Name:
Enrolment No:

UPES
UNIVERSITY OF TOMORROW

End Semester Examination – May, 2023

Program/course: MBA (Power Management) | **Semester : 2nd**
Subject: Solar Power Development and Management | **Max. Marks : 100**
Code: PIPM 7005 | **Duration : 3 Hrs**
No. of page/s: 2

All questions shall be strictly answered in chronological order.

SECTION A		**[10*2 Marks = 20 Marks]**	
Ques 1	Briefly explain the following: a) GHI b) DNI c) DHI d) Solar Constant e) CUF f) Pyranometer g) Concentrated Solar Power h) Auxiliary Power Consumption i) Solar Park j) National Solar Mission	**20**	**CO1**
SECTION B		**[6*5 Marks = 30 Marks]**	
Ques 2	State True or False for the following statements and justify your stand. All the questions in this section carry 5 marks each, out of which, 1 mark is for correctly stating True or False and 4 marks for justification. a) From power generation perspective, 1 MW solar power is equal to 1 MW coal power. b) Almost all solar power plants in India are located in barren areas. c) Concentrating solar power plants don't have large scale water requirements. d) CUF of solar thermal power plants is generally higher than that of solar PV power plants. e) Concentrating solar collector can utilize all types of solar radiation. f) The maximum output of solar PV panel remains constant throughout its useful life.	**30**	**CO2**

SECTION C **Answer any three questions from this section.**		**[3*10 Marks = 30 Marks]**	
Ques 3	Discuss the role of solar power in future electricity mix of India.	**10**	**CO3**
Ques 4	During last few years, solar power tariffs have been consistently falling in India. Discuss three main reasons for such a trend.	**10**	**CO3**
Ques 5	In the estimation of solar power tariff, principal component of loan and equity component is not included directly but it is indirectly accounted in the tariff. Justify.	**10**	**CO3**
Ques 6	In India, there has been large scale capacity addition of solar PV but very little installation of solar thermal power plant. Explain the reasons.	**10**	**CO3**
SECTION D **Answer any one question from this section.**		**[1*20 Marks = 20 Marks]**	
Ques 7	As an advisor to Government of India on Renewable Energy, suggest four policy initiatives for accelerated development of solar power industry in India.	**20**	**CO3**
Ques 8	Discuss the general cost components that are used to estimate solar power tariff and the extent of impact of these components on the cost of solar power generation.	**20**	**CO3**