

a) function: carry oxygen

biconcave disc shaped: increases SA $\therefore$ more O₂ carried/diffused/V absorb/release

haemoglobin: O₂ binds to it so it can carry

no nucleus: more haemoglobin

small + flexible: fit through capillaries

b) function: part of immune system / fight disease

receptors on membrane: can recognise pathogens / antigens

large cell / change shape / flexible membrane: engulf pathogen

nucleus + ribosomes: make antibodies / antitoxins / remember antigen

from previous infection

also react quickly to

secondary infection

c) functions: to transport substances

slown colour liquid - what carries substances:

RBC, WBC, hormones, glucose, O₂, dissolved food + nutrients
urea, hormones

d) function: to clot blood $\therefore$ prevent microorganism + stop bleeding

small fragments of cells

no nucleus

for

8.7

Be able to explain how structure of blood vessels is related to function

Arteries: carry blood away from heart at high pressure

$\rightarrow$ thick membranes, muscular wall: maintain BP / prevent artery bursting $\Rightarrow$ higher BP moving

$\rightarrow$ elastic fibres to stretch + spring back: withstand + maintain BP

$\rightarrow$ narrow lumen: maintain high pressure

Veins: carry blood towards heart at low pressure

$\rightarrow$ valves: prevent backflow / one direction of blood flow / unidirectional

$\rightarrow$ large lumen: maximise blood flow $\Rightarrow$ reduces resistance + carry old + blood