SUBJECT CODE: 16VS/VM/ST56
B.Voc. DEGREE EXAMINATION, NOVEMBER 2019
SUSTAINABLE ENERGY MANAGEMENT
FIFTH SEMESTER

COURSE   : MAJOR CORE
PAPER   : SOFTWARE TOOLS FOR ENERGY ANALYSIS
TIME   : 6 HOURS   MAX.MARKS:100
                                                 (Theory: 50 marks + Practical: 50 marks)

SECTION – A

ANSWER ALL QUESTIONS: **(20x1=20)**
I. Choose the correct answer:

1. The RETScreen Softwareis a software package developed by the Government of
    a. Canada.   b. US   c. Russia   d. France
2. Some of the cells in RETScreen do not require input data and are _____
    a. protected   b. already filled   c. to be left blank   d. No such cells
3. The Preliminary design of PVSYST is used to analyse _____systems
    a. Wind   b. Stand Alone PV   c. Hydro   d. All the above
4. The project's site defines the coordinates like
    a. Latitude   b. Longitude   c. Altitude   d. All the above
5. Electrical Consumption in the eQUEST software is given by
    a. Wh   b. BTU   c. kWh   d. MWh

II. Fill in the blanks:

6. The current version of the RETScreen Expert software and was released in the year_____.
7. Consumption/production is under the _____Module of RETScreen Performance Analysis
8. The _____ software is a free ware to analyse the Solar Energy
9. LOL in PVSYST is _____
10. eQUEST is a _____ software.

III State whether True or False:

11. To perform a RETScreen project analysis, the user may select a currency of their choice

12. eQUESTdoesnot provide accurate simulation of building features

13. Cost Analysis is the first step in RETScreen standard analysis

14. There are basically 4 steps in Performance Analysis Module

15. PVSYST is used for all RE Technologies

IV Answer in a sentence or two:
16. Project Design in PVSYST -
17. Uses of RETScreen–
18. Risk Analysis in RETScreen–
19. Any 2 parameter appear in the consumption graph -
20. Uses of eQUEST-

SECTION – B

ANSWER ANY SIX QUESTIONS: (6x3=18)
21. Give the various components of RETScreen.
22. What are the colour codes in RETScreen
23. What are the Wizards to create a new building description using eQUEST's
24. Explain the five step Standard Analysis in RETScreen
25. Give a short note on the softwares used to use the Wind energy
26. Explain the steps involved in the prelimnary design of a PVSYST preliminary design.
27. Mention 2 Inverter types with same capacity but different companies and compare their specifications.
28. Write a note on one of the Clean Energy Management Software
29. Elucidate the reason for selecting the variant in the given PVSYST project
30. Elucidate the reason for selecting the variant in the given eQUEST project

SECTION – C

ANSWER ANY TWO QUESTIONS: (2x6=12)
31. Write a note on the Feasibility analysis of the RETScreen software with an example
32. Compare the economics for the variants used in installing a PV panel and give an detailed analysis
33. Fill in the table using the developed eQUEST software and obtain a report comparing the efficiency with different materials used.

Building Type:					
Description of Material Used:					
No	No of Rooms	Area	Occupancy	Variant	Comments	Overall Comment
1.				**Variant 1**		
2.						
3.				**Variant 1**		
4.						

34. Write a report on the losses developed while installing a solar panel

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