

END TERM 3 2026

GRADE 10

MARINE AND FISHERIES TECHNOLOGY

MARKING SCHEME & TEACHER'S GUIDE

MARKING CODES

M — Method / process mark where a method or procedure is demonstrated.

C — Correct concept / curriculum point.

A — Accuracy / correct final response where applicable.

Credit any technically correct equivalent response that satisfies the question and curriculum.

1(a) — 4 marks

- Employment and career opportunities.
- Business/enterprise opportunities in fishing, processing or related services.
- Research, conservation and environmental management opportunities.
- Trade, marketing and value-addition opportunities.

1(b) — 4 marks

- Marine environments are saline and are influenced by ocean conditions.
- Freshwater environments include rivers, lakes and other non-marine water bodies.
- Aquatic environments provide water, dissolved gases, food and habitats needed by aquatic organisms.
- Physical, chemical and biological conditions influence survival of aquatic organisms.

2(a) — 5 marks

- 1 mark for each correctly labelled indicated external feature, up to 5.
- Accept eye, mouth, operculum, dorsal fin, pectoral fin, pelvic fin, anal fin, caudal fin or lateral line when correctly matched to the diagram.

2(b) — 3 marks

- One valid difference between bony and cartilaginous fishes — 1 mark.
- Second valid difference — 1 mark.
- Third valid difference — 1 mark.
- Examples include skeleton mainly bone versus cartilage; operculum generally present versus exposed gill slits; relevant body/fin structural differences.

3 — 8 marks

- Any four well-explained ways, 2 marks each.
- Accept habitat/shelter, food and food webs, breeding/nursery areas, dissolved oxygen, ecological interactions, and suitable physical/chemical conditions.

4(a) — 3 marks

- 1 mark each for three correctly described aquaculture systems.
- Accept extensive, semi-intensive and intensive systems.

4(b) — 3 marks

- 1 mark each for three explained benefits.
- Accept food supply, employment, income generation, business opportunities, related processing/marketing and economic activity.

4(c) — 2 marks

- 1 mark each for two relevant challenges.
- Accept disease, inadequate inputs/technical skills, infrastructure or market constraints, water/site problems, high production costs, or other curriculum-consistent challenges.

5(a) — 4 marks

- 1 mark each for four valid site-selection factors.
- Accept water availability/quality, soil, topography, accessibility, security, inputs/markets, drainage and space.

5(b) — 4 marks

- 1 mark each for four appropriate construction features.
- Accept embankment, inlet/outlet, suitable size/depth, stable walls, drainage, water retention and safe access.

6(a) — 4 marks

- Correct basic fish production system drawing — 1 mark.
- Four correctly labelled relevant components — 1 mark each.
- Accept pond, inlet, outlet, embankment, water level and fish area.

6(b) — 4 marks

- 1 mark each for four valid post-stocking management practices.
- Accept water-quality monitoring/control, feeding, disease observation/control, predator control, record keeping and maintaining pond structures.

7(a) — 3 marks

- Industrial fisheries — 1 mark.
- Artisanal/small-scale fisheries — 1 mark.
- Recreational/sport fisheries — 1 mark.

7(b) — 3 marks

- 1 mark each for three characteristics.
- Accept small-scale operation, smaller vessels/gears, local/community participation, lower capital intensity and subsistence/local-market orientation.

7(c) — 2 marks

- 1 mark each for two explained contributions.
- Accept employment/income, food supply, trade/marketing, revenue and wider economic activity.

8(a) — 4 marks

- 1 mark for each correct accident and plausible cause pair, up to 4.
- Accept drowning, collision, capsizing, falls/overboard incidents, burns, fractures or other injuries with appropriate causes.

8(b) — 4 marks

- 1 mark each for four correct equipment/purpose pairs.
- Accept life jacket/life buoy, first-aid kit, fire extinguisher, rescue rope/throwing line, communication/emergency equipment and other valid safety equipment.

8(c) — 2 marks

- 1 mark each for two basic aquatic survival techniques.
- Accept floating, swimming techniques, self-rescue/safe rescue and signalling for assistance.

8(d) — 2 marks

- 1 mark each for two appropriate first-aid actions.
- Accept control bleeding, clean/cover wound, immobilise suspected fracture, provide appropriate immediate care and seek further medical assistance.

9(a) — 4 marks

- 1 mark each for four distinct valid comparison points between capture fisheries and aquaculture.
- Accept production method, stock control, management inputs, site requirements, safety exposure, resource use, stocking/harvesting and related dimensions.

9(b) — 4 marks

- 1 mark each for four responsible practices.
- Accept safe operation, appropriate safety equipment, responsible fishing, pollution prevention, disease/water-quality management, pond management and conservation.

9(c) — 2 marks

- 1 mark each for two valid awareness activities.
- Accept community sensitisation, school/community talks, demonstrations, safety campaigns and fisheries education.

CURRICULUM TRACEABILITY

Question	Strand / Sub-strand	Cognitive Level	Marks	Coverage
1	1.1 Fundamentals of Marine and Freshwater Fisheries	Knowledge / Understanding	8	Cumulative
2	1.2 Fish Morphology and Anatomy	Application / Analysis	8	Cumulative
3	1.1 Fundamentals of Marine and Freshwater Fisheries	Understanding / Application	8	Cumulative

4	2.1 Fundamentals of Aquaculture	Knowledge / Understanding	8	Cumulative
5	2.3 Fish Pond	Application / Problem solving	8	Cumulative
6	2.2 Production Systems; 2.3 Fish Pond	Application / Creation	8	Cumulative
7	3.1 Fundamentals of Capture Fisheries	Knowledge / Understanding	8	Cumulative
8	3.2 Safety and Survival Techniques	Application / Analysis	12	Cumulative
9	1.1; 2.1; 2.3; 3.1; 3.2	Analysis / Evaluation	10	Cumulative

COVERAGE VERIFICATION

- 1.1 Fundamentals of Marine and Freshwater Fisheries — represented.
- 1.2 Fish Morphology and Anatomy — represented with diagram-based labelling and comparison.
- 2.1 Fundamentals of Aquaculture — represented.
- 2.2 Production Systems — represented with drawing and labelling.
- 2.3 Fish Pond — represented through site selection, construction and management.
- 3.1 Fundamentals of Capture Fisheries — represented through types, artisanal/small-scale fisheries and economic contribution.
- 3.2 Safety and Survival Techniques — represented through accidents, safety equipment, survival and first aid.
- Diagram-based assessment is included through fish morphology and fish production-system tasks.
- Total paper = 80 marks: Section A 24, Section B 26, Section C 30.

TEACHER / EXAMINER GUIDANCE

- Credit valid alternative answers that accurately satisfy the curriculum and question demand.
- Do not award marks twice for the same idea expressed in different wording.
- For diagram questions, award marks only for labels/features corresponding to the indicated components.
- For comparison questions, award marks for distinct relevant comparison points.
- For open-ended application questions, accept justified responses that are technically sound and consistent with responsible fisheries practice.

END OF MARKING SCHEME