TEST No. 11

TOPIC: LOCAL WINDS
SUBJECT: PHYSICAL GEOGRAPHY

Explanation:

Question 1

Answer: C

Explanation: Mountain and valley breezes also known as upvalley and down valley breezes are, in fact, local as well as diurnal (periodic winds the directions of which are reversed during 24 hours). The slopes and valley floors in the mountainous regions are more heated through insolation during daytime than the free atmosphere at the same elevation. Consequently, the warm air moves upslope. This upslope moving breeze during daytime is called valley breeze. Valley breezes reach mountain peaks and yield precipitation through cumulus clouds. During the nights, the valley slopes and upper parts are cooled due to loss of heat through outgoing longwave radiation and thus cool air descends through the valley slopes. Such wind is called downvalley or mountain breeze. The mountain breezes cause inversion of temperature in the valleys. This is during the night while the upper parts are free from frost in cold areas.

Question 2

Answer: B

Explanation: first statement is wrong. Warm and dry local winds blowing on the leeward sides of the mountains are called Chinook in the USA.

Question 3

Answer: D

Explanation: **Harmattan IS** warm and dry winds does not causes rainfall.

Question 4

Answer: C

Explanation: harmattan is a special type of north- east trade wind. It becomes extremely warm wind because of hot and dry desert of Sahara. Similar warm, dry, very strong and dustladen winds are called ‘brickfielder’ in Victoria province of Austaralia, ‘blackroller’ in the Great Plains of the USA, ‘shamal’ in the Mesopotamia and Persian Gulf, and ‘norwester’ in New Zealand.

Question 5

Answer: C

Explanation: Mistral - cold local winds blows in Spain and France
Zonda – a warm wind in Argentina.

Question 6

Answer: A

Explanation: Tropical cyclones are not affected by the jet streams. There is close relationship between the intensity of mid- latitude cyclones and jet streams. These cyclones become very strong and stormy when the upper air tropospheric jet streams are positioned above temperate cyclones of ground surface and yield more precipitation than normal.

Question 7

Answer: D

Explanation: third statement is wrong. There is seasonal change in the wind velocity in jet streams wherein these become strong during the winter season and the wind velocity becomes twice the velocity during summer season. Maximum wind velocity is 480km/hr.

Question 8

Answer: C

Explanation: Circulation of jet streams is from west TO east.