1) 2 2) 3 3) 4 4) 2 5) 2

6) 1 7) 2 8) 3

9) (least complex) organelle ⟶ cell ⟶ tissue ⟶ organ ⟶ organism (most complex)

10) 4 11) 1 12) 1 13) 3 14) 2

15) 4 16) 3 17) 1 18) 1 19) 4

20) 3

21) SAMPLE ANSWERS:
A — cell/plasma membrane, regulates what enters and leaves the cell. OR
B — nucleus, controls cell activities or contains the genetic codes. (Do not accept "brain" or "control center" without further explanation.) OR
C — mitochondrion, respiration or energy release or production of ATP (Do not accept "power house" without further explanation.)

22) SAMPLE ANSWERS: photosynthesis OR production of cellulose OR produces chlorophyll OR producing its own food

23) SAMPLE ANSWERS:
(1) mitochondrion — release of energy from nutrients OR ribosome — protein synthesis OR cell membrane — regulates movement of materials into and out of the cell OR nucleus — regulates cell functions or carries the genetic code OR vacuole — storage;
(2) The nucleus contains the code for the enzymes that function in the mitochondrion. The mitochondrion provides energy that is needed by the nucleus.

24) 1

25) chloroplast

26) ribosome

27) SAMPLE ANSWERS: Cell 1, because it contains chloroplasts. OR Cell 1, because it has a cell wall.

28) SAMPLE ANSWERS:

Organelle	Process Involving Chemical Reactions that Occur in the Organelle	How the Process is Important to the Functioning of the Organism
mitochondrion	respiration	provides energy for life functions
chloroplast	photosynthesis	provides food for plant
ribosome	protein synthesis	makes structural molecules (or chemical messengers which control cell responses)
nucleus	mitosis *or* meiosis *or* DNA replication	reproduction