KATHMANDU UNIVERSITY
End Semester Examination
March/April, 2017

Marks Scored:

Level : B. Sc.
Year : II
Course : ENVS 207
Semester : I
Exam Roll No. :
Time : 30 mins.
F. M. : 20
Registration No. :
Date :

SECTION "A"
[20 Q. × 0.5 = 10 marks]

A Mark "✓" in the most appropriate choice.

1. In Nepal _____ is found in four stratigraphic positions that Siwalik coal , Eocene coal, Gondwana coal and Quaternary lignite
a. coal b. lignite c. bituminous d. anthracite

2. A well from which water flows out above the ground level naturally is called _____
a. tube well b. groundwater c. artesian well d. pearched well

3. Gently sloping bunds of _____ to divert excess water from one area to another is called Graded bunds
a. 0.5-4% b. 0.5-3% c. 0.5 – 2% d. 0.5-1%

4. The world's largest producer of zinc is _____
a. USA b. Canada c. Australia d. European Union

5. Some philosophers and classical authors regarded the earth similar to a _____ _____subject to aging, illness and even mortality.
a. living being b. human being c. non-living being d. inhuman being

6. Forest soils typically have organic surface layers, a dark but shallow surface horizon and an exuviated white-colored layer near the surface; often somewhat _____
a. basic b. organic c. inorganic d. acidic

7. There has never really been complete consensus (locally or globally) regarding the _____ of specific environmental resource components.
a. excavation b. interest c. valuation d. understanding

8. _____ vision is that land and livelihoods are improved through sharing and enhancing knowledge about sustainable land management.
a. LCD's b. SLM's c. WOCAT's d. IWRM's

9. 180 million tons of magnesite deposit is known in _____
a. Ramechap b. Kharidhunga c. Lalitpur d. Kampughat

10. In recent decades of _____ a reawakening led to widespread concern over possible exhaustion of finite resources .
a. 2010 b. 2000 c. 1980 d. 1960

11. Sand & coarse silt fractions are predominantly _____; some primary silicate minerals.
a. quartz b. fledspar c. horneblende d. micas

12. Garrett Hardin's thesis was on _____ of common pool resources and its consequences.
a. a. over- returns b. over- ride c. over –exploitation d. over -due

13. _____ are those 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 system
a. Recharge wells b. Dugout ponds c. Ground catchments d. Pits and shafts

14. 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 is called___
a. Protected area b. Genetic diversity
c. Landscape approach d. Ecosystem diversity

15. Earthen embankment 10-50 cm high made in a staggered configuration in pastures, grazing land, etc. is called
a. contour bunds b. semi-circular hoops c. trapezoidal bunds d. graded bunds

16. The six _____ maxima named as Chocó-Costa Rica Centre, Tropical Eastern Andes Centre, Atlantic Brazil Centre , Eastern Himalaya-Yunnan Centre, Northern Borneo Centre, New Guinea Centre are located in the humid tropics and subtropics part of the Globe.
a. water b. mineral c. diversity d. energy

17. MDC's addiction to energy resources has been a major source of _____
a. scarcity debate b. political tension c. disaster d. civilization

18. Dates as far back as ~2500 years ago – 4th Century B.C. Greek philosopher_____ noticed peninsula of Attica was denuded by excessive felling of trees, leading to erosion
a. Stephen Hales b. Pierre Piovre c. Plato d. Rachel Carson

19. UN Summit on Sustainable Development in Johannesburg, 2002, stressed balanced and _____development.
a. economic b. equitable c. sustainable c. ecological

20. US with about 5% of world population consumes about _____ energy
a. 44% b. 55% c. 33% d. 22%

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SECTION "B"

[20 Q. × 0.5 = 10 marks]

Fill in the blanks.

21. King Edward I of England passed _____ against burning coal due to smoke pollution in 1273.

22. Indigenous practices, technology or _____ may be relatively new and still evolving.

23. Rule of _____ is the ratio Catchments Area: Cultivated Area = (Crop water requirements – Design rainfall) ÷ (Design rainfall X Runoff Coefficient X Efficiency).

24. Humans define natural resources rather than nature, hence their _____ is determined by people's ability to extract and utilize them.

25. Aggregates are group/clusters of individual soil particles in intimate association forming a _____ unit.

26. Ultimate source of all water is the _____; it contains 97% of all water on earth.

27. UN Earth Summit in Rio de Janeiro, 1992; stressed balanced and _____ development.

28. Historically, resource use has always been based on continuous _____ with an ever widening definition of the resource base.

29. For materials like elements and fossil fuels, the resource base and _____ can be estimated readily.

30. Growing _____ ideals in recent decades in reaction to perceived "ills of industrialization".

31. DMG explored _____ sq. km area in Kathmandu valley and proved 316 million cubic meter methane gas deposit.

32. The nature of rocks or geologic deposits upon which _____ are formed influences its properties.

33. Agro-forestry systems for diversified cropping and _____ production on marginal and steep lands reduce the grazing impacts.

34. Engels said that humans could continue to meet their needs, even the population increased _____ because of increase in labour power, scientific & technological innovation.

35. Environmental quality resources vary in response to changes in human values, _____ & life styles.

36. At the national and regional planning levels, WOCAT helps to efficiently consolidate and apply relevant SWC knowledge for institutions, planners, co-ordinators and _____

37. Random Exploratory drilling to see the presence of _____ is known as wild-catting.

38. _____ sands are essentially heavy oil trapped in reservoir rocks.

39. Biomass energy is formed by _____ from fermentation of various plants and grains.

40. The perpetual flow resources and natural amenities are difficult place an exact _____value.

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SECTION "C"

[3Q × 7 = 21 marks]

Answer ANY THREE questions.

1. How do you differentiate WOCAT Approach and Technology? Elaborate one of a technology or an approach you have studies in your class. [3+4=7]

2. Explain why mineral search is not a single activity. Explain the role of key actors in mineral search process. [2+5=7]

3. Explain ground water hydrology with a neat diagram. Give water harvesting techniques. [3+4=7]

4. How many ways you are depending on biodiversity resources for you survival? Give an essay on Biodiversity resource of Nepal. [2+5=7]

SECTION "D"

5. Write short notes on (*ANY FIVE*). [5Q × 2 = 10]
   a. Gemstones resource in Nepal
   b. Soil
   c. Participatory approach
   d. OPEC
   e. coal oil
   f. Ecosystem loss

6. Differentiate on your own words (*ANY FOUR*) [4Q× 3=12]
   a. Malthus and Engels views
   b. Foot slope and toe slope
   c. Hydrocarbons and hydropower
   d. biogas and biomass energy
   e. Critical zone and non-critical zone

7. Justify the followings: (*ANY THREE*) [3Q × 4=12]
   a. Understanding of Natural Resource is dynamic
   b. A reliable and robust data-base preclude effective resource management
   c. Coal production and burning cause many environmental problems.
   d. Caring for Earth is in fact a sustainable living.