

## قائمة الاسئلة

متحان نهاية الفصل الدراسي الثاني ـ للعام الجامعي - 1446 هـ ـ الموافق -2025/2024مـكلية الطب البيطري :: فيزياء حيوية ـ () / رود ناد

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- 1) one of the folloing sentences is correct
  - 1) + The SI unit of specific heat is Joule/(Kg Kilven)
  - 2) The SI unit of heat capacity is Joule/(Kg)
  - 3) The SI unit of heat capacity is Joule/Kilven
  - 4) The SI unit of heat capacity is Joule
- 2) One of the following sentences is correct.-
  - 1) + Thermography is the process to measure the body surface temperature and measures infrared radiation emitted by the human body
  - 2) Thermography is the process to measure the body surface temperature and measures ultraviolet radiation emitted by the human body
  - 3) Thermography uses X rays
  - 4) Thermography uses magnetic field
- 3) One of the following sentences is correct --
  - 1) CT scan uses rotating X-rays and a strong magnetic field
  - 2) + CT scan uses rotating X-rays and a row of detectors are placed in a gantry
  - 3) Endoscope is used in CT scan
  - 4) CT scan is an application of temperature
- 4) One of the folloing sentences
  - 1) CT scan has better contrast than MRI always for all tissues
  - 2) MRI has better contrast than CT always for all tissues
  - 3) + MRI has better contrast than CT scan for soft tissues
  - 4) MRI uses X rays for diagnosing
- 5) One of the folloing sentences is correct..
  - 1) Strong magnetic field is used in CT scan
  - 2) + The strong magnetic field in MRI polarizes the sample
  - 3) Proctoscopy is used to look inside the airways
  - 4) Endoscope is composed of strong magnetic field, magnetic fields gradients and radio waves.
- 6) One of the following sentences is correct.
  - 1) Radio waves RF system in MRI localizes the region to be scanned
  - 2) MRI uses X rays in imaging
  - 3) + Radio waves system in MRI excite the sample and detect the signal
  - 4) CT scan uses radio feequency wave system
- 7) One of the following sentences is correct:
  - 1) + Ultraviolet light has frequencies higher than infrared radiation
  - 2) UV light has frequencies higher than X rays
  - 3) UV light has frequencies lower than infrared rays
  - 4) UV always are harmful
- 8) One of the follwing sentences is correct
  - 1) SI unit of heat capacity is Joule
  - 2) SI unit of heat capacity is Watt
  - 3) + SI unit of heat capacity is Joule/(Kilven)
  - 4) SI unit of heat is Calori
- 9) One of the following sentences is correct:--
  - 1) The SI unit of pressure is Newton/m
  - 2) + The SI unit of pressure is Pascal
  - 3) The SI unit of pressure is Newton

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- 4) The SI unit of pressure is Kg/m
- 10) One of the following sentences is correct ::
  - 1) The displacement of the medium in transverse wave is parallel to the direction of motion of the wave.
  - 2) The displacement of particles in the longitudinal wave is parallel to the direction propagation of the wave and light waves are examples of longitudinal waves.
  - The displacement of the medium in transverse wave is perpendicular to the direction of motion of the wave and sound waves are examples of transverse waves.
  - 4) + The displacement of the medium in transverse wave is perpendicular to the direction of motion of the wave.
- 11) If the intensity of a sound at 5m equals 0.05 Watt/m^2 then the power of the sound source equals
  - 1) + 15.707 Watt
  - 2) 12.318 Watt
  - 3) 18.34 Watt
  - 4) 5.09 Watt
- 12) 100 degree Celcius equals
  - 1) 0 Fahernhiet
  - 2) + 212 Fahernhiet
  - 3) 32 Fahernhiet
  - 4) 273 Fahernhiet
- 13) If the temperature in Fahernhiet equals 32 then the temperature in Celcius equals
  - 1) 212
  - 2) 100
  - 3) + 0
  - 4) 32
- 14) If the frequency of a wave equals 4HZ and the wavelength equals 2m, the the speed of the wave equals
  - 1) 2m/s
  - 2) + 8m/s
  - 3) 0.5 m/s
  - 4) (1/8)m/s
- 15) If a sample was heated so that the change in temperature was 5 degree Celcius and the absorbed heat energy was 1000 Joule. If the specific heat of the sample material is 390 J/(Kg K) then the mass of the sample equals
  - 1) 1.345 Kg
  - + 0.513 Kg
  - 3) 0.215 Kg
  - 4) 0.098 Kg
- 16) A ray of light is incident through glass, with refractive index 1.52 on an interface seprating glass and water, with refractive index 1.32 and the angle of incidence equals 25 degree. The angle of refraction equals
  - 1) 35.34 degree
  - 2) 14.5 degree
  - 3) + 29.1 degree
  - 4) 10.9 degree
- 17) 760 mmHg is equal to
  - 1) + 1.013 \*10^5 Pascal
  - 2) 10662.4 Pascal
  - 3) 15993,6 Pascal
  - 4) 133.28 Pascal
- 18) The speed of sound in air at 30 degree Celcius is



- 1) 357 m/s
- 2) 385. 4 m/s
- 3) 331 m/s
- 4) + 348.7 m/s
- 19) If the temperature in Celcius 40 then the temperature in Fahernhiet
  - 1) -40 Fahernhiet
  - 2) 0 Fahernhiet
  - 3) 26 Fahernhiet
  - 4) 100 Fahernhiet
- 20) The conversion of 200 degree Fahernhiet to Kilven (K) Is
  - 1) 350.9 K
  - 2) + 366.33 K
  - 3) 392 K
  - 4) 93.33 K
- 21) The conversion of 1m<sup>2</sup> equals
  - 1)  $-10^{-4} \text{ cm}^2$
  - 2) 10<sup>3</sup> cm<sup>2</sup>
  - 3) 10<sup>2</sup> cm<sup>2</sup>
  - 4) + 10<sup>4</sup> cm<sup>2</sup>
- 22) 1 m equals
  - 1) + 100 cm
  - 2) (1/100) cm
  - 3) 0.001 mm
  - 4) 10 cm
- If of the speed of light in vaccum equals 3\*10<sup>m</sup> /sand the speed of light in a medium equals 1.5 \*10<sup>8</sup> m/s, then the index of refraction equals
  - 1) 2
  - 2) 0.5
  - 3) 1.5
  - 4) 3
- 24) When a sample of mass 2Kg was heated so that the change in temperature was 50 degree Celcius. If the specific heat of the material ws 130 J/(Kg K). The gained heat equals
  - 1) 243 joul
  - 2) 100/130 Joule
  - 3) 1.3 Joul
  - 4) + 13000 Joule
- 25) If a wave gerenrator genrates 100 vibrations in 10 seconds and the distace of one vibration equals 2m then the speed of the wave equals
  - 1) + 20m/s
  - 2) 25m/s
  - 3) 50m/s
  - 4) 10m/s