ignore (0)

b) Evacuate the rover area and analyze the gas remotely (5 ✅)

c) Try to cover the leak manually (1)

d) Move closer to identify the source (0)

1. Q: Which feature of Mars is the largest volcano in the solar system?

a) Valles Marineris (0)

b) Olympus Mons (5 ✅)

c) Tharsis Montes (1)

d) Elysium Mons (0)

1. Q: During a Moon EVA (extravehicular activity), communication cuts off. Best action?

a) Return to lunar module immediately (5 ✅)

b) Keep exploring and hope it restores (0)

c) Send a signal with hand gestures (1)

d) Float to a higher crater for better signal (3)

1. Q: JWST captures infrared images to observe distant galaxies. Why is infrared important?

a) It detects heat and hidden structures (5 ✅)

b) It measures radio waves (0)

c) It only sees visible light (0)

d) It measures magnetic fields (0)

1. Q: You are on ISS and a micro-meteorite strikes the station causing a small breach. What should you do?

a) Seal the breach and alert mission control (5 ✅)

b) Ignore it until next routine check (0)

c) Patch with duct tape immediately (1)

d) Attempt a spacewalk without safety tether (0)

1. Q: Andromeda Galaxy’s spiral arms contain:

a) Only gas (0)

b) Stars, nebulae, and dark matter (5 ✅)

c) Black holes exclusively (0)

d) Asteroids only (0)

1. Q: A dust storm on Mars is detected by orbital cameras. What should an unmanned rover do?

a) Shut down sensitive instruments (5 ✅)

b) Continue normal operations (0)

c) Move toward storm for better data (1)

d) Ignore storm data (0)

1. Q: While operating a lunar drill, the drill motor overheats. First action?

a) Turn off the drill and cool system (5 ✅)

b) Keep drilling (0)

c) Switch to higher power (0)

d) Call ground for permission but continue operation (3)

1. Q: The Mars Color Imager (MARCI) monitors:

a) Surface water (0)

b) Daily weather patterns and dust storms (5 ✅)

c) Subsurface lava flows (0)

d) Magnetic field variations (0)

1. Q: You are on Moon base when a solar flare is imminent. Most critical action?

a) Stay inside a shielded module (5 ✅)

b) Perform outside repairs (0)

c) Wear suit only (1)

d) Move to unshielded module (0)

1. Q: Chandra X-ray Observatory detects high-energy phenomena. What is it primarily used for?

a) Studying X-ray emission from black holes and supernovae (5 ✅)

b) Measuring visible light (0)

c) Tracking asteroids (0)

d) Monitoring Earth’s atmosphere (0)

1. Q: You’re on a lunar rover and encounter a sudden slope collapse. Most logical action?

a) Stop rover, assess slope, reverse carefully (5 ✅)

b) Speed up to cross quickly (0)

c) Jump out to inspect (1)

d) Continue without stopping (0)

1. Q: Mars has seasonal changes affecting dust storms. What causes these?

a) Atmospheric pressure and temperature variations (5 ✅)

b) Solar flares (0)

c) Moon’s gravity (0)

d) Earth tides (0)

1. Q: During ISS spacewalk, glove puncture detected. Correct response?

a) Return immediately to airlock (5 ✅)

b) Ignore if minor (0)

c) Attempt in-space repair (1)

d) Continue work (0)

1. Q: Andromeda is expected to collide with the Milky Way in how many years?

a) ~4.5 billion years (5 ✅)

b) 1 million years (0)

c) 100 million years (0)

d) 10 billion years (0)

1. Q: On a lunar surface, your rover tilts dangerously near a crater. Best response?

a) Halt rover and analyze terrain (5 ✅)

b) Drive faster to exit danger (0)

c) Jump off rover (1)

d) Continue slowly (3)

1. Q: NASA Solar System Treks allow users to:

a) Fly over and measure planetary surfaces interactively (5 ✅)

b) Only see static images (0)

c) Send commands to satellites (0)

d) Play simulation unrelated to data (0)

1. Q: On Mars, sudden sandstorm reduces visibility. You’re in a habitat. What do you do?

a) Stay indoors and monitor sensors (5 ✅)

b) Go outside to observe storm (0)

c) Open windows for fresh air (0)

d) Drive rover through storm (1)

1. Q: Lunar Reconnaissance Orbiter provides:

a) Gigapixel-scale lunar maps (5 ✅)

b) Only Mars maps (0)

c) Deep space images (0)

d) Solar flare warnings (0)

1. Q: On ISS, a sudden temperature spike occurs in one module. Immediate action?

a) Isolate module and regulate temperature (5 ✅)

b) Ignore if sensors seem fine (0)

c) Open module to space vacuum (0)

d) Evacuate station entirely (1)

1. Q: JWST’s main advantage over Hubble is:

a) Observes infrared, seeing early universe structures (5 ✅)

b) Observes only visible light (0)

c) Operates in low Earth orbit (0)

d) Can only see planets (0)

1. Q: On Mars, a robotic arm fails while moving rocks. Safest first action?

a) Stop operation, troubleshoot remotely (5 ✅)

b) Force movement (0)

c) Dismantle arm immediately (0)

d) Ignore failure (0)

1. Q: While outside lunar habitat, your tether snags on rock. First action?

a) Stay calm, detach safely (5 ✅)

b) Pull forcefully (0)

c) Let go and float freely (0)

d) Panic and yell (0)

1. Q: Mars experiences seasonal CO₂ ice caps. Which is true?

a) Sublimates in summer, reforms in winter (5 ✅)

b) Always solid (0)

c) Made of water ice only (0)

d) Does not change seasonally (0)

1. Q: During ISS experiment, sample container breaks. Best immediate response?

a) Contain contamination, report (5 ✅)

b) Ignore (0)

c) Throw sample outside (0)

d) Continue experiment (1)

1. Q: Lunar Rilles are formed by:

a) Ancient lava channels (5 ✅)

b) Water erosion (0)

c) Wind (0)

d) Meteor impacts (1)

1. Q: Mars orbiters provide multi-spectral imaging. Why important?

a) Detect mineral composition, surface features (5 ✅)

b) Only track temperature (0)

c) Measure gravity (0)

d) Track satellites (0)

1. Q: On ISS, waste containment malfunctions. Safest action?

a) Seal leak, follow protocols (5 ✅)

b) Ignore (0)

c) Dump outside (0)

d) Continue using system (1)

1. Q: In deep space, Hubble observes a gamma-ray burst. What is the main purpose?

a) Study high-energy cosmic events (5 ✅)

b) Detect Earth weather (0)

c) Measure Moon craters (0)

d) Track satellites (0)

1. Q: Lunar solar panels suddenly fail. Best immediate action?

a) Switch to backup power, diagnose panel (5 ✅)

b) Ignore failure (0)

c) Remove panels outside (0)

d) Call mission control but continue using main power (3)

**Level 3 – Hard (30 Questions)**

1. Q: You are on a Mars surface mission and detect an unexpected methane spike near your habitat. What should you do first?

a) Evacuate habitat and seal instruments remotely (5 ✅)

b) Ignore, it’s probably normal variation (0)

c) Move closer for visual inspection (1)

d) Release emergency venting without analyzing (2)

1. Q: While orbiting the Moon, your satellite’s sensors detect a sudden micrometeorite swarm. Best response?

a) Activate protective shields and adjust orbit (5 ✅)

b) Ignore, small particles won’t matter (0)

c) Fire thrusters toward swarm (1)

d) Shut down satellite completely (2)

1. Q: During a lunar EVA, you encounter a fissure emitting unknown gas. Options:

a) Retreat, don breathing system, report (5 ✅)

b) Approach to collect samples manually (2)

c) Ignore and continue mission (0)

d) Attempt to seal fissure yourself (1)

1. Q: On a Mars rover mission, dust storm intensity suddenly doubles and solar panels are blocked. Immediate action?

a) Park rover in sheltered area, power down critical systems (5 ✅)

b) Keep driving to shelter ignoring dust (0)

c) Manually clean panels (1)

d) Increase power usage to compensate (2)

1. Q: In deep space, Hubble detects a previously unknown exoplanet. What should be prioritized?

a) Capture multi-wavelength observations for confirmation (5 ✅)

b) Announce discovery immediately (0)

c) Ignore minor data (0)

d) Adjust focus to other known stars (1)

1. Q: Your lunar lander’s thrusters malfunction mid-descent. Safe strategy?

a) Switch to backup thrusters, stabilize descent (5 ✅)

b) Abort landing abruptly (1)

c) Let lander freefall (0)

d) Attempt manual thrust override without calculation (2)

1. Q: During a solar observatory mission, a CME (Coronal Mass Ejection) is approaching Earth. Best action for satellite?

a) Reorient sensitive electronics to minimize impact (5 ✅)

b) Ignore, shield can handle it (0)

c) Turn off all systems permanently (1)

d) Launch countermeasures (2)

1. Q: On Mars, you find unusual mineral deposits that may indicate past water flow. First step?

a) Use robotic arm to collect samples and run analysis (5 ✅)

b) Ignore, continue planned exploration (0)

c) Try to taste or touch manually (0)

d) Report immediately without analysis (2)

1. Q: While orbiting Saturn, your probe detects an unexpected ring debris cloud. Action plan?

a) Adjust orbit and take high-resolution images (5 ✅)

b) Pass through debris cloud to collect particles (1)

c) Ignore cloud, continue mission (0)

d) Retreat entirely from Saturn orbit (3)

1. Q: A micro-meteorite punctures ISS module hull, pressure begins to drop. Immediate steps?

a) Seal module and initiate emergency repressurization (5 ✅)

b) Continue working while pressure drops (0)

c) Attempt EVA to patch from outside (1)

d) Move crew to another module only after 30 min (2)

1. Q: On a Mars night, temperature drops faster than expected, threatening instruments. Solution?

a) Activate heaters and power-conserving mode (5 ✅)

b) Leave instruments off until morning (0)

c) Expose instruments to external surface (0)

d) Move rover manually closer to sun-exposed rocks (2)

1. Q: While using lunar mapping drone, GPS signal fails. What to do?

a) Switch to inertial navigation and continue mapping (5 ✅)

b) Land drone immediately (1)

c) Ignore failure, hope signal returns (0)

d) Manually fly drone from base (2)

1. Q: During a deep space maneuver, communication with mission control is lost. Best course?

a) Activate preprogrammed safe protocol (5 ✅)

b) Continue maneuver manually (0)

c) Wait without action (1)

d) Attempt risky course correction blindly (0)

1. Q: You observe a rare Martian dust devil approaching your habitat. Safest response?

a) Lock down habitat, secure all equipment (5 ✅)

b) Go outside to study it closely (0)

c) Evacuate to nearby crater (1)

d) Attempt to push dust devil away with rover (0)

1. Q: During Moon orbit, you notice the lander’s heat shield has partially detached. Immediate action?

a) Abort landing, move to safe orbit (5 ✅)

b) Attempt emergency landing anyway (1)

c) Wait and hope it reattaches (0)

d) Perform risky spacewalk to fix (2)

1. Q: JWST detects a faint signal indicating possible gravitational lensing. Priority?

a) Run detailed multi-band analysis to confirm (5 ✅)

b) Ignore, too faint to matter (0)

c) Report without analysis (1)

d) Focus on other targets (2)

1. Q: While on lunar EVA, you detect unexplained magnetic anomaly. First action?

a) Use instruments to measure, report to base (5 ✅)

b) Ignore, anomaly may be normal (0)

c) Touch anomaly with hand (0)

d) Move rover into anomaly zone (1)

1. Q: Mars rover cameras detect ice sublimating unexpectedly. Most logical response?

a) Record time-series data and alert scientists (5 ✅)

b) Ignore phenomenon (0)

c) Move closer without analysis (1)

d) Attempt physical sample collection immediately (2)

1. Q: ISS robotic arm malfunctions mid-EVA. Best step?

a) Halt EVA, secure astronaut, troubleshoot (5 ✅)

b) Continue EVA (0)

c) Attempt to manually move arm outside airlock (1)

d) Abort entire mission (2)

1. Q: You are navigating Andromeda mosaic images. A previously unseen dense star cluster appears. First action?

a) Annotate cluster and request spectroscopic follow-up (5 ✅)

b) Ignore it (0)

c) Share image without checking (1)

d) Zoom out and discard observation (0)

1. Q: Solar panels on Moon base suddenly degrade faster than expected. Best action?

a) Inspect panels for dust, apply cleaning, switch to backup (5 ✅)

b) Ignore, continue using degraded output (0)

c) Attempt risky EVA cleaning during storm (1)

d) Disconnect panels permanently (0)

1. Q: During deep space maneuver, thrusters show inconsistent thrust. Safest option?

a) Reduce velocity, stabilize with secondary thrusters (5 ✅)

b) Continue with original plan (0)

c) Fire all thrusters at max (0)

d) Attempt manual repair mid-flight (1)

1. Q: While monitoring lunar habitat oxygen, sudden drop detected. Immediate response?

a) Initiate emergency oxygen supplement protocol (5 ✅)

b) Ignore until next check (0)

c) Have astronauts remove masks (0)

d) Evacuate habitat only after 10 minutes (1)

1. Q: You detect gamma-ray burst affecting nearby satellite network. Best response?

a) Switch satellites to safe mode, protect electronics (5 ✅)

b) Continue operations normally (0)

c) Power off satellites permanently (1)

d) Move satellites closer to burst (0)

1. Q: During a Mars mission, subsurface radar detects ice pockets. Best analysis?

a) Map pockets, cross-check with temperature data, report (5 ✅)

b) Ignore, no immediate use (0)

c) Attempt drilling without analysis (1)

d) Broadcast findings immediately (2)

1. Q: On ISS, microgravity experiment shows unexpected reaction. Most logical step?

a) Record data, adjust variables, consult ground team (5 ✅)

b) Ignore reaction (0)

c) Discard experiment (1)

d) Attempt uncontrolled adjustment (0)

1. Q: Lunar rover’s navigation system shows anomalous readings near crater. Best response?

a) Halt, verify terrain and recalibrate (5 ✅)

b) Ignore anomaly (0)

c) Attempt high-speed traversal (0)

d) Switch to manual navigation blindly (1)

1. Q: A meteorite is detected approaching Mars habitat. First action?

a) Activate shelter protocols, secure all personnel (5 ✅)

b) Ignore, too small to matter (0)

c) Attempt interception (1)

d) Evacuate to open area (0)

1. Q: While analyzing Hubble ultra-deep field, a transient object appears. Best response?

a) Compare with other wavelength datasets for verification (5 ✅)

b) Ignore object (0)

c) Announce discovery immediately (1)

d) Adjust telescope aim elsewhere (0)

1. Q: While exploring lunar lava tube, light system fails. Critical action?

a) Use backup light, maintain tethered path, report situation (5 ✅)

b) Proceed blindly (0)

c) Remove tether to explore more freely (0)

d) Exit tube immediately without backup (2)