قائمة الاسئلة

امتحان نهاية الفصل الدراسي الأول - للعام الجامعي 1446 هـ - الموافق -2025/2024مـكلية الطب والعلوم الصحية :: فيزياء للعلوم الصحية

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1) The kinitic energy with respect to the mass (m) and the velocity (v), THE E= m^x v^y the value of x and y is
   1) - y = 2 and x = 2
   2) - y = 1 and x = 1
   3) + y = 2 and x = 1
   4) - y = 1 and x = 2
2) The nerve cell speciallized for the
   1) + Reception - Interpretation - Transmission
   2) - receives electrical message through contacts called efferent nerve
   3) - Efferent - Synapses - Dendrites
   4) - Efferent - Afferent - Synapses
3) Electric potential diverenc due to the presence of ions across the membrane
   1) - The inside of the cell is 60 to 90 Mv less negative than the outside
   2) + The inside of the cell is 60 to 90 Mv more negative than the outside
   3) - The inside of the cell is 60 to 90 Mv less positive than the outside
   4) - The inside of the cell is 60 to 90 Mv more positive than the outside
4) Electrical signal from the movement of the eye.
   1) - (EEG) Electro Encephalo Gram
   2) + (EOG) Electro Oculo Gram
   3) - (ECG) Electro Cardio Gram
   4) - (ERG) Electro Retino Gram
5) Dimensions of Power (القدرة)
   1) - M L^1 T^-1
   2) - M L^1 T^-3
   3) + M L^2 T^-3
   4) - M L^2 T^-2
6) Unit of total energy
   1) + $Kgm^2S^{-2}$
   2) - $Kgm^2S^2$
   3) - $Kgm^{-2}S^2$
   4) - $Kgm^2S$
7) The frequencies of the signal seem to be dependent upon the mental activity, that's mean the signal of frequencies from 8 to 13Hz comes from
   1) - A deep sleep person
   2) - A more alert person
   3) + A relaxed person
   4) - A intermediate slow person
8) The frequencies of the EEG signal seem to be dependent upon the mental activity, that's mean the signal of frequencies above than 13Hz is investigate as
   1) - Delta
   2) - Theta
   3) - Alpha
   4) + Beta
9) The Dewar container is minimize heat
   1) - Silvered surfaces reduce convection - Vacuum space reduces conduction and radiation
   2) - Silvered surfaces reduce conduction - Vacuum space reduces radiation and convection

3) + Silvered surfaces reduce radiation - Vacuum space reduces conduction and convection
4) - Silvered surfaces reduce conduction and convection - Vacuum space reduces radiation

10) The cryosurgery advantages are…..
1) - More bleeding - Little pain - Volume destroyed controled by probe
2) + Little bleeding - Little pain - Volume destroyed controled by probe
3) - Little bleeding -More pain - Volume destroyed controled by probe
4) - Little bleeding - Little pain - Volume destroyed uncontroled by probe

11) Blood can be stored for a much longer time if is rapidly frozen by …..
1) - Mixing blood with an anticoagulant - Sand method blood
2) + Thin metal walls - Sand method blood
3) - Thin metal walls - Mixing blood with an anticoagulant
4) - Mixing blood with an anticoagulant - Adding aprotective agent such as glycerol

12) Blood can be stored indefinitely
1) - At the temperature of - 196C
2) - At the temperature of -10 C
3) - At the temperature of -85C
4) + At the temperature of - 4C

13) At the optimum rate (6400C/min) for preserving red blood cells, how long would it take to cool red blood cells from 37 C to -196 C
1) - t = 3.18 sec
2) + t = 2.18 sec
3) - t = 3.1sec
4) - t = 1.9 sec

14) At the optimum rate (6.50C/min) for preserving bone marrow, how long would it take to cool bone marrow from 37 C to -196 C
1) - t = 3107 sec
2) + t = 2157 sec
3) - t = 3100 sec
4) - t = 1900 sec

15) Unit of Energy
1) - Kg m^2 S^-3
2) + Kg m^2 S^-2
3) - Kg m^1 S^-1
4) - Kg m^-2 S^-2

16) The axon with large diameter will have……..
1) - Lower velocity
2) + Higher velocity
3) - An intermediate high
4) - An intermediate

17) The latency period of sensory nerves ….
1) - t= 4 milli-second
2) + t= 14 milli-second
3) - t= 5 milli-second
4) - t= 11 milli-second

18) The distance between the two sits of stimulating are 0.225m , the latency period of time between the sit-2 of stimulating and recording 5.5ms and the latency period of time between the sit-1 of stimulating and recording 0.85ms
1) - (v = 58.4 m/s
2) + (v = 48.4 m/s

3) - (v = 80 m/s
4) - (v = 62.4 m/s

19) - The ventricular repolarization, which produces
1) - QRS – complex wave
2) - P- waves
3) - S and T - waves
4) + T - wave

20) The deca-meter is equal to ..
1) + da=10 meter
2) - da= 0.01meter
3) - da= 0.1 meter
4) - da= 100 meter

21) The peta-meter is equal to ....
1) - P= 10-12 meter
2) - P= 10-15 meter
3) + P= 1015 meter
4) - P= 1012 meter

22) The femto-meter is equal to .....
1) - P= 10-12 meter
2) + P= 10-15 meter
3) - P= 1015 meter
4) - P= 1012 meter

23) The capacitance act to the propagation velocity of nerve ….
1) + across the nerves
2) - behind the nerves
3) - In core the nerves
4) - above the nerves

24) The extent of temperature between mercury boiling and mercury freezing is
1) - dT = 38.9 Celsius
2) - dT = - 395.6 Celsius
3) + dT = 395.6 Celsius
4) - dT = 356.6 Celsius

25) The volume of mercury exppansion
1) + dv = 10-5 per degree
2) - dv = 105 per degree
3) - dv = 10-4 per degree
4) - dv = 104 per degree

26) T = - 33F this temperature in Fahrenheit . It is in Kelvin
1) - T= - 273.15K
2) + T= 237K
3) - T= -36.11K
4) - T= -73.15K

27) T = 32F this temperature in Fahrenheit . It is in Rankin.
1) - T= - 273.15R
2) + T= 491.237R
3) - T= 0.0R
4) - T= -73.15R

28) T = - 33F this temperature in Fahrenheit . It is in Celsius.
1) - T = 273.15C

2) - T = -273.15C
3) - T= 36.11C
4) + T = -36.11C

29) T = -459.67F this temperature in Fahrenheit . It is in Kelvin
1) - T= - 273.15K
2) - T= 237K
3) - T= -36.11K
4) + T= 0.0K

30) T = - 273.15C this temperature in Celsius . It is in Rankin.
1) - T= - 273.15R
2) - T= 491.237R
3) + T= 0.0R
4) - T= -73.15R

31) ...Primary therapeutic effect take place in a heated area
1) - Decrease in metabolism - An increase in blood flow
2) - An increase in metabolism - Decrease in blood flow
3) - Decrease in metabolism - Decrease in blood flow
4) + An increase in metabolism - An increase in blood flow

32) The infra red (IR) wave lengths used for surface heating
1) + from 800nm to 40000nm
2) - from 80nm to 400nm
3) - from 800nm to 400nm
4) - from 800nm to 4000nm

33) The infra red (IR) waves penetrate the skine about
1) + 3mm
2) - 30mm
3) - 13mm
4) - 31mm

34) The radio wave heating methods to transfering short wave energy in to the body
1) - Antenna - Magnaton
2) - Magnetic capacitance - Electric induction
3) - Electric capacitance - Electric induction
4) + Electric capacitance - Magnetic induction

35) The velocity is 3 x 10^8m/s) Humans can see a range of wave lengths from 300nm to 700nm, to what range of frequencies does this correspond)
1) - f = 4.28 x 10^4 Hz to 10 x 10^4 HZ
2) - f = 4.28 x 10^5 Hz to 10 x 10^5 HZ
3) + f = 4.28 x 10^14 Hz to 10 x 10^14 HZ
4) - f = 4.28 x 10^10 Hz to 10 x 10^10 HZ