

SARDAR PATEL UNIVERSITY
M.Sc. (EST) (First Semester) Examination
Friday, 7th December, 2012
10:30 a.m. to 01:30 p.m.
PS01EEST01: Environmental Chemistry

Max. Marks: 70

- Note: 1. Answer all Questions (including Multiple Choice Questions) in Answer Books only.
 2. Draw Neat and Labelled Diagrams, Wherever Necessary.

Q.1. Multiple Choice Questions (Choose Correct Answer) [08]

- (1) Earth is a
 (a) Closed system (b) Open system (c) Isolated system (d) None
- (2) Aurora can be seen in
 (a) Troposphere (b) Stratosphere (c) Mesosphere (d) Ionosphere
- (3) The way a mineral reflects light from its surface is known as
 (a) Hardness (b) Lusture (c) Streak (d) Colour
- (4) Normal faults are caused by
 (a) Tension force (b) Compression stress (c) Shear stress (d) None
- (5) Which of the following cloud is associated with rainfall?
 (a) Cirrus (b) Stratus (c) Nimbostratus (d) cirrocumulus
- (6) The stratopause is _____ kilometers high above the earth's surface
 (a) 50 to 55 (b) 50 - 58 (c) 50 - 60 (d) None
- (7) _____ is not a green house gas.
 (a) CH₄ (b) N₂ (c) N₂O (d) CO₂
- (8) _____ is the solvent most widely used in dry cleaning clothing.
 (a) Dichloroethlyene (b) Tetrachloroethlyene (c) Perchloroethlyene (d) Ethylene

Q.2. Write a Short Note on followings (Any Seven). [14]

- (1) Antarctic ozone hole
- (2) Floral weathering
- (3) Malic acid production
- (4) Mineral chemical classification
- (5) Orographic rainfall
- (6) Principles of green chemistry
- (7) Rock cycle
- (8) Soil profile
- (9) Thermal concept of monsoon

- Q.3. (a) Write a brief note on metamorphic rocks. [06]**
 (b) (i) How magma is formed? Explain. [03]
 (ii) Discuss about intrusive and extrusive igneous rock. [03]

OR

- (b) Briefly describe the global wind pattern with a diagrammatic explanation. [06]

Q.4. (a) Discuss the cloud formation processes. [06]

(b) (i) Write a short note on sea and land breeze phenomena [03]

(ii) Briefly describe about soil organic carbon. [03]

OR

(b) Write a detailed note on soil moisture. [06]

Q.5. (a) Elaborate the mountain building processes. [06]

(b) (i) Bridge construction [03]

(ii) Tunnel boring machine [03]

OR

(b) Describe different layers of atmosphere. [06]

Q.6. (a) Briefly explain the atomic efficiency. Add a note on synthesis of Ibuprofen. [06]

(b) (i) Production of bulk chemicals [03]

(ii) Evolution of atmosphere [03]

OR

(b) (i) Acid base reaction in atmosphere [03]

(ii) Formation of troposphere and stratospheric ozone [03]

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