

[104]

SEAT No. \_\_\_\_\_

No. of Printed Pages : 1 20

SARDAR PATEL UNIVERSITY  
M.Sc. (EST) (Fourth Semester) Examination  
Wednesday, 20 March, 2019  
2.00 to 5:00 pm

PS04CEST22: Environmental Resources and Biodiversity Conservation

Max. Marks: 70  
[08]

Q.1. Multiple Choice Questions (Choose Correct Answer)

- (1) To produce a biogas, \_\_\_\_\_ is put into airtight digester.  
(a) Colloids (b) Slurry (c) Suspension (d) Sludge
- (2) \_\_\_\_\_ days of solar energy is equivalent to total earth's fossil fuels.  
(a) 28 (b) 29 (c) 30 (d) 31
- (3) Wind energy generates \_\_\_\_\_ MW electricity per plant.  
(a) 1085 (b) 1075 (c) 1065 (d) 1055
- (4) Geothermal energy is an example of \_\_\_\_\_ energy.  
(a) Conventional (b) Non-conventional (c) Non-renewable (d) None
- (5) Ploughing of land across the hill is done using the following method.  
(a) Terracing (b) Contour (c) Leaching (d) Strip farming
- (6) \_\_\_\_\_ is a tannin-yielding plant.  
(a) *Cassia* (b) *Emblica* (c) *Acacia* (d) All
- (7) Rich biological diversity exists at \_\_\_\_\_ latitude.  
(a) High (b) Low (c) Both (d) None
- (8) How many numbers of national parks are there in Gujarat?  
(a) 2 (b) 3 (c) 5 (d) None

Q.2. Write a Short Note on followings (Any Seven).

- (1) Advantages of conventional source of energy over non-conventional source
- (2) Advantages of natural resources
- (3) Advantages of wind energy
- (4) Biosphere reserves in Gujarat
- (5) Disadvantages of wind energy
- (6) Relation between biodiversity, rainfall and biotechnology
- (7) Schematic diagram of thermal power plant
- (8) Technical requirements and specifications of biodigester
- (9) Types and levels of biodiversity

[14]

- Q.3. (a) Highlight salient features of biogas production with suitable domes. [06]  
(b) Discuss advantages and disadvantages of solar energy. [06]

OR

- (b) Write a detailed note on wind energy conversion. [06]

- Q.4. (a) What are the different methods for wasteland reclamation? Discuss. [06]  
(b) Discuss principle of ocean thermal energy. Add a note on close and open cycles of ocean thermal energy. [06]

OR

- (b) What is photovoltaic effect? Explain various applications of solar energy. [06]

- Q.5. (a) Explain national parks and wildlife sanctuaries of Gujarat. Add a note on conservation of biodiversity. [06]  
(b) Enumerate diversity indices with suitable examples. [06]

OR

- (b) (i) What are Hotspots? Explain any two hotspots of India. [06]  
(ii) Explain various threats imposed on existing biological diversity of India.

- Q.6. (a) Explain advantages and benefits of agro-forestry over forestry and agriculture. [06]  
(b) Enlist types of forests and describe various types of tropical forests. [06]

OR

- (b) (i) Describe various plants used to cure ailments by local folk in forests. [06]  
(ii) Write a detailed note on dye-yielding plants.

— X —  
①