Chapter 9

MULTIPLE CHOICE QUESTIONS

1. (b) 2. (c) 3. (b) 4. (a)

VERY SHORT ANSWER QUESTIONS

5. Rock > Gravel > Sand > Silt > Clay

6. sand, silt, clay

7. (a) Weathering (b) Erosion
(c) Soil pollution (d) Percolation

8. (a) Humus (b) Soil Profile
(c) Horizon (d) Loam
(e) Weathering (f) Percolation

SHORT ANSWER QUESTIONS

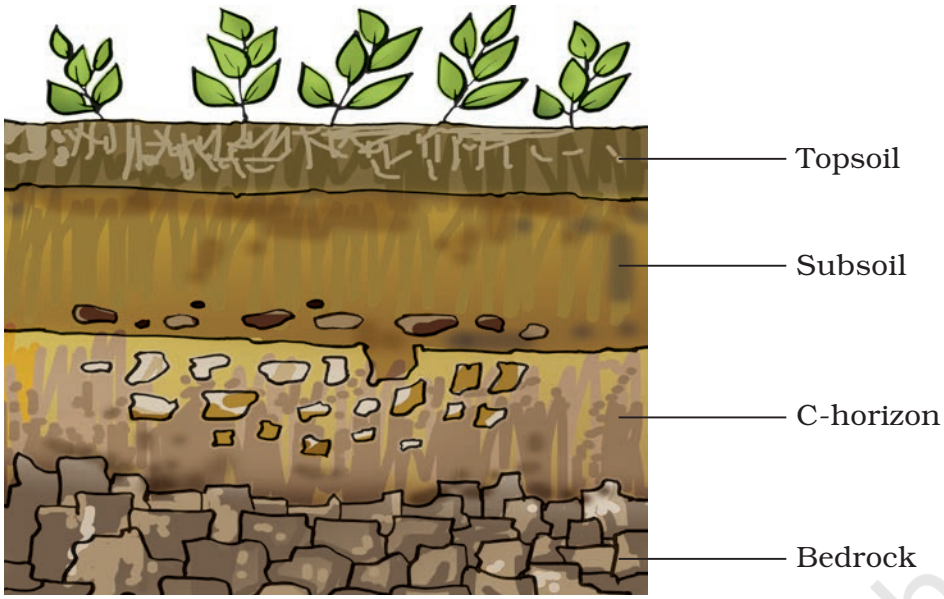
9. Situation 'B' is advantageous to plants because A- and B- horizons are rich in water, minerals and humus.

10. He can add a small quantity of quick lime or slaked lime solution to the soil. This will make the acidic soil neutral.

11. No, it is not a good practice. Plants cover the soil surface and their roots bind the soil particles and hold them in place. During strong winds and rains they prevent soil erosion and thereby protect the top soil.

12. The soil surface has loose top soil which is easier to dig. At deeper layers, partially weathered rocks or bedrocks are present, which are hard making digging difficult.

13.



14. Deserts are vast stretches of sand where the falling rain water immediately percolates downwards in the spaces between sand particles. Due to this he did not see streams of water in the desert region.

15. (a) (vi); (b) (iv); (c) (i); (d) (ii); (e) (iii); (f) (v)

LONG ANSWER QUESTIONS

16. Roots, although underground, possess living cells that require oxygen for respiration and production of energy. They absorb oxygen that is present in the spaces between soil particles. But in water-logged soils, water occupies the spaces between soil particles and pushes the oxygen out into the atmosphere. Thus, roots are deprived of oxygen and this affects root and plant growth.

17. In dense forests, the tree cover (canopy) prevents rain water from directly falling on the ground/soil. Also roots of the vegetation bind the soil particles and hold them together. As a result soil erosion is minimised.

But in barren, open fields the soil is exposed to the falling rain. The soil particles become loose due to the impact of raindrops and the flow of water carries them away. The flowing water further erodes the soil surface aggravating erosion.

18. (a) For enabling easy root growth;
(b) For easier percolation of water;
(c) For aerating the soil/enabling air to get into deeper layers of soil;
(d) For removing the weeds.

19. (a) This is so because of excessive use of water which depletes the ground water.

(b) Towns and cities have asphalted roads and vast areas of soil are concreted. As a result, rain water cannot percolate to recharge ground water and the ground water level further decrease. Villages have larger areas of open soil surface and fewer asphalted roads and concrete surfaces. Thus, larger soil surface area is available for rain water to percolate into the soil easily and recharge the ground water. As a result, even shallow borewells yield water.

20. Humus, Sand, Water, Clay, Gravel, Weathering, Horizon, Percolation, Mineral, Plant, Erosion, Profile.

G	R	P	E	L	I	F	O	R	P
W	H	U	M	U	S	S	G	M	E
E	A	B	S	R	G	A	I	G	R
A	E	T	C	G	V	N	K	N	C
T	R	H	E	G	E	D	Z	C	O
H	O	E	D	R	O	C	K	S	L
E	S	P	A	A	A	K	P	C	A
R	I	L	D	V	R	S	I	L	T
I	O	A	K	E	G	Q	M	A	I
N	N	N	T	L	S	G	H	Y	O
G	K	T	H	O	R	I	Z	O	N