1. Physics, chemistry, biology, and certain branches of mathematics emerged as unique research fields in their own ---- during the Scientific Revolution in the 17th century.

A) belief   B) prophecy

C) disruption   D) right

E) conduct

2. Charles Darwin popularised the term "natural selection", ---- it with artificial selection, which in his process is intentional, whereas natural selection is not.

A) associating   B) viewing

C) contrasting   D) devising

E) dealing

3. In biology, taxonomy is the scientific study of naming, defining and classifying groups of biological organisms based on ---- characteristics.

A) challenging   B) infamous

C) common   D) recent

E) insistent

4. Flood waters provide much-needed water resources in arid and semi-arid regions where precipitation is not ---- distributed throughout the year.

A) evenly   B) sporadically

C) frugally   D) patchily

E) indiscriminately

5. Although its diet consists almost ---- of medium-sized birds, the peregrine falcon will sometimes hunt small mammals, small reptiles, or even insects.

A) absolutely   B) densely

C) abruptly   D) exclusively

E) particularly

6. A drug is most commonly a small organic molecule that activates or inhibits the function of a biomolecule such as a protein, which in turn ---- a therapeutic benefit to the patient.

A) results in   B) gives off

C) puts out   D) breaks out

E) takes off

7. Henri Becquerel suspected that phosphorescent materials, such as some uranium salts, ---- X-ray-like radiation when ---- by bright sunlight, and he was right.

A) had to emit / illuminating

B) will emit / to illuminate

C) might emit / illuminated

D) would emit / to be illuminated

E) can emit / having illuminated

8. In recent years, some large companies ---- small but important steps forward in quantum computing ---- the world as we know it.

A) have taken / to revolutionise

B) took / revolutionised

C) have been taking / to be revolutionised

D) have been taken / being revolutionised

E) are taking / revolutionising

9. The first notable European observatory was that at Uraniborg ---- the remote island of Hven, built by King Frederick II ---- Denmark in 1576.

A) to / for   B) above / off

C) in / with   D) out / in

E) on / of

10. Though popular myths may suggest otherwise, predators are ---- brutal beings devouring the weak ones, ---- a vital part of a food chain, the process of passing energy from one organism to the next.

A) both / and   B) either / or

C) not / but   D) neither / nor

E) as / as

11. The original form of Newton's second law states that the net force acting upon an object is equal ---- the rate at which its momentum changes ---- time.

A) out / over   B) of / across

C) within / under   D) to / with

E) at / through

12. Critics of the term *Anthropocene* say that this term should not be used because of the difficulty it causes when ---- a specific time when humans started ---- the rock strata.

A) to define / to influence

B) defined / influenced

C) being defined / to be influencing

D) defining / influencing

E) to be defined / to be influenced

13. Evidence suggests that cacao was domesticated in equatorial South America, and it took a long while, roughly 1500 years, ---- it was domesticated in Central America.

A) since   B) if

C) before   D) as though

E) once

14. ---- some barrier islands form when ocean currents pile up sand on sandbars parallel to coastlines, other barrier islands formed during the most recent ice age as glaciers melted and the sea level rose.

A) When   B) Just as

C) While   D) In case

E) So long as

15. A wide variety of foods can cause allergic reactions; ----, some 90% of allergic responses to foods are caused by cow's milk, soy, eggs, wheat, peanuts, tree nuts, fish, and shellfish.

A) otherwise   B) similarly

C) however   D) thus

E) in contrast

16. As it reflects direct sunlight, the Moon is visible and the brightest celestial object in Earth's sky after the Sun ---- veiled by the dark clouds in the sky.

A) before   B) when

C) unless   D) though

E) as