

## **United International University**

## **School of Science and Engineering**

Quiz#01; Year 2020; Semester: Fall Course: PHY 105; Title: Physics Full Marks: 20; Section: E; Time: 30 minutes

Name:	ID:	Date:
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## Each question has equal number:

20x1=20

- (i) Write down in one statement answer.
- 1. Suppose  $x = Asin(\omega t + \delta)$ . What is the maximum velocity of the SHM in that equation?
- 2. How many types of total motions?
- 3. Which types of motion it is- "A car moves north-east at 45°"?
- 4. Which types of motion it is- "The motion of a satellite"?
- 5. Which one is correct for SHM?

Ans: ⊙ Gain of huge energy ⊙ Absence of all friction ⊙ Inelastic restoring force ⊙ Inelastic collision ⊙ Aperiodic Motion.



6.

Figure exhibits which types of motion?

Ans:  $\odot$  Linear motion  $\odot$  Uniform motion  $\odot$  Non-uniform motion  $\odot$  Vibrational motion  $\odot$  Aperiodic motion.

- 7. "A train moving on a straight track"-which types of motion it is for most of the case?

  Ans: ⊙ Linear Motion ⊙ Linear and vibrational motion ⊙ Aperiodic motion ⊙ 2D motion ⊙ Parallel motion.
- 8. "The blade motion of an electric fan"-Which types of motion it is?

  Ans: ⊙ Linear Motion ⊙ Vibrational motion ⊙ Rotational motion ⊙ Aperiodic motion ⊙ Rotational vibrational motion.
- 9. "A bicycle going along a straight road at a constant speed"-Which types of motion it is?

Ans:  $\odot$  Linear Motion  $\odot$  Vibrational motion  $\odot$  Uniform motion  $\odot$  Non-uniform motion  $\odot$  None of them.

10. The motion of "A bouncing ball" is?

Ans: ⊙ Linear Motion ⊙ Vibrational motion ⊙ Uniform motion ⊙ Non-uniform motion ⊙ Linear and vibrational motion.

11. Which of the followings is EM wave?

Ans: ⊙ Square wave ⊙ De-Broglie wave ⊙ Laser ray wave ⊙ Ultrasonic wave ⊙ Seismic wave.

12. Which wave is used for digital signal?



13. Which types of wave it is?



- 14. Which type of wave it is?
- (ii) Write down the following statements are True or False. If true write True and if false write False.
- 15. Motion of a swinging pendulum is found due to the movement of to and fro motion at an average position.
- 16. The maximum displacement of a SHM is 'A'.
- 17. Phase difference can be calculated in 3 ways.
- 18. "Ripple wave" has small amplitude waves.
- 19. "Motion of a potter's wheel" is a perfect example for rotational-vibrational motion.
- 20. A spinning top exhibits rectilinear motion.