By WASSWA ENOCK – 0762 86

1a) Compare oxidative phosphorylation and photophosphorylation (10 mks)
b) What happens to ē end pdt of glycolysis in anaerobic conditions (10mks)
2a) How is glucose converted to pyruvate in a cell (10mks)
b) Compare glycolysis and Kreb's cycle (10 mks)
3a) How is glycerol metabolised in a cell (10mks)
b) How is ē hydrogen atoms from glycolysis used in making ATP in Electron transport chain (10mks)
4a) Distinguish btn RQ and BMR (2mks)
b) Explain why ē RQ is above 1.0 during onset of germination (4mks)
5. Describe ē sequency of events that take place wēn pyruvate is formed in for presence of oxygen (14mks)
6.a) Distinguish btn eutrophic lake and euligotrophic lake (10mks)
b) What are ē effects of applying fertilizers in farms near a water body (10mks)
What is meant by ē term foodchain (2mks)
a) Describe how energy flows in an ecosystem (10mks)
b) How does temp and light affect distribution of organisms (10mks)
a) Compare cyclic and non-cyclic photophosphorylation (10mks)
b) Describe how light is used to make ATP in plants (10mks)
Describe how ē pdts from light reactions is utilised to make triglyceride in C3 plants (10mks)
a) How is digestion controlled in man? (5 mks)
b) How is a termite able to feed on wood (5mks)
a) What is meant by ē term mutualism? (4mks)
b) Compare parasitism and mutualism (10mks)
a) Discuss different interactions btn organisms in ē environment (10mks)
b) Discuss how abiotic and biotic factors interact to create a self sustaining ecosystem (10mks)
a) Describe how an action potential is fired across a neurone tissue (10mks)
b) Explain trichromatic theory of vision (10mks)
Describe how retinal convergency increases sensitivity (10mks)
How is sound of high pitch perceived in ē ear (10mks)
Describe ē process of photo perception during day (10mks)
Describe how ē osmoregulatory challenges are solved in ē following:

Discuss

(a) Describe how the muscle fibre shortens when stimulated (10 marks)

(b) Discuss how Voluntary muscles are adapted for their function (10 marks)

Discuss the significance of

(i) Territorial behaviour (10

(ii) Courtship behaviour (10)

What is meant by terms

(i) Vacuum activity (03)

(ii) Displacement activity (03)

(iii) Altruism (02)

iii) Kinases (02)

IM Tactic response (02)

Distinguish ~~learned~~ Innate and learned behaviour (06)

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