| Question No. | Questions | Option 1 | Option 2 | Option 3 | Option 4 | Correct Answer |
|---|---|---|---|---|---|---|
| 1 | To ensure dimensional accuracy, measurements must be transferred from _____ and markings must be _____ as per work requirements. | arbitrary points; approximately secured | given reference points; positioned and secured accurately | initial rough estimates; adjusted loosely | site boundaries; roughly placed | 2 |
| 2 | A surveyor detects a deviation in shaft sinking alignment beyond allowable tolerance. According to approved procedures and statutory requirements, what should be the immediate sequence of actions? | Report deviation → Record corrective plan → Obtain approval → Apply correction | Apply correction → Report deviation → Record plan → Obtain approval | Record deviation → Apply correction → Obtain approval → Report | Obtain approval → Apply correction → Record → Report deviation | 1 |
| 3 | Match the Following<br>Survey Method / Instrument/Technique<br>A. Linear measurement – 1. Theodolite<br>B. Angular measurement – 2. Chain/EDM<br>C. Triangulation survey – 3. Total Station<br>D. Multipurpose survey – 4. GPS-enabled Total Station | A–1, B–2, C–3, D–4 | A–2, B–1, C–3, D–4 | A–2, B–3, C–1, D–4 | A–4, B–1, C–3, D–2 | 2 |
| 4 | Arrange the following advanced survey methods in the logical sequence for establishing a new mine grid: | 1–2–4–3 | 2–1–4–3 | 1–4–2–3 | 4–1–2–3 | 1 |
| 5 | While preparing to set up a total station underground, you find the manufacturer's note specifying a temperature operating range narrower than site conditions. The correct | Use as planned since variations are minor | Replace with an instrument rated for those conditions | Reduce exposure time and continue work | Switch to manual measurement tools only | 2 |
| 6 | Arrange the following in the logical sequence for establishing secondary dimensional control | 2–3–4–1 | 4–2–3–1 | 2–1–4–3 | 3–2–4–1 | 1 |
| 7 | Match the Column<br>Survey Task / Related Tool/Document<br>A. Interpret contour details – 1. Geological map<br>B. Select measuring instrument – 2. Levelling staff<br>C. Transfer reference points – 3. Total station<br>D. Identify rock formations – 4. Mine plan with contour lines | A–4, B–2, C–3, D–1 | A–1, B–3, C–2, D–4 | A–4, B–3, C–2, D–1 | A–2, B–4, C–1, D–3 | 1 |
| 8 | When setting up a theodolite at height, use _____ for initial marking and ensure | steel tape; fixed lighting | chalk line; secure anchoring | paint marker; extended tripod | survey chain; counterweights | 2 |
| 9 | When moving surveying tripods through a confined underground passage, the most appropriate practice is to: | Carry them fully extended to save time | Collapse and secure them before transport | Drag them to avoid lifting strain | Wrap them in marking tape only | 2 |
| 10 | Match the Column<br>Resource Handling Task / Appropriate Action<br>A. Move delicate instruments – 1. Store in protective casing<br>B. Prevent environmental damage – 2. Follow manufacturer's usage guide<br>C. Operate equipment efficiently – 3. Use cushioning during transport<br>D. Preserve plans – 4. Keep in moisture-free cabinets | A–3, B–4, C–2, D–1 | A–1, B–2, C–3, D–4 | A–3, B–2, C–1, D–4 | A–4, B–3, C–2, D–1 | 3 |
| 11 | Plans and drawings must be stored in a _____ to prevent damage and preserved in _____ conditions. | metal cabinet; low-light | cardboard tube; ventilated | plastic wrap; outdoor | drawer; open-air | 1 |
| 12 | Which of the following is an example of applying problem-solving skills as an Assistant Mine Surveyor? | Ignoring measurement errors and continuing the survey | Identifying a measurement error and finding a way to correct it | Delaying work until someone else fixes the problem | Avoiding new tasks that may be challenging | 2 |
| 13 | While discussing survey results with senior engineers, which action shows good manners? | Listening actively and waiting for your turn to speak | Interrupting to share your opinion immediately | Using slang or informal language during the meeting | Avoiding eye contact when addressed | 1 |
| 14 | How should an Assistant Mine Surveyor handle survey data on a digital device? | Share it openly on public platforms for quick access | Keep devices unlocked for easy use by anyone | Store it securely and use passwords to protect files | Ignore software updates for the device | 3 |
| 15 | Which of the following could be a potential business opportunity for a mine survey service provider? | A new mining project requiring detailed land surveys | Reduced demand for surveying services in the region | Closure of multiple mining companies | Government ban on land measurement activities | 1 |
| 16 | While working in an underground mine, a small electrical fire breaks out near stored explosives. The most appropriate first action is to: | Evacuate and report before attempting extinguishing | Use a $CO_2$ extinguisher from a safe distance | Spray water directly on the fire | Isolate ventilation to the area immediately | 1 |
| 17 | During roof inspection, you detect loose rock and a gas alarm simultaneously. Which is the correct sequence of action? | Secure roof → Ventilate → Report hazard | Ventilate → Evacuate → Report hazard | Evacuate → Ventilate → Secure roof | Report hazard → Secure roof → Ventilate | 3 |
| 18 | Arrange the steps in correct order for ensuring safe ventilation to a working face: | 1–2–3 | 2–1–3 | 3–1–2 | 1–3–2 | 1 |
| 19 | Match the Column<br>Hygiene/Safety Practice / Purpose<br>A. PPE usage – 1. Prevent spread of illness<br>B. Hand hygiene – 2. Prevent contamination of tools<br>C. Disinfecting machines/tools – 3. Protect against site hazards<br>D. Maintain worksite hygiene – 4. Ensure safe working environment | A–3, B–1, C–2, D–4 | A–1, B–3, C–4, D–2 | A–2, B–4, C–3, D–1 | A–3, B–4, C–1, D–2 | 1 |
| 20 | Hazardous waste such as used oil must be _____ in compliance with guidelines, and | burned on-site; loss of equipment efficiency | stored and disposed; soil contamination | recycled locally; air pollution | buried underground; groundwater recharge | 2 |
| 21 | While inspecting a high overburden dump, which combination of precautions is most critical for compliance? | Wearing PPE, maintaining safe distance from edge, and following haul road | Wearing PPE only | Checking dump slope visually before approach | Using communication devices only | 1 |
| 22 | During blasting preparation, a small fire starts near the explosive storage area. Which is the | Evacuate → Inform supervisor → Use | Use extinguisher → Evacuate → Report | Secure area → Evacuate → Use extinguisher | Report → Wait for firefighting team → | 1 |
| 23 | Maintaining workplace hygiene involves washing hands with _____, disinfecting _____, and keeping the worksite clean. | water only; PPE | alcohol-based sanitiser/soap; machines/tools | detergent; haul roads | bleach solution; overburden dumps | 2 |
| 24 | Arrange the following actions in correct order to minimize environmental impact in opencast | 3–1–4–2 | 1–3–4–2 | 1–2–3–4 | 4–1–3–2 | 3 |
| 25 | During underground work, a gas alarm for firedamp leakage is triggered. Which immediate action ensures compliance with | Shut down all electrical equipment and evacuate along designated route | Continue work wearing PPE only | Increase ventilation after completing current task | Report the alarm after the shift ends | 1 |
| 26 | Arrange the following in the correct order for safe roof support operations in U/G mining:<br><br>1. Scale/dress roof and sidewalls | 2–1–4–3 | 1–3–2–4 | 1–2–3–4 | 2–3–1–4 | 1 |
| 27 | U/G hygiene and safety require using _____, disinfecting _____, and keeping the worksite clean. | PPE; machines/tools | sanitiser; PPE | overalls; haul roads | gloves; coal faces | 1 |
| 28 | Match the Column<br>Environmental/Operational Practice / Purpose<br>A. Mineral conservation in U/G mining – 1. Reduce surface disturbance<br>B. Stowing practices – 2. Separate subgrade coal in earmarked area<br>C. Handling subgrade coal – 3. Achieve optimum ore recovery<br>D. Fuel/material conservation – 4. Reduce wastage of resources<br>E. 5-S practice – 5. Maintain clean and safe worksite | A–3, B–1, C–2, D–4, E–5 | A–1, B–3, C–4, D–2, E–5 | A–3, B–4, C–1, D–2, E–5 | A–2, B–1, C–3, D–5, E–4 | 1 |