

**AMAR SHAHEED BABA AJIT SINGH JUJHAR SINGH MEMORIAL COLLEGE BELA
ROPAR PUNAJB**



DESCRIPTION OF COURSE OUTCOMES

NAME OF THE DEAPRTMENT: **Physical Sciences**

NAME OF THE PROGRAMME: **B.Voc.(Renewable Energy & Technology)-I, Semester-I**

NAME OF COURSE: **Renewable Energy Sources**

NAME OF FACULTY: **Neha Chouhan**

C.O. No.	Description of Course Outcome	Method/s of Assessment
CO1	Recognize the need of renewable energy technologies and their role in the our life.	Class test, quiz
CO2	Distinguish between the conventional and non-conventional energy sources.	Viva-Voce, oral test
CO3	Formulate the operating principles of renewable energy production from various renewable sources.	Class test ,notes
CO4	Demonstrate the principles of solar cooking and solar distillation systems	Assignment, seminar
CO 5	Design simple small autonomous photovoltaic and wind energy systems	Group discussion, class test
CO6	Describe the principle and working of fuel cell and thermo-electric power.	Assignment , Viva-Voce

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DESCRIPTION OF COURSE OUTCOMES

NAME OF THE DEPARTMENT: **Physical Sciences**

NAME OF THE PROGRAMME: **B.Voc. (Renewable Energy & Technology)-I, Semester-I**

NAME OF COURSE: **Solar Photovoltaic Technologies**

NAME OF FACULTY: **Neha Chouhan**

C.O. No.	Description of Course Outcome	Method/s of Assessment
CO1	Discuss the different types of solar radiations, solar spectrum and variation in amount of radiations.	Class test
CO2	Explain the formation and principle of P-N junction of solar cell and I-V characteristics.	Assignment , oral test
CO3	Formulate the different characteristics of semi-conductors	Class Quiz, notes
CO4	Investigate about the fundamentals of solar cells and their applications.	Viva , seminar
CO5	Describe the principle and working of solar photovoltaic cell.	Group discussion, class test
CO6	Appraise the importance of standalone PV system and Home lightning.	Assignment , viva

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DESCRIPTION OF COURSE OUTCOMES

NAME OF THE DEAPRTMENT: **Physical Sciences**

NAME OF THE PROGRAMME: **B.Voc. (Renewable Energy Technology)-I**

NAME OF COURSE: **Ecology and Environment Management**

NAME OF FACULTY: **Himani Saini**

C.O. No.	Description of Course Outcome	Method/s of Assessment
CO1	Describe the scope of ecology, environment and ecosystem & its components, functions and types.	Class test, quiz
CO 2	Discuss the different mechanisms involved in energy transfer in ecosystem.	Exam, oral test
CO 3	Define the term pollution & its types and detection of various types of environmental pollutants.	Assignment ,notes
CO4	Explain the various biogeochemical cycles (N ,C ,P) in detail.	Assignment, seminar
CO 5	Illustrate the importance of environmental biotechnology including treatments of different wastes and bioremediation	Group discussion, class test
CO6	Formulate the different health related problems due to environmental pollution.	Viva, exam

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DESCRIPTION OF COURSE OUTCOMES

NAME OF THE DEPARTMENT: **Physical Sciences**

NAME OF THE PROGRAMME: **B.Voc.(Renewable Energy & Technology)-I, Semester-II**

NAME OF COURSE: **Renewable Energy Technology**

NAME OF FACULTY: **Neha Chouhan**

C.O. No.	Description of Course Outcome	Method/s of Assessment
CO1	Study of green-house effect on solar flat plate collector and the estimation of instantaneous efficiency of a solar liquid flat plate collector.	Class test, quiz
CO2	Discuss the solar flat plate collector in series and parallel combination and the Estimation of efficiency of solar air heaters.	Class test, oral test
CO3	Evaluate the performance of concentrating solar collector and solar cooker.	Viva-Voice ,notes
CO4	Find the estimate efficiency of solar photovoltaic panels, effect of Shadow & tilt angle on solar photo voltaic panel.	Assignment, seminar
CO 5	Inculcate the performance evaluation of concentrating solar collector.	Group discussion, class test
CO6	Illustrate solar photo voltaic panel in series and parallel combination, charging characteristics of a lead acid battery using solar photo voltaic panel.	Assignment , Viva-voice

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DESCRIPTION OF COURSE OUTCOMES

NAME OF THE DEPARTMENT: **Physical Sciences**

NAME OF THE PROGRAMME: **B.Voc. (Renewable Energy & Technology)-I, Semester-II**

NAME OF COURSE: **Renewable Energy Policies**

NAME OF FACULTY: **Jaspreet Kaur**

C.O. No.	Description of Course Outcome	Method/s of Assessment
CO1	Knowledge about global and environmental issues.	Assignment , oral test
CO2	Illustrate the importance energy in economic development and social transformation.	Group discussion, class test
CO3	Discuss the various energy policy issues.	Assignment , oral test
CO4	Understand role of energy in economic development.	Viva-voice, seminar
CO5	Describe Global and Local Environmental Issues, Climate Change Negotiations Technological Options.	Group discussion, class test
CO6	Appraise the National & State Level Energy Issues, Energy Policy, Industrial Energy Policy, Energy Security, and Energy Vision.	Assignment , viva-voice

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DESCRIPTION OF COURSE OUTCOMES

NAME OF THE DEAPRTMENT: **Physical Sciences**

NAME OF THE PROGRAMME: **B.Voc. (RET)-I**

NAME OF COURSE: **Ecology and Environment Management**

NAME OF FACULTY: **Himani Saini**

C.O. No.	Description of Course Outcome	Method/s of Assessment
CO1	Describe the scope of ecology, environment and ecosystem & its components, functions and types.	Class test, quiz
CO 2	Discuss the different mechanisms involved in energy transfer in ecosystem.	oral test, seminar
CO 3	Define the term pollution & its types and detection of various types of environmental pollutants.	Assignment ,notes
CO4	Explain the various biogeochemical cycles (N ,C ,P) in detail.	Assignment, seminar
CO 5	Illustrate the importance of environmental biotechnology including treatments of different wastes and bioremediation	Group discussion, class test
CO6	Formulate the different health related problems due to environmental pollution.	Viva-voice, class test