# 231/3 BIOLOGY (2018)

**PAPER 3***(Practical)*

***MARKING SCHEME***

A (a) No bubbles/effervescence;
(b) Bubbles/effervescence/foam observed

B (a) Catalase enzyme denatured by high temperatures (above optimum) hence no reaction
(b) Catalase enzyme; broke down hydrogen peroxide into water and oxygen gas hence bubbles;

C (i) Broken down into small droplets;
(ii) Emulsification;
(iii) Duodenum;
(iv) Increases the surface area for enzyme lipase to speed up the rate of digestion;

D (i) Liquid C forms solid particles/liquid curdles;
(ii) Part of body – stomach;
Enzyme –Renin;
(iii) Gastric glands
(iv) Gastric hormone;

2.
(a) Dead and decaying organic matter (1mk)
(b) **R1**
Mode of nutrition……autotrophic nutrition ……..…… (1mk)
Reason for mode of nutrition……green in colour has chlorophyll pigments (1mk)
**S1**
Mode of nutrition……..…saprophytic nutrition…… (1mk)
Reason for mode of nutrition ……lacks chlorophyll pigments…… (1mk)
(c) **S2**……seta; **T**……gills (2mks)
(d) Spores
(e) Fungi get nutrients from dead organic matter therefore bring decomposition; source of food (1mk)
(f) **M**……Sporophyte; **N**……Gametophyte (2mks)

3. (a) convergent evolution
(b) Different structures with different embryonic origins are modified to perform similar functions
(c) (i) analogous structures
(ii) Homologous structures
d). divergent evolution/ adaptive radiation

e).(i) **Q…..**…Insecta; **R**……Aves; **S**……Mammalia
(ii) has pinnae; has fur covering body
(f) (i) **B**……flesh; **R**……nectar from flowers
(ii) strong, curved and sharp; to rip flesh from bones.