



**Figure 17-13** The life history of a flowering plant, rendered highly diagrammatically. **A**, The flower of the sporophyte plant. **b**, The microsporophyll or anther. **c**, Stages in microsporogenesis (meiosis). **d**, The mature pollen grain, an immature microgametophyte. **e**, Germinating pollen on microgametophyte (pollen tube). **B**, A megasporophyll (carpel) or simple pistil containing a developing ovule. **C**, Stages in megasporogenesis (meiosis). **D**, Development of the megagametophyte or embryo sac. **E**, Pistil, ovule, and mature megagametophyte (embryo sac) at time of fertilization. **F**, Fertilization. One sperm unites with the egg, while the second sperm unites with the combined polar nuclei. **G**, Stages in the development of the embryo and endosperm in the maturing seed. **H**, Seed containing an embryo and cytoplasm.