

# Unit 3 - Week 1

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## Assignment-1

The due date for submitting this assignment has passed.  
As per our records you have not submitted this assignment.

**Due on 2020-02-12, 23:59 IST.**

- 1) What are the natural products used in the geotechnical constructions? 1 point

Coir, Polymer, Hemp  
 Jute, Hemp, steel  
 Coir, Jute, Hemp  
 Carbon, Polymer, Coir

**No, the answer is incorrect.**  
Score: 0  
Accepted Answers: *Coir, Jute, Hemp*
- 2) Soil is strong in \_\_\_\_ and weak in \_\_\_\_ 1 point

Tension and Compression  
 Compression and Shear  
 Compression and Tension  
 Shear and Compression

**No, the answer is incorrect.**  
Score: 0  
Accepted Answers: *Compression and Tension*
- 3) The modern concept of reinforced earth was invented by \_\_\_\_ 1 point

Terzaghi  
 Skempton  
 Henri Vidal  
 Bjernum

**No, the answer is incorrect.**  
Score: 0  
Accepted Answers: *Henri Vidal*
- 4) Which type of loading is best sustained by the geosynthetics? 1 point

Compression  
 Tension  
 Flexural  
 Bending

**No, the answer is incorrect.**  
Score: 0  
Accepted Answers: *Tension*
- 5) Which geotextile has the least thickness? 1 point

Heat bonded nonwoven geotextile  
 Needle punched nonwoven geotextile  
 Woven geotextile  
 Resin bonded nonwoven geotextile

**No, the answer is incorrect.**  
Score: 0  
Accepted Answers: *Woven geotextile*
- 6) Why is carbon black added to geosynthetic? 1 point

To increase tensile strength  
 To reduce the degradation due to ultra violet ray exposure  
 To protect from biological degradation  
 To prevent rodent attack on the geosynthetics.

**No, the answer is incorrect.**  
Score: 0  
Accepted Answers: *To reduce the degradation due to ultra violet ray exposure*
- 7) Woven geotextile can be used as \_\_\_\_ 1 point

Separator  
 Protection to geomembrane layer  
 Reinforcement  
 Fluid barrier.

**No, the answer is incorrect.**  
Score: 0  
Accepted Answers: *Separator Reinforcement*
- 8) Which of the following is a 3-dimensional geosynthetic? 1 point

Geotextile  
 Geocell  
 Geogrid  
 Geomembrane

**No, the answer is incorrect.**  
Score: 0  
Accepted Answers: *Geocell*
- 9) Different functions of a geosynthetic are, 1 point

Compression member  
 Reinforcement  
 Separator and filter  
 Barrier

**No, the answer is incorrect.**  
Score: 0  
Accepted Answers: *Reinforcement Separator and filter Barrier*
- 10) Two applications of geomembrane are, 1 point

Drainage  
 Fluid Barrier  
 Canal lining  
 Reinforcement

**No, the answer is incorrect.**  
Score: 0  
Accepted Answers: *Fluid Barrier Canal lining*
- 11) What is the shape of apertures in geonets? 1 point

Square  
 Diamond  
 Rectangular  
 Oval

**No, the answer is incorrect.**  
Score: 0  
Accepted Answers: *Diamond*
- 12) What are some typical applications of geonets? 1 point

Erosion Control  
 Drainage layer  
 Fluid barrier  
 Reinforcement applications.

**No, the answer is incorrect.**  
Score: 0  
Accepted Answers: *Erosion Control Drainage layer*
- 13) What are the typical applications of geomembrane? 1 point

Landfill lining  
 Canal lining  
 Tunnel lining  
 Separation of soil and aggregate layers

**No, the answer is incorrect.**  
Score: 0  
Accepted Answers: *Landfill lining Canal lining Tunnel lining*
- 14) The time required for consolidation using PVD is directly proportional to 1 point

Coefficient of consolidation  
 Square of the drainage path length  
 Time factor  
 Permeability of the soil

**No, the answer is incorrect.**  
Score: 0  
Accepted Answers: *Square of the drainage path length Time factor*
- 15) In a PVD section which part acts as a drainage medium 1 point

Geotextile cover  
 Inner core  
 Both of the above  
 None of the above

**No, the answer is incorrect.**  
Score: 0  
Accepted Answers: *Inner core*
- 16) What is the core of GCL made of 1 point

Thick non-woven geotextile  
 Bentonite clay  
 Kaolinite clay  
 Corrugated plastic sheet

**No, the answer is incorrect.**  
Score: 0  
Accepted Answers: *Bentonite clay*
- 17) What makes the geocell different from other geosynthetic product 1 point

Planar product  
 Provision of all round confinement to soil  
 The ribs are in different planes  
 Rigid product

**No, the answer is incorrect.**  
Score: 0  
Accepted Answers: *Provision of all round confinement to soil*
- 18) What are the functions of a geocell 1 point

Reinforcement  
 Drainage  
 Erosion control  
 Separation

**No, the answer is incorrect.**  
Score: 0  
Accepted Answers: *Reinforcement Erosion control*
- 19) Which kind of geo-composite product is best to provide reinforcement and drainage functions? 1 point

Geomembrane and Geotextile  
 Geogrid and woven geotextile  
 Geogrid and nonwoven geotextile  
 Geonet and Geofoam

**No, the answer is incorrect.**  
Score: 0  
Accepted Answers: *Geogrid and nonwoven geotextile*
- 20) Advantages of encasement in stone columns compared to ordinary stone columns are, 1 point

Load capacity could be higher  
 Drainage function is preserved  
 Could be used even in weathered rock strata  
 Could be formed even in very soft soils

**No, the answer is incorrect.**  
Score: 0  
Accepted Answers: *Load capacity could be higher Drainage function is preserved Could be formed even in very soft soils*
- 21) Which types of bonds exist in polymers? 1 point

Ionic bond  
 Van der Waals forces  
 Hydrogen bond  
 Capillary bonds

**No, the answer is incorrect.**  
Score: 0  
Accepted Answers: *Van der Waals forces Hydrogen bond*
- 22) Which is the monomer of PVC? 1 point

Nylon  
 Ethylene  
 Vinyl chloride  
 Teflon

**No, the answer is incorrect.**  
Score: 0  
Accepted Answers: *Vinyl chloride*
- 23) Different methods used to manufacture nonwoven geotextiles are, 1 point

Heat bonded  
 Chemical bonded  
 Resin bonded  
 Needle punched

**No, the answer is incorrect.**  
Score: 0  
Accepted Answers: *Heat bonded Resin bonded Needle punched*
- 24) Increasing strain response under constant loading is called, 1 point

Relaxation  
 Creep  
 Shrinkage  
 Swelling

**No, the answer is incorrect.**  
Score: 0  
Accepted Answers: *Creep*
- 25) Example of thermoplastic polymer are, 1 point

Polyethylene  
 Polypropylene  
 Polystyrene  
 EPDM

**No, the answer is incorrect.**  
Score: 0  
Accepted Answers: *Polyethylene Polypropylene Polystyrene*
- 26) What is the single unit of polymer called? 1 point

Molecule  
 Atom  
 Monomer  
 None of the above

**No, the answer is incorrect.**  
Score: 0  
Accepted Answers: *Monomer*
- 27) Which polymer can be reused after initial setting? 1 point

Thermoset  
 Thermoplastic  
 Pyroclastic  
 Butyl plastics

**No, the answer is incorrect.**  
Score: 0  
Accepted Answers: *Thermoplastic*
- 28) Expand MFI 1 point

Minimum Flow Index  
 Maximum Flow Index  
 Melt Flow Index  
 Minute Flow Index

**No, the answer is incorrect.**  
Score: 0  
Accepted Answers: *Melt Flow Index*
- 29) Different varieties of geogrids are, 1 point

Knitted geogrids  
 Stretched geogrids  
 Extruded geogrids  
 Nonwoven geogrids

**No, the answer is incorrect.**  
Score: 0  
Accepted Answers: *Knitted geogrids Stretched geogrids Extruded geogrids*
- 30) Differences between geogrids and geonets are, 1 point

Geogrid is made of natural product while the geonet is a polymeric product  
 Geogrid is a reinforcement product while geonet is a drainage product  
 Geogrid is planar product and geonet is a 3-dimensional product  
 Longitudinal and transverse ribs are in the same plane in a geogrid while they are in different planes in a geonet

**No, the answer is incorrect.**  
Score: 0  
Accepted Answers: *Geogrid is a reinforcement product while geonet is a drainage product Longitudinal and transverse ribs are in the same plane in a geogrid while they are in different planes in a geonet*