

Q1.(2019)

wavelength

Q2.(2019)

a)

(directly) proportional

b)

$$6 \times 10^{24}$$

c)

the furthest galaxies are moving
the fastest

(this suggests) the universe is
expanding (from a very small
region)

d)

expanding at (an ever) greater
rate

e)

any **one** from:

- detects false claims
- detects inaccurate data
- detects bias
- verifies new data
- provides a consensus (of opinion)

f)

wavelength (seems to have)
decreased

frequency (seems to have)
increased

Q3.(2021)

A

it is (moving away from Earth)
the slowest
or
it is the closest (to the Earth)

Q4.(2022)

a)

the (observed) increase in
wavelength (of light from
galaxies)

as galaxies move away from us

b)

the furthest galaxies are moving
away (from the Milky Way) the
fastest

(which suggests that) at some
time all galaxies / matter started
at the same point

c)

there are new observations /
evidence that does not fit into
current theory / model

Q5.(2024)

both show red-shift so both are
moving away from us

or

the wavelength of the
(absorption) lines has increased
so both are moving away from
us

A shows a greater red-shift
(than B)

so A is travelling faster (than B)