**Gulistan Academy**

Physics (9th) Max.Marks = 40

Chapter No.2 (Kinematics) Pass Marks = 20

Time Allowed = 1 Hour

**Question No.1: Give short answers. (12x2 = 24)**

1. *Differentiate between* ***rest*** *and* ***motion****.*
2. *Differentiate between* ***scalars*** *and* ***vectors****.*
3. *Can a body moving with constant speed have some acceleration?*
4. *What will be the shape of the* ***speed-time*** *graph of a body moving with variable speed?*
5. *How to represent vector quantities graphically?*
6. *Why the addition and subtraction for vectors is not as same as that for scalars?*
7. *A train runs with a uniform velocity of* ***36 kmh-1****for* ***10 s****. Find the distance covered by it.*
8. *Define velocity and acceleration.*
9. *What do you mean by the term* ***position****? Explain.*
10. *A player completes a* ***100 m*** *race in* ***12 s****. Find its average speed.*
11. *A stone has been released from the top of a tower. It takes about* ***5 seconds*** *to reach the Earth. What will be the height of the tower?*
12. *How can you find the distance covered by an object by its* ***speed-time*** *graph?*

**Question No.2: (5+3 = 8)**

1. *Explain the different types of motion with examples.*
2. *The velocity of a car is* ***10 ms-1****. How much distance it should cover in half of a minute with an acceleration of* ***0.2 ms-2****? What will be its final speed?*

**Question No.3: (5+3 = 8)**

1. *Derive the third equation of motion by graphical method.*
2. *When breaks are applied, the speed of train reduces from* ***96 kmh-1****to* ***48 kmh-1****after covering a distance of* ***800 m.*** *How more distance it will cover before coming to rest?*