



**XI M.Sc. (Wildlife Science) National Entrance Test**

*8<sup>th</sup> April, 2007*

**Time : 2 Hours**

**Max Marks : 100**

1. This paper consists of the following four sections. Candidates should answer all the sections:

Section	Subject	Max. Marks	Time Allotted
I	General Knowledge	10	2 Hours
II	General Science	20	
III	Optional Paper (Life Science/Forestry/ Agricultural Sciences/ Veterinary Science)	30	
IV	Essays	40	

2. Sections I, II, & IV are common for all candidates. In the Optional Paper (Section III), candidates are required to answer questions on any one of the subjects opted by them. The subjects are: Life Sciences, Forestry, Agricultural Science and Veterinary Science.
3. Candidates should first answer the objective type questions (Section I, II & III) on the question paper itself and return it to the Invigilator. All questions in section I, II, & III carry equal marks. In Section IV candidates are required to attempt any 2 essays carrying equal marks. Two separate answer books will be provided for essays (Section IV).
4. For the multiple choice objective type questions (Section I, II & III), write the alphabets in capital representing the correct answer in the blank bracket provide on the right hand side. No marks will be awarded for more than one answer and overwriting. Candidates can change answer by simple cutting.
5. Write your Name and Roll Number where indicated.
6. Maintain strict silence during the examination.

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Name : .....

Roll No. : .....

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Section I: General Knowledge

Max. Marks: 10

1. 'The Day After Tomorrow' is Hollywood movie based on the theme :
- A Genetic Engineering
  - B After – effects of Tsunami
  - C World without W.H.O
  - D Extreme effects of global warming [ ]
2. The National Tree of India is-
- A Peepal
  - B Neem
  - C Mango
  - D Banyan [ ]
3. Meghalaya enjoys the distinction of having two of the world's wettest places, namely-
- A Cherrapunji and Mawsynram
  - B Cherrapunji and Mamlukherra
  - C Mawsynram and Shillong
  - D Cherrapunji and Shillong [ ]
4. The documentary film 'Shores of Silence' made by Mike Pandey is based on:
- A Black Buck Killings
  - B Whale shark hunting in India
  - C Marine Pollution
  - D Torture of animals in Circus [ ]

## General Knowledge

5. He is one of India's best known birders, who is responsible for initiating the Birdwatchers Field Club of India in 1959 -
- A Salim Ali
  - B Dillon Ripley
  - C Zafar Futehally
  - D J.C. Daniel
- [ ]
6. The year 2006, was declared by the UN as International year of:
- A Biodiversity
  - B Sustainable development
  - C Desert & Desertification
  - D Water
- [ ]
7. Prairie dog is a kind of a -
- A Rat
  - B Squirrel
  - C Rabbit
  - D Dog
- [ ]
8. In which ancient treatise do we find reference to 'abhyaranya', a concept that is similar to protected wildlife sanctuaries of today -
- A Atharvaveda
  - B Rigveda
  - C Arthashastra
  - D Yajurveda
- [ ]
9. The Present Secretary General of United Nations Organization is :
- A Sam Nujoma
  - B Ban-ki-moon
  - C Shashi Tharoor
  - D Koffi Annan
- [ ]
10. The author of 'Jungle Book' is -
- A Ruskin Bond
  - B Jim Corbett
  - C Rudyard Kipling
  - D Mark Twain
- [ ]

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Section II: General Science

Max. Marks: 20

1. Curdling of Milk is brought about by
- A *Saccharomyces*
  - B all yeasts
  - C *Lactobacillus*
  - D *Streptococcus*
- [   ]
2. Photosynthesis is
- A endothermic process
  - B exothermic process
  - C thermo-dynamic process
  - D catabolic process
- [   ]
3. Which of these elements are very useful in photosynthesis:
- A Cu, Co, Fe
  - B Cu, Mo, Zn
  - C Mg, Co, Mn
  - D Mg, Fe, Co, Mn
- [   ]
4. What percentage of energy is transferred from one tropic level to another?
- A 10%
  - B 1%
  - C 0.1%
  - D 0.01%
- [   ]
5. Which of these does not have radial symmetry?
- A Hydra
  - B Star Fish
  - C Spider
  - D Jelly Fish (*Aurelia*)
- [   ]
6. Which of the following logic gates is a universal gate?
- A OR
  - B NOT
  - C AND
  - D NAND
- [   ]

## General Science

7. A telescope has an objective lens of focal length of 200cm and an eye piece of focal length 2cm. If this telescope is used to see a 50m tall building at a distance of 2 km, what is the height of the image formed by the objective lens?
- A 5 cm
  - B 10 cm
  - C 1 cm
  - D 2 cm
- [ ]
8. A radioactive material has a half life of 10 days, what fraction of the material would remain after 30 days.
- A 0.5
  - B 0.25
  - C 0.125
  - D 0.33
- [ ]
9. If a charged particle enters perpendicularly in the uniform magnetic field then
- A Energy and momentum, both remains constant
  - B Energy remains constant but momentum changes
  - C Both energy and momentum changes
  - D Energy changes but momentum remains constant
- [ ]
10. Which of these is NOT an inelastic collision?
- A A man jumping on a cart
  - B Bullet embedded in a block
  - C Collision of two glass balls
  - D None of these
- [ ]
11. Which one of the following metals corrodes readily in moist air?
- A Lead
  - B Aluminum
  - C Nickel
  - D Iron
- [ ]
12. Which of the following is ferrous alloy?
- A Invar
  - B Solder
  - C Magnalium
  - D Type-Material
- [ ]

## General Science

13. A solution of  $\text{SO}_2$  in water reacts with  $\text{H}_2\text{S}$  precipitating sulphur. Here  $\text{SO}_2$  acts as a/an
- A Oxidizing agent
  - B Reducing agent
  - C Acid
  - D Catalyst
- [ ]
14. When the first ionization energies are plotted against atomic numbers, the peaks are occupied by
- A Alkali metals
  - B Halogens
  - C Noble gases
  - D Transition elements
- [ ]
15. Gammaxine is
- A DDT
  - B Benzenhexachloride (BHC)
  - C Chloral
  - D Hexacholorobenzene
- [ ]
16. The main source of aromatic compound is
- A Wood
  - B Coal tar
  - C Coal gas
  - D Petroleum
- [ ]
17. Sequence of food materials consumed during starvation is
- A Carbohydrates - fats - proteins
  - B Carbohydrates – protiens – fats
  - C Protien – fat – carbohydrates
  - D Fat – protien – carbohydrates
- [ ]
18. Ozone depletion is due to
- A PAN
  - B  $\text{CO}_2$
  - C Solar Radiations
  - D CFCs
- [ ]
19. Which of the following is not a fish?
- A Silver fish
  - B Gold fish
  - C Sucker fish
  - D Flying fish
- [ ]

20 At equator the diameter of earth is:

- A 1,755 km
- B 3,755 km
- C 6,755 km
- D 12,755 km

[ ]

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Section III: Optional Subject – Agricultural Science

Max. Marks: 30

1. The deficiency symptoms of nitrogen is noticed in
- A Older leaves
  - B Younger leaves
  - C Terminal buds
  - D Midrib
- [ ]
2. Isohyet is the line of equal
- A Relative humidity
  - B Temperature
  - C Radiation
  - D Precipitation
- [ ]
3. At hygroscopic coefficient, moisture is held at a water potential of
- A 1/3 bars
  - B 1 bars
  - C 31 bars
  - D 15 bars
- [ ]
4. A herbicide recommended for controlling perennial grass weeds
- A Dalapon
  - B 2,4-D
  - C 2,4-DB
  - D Oxyfluorfen
- [ ]
5. Choose an aquatic weed from the following
- A *Striga lueta*
  - B *Cuscuta chinensis*
  - C *Euphorbia prostrata*
  - D *Eichhornia crassipes*
- [ ]
6. The male flower is maize is called
- A Spikelet
  - B Ear
  - C Cob
  - D Tassel
- [ ]

7. Choose the quantity of calcium carbonate required for preparation of one litre of 1 molar solution
- A 50g
  - B 100g
  - C 20g
  - D 40g
- [ ]
- 8 The following is an anaerobic phase of carbohydrate metabolism
- A Citric acid cycle
  - B Glycolysis
  - C Pentose phosphate pathway
  - D Dondroff pathway
- [ ]
9. Gypsum block is used to measure
- A Soil Salinity
  - B Soil Acidity
  - C Soil Moisture
  - D Soil Temperature
- [ ]
10. Major mineral of most sandy soils
- A Quartz
  - B Ilmenite
  - C Zircon
  - D Mica
- [ ]
11. Potassium sulphate is the best suited potassium fertilizer for crops like
- A Coconut
  - B Rice
  - C Tobacco
  - D Banana
- [ ]
12. Polyembryony is frequently observed in
- A Citrus
  - B Mirabilis
  - C Hibiscus
  - D Helianthus
- [ ]
13. Choose the variety of mango which shows distinct regularity in bearing fruits?
- A Alphonso
  - B Dushehari
  - C Langra
  - D Neelum
- [ ]

14. Botanical name of white yam is
- A *Dioscorea rotundata*
  - B *Dioscorea esculenta*
  - C *Dioscorea alata*
  - D *Dioscorea bulbifera* [ ]
15. The green colour of cardamom is retained by
- A Chemical treatment
  - B Harvesting at green age
  - C Fumigation
  - D Drying in controlled condition [ ]
16. Curing of tender mango is done by mixing with
- A Copper sulphate
  - B Citric acid
  - C Sodium chloride
  - D Sodium benzoate [ ]
17. Locusts are included in the family
- A Fulgoridae
  - B Phasmidae
  - C Tettigonidae
  - D Acrididae [ ]
18. Dung roller beetle is a
- A Predator
  - B Parasite
  - C Scavenger
  - D Crop pest [ ]
19. LD 50 values for pesticides are expressed in
- A Milligram of the toxicant per kilogram of body weight
  - B Microgram of the toxicant per kilogram of the body weight
  - C ppm of the toxicant per kilogram body weight
  - D ppm of the toxicant per gram body weight [ ]
20. Choose the rodenticide which elicits bait shyness in rats
- A Warfarin
  - B Nitrogenase
  - C Catalase
  - D Peroxidase [ ]

21. Sexual reproduction is most common in
- A Phycomycetes
  - B Ascomycetes
  - C Mastigomycotina
  - D Zygomycotina [ ]
22. Mineral oil for spraying plants is
- A Synthetic oil
  - B Fatty oil
  - C Petroleum product
  - D Fixed oil [ ]
23. The alternate host of *Puccinia graminis tritici*
- A *Oxclis corniculata*
  - B *Berberis vulgaris*
  - C *Panicum repens*
  - D *Pennisetum americanum* [ ]
24. The antibiotic formulation used for control of bacterial blight of rice is
- A Streptocycline
  - B Validamycin
  - C Aureofungin
  - D Bactrionol [ ]
25. Crop mixtures have proved biologically most dynamic under
- A Irrigated conditions
  - B Large holding conditions
  - C Water stress conditions
  - D High soil fertility condition [ ]
26. One of the following is also know as “Farm Clinic”
- A Lab to Land Programme (LLP)
  - B National Demonstration Project (NDP)
  - C Krishi Vigyan Kendra (KVK)
  - D Operational Research Project (ORP) [ ]
27. What should be the minimum yield per hectare per annum of a fast growing tree species in a short age rotation
- A 5 m<sup>3</sup>
  - B 10 m<sup>3</sup>
  - C 15 m<sup>3</sup>
  - D 20 m<sup>3</sup> [ ]

## Agricultural Science

28 A soil sample is taken with a cylindrical device with a volume of  $1200 \text{ cm}^3$ . After complete drying in the oven, the soil sample weighs 1400 g. What is the bulk density of the soil sample?

- A  $0.857 \text{ g cm}^{-3}$
- B  $1.167 \text{ g cm}^{-3}$
- C  $1.2 \text{ g g cm}^{-3}$
- D  $1.4 \text{ g g cm}^{-3}$

[ ]

29 Out of the following which soil has sufficient contribution to soil Cation Exchange Capacity (CEC)

- A Sand and silt
- B Quartz and feldspar
- C Clay and organic matter
- D Oxides of iron and calcium

[ ]

30 Support price is announced

- A before sowing of crops
- B before harvesting of crops
- C after sowing of crops
- D after harvesting of crops

[ ]





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**Section IV: Essays**

**Max. Marks: 40**

*Candidates are required to write any 2 (two) essays carrying equal marks. Two separate answer books will be provided for essays. Maximum word limit for each essay is 500.*

1. **Genetically Modified Organisms (GMOs) and their impacts on environment.**
2. **Species Extinction**
3. **Kyoto protocol and its Implications**
4. **Urban Wildlife**
5. **Green Revolution and its impacts**
6. **Trade in wildlife parts and products**
7. **Ecological Implications of any familiar natural disaster**

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