

Physics past papers (رَوَح)

Done by:





1-which of the following radiation has positive energy

- a)-alfa rays
- b)-beta rays
- c)-gama rays
- d)-x_rays
- e)- none of these

المفروض الجواب يكون اخر خيار بس كان الفا بس هاذ خطأ لانه الفا particle

Answer: A

2-a cube has a side of 4cm . it has mass of 256 gram. What is the density in SI unit

- a)- 5×10^{-3} kg/m³
- b)- 3×10^3 kg/m³
- c)- 5×10^2 kg/m³
- d)- 2×10^3 kg/m³
- e)- 4×10^3 kg/m³

Answer:E

3- What is the hight to which water rise in a narrow tube of radius 0.4 mm, if the coefficient of the surface tension for water is 7.2×10^{-2} N/m and the contact angel is zero degree

- a)-3.6 cm
- b)-0.72 cm
- c)-1.8 cm
- d)-0.96 cm
- e)-4.5 cm

Answer: A

4-A convex tens has focal length 20 cm , calculate at what distance from the lens should the object be placed so that it from an image at 30 cm on the other side from lens

- a) (-40) cm
- b) 60 cm
- c) 40 cm
- d)(-60) cm
- e)-(-20) cm

Answer: B

5- A wire of nichrome has a radius of 1 mm and length 2 m , the resistivity of nichrome is 1.08×10^{-6} ome.m , find the current if the potential difference is 10 V

- a) 21 A
- b) 14.5 A
- c)12.5 A
- d) 18 A
- e) 6.8 A

Answer: B

6- calculate the volume of the displaced water to keep a person of a weight 700 N in a swimming pool

- a)0.08 m³
- b)0.04 m³
- c)0.07m³
- d)0.05 m³
- e)0.02m³

Answer: c

7- A large storage tank open at the top and filled with water,if there is a small hole in its side at a point 3 cm bellow the water level determine the speed at which the water leaves the hole , consider the speed of water at the top is zero

- a)1.5 m/s
- b)5.5
- c)2.5
- d)7.7
- e)2.2

Answer: D

8- water flows through a cylindrical pipe of varying cross-section, the velocity is 4 m/s at a point where the pipe diameter is 1 cm, at a point where the pipe diameter is 3 cm the velocity is

- a)1.5 m/s
- b)2
- c)0.33
- d)0.44
- e)1

Answer: D

9- A cube of aluminum has a cubical hole through its center, if the cube is heated from 40 F to 130 F , what is the fractional increase of the volume of the hole if the coefficient of the linear expansion for aluminum is $2.4 \times 10^{-5} \text{ K}^{-1}$

- a) 3.6×10^{-3}
- b) 2.8×10^{-3}
- c) 1.5×10^{-4}
- d) 4.5×10^{-3}
- e) 1.9×10^{-3}

Answer: A



10- A small artery has a length of 1.3×10^{-3} and a radius of 2×10^{-5} m, if the pressure drop across the artery is 1.5 Kpa, what is the flow rate through the artery (/ blood = 2.084×10^{-3} pa.s)

- a) 5×10^{-11} m²/s
- b) 6×10^{-11}
- c) 9×10^{-11}
- d) 3.5×10^{-11}
- e) 2×10^{-11}

Answer: D

11- two cars are initially 150 km apart and traveling toward each other, one car is moving at 70 km/h and others is moving at 50 km/h, in how many hours will they meet

- a) 2.5 h
- b) 1.25
- c) 2.25
- d) 3.5
- e) 3

Answer: B

12- two point particles, one with charge $10n$ C and the other with $-2nC$, are separated by 4m, the magnitude of electric field midway between them is

- a) 18 N/C
- b) 10
- c) 15
- d) 27
- e) 12

Answer: D

13- the velocity of a particle moving along x-axis is given by $(v(t) = 4 + 15t - 3t^2)$ m/s, what is the acceleration of the particle at $t = 1$ s

- a) 9 m/s²
- b) 15
- c) 6
- d) 3
- e) 12

Answer:A



14- a ray of light travels through air($n=1$) and approaching the boundary with water ($n=1.33$) , the angel of incidence is 55 degree, determine the angel of refraction

- a) 32
- b) 20
- c) 38
- d) 18
- e) 10

Answer: C

15- A particle of $q_1= 7 \text{ nc}$ is located on the x-axis at the point $x_1= 0.2\text{m}$, a second particle of charge $q_2= -3\text{nc}$ is placed on the x- axis at $x_2= -0.2 \text{ m}$, what is the total electric potential at the origin $x= 0$

- a) 180 V
- b) 900 V
- c) (-900) V
- d) 220
- e) (-180)

Answer: A

16- the speed of light in an unknown medium is measured to be $2*10^8 \text{ m/s}$, what the index of refraction of the medium

- a) 1.2
- b) 1.6
- c) 1.5
- d) 1.4
- e) 1.8

Answer : C

17- if a acceleration is ,V is velocity , X is position and t is the time ,then which equation is not dimensionally correct

- a) $t=av$
- b) $x=vt$
- c) $a=v^2/x$
- d) $v=at$
- e) $t^2=2x/a$

Answer: A



