	Sanjay Ghodawat University, Kolhapur Established as State Private University under Govt. of Maharashtra. Act No XL, 2017	**2020-21** EXM/P/09/00

M.Sc. I	**School of Science**	**Department: Physics**
PHS 505	**Classical Mechanics**	**Semester : I**
	End Semester Examination	**Time:2 Hrs.** **Max Marks:50**

Instructions: 1) All Questions are compulsory.

Answer Key

Q.1		**Answer / Solve the following**	**Marks**	**Bloom's Level**	**CO**
	a)	Logic Gates and Circuit Symbols 6M Truth Tables 2M	8	L1	CO1
	a)	Forward Biased3M Reverse biased 3M Characteristics 2M	8	L5	CO2
	c)	Diagrams2M LED's3M Photodiode 3M	8	L3	CO2
Q.2		**Answer / Solve the following**			
	a)	i) Formula 1M Solution. (ans = 14V) 4M ii) Formula 1M Solution. (~13000Hz/13KHz) 2M	8	L3	CO3
	b)	Concept of Virtual Ground 4M Closed loop gain for Non-Inverting Op-Amp. 4M	8	L2	CO3
	b)	Integrator Op-Amp 4M Differentiator Op-Amp 4M	8	L2	CO3
Q.3		**Answer / Solve the following**			

	a)	Diagram 2M Uses i) Measuring Voltage 2M ii) Frequency 2M iii) Phase 3M	9	L4	CO4
	b)	Diagrams 2M Circuit Operations 3M Average load current and voltage 4M	9	L2	CO4
	b)	Diagram 3M Pin's 6M	9	L2	CO4

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