



**Rana Abubakar Khan**

If you want to learn computer programming then contact with me

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PHY101 FINAL TERM PAPER SHARED BY STUDENT

ON FEBRUARY 22, 2018 AT 7:25PM

**Question No.1:**

In a cool room, a metal or marble table top feels much colder to the touch than does a wood surface even though they are at the same temperature. Why?

**Question No.2:**

Intimal is pushing but the box does not move. What is the force of static friction shown in below figure.

**Question No.3:**

Is it true to say that Centre of mass and Centre of graving are the same? either yes or no explain in each case.

**Question No.4:**

Describe a few examples in which the force of friction exerted on an object is in the direction of motion of the object.

**Question No.5:**

Is it possible for two objects to be in thermal equilibrium if they are not in content with each other? Explain.

**Question No.6:**



Who discovered the nucleus? Write the experimental setup that follows.

**Question No.7:**

Wave speed in a string is a function of frequency, so if the wave frequency, will the wave speed increase to?

PHY101 FINAL TERM PAPER SHARED BY STUDENT

ON MARCH 6, 2016 AT 10:08PM

A 2000kg car is moving with a velocity of 20 m/s collides and locks with a 1500 kg car at rest a stop sign. Show the momentum is conserved.

Light from sun takes approximately 8.3 min to reach the earth. during the earth is rotating with the constant speed continuously. How far is the actual direction of the sun.

Do all current carrying conductors emit electromagnetic waves.

If the electric field in the region of space is zero, can you conclude that there is no charge in the region.

Is Heisenberg's uncertainty principle applicable to all particle case of using thermometer to measure the temperature of the glass of water.

If you hold water in a paper cup over flame, can you bring the water to boil, if then how?

All objects radiate energy then why are we not able to see all the objects in the dark?

If an electron and proton have same De Broglie's wavelength, which particle has greater speed?

Explain why mercury rises in Thermometer when it is put in the hot water.

why is glass transparent to visible light but opaque to ultraviolet and infrared.

that's all stay blessed :ansa:

PHY101 FINAL TERM PAPER SHARED BY STUDENT

ON MARCH 8, 2016 AT 6:51PM

today is my paper mcqs mostly upper division level but some new but the questions are following

1. if a 120v line is socketed is limited to 15a by a safety fuse will it operate a 1200w hair dryer?

2. wearing a metal bracelet in a region of strong magnetic field could be hazardous?

3. what is the change in entropy of 1mol of water at 0c that freeze?

4. what is the value of relativistic momentum of the proton??



5. explain the fusion reactions sun ?

6. if a total charge inside a surface is known but the distribution of the charge is unspecified can you use Gauss's law?

7. law to find the electric field all objects radiate energy?

8. is Heisenberg's uncertainty principle a case of using a thermometer to measure the temperature of glass of water?

9. do you think light has wave nature and particle nature. give strong reason?

10. what potential difference is needed to stop an electron having an initial speed of  $4.20 \times 10^6$  m/s to power 5 m/s?

11. do you agree or not that stationary charge or steady current can produce electromagnetic waves?

please remember me in your prayers

PHY101 FINAL TERM PAPER SHARED BY STUDENT

on August 26, 2016 at 7:59pm

my today's paper:

Q1: a planet has two moons of equal masses. Moon-I is in a circular orbit of radius  $r$  and Moon-II is in a circular orbit of  $2r$ . compare the magnitude of gravitational force exerted by planet on moon-I and moon-II (show all mathematical work) (2)

Q2; what happens to current in other lamps if one lamp in a series circuit burns out (2)

Q3: Given that electrons behave like waves, how is Doppler shift described in terms of momentum. (2)

Q4: Find the shift in wavelength of photons scattered by electrons at  $\theta = 60^\circ$  (2)

Q5: How can an object move with respect to an observer so that the sound from it is not shifted in frequency (3)

Q6: A small bar magnet is suspended in a uniform  $0.250\text{-T}$  magnetic field. the maximum torque experienced by magnet is  $4.60 \times 10^{-3}\text{Nm}$ . Calculate the magnetic moment of the bar magnet. (3)

Q7: is it possible to be in thermal equilibrium if they are not in contact with each other Explain (3)



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Q8:with regard to reference frames, how does general relativity differ from special relativity? (3)

Q9: a) What is difference b/w magnetic flux and magnet field?

b) A loop of wire is placed in uniform magnetic field for what orientation of the loop is the maximum magnetic flux? for what orientation it is zero? (5)

Q10: An electron has de broglie wavelength  $2.80 \times 10^{-10} \text{m}$  determine a) magnitude of its momentum b) its K.E (5)

Q11. Explain Fusion Reaction of Sun (5)

Q12:a)

The speed of sound can vary significantly depending on the medium it travels through? if no, give a proof if yes compare the speed of sound among water, air, solids.

b) the greater the amplitude of a sound wave the faster the waves moves. Explain? (5)

Mcqs were about the sUn mass and temperature , kinds of equilibriums, magnetic field and flux etc

PHY101 FINAL TERM PAPER SHARED BY STUDENT

ON MARCH 7, 2015 AT 11:13AM

### My To Day PHY\_101 Paper

#### Subjective:

Black body black? Explain with solid reason.

What is brought about quantum resolution?

Give at least three postulate of Bohr Theory.

Thermal equilibrium

#### MCQS:



Interference of light is evidence that:

**(light is a wave phenomenon)**

**What is means of polarization?**

Fahrenheit and Kelvin scales agree numerically at a reading of:

**(-40)**

How fast should you move away from a  $6.0 \times 10^{14}$  Hz light source to observe waves

With a frequency of  $4.0 \times 10^{14}$  Hz?

**(38c)**

Which of the following electromagnetic radiations has photons with the

Greatest energy?

**(x rays)**

PHY101 FINAL TERM PAPER SHARED BY STUDENT

ON MARCH 8, 2015 AT 7:11PM

my today phy 101 paper:

subjective:

1. what role resistors play in electric circuit? (2)
2. why does not have Kelvin scale any negative number? (2)
3. only a small percentage of the electric energy fed into a common light bulb is transforms into visible light. what happens to it? (2)
4. do you think light has wave nature or particle nature. give some very strong reason. (3)
5. what is the value of relativistic momentum of proton if its mass is  $1.67 * 10^{27}$  kg and velocity is  $0.50c$ . (2)
6. is Heisenberg's uncertainty principle applicable to the practical case of using thermometer to measure the temp. of glass of water. (3)



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7. you want to explore the shape of a certain molecule by scattering electrons of momentum  $p$  from a gas of molecules and studying the deflection of electrons. you will be able to see finer details in the molecules by a) increasing  $p$  b) decreasing  $p$  c) not worrying what is  $p$  (3)
8. A cylindrical copper cable 1.50 km long is connected across a 220 V potential difference. what should be its diameter so that it produces heat at the rate of 50.0 W. (5)
9. a) will brighter light eject more electrons from a photosensitive surface than dimmer light of same frequency? a) will high frequency light eject a greater number of electrons than low frequency light? (5)
10. given that rms speed of a helium atom at a certain temperature is 1350 m/s find by proportion the rms speed of oxygen molecule at this temperature. the molecular mass of He is 4.00 g/mol and O<sub>2</sub> is 32.0 g/mol.
11. an alpha particle  $m = 6.64 \times 10^{-27}$  kg emitted in the radioactive decay of uranium 238 has an energy of 4.20 MeV. what is its de Broglie wavelength? (5)
12. lightning occurs when there is a flow of electric charge between the ground and a thundercloud. the max. rate of charge flow in a lightning bolt is 20,000 C/s this lasts for 100 micro sec. or less. how much charge flows between ground and cloud in this time. how many electrons flow during this time? (3)

PHY101 FINAL TERM PAPER SHARED BY STUDENT

ON MARCH 13, 2015 AT 1:29PM

MY TODAY PHYSICS 101

PAPER SHORT AND LONG Qs

A cylindrical copper cable 1.50 km long is connected across a 220.0 V potential 5 marks difference.

What should be its diameter so that it produces heat at a rate of 50.0 W? **5 Marks**

Explain the fusion reaction on Sun **5 Marks**

In a 30.0-s interval, 500 hailstones strike a glass window of area 0.600 m<sup>2</sup> at an angle of 45.0° to the window surface. Each hailstone has a mass of 5.00 g and moves with a speed of 8.00 m/s. Assuming the collisions are elastic, find the average force and pressure on the window **5 Marks**



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Unpolarized light passes through two polaroid sheets. The axis of the first is vertical, and that of the second is at  $30.0^\circ$  to the vertical. What fraction of the incident light is transmitted? 3 Marks

What are the properties of wave function? 3 Marks

Which is denser, dry air or air saturated with water vapor? Explain. 3 Marks

All objects radiate energy. Then why, are we not able to see all objects in a dark room? 3 Marks

In a conductor, changes in the electric field that drives the electrons through the conductor propagate with a speed close to the speed of light, although the drift velocity of the electrons is very small. Explain how these statements can both be true. Does one particular electron move from one end of the conductor to the other? 3 Marks

Is there any difference between the energy required to disassemble a nucleus into its constituent parts and amount of energy that is released when the same nucleus is assembled from separated nucleons? 2 Marks

In a cool room, a metal or marble table top feels much colder to the touch than does a wood surface even though they are at the same temperature. Why? 2 Marks

What happens when a magnetically stored bit of information on a computer disk

spins under a reading head that contains a small coil? 2 Marks

What does it mean to say that a certain current is 60 HZ? 2 Mark





PHY101 FINAL TERM PAPER SHARED BY STUDENT

ON AUGUST 22, 2014 AT 2:50PM

Heres my paper,...well some of it

NOTE: IM JUST RECALLING FROM MEMORY.IT MAY NOT BE EXACTLY WHAT I SAY.I REDUCED SOMETHINGS AS WELL.AND THIS IS NOT EVERYTHING.THANK YOU

MCQs.

Note these points

- 1.i think a lot were about very simple calculations
2. 4 i think were related to energy and current in coil etc.ohms

were also mentioned.

- 2.gravity constant G was mentioned
- 3.units related questions came JOULE and COULOMB Units
- 4.i think there was also about frequency

SUBJECTIVE

- 1.which would be faster electron or proton (from past)
- 2.a 2(or 3?...i think 2) mark question some Yadawa wavelength or something like that
- 3.a 3 marks question a transformer question  $n_1$  coil and  $n_2$  coil find emr (from past)
- 4.a 5 mark question on green house effect.also to tell it's effect

on humans

- 5.a 5 mark question on interference that why it happens with thin film

and not thick film and what is the dividing between thick and thin. i reduced the question.it was much like this

- 6.a 5 mark question : a 12 volt battery with resistances or capacitors

something like that

- (a)What happens if we add another conductor or resistor
- (b)what is the effect on voltage or battery something like that
- (c)What is the effect on current





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PHY101 FINAL TERM PAPER SHARED BY STUDENT

30/8/2014

total question =52

mcqs =40

2 marks questions=4

3 marks of question =4

5 marks of question =4

### **mcqs**

1)the unit of magnetic dipole

2)step down transformer

3)what is the greater wavelength

4)the plants look green,they have chlorophyll ,chlorophyll makes leaves green to absorb

i)green only,ii)red only,iii)blue only ,iv)red and blue

5)polarization means

mostly past papers se mcqs aye huay thy

### **2 marks questions**

what is the net charge of charged capacitor =2



you can get sunburn on a cloudy day, but you can not get sunburn on a sunny day if u r behind the glass.=2

explain the electron behave like a wave=2

will higher frequency light give greater number of electron or low frequency light give greater number of electron=2

### 3 marks questions

if the charge particle moves in the straight line through some region of space can you see that the magnetic field in that region is zero?=3

two questions are related about clock =3+3

### 5 marks questions

a beam of electron travels  $3.0 \times 10^6$  m/s through a uniform magnetic field of  $4.0 \times 10^{-2}$  T at right angle. how strong force is acting on the electron.=5

a) what become of isotopes that undergo alpha decay

b) which produce higher counting rate .....=5

a gas is compressed by constant pressure of 0.800 atm to 9.0 to 2.0. in the process 400 J energy lose heats.

a) work done on the gas

b) what is the change in energy=5

last numerical tha de-broglie se mutalik tha.=5

PHY101 FINAL TERM PAPER SHARED BY STUDENT

on August 31, 2014 at 12:27am

MCQs.

Note these points

1. i think a lot were about very simple calculations

2. 4 i think were related to energy and current in coil etc. ohms were also mentioned.



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- 2.gravity constant G was mentioned
- 3.units related questions came JOULE and COULOMB Units
- 4.i think there was also about frequency

#### SUBJECTIVE

- 1.which would be faster electron or proton (from past)
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- 5.a 5 mark question on interference that why it happens with thin film and not thick film and what is the dividing between thick and thin. i reduced the question.it was much like this
- 6.a 5 mark question : a 12 volt battery with resistances or capacitors something like that
  - (a)What happens if we add another conductor or resistor
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PHY101 FINAL TERM PAPER SHARED BY STUDENT

on March 1, 2014 at 10:26pm

these question are given in my paper to day.

Continued after the jump ....

1. **1. Find momentum of proton in MeV/C units assuming its total energy is twice its rest energy. Marks 5**
  
1. **2. With regard to reference frames, how general relatively from special relatively Marks 3**
  
1. **3. A vessel is filled with gas atoms equilibrium pressure and temperature. Can all gas and molecules in vessel have same speed? Marks 3**



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1. 4. What is the net charge of capacitor? Marks 3
  
1. 5. Given that electron behave like wave, how is Doppler shift described in term of momentum Marks 3
  
1. 6. What happens when a magnetically stored bit of information on a compact disk spins under a reading head that contain a small coil? Marks 2
  
1. 7. A laser beam ( $\lambda = 632.8 \text{ nm}$ ) is incident on two slits  $0.200 \text{ nm}$  apart. How far apart are the bright  $5.00 \text{ m}$  away? Marks 3
  
1. 8. Potential difference between is  $6.0 \text{ v}$ , what is kinetic energy in joul and electron ( electron is  $-1.6 \times 10^{-19} \text{ c}$ ) Marks 2
  
1. 9. The initial angular velocity  $1170 \text{ rev/mint}$  and final angular velocity  $2880 \text{ rev/mint}$  and time  $12.6 \text{ s}$ . how many revolution does engine make during this time. Marks 5

PHY101 FINAL TERM PAPER SHARED BY STUDENT

MY TODAY PAPER(01/03/2014)

Q.1 An Electron has do Brogile wavelength of  $2.80 \times 10^{-10} \text{ m}$ . (5)

- a) Determine magnitude of its momentum and
- b) K.E ( in jouls and ev)

Q.2 A person with body resistance his hand is  $10 \text{ k}\Omega$  accidently graps the terminal of  $14 \text{ Kw}$  supply.



- a) If the inertial resistance of power supply is  $2000\Omega$ . What is current through person body.
- b) What is power disputed of body.

Q.3 Is it true that de Broglie wavelength associated with particles like proton and electron only?

Or it is applicable for larger thing like baseball. Explain (5)

Q.4 Light travelling in air is incident on the surface of a block of plastic at an angle of  $62.7^\circ$  to the normal and is bent so its make  $48.1^\circ$  angle with normal in plastic. Find space of light in plastic. (5)

Q.5 Show that ratio of distance of two particles from centre of mass of two particle system is inverse ratio of their mass? (5)

PHY101 FINAL TERM PAPER SHARED BY STUDENT

ON JULY 22, 2013 AT 5:16PM

Q : What is difference between reflection ad refraction ?

Q what is pressure and its unit and is it scalar quantity or vector?

Q why mirror can not rise chromatic aberration?

Q what is photosphere zone of sun?

Q: values were given .calculate work done?

Q: values were given find resulting induced current?

Q:Two identical clocks one is hanging upstairs bed room and one is in down stairs kitchen. which will run slowly?

Q: Values were given find frictional shift wavelength?

Q: values were give find approximate height ?

Q: is it correct to say radio waves are low frequency waves? and are radio waves sound waves as well?

Q: A dry aluminium foil paper can be bring out from oven with no burn on finger but if foil has some moisture it will result in burn why?

Q: first mercury in thermometer descend slightly but it rise after putting in hot water glass. why



PHY101 FINAL TERM PAPER SHARED BY STUDENT

ON JULY 22, 2013 AT 5:16PM

**Total Questions = 64**

**Total Marks = 88**

**Total 1 Mark MCQ = 56**

**Total 3 Marks Short Questions=4**

**Total 5 Marks Long Questions =4**

**While using a projective test, series of ambiguous pictures is shown to the subject and subject is required to write a story. Identify and briefly explain the test. (1+2)**

**The experience of long-term anxiety with no explanation is a definition for a disorder. Identify the disorder and explain. (1+2)**

**Saad feels that when he smokes he looks stylish. He thinks smoking enhance his functioning competence. That is why he keeps on smoking. The ABC model of attitude encompasses different components, keeping in mind the above mentioned situation name three components of saad's attitude.**

**Amnesia and dementia are two types of memory disorders. Compare and contrast the two.(3)**

**Identify on which points mostly neo-Freudian emphasized and on which disagreed? (2.5+2.5)**

**Different theories of "Pitch Perception and Hearing" are being presented over the years. Which one is your favorite one and why?**

**You are required to write a hypothetical case of a person, who is suffering from panic disorder.**

**You are supposed to design a mobile phone ad by utilizing a combination of classical and operant conditioning principles.**



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PHY101 FINAL TERM PAPER SHARED BY STUDENT

ON JULY 28, 2013 AT 1:45PM

PHY101 SHORT QUESTION:

1. IF THREE BALLS THROWN AT AIR SIMALTNAUOSLY THEN WHAT WILL BE THE ACCELERATION OF THEIR CENTER OF MASS WHILE THEY ARE IN MOTION?
2. WHAT IS THE UNDERLYING PROCESS THAT ALL OTHER ELECTROMAGNETIC WAVES TRAVEL AT ONE FIXED SPEED?

LONG QUESTION:

IF THERE IS A PLAYER AND THERE IS A CD OR DVD IN IT THEN TO HEAD UP THE TRACK WHAT SHOULD BE DONE WHILE THE CD IS MOVING WITH CONSTANT SPEED?

- I. INCREASE THE ROTATION SPEED
- II. DECREASE THE ROTATION SPEED
- III. STAY THE SAME

ALSO EXPLAIN THE REASON!

ONE QUESTION WAS ABOUT DEFRACTION?

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