Question No. 3

If a man swims north with a speed $V_m = 2$ m/s across a river with water current of $V_w = 2$ m/s west, the resultant velocity of the man is:

- 2 m/s, north-east
- 2.83 m/s, north-west
- 2 m/s, north-west
- 2.83 m/s, north-east

Question No. 14

The set that is all SI base quantities of the following is:

- ○ temperature, electric current, time
- ○ time, mass, force
- ○ electric current, force, length
- ○ length, temperature, speed

Question No. 9

The density of concrete can be as high as 4000 kg/m^3. This density is equivalent to:

- 4 g/cm^3
- 0.4 g/cm^3
- 400 g/cm^3
- 40 g/cm^3

Question No. 20

The thickness of a 500-page book is about 1 inch. The thickness of a single sheet of this book can be estimated as:

- ○ 100 μm
- ○ 1 μm
- ● 0.1 μm
- ○ 10 μm

Question No. 4

"Accuracy" of an instrument is:

- ○ dependent only on the scattered values.
- ○ independent of the true value.
- ○ the closeness of measurements to the true value.
- ○ the closeness of measurements to each other.

Question No. 15

A force of magnitude 15 N has a horizontal component of magnitude of 9 N. The magnitude of its vertical component is

- 4 N
- 15 N
- 9 N
- 12 N

Question No. 6

The number of significant figures in the numbers A= 1400 and B = 1.40×10^{-3} are respectively:

- 2 and 5
- 2 and 3
- 4 and 5
- 4 and 3

Question No. 13

A distance is measured to be precisely 200 km. The number of significant figures and the uncertainty in this measurement are respectively

- 1 and 10 km
- 3 and 10 km
- 1 and 1 km
- 3 and 1 km

Question No. 16

If a man swims north with a speed $V_m = 2$ m/s across a river with water current of $V_w = 2$ m/s west, the resultant velocity of the man is:

- 2.83 m/s, north-west
- 2 m/s, north-west
- 2.83 m/s, north-east
- 2 m/s, north-east

A distance is measured to be precisely 200 km. The number of significant figures and the uncertainty in this measurement are respectively:

- 1 and 1 km
- 1 and 10 km
- 3 and 10 km
- 3 and 1 km

Question No. 2

Three forces are: (F1 = 63 N, east), (F2 = 42 N, west) & (F3 = 13 N, west). Their resu

- 7 N, north-east
- 8 N east
- 8 N west
- 42 N, north-east

Question No. 2

If a man swims north with a speed $V_m = 2$ m/s across a river with water current of $V_w = 2$ m/s west, the resultant velocity of the man is:

- 2 m/s, north-west
- 2.83 m/s, north-east
- 2.83 m/s, north-west
- 2 m/s, north-east

Question No. 14

The dimension of (area × speed × mass) is:

- $[L^3 T^{-1} M]$
- $[L^{-3} T^{-1} M]$
- $[L^2 T^{-1} M]$
- $[L^3 T^{1} M]$

Question No. 12

A distance is measured to be precisely 200 km. The number of significant figures and the uncertainty in this measurement are respectively

- 3 and 10 km
- 1 and 10 km
- 3 and 1 km
- 1 and 1 km

Question No. 8

The thickness of a 1000-page book is about 2 inches. The thickness of a single sheet of this book can be estimated as:

- ○ 1 μm
- ○ 100 μm
- ○ 10 μm
- ○ 0.1 μm

Question No. 8

According to the SI system of units, the (length, mass, time) are measured in

- (meter, kilogram, second)
- (foot, pound, second)
- (foot, kilogram, second)
- (meter, pound, second)

Question No. 3

The thickness of a 500-page book is about 1 inch. The thickness of

- ○ 0.1 μm
- ○ 1 μm
- ○ 10 μm
- ○ 100 μm

Question No. 10

A normal range of high-density lipoprotein (HDL) cholesterol level is between (0.4 to 0.6) g/L. This is equivalent to

- (0.4 to 0.6) mg/dL
- (40 to 60) mg/dL
- (4 to 6) mg/dL
- (400 to 600) mg/dL

Question No. ▸

If a man swims north with a speed V_n

of $V_w = 2$ m/s west, the resultant velo

- ○ 2.83 m/s, north-west
- ○ 2.83 m/s, north-east
- ○ 2 m/s, north-east
- ○ 2 m/s, north-west

Question

A distance s measured to be 1.22 m. The percent uncertainty in this measurement is:

- 0.8 %
- 1.6%
- 0.08%
- 8 %

Question No. 2

A distance is measured to be precisely 200 km The number of significant figures and the uncertainty in this measurement are respectively

- 1 and 10 km
- 3 and 1 km
- 3 and 10 km
- 1 and 1 km