## STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI-86 (For candidates admitted during the academic year 2016–17 & thereafter)

# SUBJECT CODE: 16VS/VA/EE15

# B.Voc. DEGREE EXAMINATION, NOVEMBER 2018 SUSTAINABLE ENERGY MANAGEMENT FIRST SEMESTER

COURSE	: ALLIED CORE
PAPER	: ENERGY ECONOMICS
TIME	: 3 HOURS

#### MAX.MARKS:100

#### SECTION – A

(30x1=30)

#### ANSWER ALL QUESTIONS: I CHOOSE THE CORRECT ANSWER:

1.	At present the share of hydro power in the country's total generated units is around						
	a) 20%	b) 25%	c) 30%	d) 35%	, )		
2.	Greenhouse effect	t refers to increase in					
	a) Global tempera		b) Carbon n	nonoxide			
	c) atmospheric pr	ressure	d) Greenery	,			
3.	. Which of the following States in India does not have proven coal reserve?						
	a) Andhra Prades	sh b) Madhya F	Pradesh of	c) Kerala	d) West Bengal		
4.	Which of the folle	owing is a renewable	energy source	?			
	a) Bitumen	b) Solar Ene	rgy c) C	oal	d) Natural Gas		
5.	Ratio of maximum	m demand to connected	ed load is term	ed as:			
	a) Load factor	b) Power factor	c) Demand	factor	d) Form factor\		
6.	5. The objective of energy management is						
	a) To minimize energy costs		b) To minin	b) To minimize environmental effects			
	c) a & b		d) None of	the above			
7.	7. Among the following, which is most important for carrying out a material balance						
	a) Temperature of	f Products	b) Mass	c) Waste Q	uantity d) Pressure		
8.	8. Which one is the key element for successful Energy Management?						
	a) Top manageme	ent support b) Pla	anning	c) Monitoring	d) Training		
9.							
	a) thermal	b) Hydel		c) Nuclear	d) Wind		
10	10. The Ozone layer in the atmosphere acts as an efficient filter for						
	a) X-Rays	b) UV-A Ra		c) UV-B Rays	d) Intra red Rays		
			-		- -		

# II FILL IN THE BLANKS:

11. Fuel cells are
12. The outermost layer of the earth is
13. Common energy source in Indian villages is
14 is not an external source of fund.
15. Specific energy Consumption can be expressed units.

## **III** GIVE THE FULL FORM OF THE FOLLOWING:

- 16. CFC
- 17. OPEC
- 18. kWh
- 19. MMTOE
- 20. BEE
- 21. IREED
- 22. CCDA
- 23. GWh
- 24. CCN
- 25. ESI
- 26. FWPA
- 27. GEF

### IV STATE WHETHER TRUE OR FALSE :

28. Methane contributes for global warming.

- 29. Switching to low carbon fuels is a policy used to deal with climate change.
- 30. Wind is the major source of electrical power generation in India.

## SECTION – B

## **ANSWER ANY SIX QUESTIONS:**

(6x5=30)

(2x20=40)

- 31. Distinguish between primary and secondary energy resources.
- 32. Explain the tradeoff advantages and disadvantages of coal.
- 33. Write a note on the Indian energy sector
- 34. Define energy consumption and subsidies
- 35. Discuss the social and economic impact of clean technology.
- 36. Discuss the impact of climate change on global energy.
- 37. What is the significance of energy? Differentiate between commercial and noncommercial sources of energy.
- 38. Write a note on the bureau of energy efficiency

### SECTION – C

# **ANSWER ANY TWO QUESTIONS:**

- 39. Explain the energy trends in the following :
  - a) World primary energy consumption
  - b) Petroleum consumption
  - c) Coal consumption
  - d) Natural gas consumption

#### 40. What is sustainability? What are the three dimensions of sustainability? Explain in detail.

- 41. Critically analyse the link between energy and economic development
- 42. Discuss the challenges and solutions of population growth to energy.

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