

# ZO0504 FINAL CURRENT SUBJECTIVE

**2 marks**

## 1. What is animal enclosure?

Essential features regarding animal enclosures are:

- All animal enclosures in zoo shall be so designed as to fully ensure the safety of
  - i. Animals
  - ii. Caretakers
  - iii. Visitors

## 2. Threats to indian vulture?

### Threats

These vultures were being found dead and dying in Pakistan and throughout India. The anti-inflammatory drug diclofenac has been identified as the cause of mortality. Vultures are exposed to diclofenac and other NSAIDs through scavenging on the carcasses of largely cattle and buffalo that have been treated with the drugs prior to death and left for scavengers to consume. Hence likely contributory factors are

- Poisoning
- Pesticide use
- Conversion and disturbance of forested habitats within its range.

## 3. Feeding habitat chakur?

## 4. Habitat

Lives on barren rocky slopes with sparsely stunted grass and bushes. In winters, it comes down to an elevation of 1200-1500 m. Re ascends in summer to 2500 m.

## 5. Most traded wild animal ? 2

Indian Pangolins are considered to be the most traded wild animal in the world.

## 6. How many species of marten ? 2

Two species common to Pakistan are

- Stone marten (Martes foina)

The stone marten has a dense fur coat of rich liver chestnut hue

### Distribution

Stone martens are found throughout mountain ranges of Baluchistan and Northern areas.

- Yellow throated marten (Martes flavigula)

The yellow throated marten is considerably larger in size than the stone marten. The whole of its chest, throat and lower jaw are yellowish in color. General body color is silvery, tail is longer; rhinarium is naked and black.

### **Distribution**

Yellow throated marten is found in Chitral, Azad Kashmir and Margala hills

#### **7. How herbicides and pesticides can harm endangered species ? 2**

Certain herbicides and pesticides are horrible pollutants that causing severe damage to the environment and animals dependent upon. To provide natural food to animal if spray are done to kill pest or weed herbs it may cause problems to endangered species as they may die.

#### **8. Scientific name of black buck?**

Antelope Cervicapra.

#### **9. Feeding habitat of Barking deer?**

Diet includes grasses, low growing leaves, tender shoots and fruits.

#### **10. Record maintain in zoo...2 marks**

- ✓ No zoo shall acquire any animal in violation of Wildlife Act.
- ✓ No zoo shall exhibit any animal that is seriously sick or injured.
- ✓ No zoo shall use any animal, other than the elephant in plains and yak in hilly areas for riding purposes.
- ✓ Each zoo shall be closed to visitors at least once a week.
- ✓ Each zoo shall have a wall at least two meters high from the ground level.

#### **11. Scientific name of domestic goat?**

Capra aegagrus hircus

#### **12. Name of major threats to snow leopard?**

#### **Major threats to snow leopards**

- ✓ Poaching
- ✓ Conflict with communities
- ✓ Shrinking home:
- ✓ Changing climate
- ✓ Lack of effective law enforcement.

#### **13. Short note on Brown Bear?**

- ❖ **Scientific Name:** Ursus arctos
- ❖ **IUCN Red list Threat Status:** Least concern
- ❖ **Syn;** Grizzly Bear
- ❖ **Description:**

Large animals, dark in colour, long guard hair over the shoulder, characterized by a distinctive humps on shoulders, long claws on the front paws. Sexual maturity: 4.5 to 7 years of age. Litter size ranges from one to four but two are common. Cubs remain with their mothers for at least two and half years. Female breed every three years.

### **3marks**

#### **14. Short note on leopard cat ?**

- ✓ **Scientific Name:** *Prionailurus bengalensis*
- ✓ **IUCN Red list Threat Status:** Least concern
- ✓ **Description**

The leopard cat looks like a miniature, long-legged and more slender version of a leopard. Body markings are like leopard; head with stripes.

Its fur varies highly in colour and markings according to the region. Generally spotted body fur coat

- **In the tropics** Fur is yellowish-brown with white underparts
- **In the northern** part of the species' range Greyish brown thick fur and are also larger and heavier than the ones in the south.

The size and shape of the black markings covering the body and limbs are also highly variable. The spots sometimes form lines along the neck and back. The irises are deep, golden brown to grey. Males are larger than females

- Body length 54-60 cm
- Weight 3-4 kg.
- Longevity: up to 13 years
- Litter size: 2-3 cubs

#### **15. 3 zoo rules?**

**Zoo is a facility in which animals are**

- Housed within enclosures
- Displayed to the public
- They may also breed
- "Today, the zoo is on the list of inevitable field trips and vacation destinations."

#### **16. Conservation of kingfisher?**

#### **Conservation Actions Underway**

- Bern Convention Appendix II.
- EU Birds Directive Annex I.
- There are no known current conservation measures for this species within its European range.

#### **Conservation Actions proposed**

- Preservation of rivers and streams must be mediated through industry, agriculture and water authorities

- Research to investigate the importance of individual threats and mitigation measures against all the factors.

#### **17. Threats to sand dune cates?**

##### **Threats**

Habitat degradation and loss are considered to be the major threats to the Sand Cat. Many areas are also more heavily frequed by humans, their domestic animals and commensals (i.e. red fox, Vulpesvulpes.

- Arid ecosystems are being rapidly converted.
- Infrastructural development
- Human settlement and activity
- Degradation occur through livestock grazing
- They are also killed in retaliation for killing chickens or Houbara and MacQueen's bustard

#### **18. Note on Capra hircus 3?**

Females are beardless but carry backward curving horns. Measure upto 15 cm and bear fine annulations towards their base.The younger males and females show a characteristic shape pattern with a dark stripe running from the corner of eye to the muzzle.Mature males are spectacularly beautiful and may have horns over one meter in length.In adults the hair coat is of reddish buff in color.The belly and the outside of lower limbs, beard and fore part of face varies from black to chestnut brown in color.The shoulder height. They are capable of surviving in very arid desert conditions. They inhabit mountain crests upto 3300 m.

- In males is 85 to 95 cm. In females 55 to 60 cm.
- The weight of adult Males up to 120 kg, Females 50 to 55 kg

#### **19. Habitat of hog deer 3 ?**

Shrub dominated wetlands.Artificial terrestrial plantations like ChangaManga ,Riverine area, It prefers to live in grassy patches bordering forests.

#### **20. Trading of animals?**

Trading of wildlife and its products.e.g. Bush meat, Ivory, hide, trophy, fur etc.

#### **21. Write description of Indian spotted Eagle?**

##### **Description**

A medium-sized eagle about 60 cm in length and has a wingspan of 150 cm with a short tail.Adults are essentially brown. The legs appear longer and thinner due to the tarsii being less thickly feathered. This species has a lighter coloration overall compared to its relativeswith a darker iris that makes the eyes appear darker than the plumage. The young birds are giving a spotted appearance glossy brown. Tips of the head and neck feathers being creamy. The upper tail coverts are light brown with white giving a barred appearance.The median coverts have large creamy spots.After about eighteen months the bird moults and becomes a darker shade and has less spots.

#### **22. Write feeding habits of common peafowl. 3 marks**

## Feeding habit

Omnivorous:

- Grain and green crops to insects
- Small reptiles
- Mammals
- Berries
- Termite
- Grasshopper
- Ants and beetles.
- Roots in high fairly open trees in large number.

**5 marks**

### 23. Indian pangolin

**English Name:** Scaly Ant eater

**Scientific Name:** Manis crassicaudata

**National status:** Vulnerable

**IUCN Red list Threat Status:** Endangered

Pangolins are considered to be the most traded wild animal in the world

### Description

The Indian Pangolin has Relatively tiny head, Hump-backed body. Thick tapering tail almost equal in length to its body. They are completely covered with scales. Made of keratin which is getting harden as the creatures get older. The scales bear fine longitudinal striation on their surface. There is hardly any external ear. The muzzle tapers to a narrow, down-curving snout. The hind legs are stout and rather columnar with five blunt pinkish white toe nails.

### Habitat and Ecology

It occurs in various types of tropical forests as well as open land, grasslands. Degraded habitat, including in close proximity to villages. The species is thought to adapt well to modified habitats. Provided its ant and termite prey remains abundant. The animal is Solitary, Nocturnal, Burrow-dwelling. During mating season, adult males and females share the same burrow. Females usually give birth to one young. Gestation period of 165 days. Longevity in the wild is unknown. In captivity it has been recorded up to 13 years 2 months. This species is arboreal in some habitats, and is a good climber, using its prehensile tail and claws to climb trees

### Distribution

**Native:**

India, Nepal, Pakistan

Mangla, Potohar and Salt Range across Indus south to near Karachi and northward in the mountainous areas upto Kallat

- Sri Lanka
- Possibly extinct:
- Bangladesh

### **Threats**

Primarily threatened by Hunting, Poaching (for meat and scales), Illegal international trade. Up to 100,000 pangolins are estimated to be hunted and sold every year its meat is consumed as a source of protein locally. The meat is considered a delicacy in China, Vietnam and other parts of south-east Asia. Scales are used in whole or powdered form in the preparation of traditional medicines. An increase in the Agrarian economy Improved irrigation. The use of pesticides comprise additional threats to this species. Occasionally killed out of fear for having an odd shape

#### **24. Threats to wild ass?**

- Illegal trade seems to happen primarily on a national level.
- Poaching for meat, hides and fat, is believed to have apparent medicinal properties.
- Overgrazing by livestock reduces food availability, and herders also reduce the availability of water at springs. The cutting down of nutritious shrubs and bushes exacerbates the problem.
- A series of drought years could have devastating effects on this species
- Habitat fragmentation is a particular concern in Mongolia as result of the increasingly dense network of infrastructure

#### **25. Characteristics of male torpogan.5**

### **Facts:**

Tragos= goat

Pan=Greek god

Tragopans are commonly called "horned pheasants" Having two brightly colored, fleshy horns on their heads. They can erect during courtship displays. There are five recognized species of tragopans.

- Western tragopan (Tragopan melanocephalus)
- Satyr tragopan (Tragopan satyra)
- Temminck's (tragopan Tragopan temminckii)
- Blyth's tragopan (Tragopan blythii)
- Cabot's tragopan (Tragopan caboti)

#### **1. Tragopan melanocephalus**

Syn: Western Tragopan, Black-headed Tragopan, Western Horned-pheasant

### **Description:**

Medium sized pheasant. Sexes are highly dimorph. Male grey upper parts and reddish facial skin Numerous white spots. Each spot bordered with black and deep crimson patches on the sides and back of the neck. The throat is bare with blue skin while the bare facial skin is red. They have a small black occipital crest.

- Weighs 1.8–2.2 kg (4.0–4.9 lb)
- Length from 55–60 cm (22–24 in)

Females have pale brownish-grey upper parts finely vermiculated. Spotted with black, and most of the feathers have black patches and central white streaks.

- Weigh 1.25–1.4 kg (2.8–3.1 lb).
- Length 48–50 cm (19–20 in).
- Monogamous

### **Feeding Habit**

The diet primarily consists of leaves of trees and shrubs. Also includes roots, flowers, acorns, seeds, berries, grubs and insects. Tragopans are shy and wary birds quick to hide amongst the dense vegetation they inhabit if disturbed.

### **Distribution**

Native: India, Pakistan

Found in western Himalayas, between 8000-12000 from hazara eastward to Garhwali- ladakh

**IUCN Status:** Vulnerable

### **Distribution in Pakistan**

- Largely restricted to area between Jhelum and Kunhar rivers of Hazara district
- Forest of Kaghan valley, in Machiara National park (A.K)
- Pales valley in Cholistan district

### **Threats**

Hunting and trapping for

- Its meat (especially in winter)
- Its decorative plumage

### **Conservation**

CITES Appendix I

### **26. Feeding and hugienic rules of zoo.5**

Maintenance of hygiene is important in every walk of life.

- Every zoo shall have ensure timely supply of wholesome and unadulterated food.

- The food must be in sufficient quantity to each animal according to the requirement of the individual animal, so that no animal remains undernourished.
- Every zoo shall have provide for a proper waste disposal system for treating both the solid and liquid wastes generated in the zoo.
- All leftover food items and animal excreta shall be removed from each enclosure regularly.
- Waste disposal should be done in a congenial manner to general cleanliness of the zoo.
- The zoo operators shall make available round the clock supply of potable water for drinking purposes in each enclosure.

## **27. Urrial and sub species?**

### **Prominent species in Pakistan**

- Ovisammon (Marcopolo sheep)
- Ovisorientalis (Urrial)

### **Ovisorientalis**

Urrial is a wild sheep with long legs and relatively small horns, native to central Asia. Urrial is represented by three sub species in Pakistan.

### **OvisorientalisvigneiLadakhUrrialor Shapu**

Fur tends to be more greyish in winter and less red. The chest ruff is comparatively short with black hairs predominating. The horns turn markedly inwards at their tips

### **Distribution:**

Found in Chitral & Northern areas. On mountains upto 3000 meters elevation

**Status:**Endangered

### **Ovisorientalisblandfordi**

Afghan or Baluchistan Urrial. Luxuriantly developed neck ruff. The body fur is reddish. The rams have horns which often develop more than a complete arc. Tips of horn bending slightly outwards

### **Distribution:**

Found in Sindh, Baluchistan and Southern hilly regions of KPK.

**Status:**Endangered

### **Ovisorientalispunjabiensis**

Locally called as Punjabi Dunba. Tend to be smaller and stockier in build compared with the Afghan sub-species. Mature rams develop a conspicuous saddle mark in the form of a vertical band of mixed black and white hairs. Horns are more massive at their base than the Afghan population. Horns never curve round in more than a complete arc.

### **Distribution:**



Occurs in between the Indus and Jhelum rivers at elevations of 250 -1,500 m

- Salt range
- Kala Chitta
- Jhelum hills.

**Status:** Endangered

**Threat:**

The status of Punjab urial is susceptible to physical and emotional injury.

**Reasons for Decline in numbers**

- Poaching
- The capture of newborn lambs that are kept as pets
- Fragmentation of home ranges
- Competition with domestic livestock

Habitat disturbance and destruction associated with increasing agriculture, forestry and mining. The construction of the M-2 Motorway between Islamabad and Lahore created a substantial barrier to seasonal migrations and to dispersal.

**28. Threats to snow leopard?**

**Major threats to snow leopards**

✓ **Poaching**

Snow leopards have long been killed for their Beautiful fur, Bones, Body parts, Traditional Asian Medicine.

✓ **Conflict with communities**

Retaliation for attacking herders' livestock. Decline in the leopard's natural prey is forcing them to rely more on livestock for food and increasing the risk of retaliatory killings. Due to hunting, competition from increasing livestock herds, and habitat loss.

✓ **Shrinking home:** Snow leopards need vast areas to thrive. Expanding human and livestock populations are rapidly encroaching on their habitat. New roads and mines are also fragmenting their remaining range.

✓ **Changing climate**

All the threats will be exacerbated by the impact of climate change on the fragile mountain environment. Hence, putting the future of snow leopards at even greater risk.

✓ **Lack of effective law enforcement.**

**10 marks**

**29. Description of leopard cat?**

**Scientific Name:**Prionailurusbengalensis

**IUCN Red list Threat Status:**Least concern

### **Description**

The leopard cat looks like a miniature, long-legged and more slender version of a leopard. Body markings are like leopard; head with stripes.

Its fur varies highly in colour and markings according to the region. Generally spotted body fur coat

- **In the tropics** Fur is yellowish-brown with white underparts
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The size and shape of the black markings covering the body and limbs are also highly variable. The spots sometimes form lines along the neck and back. The irises are deep, golden brown to grey. Males are larger than females

- Body length 54-60 cm
- Weight 3-4 kg.
- Longevity: up to 13 years
- Litter size:2-3 cubs

### **Habitat and Ecology**

Leopard Cats can occur in a wide variety of habitats. Tropical rainforest, Temperate coniferous forest, Shrub forest and successional grasslands. The northern boundary of its range is limited by snow cover. Leopard Cat does not occur in deep snow. It is not found in the cold steppe grasslands, and generally does not occur in arid, treeless areas.The Leopard Cat is predominantly nocturnal and crepuscular.Some diurnal activity has been recorded.

### **Distribution**

The leopard cat occurs throughout most of India, West into Pakistan and Afghanistan. Its range extends into the Himalayan foothills across most of China. North to the Korean peninsula and into the Russian Far East.It is found in most of Southeast Asia: Thailand, Vietnam and China. On the islands of Sumatra, Java, Borneo and Taiwan. On small islands off South Korea.The leopard cat is the only wild cat species which is native to Japan and the Philippines.

### **Threats**

Leopard cat skins are commercially traded internationally for the fur trade, primarily coats.Skins are also used as decorations in some parts of its range. They are occasionally kept as pets. Sometimes taken from the wild. Sometimes from captive breeding. They have been interbred with domestic cats, particularly in the West, to make the popular Bengal breed. Their bones are used in some traditional Asian medicines

### **Conservation**

Leopard Cat populations in Bangladesh, India and Thailand are listed on CITES Appendix I. All other populations are listed on Appendix II.