

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

**SUBJECT CODE : 16VS/VM/SC66**

**B. Voc. DEGREE EXAMINATION, APRIL 2019**  
**SUSTAINABLE ENERGY MANAGEMENT**  
**SIXTH SEMESTER**

**COURSE : MAJOR CORE**

**PAPER : ENERGY FOR SMART CITIES**

**TIME : 3 HOURS**

**MAX. MARKS : 100**

**Section – A**

**Answer any ALL questions**

**(20×1=20)**

**I. Choose the correct answers:**

1. The first city to get Smart City nomination is,  
(a) Surat                      (b) Pune                      (c) Puducherry                      (d) Chennai
2. The country that has proposed to assist in developing Delhi as the first global and smart city in India under the framework of the draft MoU presented on 27th Apr'15?  
(a) Spain                      (b) France                      (c) China                      (d) Sri Lanka
3. The city tops the list in the round 2 of Smart City Mission is,  
(a) Nagpur                      (b) Ujjain                      (c) Rourkela                      (d) Amritsar
4. The participation of smart people will be enabled through increasing use of,  
(a) ICT                      (b) MPPT                      (c) ACT                      (d) CAT
5. Which of the statements is/are correct?  
(i) 'smart city' is an urban region that is highly advanced in terms of overall infrastructure, sustainable real estate, communications and market viability.  
(ii) It will provide real time information on parking, traffic congestion, public transport  
(iii) Smart cities will be energy efficient and will have low carbon foot print  
(a) (i) and (ii)                      (b) (ii) and (iii)                      (c) (i) and (ii)                      (d) all
6. By 2020, the EU aims to reduce its greenhouse gas emissions by at least  
(a) 10%                      (b) 20%                      (c) 30%                      (d) 50%
7. Patrick Geddes theory deals with  
(a) Smart devices                      (b) Urban planning  
(c) Smart communication techniques                      (d) Solar energy
8. Internet activated devices in everyday living is possible with  
(a) IOT                      (b) ICT                      (c) NET                      (d) MOOCS

9. GDP stands for  
 (a) Global Develop Plan (b) Gross Developing Proposal  
 (c) Graded Design Programme (d) Gross Domestic Produce
10. Automobile capital of India is,  
 (a) Chennai (b) Bangalore (c) Delhi (d) Kolkatta

## II. Fill in the blanks:

11. The Jawaharlal Nehru National Urban Renewal Mission was launched in the year \_\_\_\_\_.  
 12. UDA stands for \_\_\_\_\_.  
 13. There will be a massive change in fuel \_\_\_\_\_ in 2040.  
 14. Basically the number of problems that the conventional cities face is \_\_\_\_\_.  
 15. As per central government's announcement, the state to get maximum number of aspirant smart cities is \_\_\_\_\_.

## III. Match the following.

- |                    |   |                            |
|--------------------|---|----------------------------|
| 16. Retrofitting   | - | (a) smart solution         |
| 17. Redevelopment- | - | (b) data enabled urban     |
| 18 Greenfield      | - | (c) renewal                |
| 19. Pancy          | - | (d) improvement            |
| 20. Smart city     | - | (e) previously undeveloped |

## Section – B

Answer any FOUR questions.

(4X10=40)

21. Explain the various basic components of a smart city.  
 22. Write the essential features of Area based development method.  
 23. With necessary data, explain the current Energy scenario of India.  
 24. Briefly elucidate the necessity for Energy vision 2020  
 25. Write a note any four major smart cities of the world.  
 26. Explain any two solar applications in mobility.

## Section – C

Answer any TWO questions.

(2X20=40)

27. Write notes on the problems  
 (a) faced by conventional cities and  
 (b) in implementing smart city plan.  
 28. By considering the present scenario give a road map to achieve an energy-efficient India.  
 29. Explain about  
 (a) smart communication technology and  
 (b) smart transportation technology for a smart city.  
 30. Explain about the 'drive green' in smart city with examples of FEV and HEV.

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