MARKING SCHEME – GRADE 10 GENERAL SCIENCE

SECTION A (30 MARKS)

1. Three major branches of science (3 marks)

I. Physics – study of matter, energy, motion, forces, heat, light, sound
II. Chemistry – study of substances, their composition, reactions, and properties
III. Biology – study of living organisms, life processes, and their interactions

2. Component of cell that produces energy (1 mark)

- Mitochondrion
- Alternative phrasing: "Powerhouse of the cell"

3. Role of General Science in health and medicine (2–3 marks)

I. Helps in understanding causes of diseases / prevention / diagnosis
II. Provides knowledge for first aid, hygiene, and sanitation
III. Leads to development of medicines, vaccines, and medical technologies

- Alternative phrasing: Promotes healthy living, treatment of illnesses, awareness of nutrition and lifestyle
- Rare indirect: Helps understand human anatomy and physiology, and how the body works

4. Parts of human digestive system (2 marks)

- 1 → stomach
- 4 → colon/large intestine

5. Adaptations of the small intestine (2 marks)

I. Presence of villi and microvilli to increase surface area for absorption
II. Thin walls and rich blood supply to allow efficient diffusion of nutrients

- Alternative: Long and coiled structure for longer digestion and absorption time
- Rare: Presence of enzymes on lining, mucosa for chemical digestion

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