

KATHMANDU UNIVERSITY  
End Semester Examination[C]  
June, 2018

Marks Scored:

Level : B. Sc.

Course : ENVS 207

Year : II

Semester: I

Exam Roll No. :

Time: 30 mins.

F. M. : 20

Registration No.:

Date :

JUN 14 2018

SECTION "A"

[20 Q. × 0.5 = 10 marks]

Mark "✓" in the most appropriate

1. In Nepal Coal is found in four stratigraphic positions that Siwalik coal , Eocene coal, Gondwana coal and \_\_\_\_\_.  
a. peat                      b. quaternary lignite      c. bituminous              d. anthracite
2. If a renewable resource must be allocated over time to provide equality of opportunity to future generations, then the potential that can be sustained \_\_\_\_\_ into the future represents the sustainable capacity or yield  
a. definitely              b. indefinitely              c. perfectly              d. as is it
3. Resource base is defined as total quantity of a substance or property within the geo-system, it is a useful and simple concept to use for stock resources, but difficult for \_\_\_\_\_  
a. fossil fuel    b. fish in river  
c. solar energy    d. water in aquifer
4. \_\_\_\_\_ of England passed law against burning coal due to smoke pollution in 1273.  
a. King Edward I    b. George Perkins  
c. Gifford Pinchot    d. John Evelyn
5. A well from which water flows out above the ground level naturally is called \_\_\_\_\_.  
a. artesian                      b. pump                      c. fountain                      d. spring
6. Gently sloping bunds (0.5 – 2%) to divert excess water from one area to another is called  
a. contour bunds    b. trapezoidal bunds  
c. graded bunds    d. semi-circular hoops
7. \_\_\_\_\_ practices, technology or knowledge may be relatively new and still evolving.  
a. traditional                      b. indigenous                      c. evolved                      d. scientific



18. The six global diversity maxima are all located in the \_\_\_\_\_  
 a. arid tropics and sub-tropics  
 b. arid temperate and sub-temperate  
 c. humid tropics and sub-tropics  
 d. humid temperate and sub-temperate
19. \_\_\_\_\_ is NOT Passive solar energy.  
 a. water heating panels  
 b. Green/glass house  
 c. south-facing room heating  
 d. PV panels
20. Dates as far back as ~2500 years ago – 4<sup>th</sup> Century B.C. Greek philosopher \_\_\_\_\_ noticed peninsula of Attica was denuded by excessive felling of trees, leading to erosion.  
 a. Aristotle  
 b. Plato  
 c. Pitagora  
 d. Socrates

SECTION "B"

[20 Q. × 0.5 = 10 marks]

Provide the most appropriate words.

21. Pits or vertical cavities of few to several meters wide by few meters deep may be excavated in soils/subsurface layers that are not impervious, are lined with gravel at the bottom to facilitate water percolation into the ground water. \_\_\_\_\_
22. Drilling of wells for the purpose of recharge rather than water withdrawal. \_\_\_\_\_
23. Excavating soil in an area for water collection; generally areas with less than 4% slope and where ground water lies within 1.5 to 2 m depth from ground surface. \_\_\_\_\_
24. Resources which have a fixed, limited supply and cannot be replenished from a practical human standpoint; e.g., fossil fuels, minerals/ores, etc. \_\_\_\_\_
25. Large areas of shrub-cum-grass lands used mainly for game herds and livestock grazing. \_\_\_\_\_
26. Genetic resources, organisms or their parts, populations or any other component of ecosystems having use or value for humanity \_\_\_\_\_
27. A comprehensive, ecosystem-based planning and management approach, which takes into account living resources including people and their well-being within the context of their physical environment and in harmony with natural cycles and processes. \_\_\_\_\_

28. A geographically defined area that is regulated and managed to achieve specific conservation objectives. \_\_\_\_\_
29. Variation of genes/genomes within living organisms; genetic differences between populations of a single species and between individuals within a population. \_\_\_\_\_
30. 10-30 cm high bunds made along contour to detain water and allow infiltration. \_\_\_\_\_
31. Earthen embankment 10-50 cm high made in a staggered configuration in pastures, grazing land, etc. \_\_\_\_\_
32. Total quantity of a substance or property within the geo-system, it is a useful and simple concept to use for stock resources, but difficult for renewable resources, such as, solar energy or forest products. \_\_\_\_\_
33. The upper few meters of the land surface which has a most important role in determining the nature and quality of the land resource base. \_\_\_\_\_
34. Large areas of relatively low permeability ground or deliberately compacted area used to channel and collect water at the low point in large tanks or small reservoirs. \_\_\_\_\_
35. Non-exhaustible, non-critical zone flow resources. \_\_\_\_\_
36. A structure to modify water stocks & flows. \_\_\_\_\_
37. Natural gas are production process at  $>1500^{\circ}\text{C}$  by breakdown of organic matter. \_\_\_\_\_
38. An approach to plans & strategies at the government level and simply imposed them at the local level. \_\_\_\_\_
39. Exploratory drilling of hydrocarbons. \_\_\_\_\_
40. A system for diversified cropping and fodder production on marginal and steep lands reduce the grazing impacts. \_\_\_\_\_

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Time : 2 hrs. 30 mins.

SECTION "C"

[3 Q.×7=21 marks]

Answer *ANY THREE* questions.

1. Give a brief explanation on the explorations of Department of Mines and Geology in Nepal. Describe the types, operational and perspectives sites and their condition of Gems stone in Nepal.
2. What is your understanding of biodiversity in a defined area? How Putz et al. has explained the different levels of biodiversity in 2000? [2+5]
3. Write an essay on spatial distribution of minerals in the earth? How Caring for Earth, 1991 address this issue? [5+2]
4. What is soil classification? Account the general soil properties. [2+5]

SECTION "D"

5. Write short notes (*Any Three*) [3Q.×3=9]
  - a. Participatory Approach
  - b. Geo-thermal Energy
  - c. Wet lands Resource
  - d. WOCAT experience.
6. Justify the answer (*Any Four*) [4Q.×4=16]
  - a. Flow resources used in extinction.
  - b. Natural hydrocarbon in earth finally changes to propellants.
  - c. Exploration for minerals/ ores is not a single activity.
  - d. Definition of natural resources changes are dynamic in nature.
  - e. Malthus and Engles had opposite views.
7. Differentiate clearly [3Q.×3=9]
  - a. Water Conservation and Harvesting
  - b. Diagenesis and metagenesis
  - c. Tar sands and oil shales

