TEST- 5
CH – 5

PHYSICS **CLASS 9TH – 2020** **Paper: (Objective Type)**
Time Allowed: 15 Minutes **Maximum Marks: 12**

Note: You have four choices for each objective type question as A , B, C and D. The choice which you think is Correct, fill that circles in front of that question number. Use marker or pen to fill the circles. Cutting or filling two or more circles will result in zero mark in that question.

Q. 1	QUESTIONS	(A)	(B)	(C)	(D)
1.	The value of gravitational filed strength near the surface of earth is.	20 N kg-1	30 N kg-1	5 N kg-1	10 N kg-1
2.	The value of 'g' at a height on Earth's radius above the surface of the Earth is.	2g	$\frac{1}{2}g$	$\frac{1}{3}g$	$\frac{1}{4}g$
3.	The Moon complete its one revolution around the earth is.	25.3	27.3	29.3	31.3
4.	The orbital speed of a low orbit satellite is.	80 ms-1	8 ms-1	800 ms-1	8000 ms-1
5.	The value of 'g' on the surface of moon is	1.62 ms^{-2}	10 ms^{-2}	20 ms^{-2}	Zero
6.	The value of gravitational field strength of earth.	20 N kg-1	30 N kg-1	5 N kg-1	10 N kg-1
7.	Earth's gravitational force of attraction vanishes at.	6400 km	Infinity	42300 km	1000 km
8.	Mass of the Earth is.	6 $x10^{-24}$ kg	6 $x10^{24}$ kg	6.63 $x10^{24}$ kg	6.63 $x10^{-24}$ kg
9.	The value of 'g' on Sun is.	8.87 ms^{-2}	25.94 ms^{-1}	274.2 ms^{-1}	9.8 ms^{-2}
10.	Moon is nearly km away from the Earth.	3,80,000 km	3800 km	380 km	38 km
11.	The height of a geostationary satellite is about.	850 km	1000 km	42300 km	6400 km
12.	The value of g on moon's surface is 1.6 ms-2. What will be the weight of a 100 kg body on the surface of the moon?	100 N	160 N	1000 N	1600 N

	A B C D		A B C D		A B C D		A B C D		A B C D
1	Ⓐ Ⓑ Ⓒ Ⓓ	4	Ⓐ Ⓑ Ⓒ Ⓓ	7	Ⓐ Ⓑ Ⓒ Ⓓ	10	Ⓐ Ⓑ Ⓒ Ⓓ	13	Ⓐ Ⓑ Ⓒ Ⓓ
2	Ⓐ Ⓑ Ⓒ Ⓓ	5	Ⓐ Ⓑ Ⓒ Ⓓ	8	Ⓐ Ⓑ Ⓒ Ⓓ	11	Ⓐ Ⓑ Ⓒ Ⓓ	14	Ⓐ Ⓑ Ⓒ Ⓓ
3	Ⓐ Ⓑ Ⓒ Ⓓ	6	Ⓐ Ⓑ Ⓒ Ⓓ	9	Ⓐ Ⓑ Ⓒ Ⓓ	12	Ⓐ Ⓑ Ⓒ Ⓓ	15	Ⓐ Ⓑ Ⓒ Ⓓ

نوٹ: معروضی سوال نامے کو توجہ سے پڑھیں اور ہر MCQ کی درست آپشن A,B,C,D کو پین کی سیاہی یا مار کر سے اس طرح پُر کریں کہ سیاہی دائرے سے باہر نہ نکلے۔ ایک سے زیادہ دائروں کو پُر کرنے یا کاٹ کر پُر کرنے کی صورت میں مذکورہ جواب غلط تصور ہوگا۔

TEST NO. 5
CH – 5

PHYSICS **(CLASS 9TH)– 2020** **Paper : (Essay Type)**
Time Allowed: 1:45 hours **Maximum Marks: 48**

(PART – I)

2. Write short answers to any Five (5) questions: **10**

(i) What is meant by the Force of Gravitation?.
(ii) Why gravitational force is very low? Give the reason.
(iii) Define law of gravitation and write its equation.
(iv) What is gravitational field?
(v) What is the meant by gravitational field strength?
(vi) Define mass of earth.
(vii) If R is double then what will be change in $g = Gm_e/R^2$
(viii) Explain how the value of "g" varies with altitude?

3. Write short answers to any Five (5) questions: **10**

(i) What are artificial satellites? Give its two uses.
(ii) What is orbital speed of a low orbit satellite?
(iii) What do you know about global positioning system?
(iv) What is the height and speed of Geo stationary satellite from the surface of the earth?
(v) Give the orbital speed formula of Artificial satellite.
(vi) On what factors the orbital speed of a satellites depends?
(vii) Define orbital velocity and write its formula.
(viii) What is difference between 'g' and "G".

4. Write short answers to any Five (5) questions: **10**

(i) Define field force and gravitational field strength.
(ii) Write equation to determine mass of earth.
(iii) State the difference between natural and artificial satellites.
(iv) Define Geo stationary orbit.
(v) How much Moon is away from the Earth and completes its cycle around the Earth?
(vi) What is the meant by communication satellite? Write its height from the surface of Earth.
(vii) Why law of Gravitation is important to us?
(viii) Write the value and unit of gravitational constant "G" in SI unit.

(PART – II)

Note:- Attempt any TWO questions.

5. (a) Determine the mass of earth using the law of gravitation. **4**
(b) Define satellites. Find the orbital velocity of on artificial satellites. **5**

6. (a) State Law of gravitation and derived the equation. **4**
(b) Calculate the value of g at a height of 3600 km above the surface of the Earth. **5**

7. (a) Explain the motion of Artificial satellites **4**
(b) A polar satellite is launched at 850 km above earth. Find its orbital speed. **5**