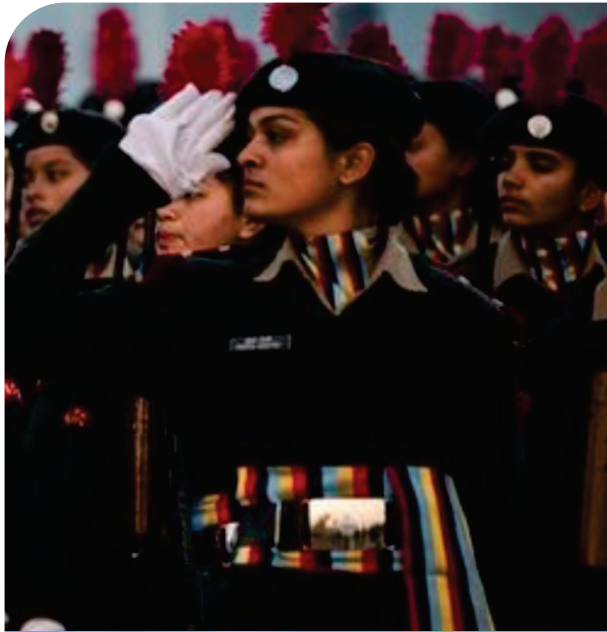




COMMON SUBJECT TECHNICAL SKILLS



EDITION : 2025

**SD/SW CADETS' HAND BOOK
NATIONAL CADET CORPS**

National Cadet Corps

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Published By: The Director General, National Cadets Corps
Delhi-110030



सत्यमेव जयते

CONSTITUTION OF INDIA

PREAMBLE

WE, THE PEOPLE OF INDIA, HAVING
solemnly resolved to constitute India into
a sovereign socialist secular democratic republic
and to secure to all its citizens :

JUSTICE,
Social, Economic And Political; **LIBERTY**
of thought, expression, belief, faith and worship;

EQUALITY
of status and of opportunity; and to promote among them all

FRATERNITY
assuring the dignity of the individual and
the [unity and integrity of the nation];

IN OUR CONSTITUENT ASSEMBLY
this twenty-sixth day of november, 1949, do
HEREBY ADOPT, ENACT AND GIVE TO
OURSELVES THIS CONSTITUTION.



NATIONAL ANTHEM

Jana-Gana-Mana-Adhinayak Jaya He

Bharat-bhagya-vidhata

Punjab-Sindhu-Gujrat-Maratha

Dravid-Utkal-Banga

Vindhya-Himachal-Yamuna-Ganga-

uchchala-jaladhi-taranga

Tava Subha name jage,

tava subha asisa mage, gahe tava jaya-gatha.

Jana-gana-mangala-dayaka

jaya he Bharata-bhagya-vidhata

Jaya he, Jaya he, Jaya he, jaya jaya jaya jaya he.

FOREWORD

It gives me immense pleasure and pride to present the Revised NCC Précis of Common and Special Subjects, 2025 Edition, marking the culmination of a protracted effort mounted for the purpose for more than two years. This achievement has only been made possible through the collective and whole-hearted effort of all stakeholders, comprising the Directorates, the Board of Officers for revision and for printing, & my staff. Your contribution in bringing the project to fruition merits highest appreciation.



The revision was aimed at structuring and updating the syllabus to reflect contemporary thought & realities, as also equip cadets with skills to apply their NCC training in real-life situations. The challenge was to simultaneously keep the language simple for easy comprehension, avoiding too much jargon or pedantry. Endeavour was also to make the presentation interesting and the layout reader-friendly, enabling cadets to engage with each topic meaningfully even through self-study. I extend my sincere appreciation to the entire team for successfully achieving these objectives in their entirety.

This endeavour also aligns the NCC syllabus with tenets of *Vikasit Bharat* for the youth, familiarising NCC cadets with history, geo-strategy, and contemporary technological advances, while remaining rooted in our cultural heritage and ethos. I am sanguine that this vision will be carried forward by present and future generations of cadets, ensuring strong foundations for a robust nation, enabled and ready to achieve greater heights and our rightful place on the global stage.

GOD bless and JAI HIND

Director General,
National Cadet Corps

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SUMMARY			
Subject	Pds perYear		TOTAL
	Ist	II^{2nd}	
Theory	10	10	20
Practical	13	14	27
Total	23	24	47

ORGANISATION

1

CHAPTER INDEX: ORGANISATION (JD/JW)

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ORGANISATION(JD/JW)

CHAPTER I: ORGANISATION AND FUNCTIONING OF REMOUNT AND VETERINARY CORPS



TEACHING INSTRUCTIONS

Code	:	ORG- 01
Period	:	One (01)
Type	:	Tutorial Discussion
Year	:	1st Year JD/ JW
Conducting Officer	:	Officer /JCO
Training Aids	:	Black board and chalk.

Time Plan

- Introduction** : **05 Mins**
- Brief history, Organization and role of RVC** : **30 Mins**
- Conclusion** : **05 Mins**



INTRODUCTION

1. As a cadet of R&V NCC the knowledge of Remount and Veterinary Corps and its functioning is essential.

PREVIEW

The lecture will be conducted in following parts:-

- Part I: Brief History and Organization
- Part II: Various Establishments of Remount and Veterinary Corps (RVC)
- Part III: Role of RVC.

LEARNING OBJECTIVES

- To acquaint the cadets with brief history of RVC, its organization and role.

PART I: BRIEF HISTORY AND ORGANIZATION

2. **History.** “The growing interest of the British in Indian politics, after the battle of Plassey in 1757, involved them in many wars. This necessitated maintenance of a strong cavalry arm. But the horses were not easily available due to uncertain conditions. A Board for breeding horses locally was, therefore, formed in 1779 as “Stud Department. The present day RVC evolved out of this Board.” As a result, this year was unanimously adopted as the birth year of RVC. Though the corps was raised in 1779, the Army Veterinary Corps was officially established on 14 Dec 1920.

PART II: VARIOUS ESTABLISHMENTS OF REMOUNT AND VETERINARY CORPS (RVC)

3. RVC has following establishments:-

- (a) R&V Directorate, New Delhi.
- (b) RVC Centre and College (RVC C&C), Meerut with following faculties:-
 - (i) Dog Breeding and Training Faculty (DTF).
 - (ii) Veterinary Training Faculty (VTF).
 - (iii) Equitation and Animal Management Faculty (E&AMF).
 - (iv) HQ and Training Depot.
- (c) Equine Breeding Studs (EBS) at Hisar, Haryana and Babugarh, UP.



- (d) Remount training school & depots (RTS&D) at Saharanpur, UP and Hampur, UK.
- (e) Central Military Veterinary Laboratory (CMVL), Meerut.
- (f) Military Veterinary Hospitals (MVH).
- (g) Mobile Field Veterinary Hospitals (MFVH).
- (h) Advance Field Veterinary Hospitals (AFVH).
- (j) Army Dog Units (ADU).
- (k) R&V Regt and Sqn, NCC.

4. The broad organization of R&V Regiment and R&V Sqn in NCC is as follows:-

S No	Authorisation	R&V Regt	R&V Sqns
(a)	Total No of Units	05	15
(b)	Horses / Mule	26 (22 Horses + 04 Mules/ Ponies)	13 (11 Horses + 02 Mules/ Ponies)
(c)	Auth Cadet Strength	320 SD/SW Cadets	200 SD/SW Cadets

PART III: ROLE OF RVC

5. Specified roles of RVC are as listed below:-

- (a) Functions under QMG's Branch at Army HQ. DG RVS is responsible for rendering technical advice to QMG on RV Matters.
- (b) Breeding, purchase, procurement and training of all army animals including dogs and provision of such animals in required strength to meet the full authorization of defence services.
- (c) Rearing, maintaining, training and issuing all animals to animal holding units and holding the reserves.
- (d) Veterinary care of all army animals and other defence establishments.
- (e) Casting and disposal of surplus and culled animals.
- (f) Collection and disposal of captured animals.
- (g) Compilation and maintenance of statistical information about source and availability of all type of animals within and outside the country.
- (h) RV planning during peace and war.



- (j) General administration and technical control of RV units and establishments.
- (k) Evacuation and treatment of sick animals.
- (l) Investigation and control of diseases. Preventing infectious, contagious diseases and diseases of zoonotic importance.
- (m) Conduct of various veterinary specific professional courses.
- (n) Training of all trades of personnel of RVC.

CONCLUSION

6. The organization of RVC is structured in a manner so as to provide R&V services to all elements of Armed forces. The functioning of RVC has been explained in a manner to show the interrelationship of various establishments



ASSESSMENT EXERCISE

Q1. RVC was raised in?

- (a) 1979
- (b) 1779
- (c) 1857
- (d) 1940

Q2. RVC is headed by an officer of the rank of?

- (a) Maj Gen
- (b) Col
- (c) Brig
- (d) Lt Gen

Q3. The responsibilities of RVC are?

- (a) Breeding and training of Equines
- (b) Breeding and training of Dogs for the Army
- (c) Provide animals to the Animal Transport (AT) Units
- (d) Provide horses to the President's Body Guard
- (e) All of these
- (f) None of these

Q4. The sanctioned cadet strength of an RV NCC Regt is?

- (a) 140
- (b) 160
- (c) 320
- (d) 200

Q5. The Equine Breeding Studs of the Indian Army are at?

- (a) Saharanpur and Hempur
- (b) Babugarh and Hissar
- (c) Hempur & Meerut
- (d) Hisar and Saharanpur

Q6. The Remount Training Schools and Depots of the Indian Army are at?

- (a) Saharanpur and Hempur
- (b) Babugarh and Hissar
- (c) Hempur & Meerut
- (d) Hisar and Saharanpur



Q7. The Officers and men of RVC are trained at?

- (a) EBS
- (b) RVC Centre and College
- (c) RTS & Ds
- (d) None of these

Q8. The 'R' in RVC stands for?

- (a) Renown
- (b) Remount
- (c) Resource
- (d) Reserve

Q9. RVC stands for?

- (a) Remount Veterinary Corps
- (b) Regiment and Veterinary Corps
- (c) Remount and Veteran Cadets
- (d) Rifle and Veterinary Corps

11. EBS stands for?

- (a) Equestrian Branding Store
- (b) Equestrian Breeding Stud
- (c) Equine Branding Station
- (d) Equine Breeding Studs

12. CMVL stands for?

- (a) Central Mobile Veterinary Laboratory
- (b) Central Military Veterinary Laboratory
- (c) Central Missionary Veterinary Laboratory
- (d) Central Mandatory Veterinary Laboratory

13. The motto of RVC is?

- (a) Unity and Discipline
- (b) Unity and Diversity
- (c) Service to animals is our duty
- (d) Service to animals is service to God

14. The number of regiments in RVC are?

- (a) 05
- (b) 13
- (c) 23
- (d) 14



15. RVC has ____ squadron NCC units?
- (a) 3
 - (b) 15
 - (c) 23
 - (d) 14
16. Full form of MFVH is?
- (a) Military Field Veterinary Hospital
 - (b) Military Forensic Veterinary Hospital
 - (c) Mobile Field Veterinary Hospital
 - (d) Mobile Forensic Veterinary Hospital
17. Which of the following is not a role of RVC?
- (a) Veterinary care of all army animals
 - (b) Investigation and control of diseases
 - (c) Manufacturing of weapons
 - (d) RV planning during peace and war

Short Answer Questions

1. In which year was the "Stud Department" formed, marking the birth year of the RVC?
2. What is the official date of establishment of the Army Veterinary Corps?
3. Name the two Equine Breeding Studs (EBS) of RVC and their locations.
4. Under which branch of the Army HQ does the RVC function?
5. What is the total number of R&V Squadrons authorized under NCC?

Long Answer Questions

1. Discuss the historical background that led to the formation of the RVC.
2. Describe the major establishments of the RVC and their functions.
3. Explain the role and responsibilities of the RVC in the Indian Army.
4. How is the RVC Centre and College structured, and what are its key faculties?
5. What is the organizational structure of R&V Regiments and Squadrons under NCC, and what resources are authorized to them?

ANIMAL MANAGEMENT

2

CHAPTER INDEX: ANIMAL MANAGEMENT (JD/JW)

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ANIMAL MANAGEMENT (JD/JW)

CHAPTER I: INTRODUCTION TO HORSE AND BODY PARTS OF A HORSE



TEACHING INSTRUCTIONS

Code	:	AM- 01
Period	:	02 (1+1) (Two)
Type	:	Lecture and Demo
Year	:	1st Year JD/ JW
Conducting Officer	:	PI Staff
Training Aids	:	Black board and chalk.

Time Plan

➤	Introduction	: 05 Mins
➤	Acquaintance with horse and Body parts of a horse	: 30 Mins
➤	Conclusion	: 05 Mins



INTRODUCTION

1. Horse management or Horse mastership is the science of the care of the horse under all conditions, in the field or in the stables.

PREVIEW

The lecture will be conducted in following parts:-

- Part I: Acquaintance with the horse.
- Part II: Body parts of the horse.

LEARNING OBJECTIVES

- To acquaint the cadets with a horse and Body parts of a horse.

PART I: ACQUAINTANCE WITH THE HORSE

2. Horse management is the science of the care of the horse under all conditions, in the field or in the stables. It aims at continuously keeping the largest possible number of horses fit for work and reducing inefficiency to a minimum by the prevention of accidents and illnesses.

3. He should receive instruction in:-

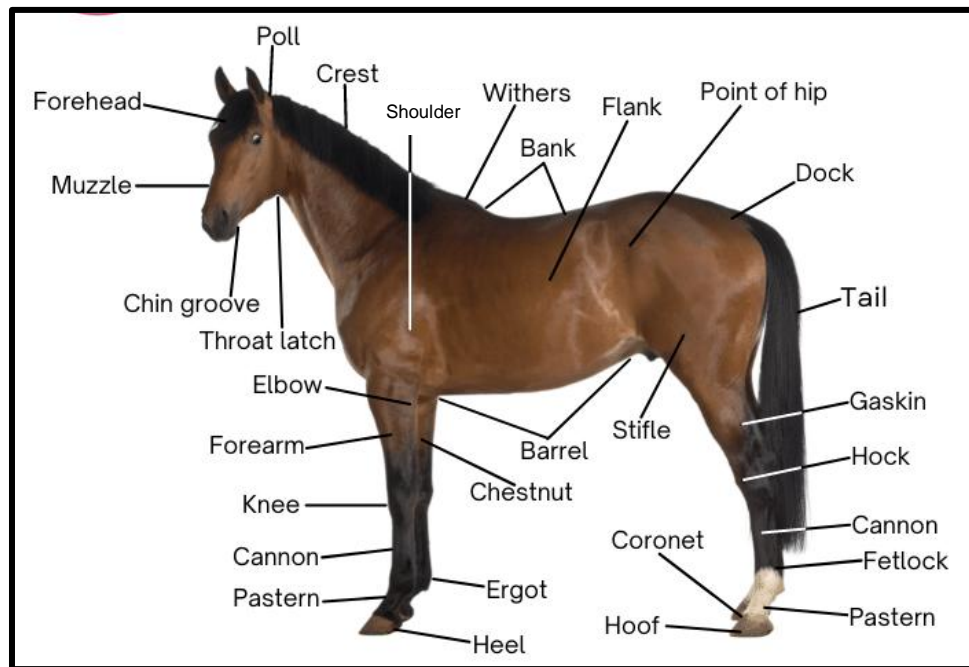
- (a) Temperament of the Horse.
- (b) Watering.
- (c) Feeding.
- (d) Bedding.
- (e) Grooming: general, equipment and usage.
- (f) Shoeing.
- (g) Care of the horse when at work, in stables, in transit or on march.
- (h) The fitting and care of saddlery and harness.

FACTS ABOUT HORSES

- Horses have a very good memory.
- Training a horse requires skill, patience, and careful handling.
- Horses have a pack instinct.
- Horses can hear very high pitches.
- Horses also have a good sense of smell.

4. A horse and his rider work as a combination and best output from the horse is possible if due attention is given to horse's management by the rider. With thorough knowledge of various problems associated with management, they can be anticipated, avoided and best results achieved.

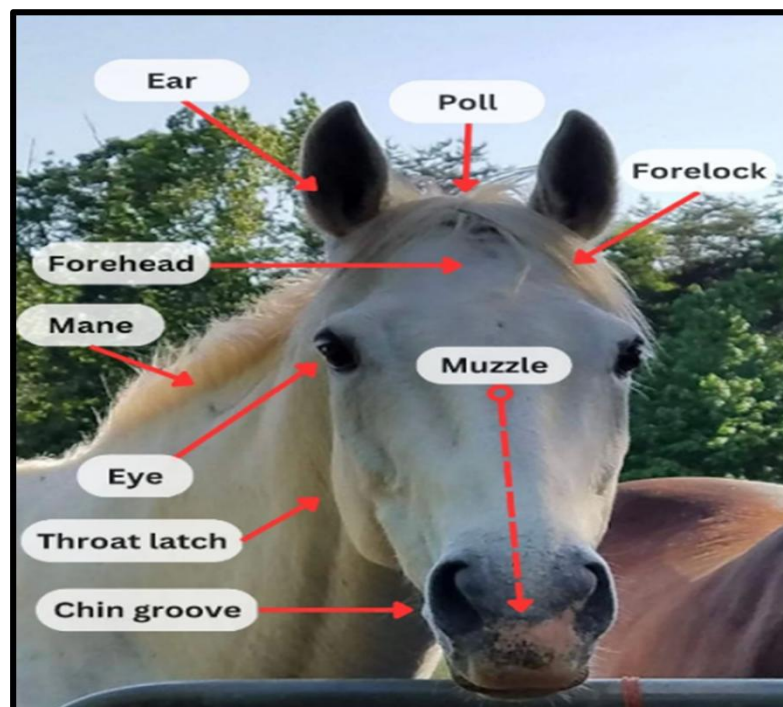
PART II: BODY PARTS OF THE HORSE



5. Understanding the horse's anatomy can help you train him better and prevent injuries that stem from a horse's activities. Equestrians should be familiar with the parts of a horse to recognize aches and pains in horses or why they may not be performing as well as usual.

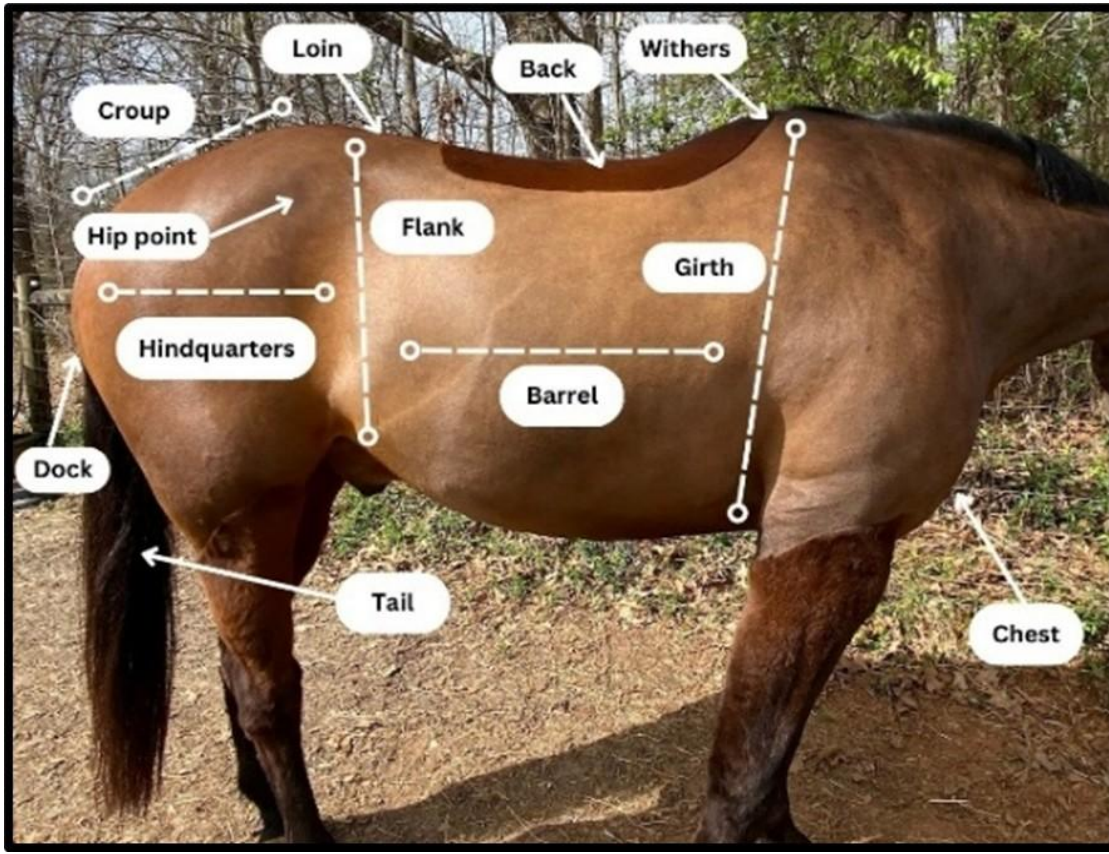
6. It's helpful to understand the horse to prevent injuries and train it discerningly. With a basic knowledge of a horse's parts and their purpose, you'll know where it should develop strength when training so your horse can perform his best.

7. Parts of Horse's Head.

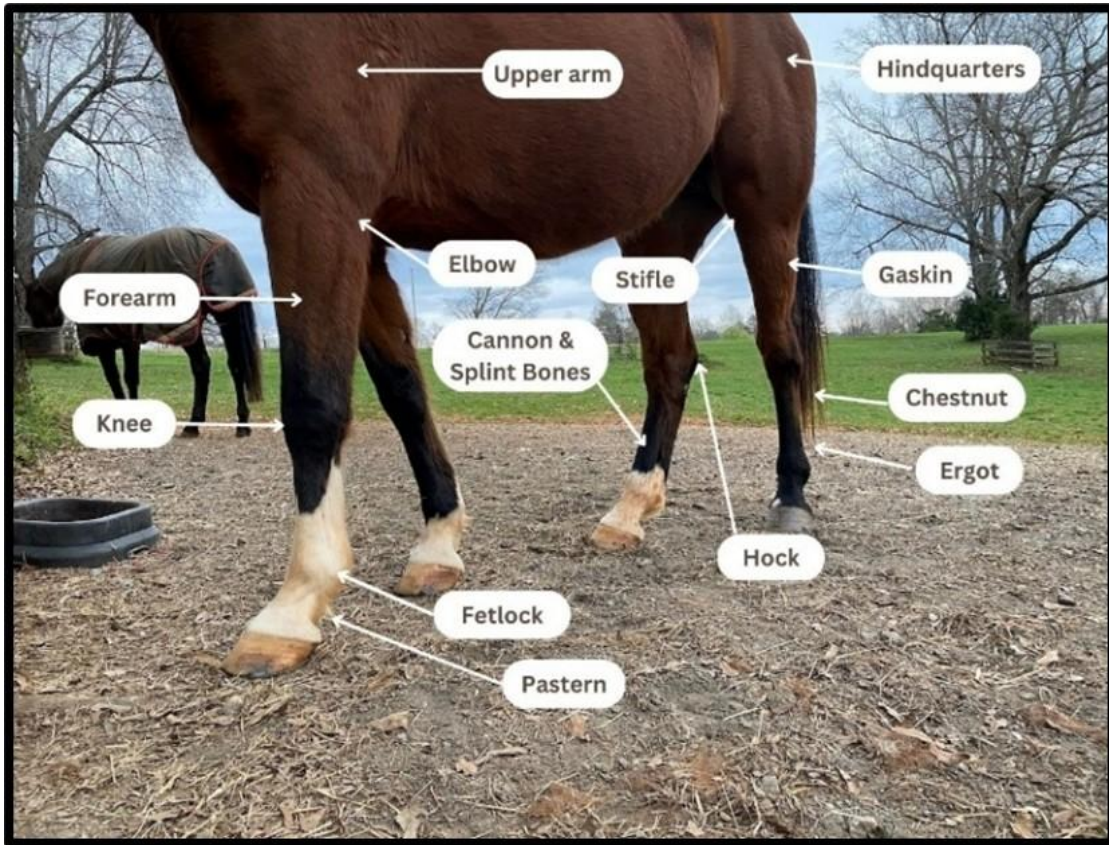




8. Parts of a Horse's Body.



9. Parts of a Horse's Legs.



10. Parts of Horse's Hoof.



CONCLUSION

11. A clear understanding of the horse's body parts is essential for cadet aiming to build a meaningful relationship with their mount. From identifying signs of discomfort to ensuring proper grooming and saddling, this foundational knowledge empowers cadets to care for horses with confidence and precision. Recognizing the function and sensitivity of each body part also enhances riding technique, improves communication between rider and horse, and fosters mutual trust.



ASSESSMENT EXERCISE

- 1. What is the primary aim of horse management?**
 - (a) To train horses for racing
 - (b) To keep horses fit for work and prevent accidents and illnesses
 - (c) To increase the number of horses in stables
 - (d) To reduce the workload of riders

- 2. What is the benefit of understanding a horse's anatomy?**
 - (a) To train the horse better and prevent injuries
 - (b) To increase the horse's weight
 - (c) To reduce the horse's lifespan
 - (d) To make the horse run faster

- 3. Which part of the horse is crucial for understanding its movement and stability?**
 - (a) The legs
 - (b) The ears
 - (c) The mane
 - (d) The tail

- 4. What does the hoof of a horse primarily support?**
 - (a) The horse's weight and movement
 - (b) The horse's breathing
 - (c) The horse's digestion
 - (d) The horse's vision

- 5. Why is acquaintance with the horse important for rider cadets?**
 - (a) To apply skills during advanced training
 - (b) To reduce the horse's workload
 - (c) To increase the horse's speed
 - (d) To make the horse more aggressive

Short Answer Questions

1. What is the primary objective of horse management?
2. List any three key areas in which a cadet should receive instruction regarding horse care.
3. Why is grooming important for a horse?
4. Name two specific parts of a horse's body that riders must be familiar with to identify signs of discomfort.



5. How can understanding the horse's anatomy help an equestrian?

Long Answer Questions

1. Explain the importance of proper horse management both in the field and in the stables.
2. Describe the various aspects of horse care a cadet must be trained in.
3. Discuss how horse and rider work as a combination and how good horse management contributes to this partnership.
4. Elaborate on how knowledge of a horse's anatomy can help prevent injuries and improve performance.
5. Outline the main body parts of a horse, including the head, body, legs, and hooves, and explain why it is essential for a rider to understand them.



INTRODUCTION

1. Horses have played a vital role in human history, from transportation and farming to war and sport. Across the world, different regions have developed their own **horse breeds**, each suited to their environment and purpose. These breeds vary in size, strength, speed, and appearance. As a cadet of NCC the knowledge of breeds of horse is important during various events like commissioning of horses, making of their history sheets, breeding records and other pedigree related data compilation.

PREVIEW

The lecture will be conducted in following parts:-

- Part I: Different breeds of horses.
- Part II: Class of equines in Indian Army.

LEARNING OBJECTIVES

- To acquaint the cadets with different breeds of the horses.

PART I: BREEDS OF HORSES

2. **Sporting horse breeds**. Sporting horse breeds have evolved through selective breeding, where humans have intentionally bred horses for specific athletic traits and characteristics.

3. **Evolution of Modern Sporting Breeds**

(a) **Warmbloods**. Many modern sport horse breeds, like the Hanoverian, Dutch Warmblood, and Selle Français, are warmbloods. They were originally bred to refine cavalry and farm horses, but have evolved into versatile horses suitable for various equestrian sports.



Hanoverian



Selle Francais



(b) **Thoroughbreds.** Thoroughbreds, renowned for their racing prowess, are the result of cross-breeding between Arab, Turk, and Barb horses with native English stock.



Arab



Thoroughbred

(c) **Other Sporting Breeds.** Breeds like the Irish Sport Horse, the American Warmblood, and the Danish Warmblood have also emerged.

4. **Indian Breeds of Horses.** Indian Army uses Thoroughbred Horses produced in its own breeding centres and the breeds include: -

(a) **Marwari Horses.** The Marwari breed is derived from the Marwar region of the Rajasthan.



(b) **Kathiawari Horses.** The breeding tract of the breed is Saurashtra province of Gujarat.





(c) **Spiti Horses.** The Spiti horses are distributed in Spiti valley and adjoining areas of Kullu and Kinnaur divisions of Himachal Pradesh.



(d) **Zanskari Horses.** Zanskari horses are native of Zanskar region of Leh and Laddakh area of Jammu and Kashmir.



(e) **Manipuri Horses.** Manipuri breed of ponies is one of the purest and prestigious breeds of equines of India. They are found in Manipur and Assam, and are similar to the South-East Asian type pony.



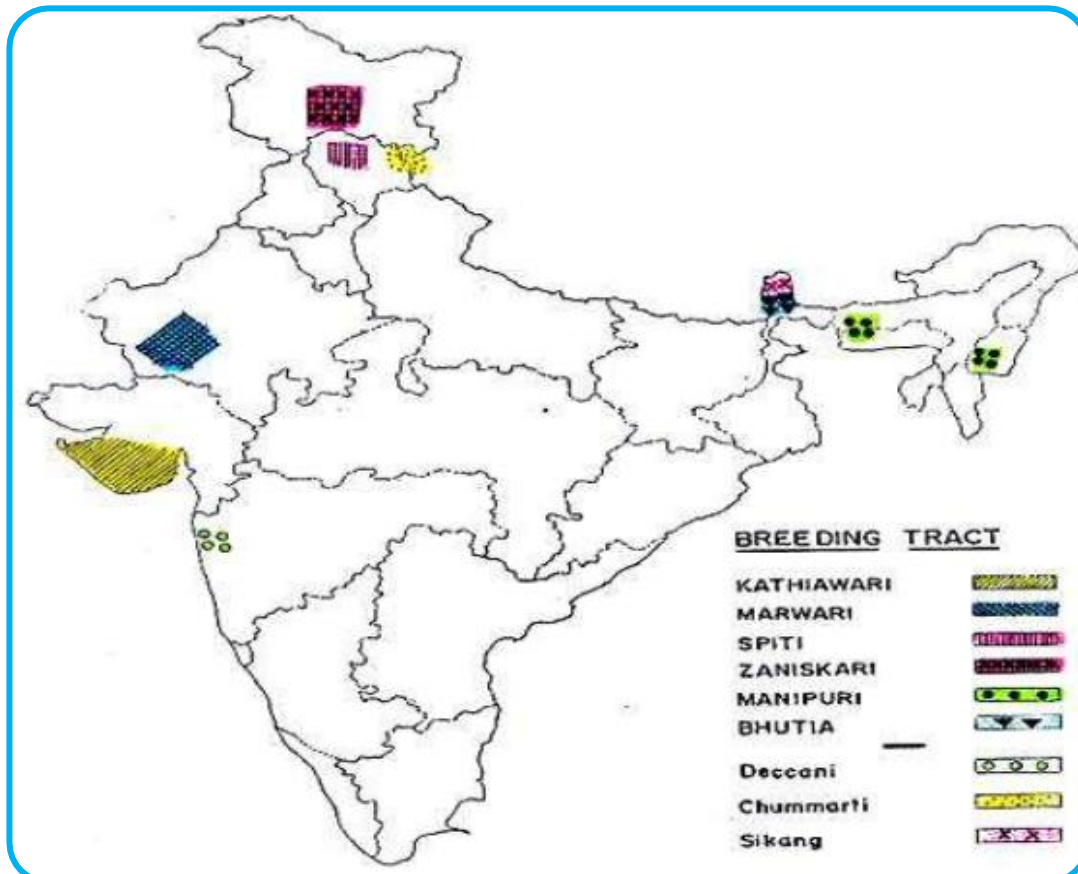


(f) **Bhutia.** Bhutia ponies are distributed in Sikkim and Darjeeling. They are usually grey or bay-coloured and similar to the Tibetan pony.



DID YOU KNOW?

- The indigenous breeds of horses/ponies include Marwari, Kathiawari, Manipuri, Spiti, Bhutia and Zanskari.
- The exotic breeds of horses introduced in India include English thoroughbred, Hanoverian, Arab, Polish, Selle Francais and Halfinger.
- The Arab, the first to be introduced, is believed to have contributed substantially for the evolution of Kathiawari, Marwari, Sindhi and Manipuri horses.



DISTRIBUTION OF HORSE BREEDS IN INDIA



PART II: CLASS OF EQUINES IN INDIAN ARMY

5. The horses and mules in Indian Army are classified depending on the height and body size as follows:-

- (a) **Horses.** These are divided into three categories:-
 - (i) Ride Class A.
 - (ii) Ride Class B.
 - (iii) Pony.
- (b) **Mules.** In the Army, we have two types of mules:-
 - (i) Mules Mountain Artillery (MA).
 - (ii) Mules General Service (GS).

CONCLUSION

6. An R&V NCC cadet should be aware of the breeds of horses and the class of animals used in the Indian Army.

**ASSESSMENT EXERCISE**

1. Which one of the following is not a breed of horse?
 - (a) Thoroughbred
 - (b) Longhorn
 - (c) Arabian
 - (d) Marwari

2. Which of the following is an Indian horse breed?
 - (a) Arabian
 - (b) Thoroughbred
 - (c) Kathiawari
 - (d) Connemara

3. Horse breed best known for its use in horse racing is _____.
 - (a) Thoroughbred
 - (b) Polish
 - (c) Marwari
 - (d) Kathiawari

4. The exotic breed of horse is _____.
 - (a) Spiti
 - (b) Bhutia
 - (c) Arab
 - (d) Zanskari

5. Indian breed horse from Kullu & Kinnaur (Himachal Pradesh) is _____.
 - (a) Spiti
 - (b) Zanskari
 - (c) Marwari
 - (d) Bhutia

6. Indian breed horse from Leh & Laddakh (Jammu and Kashmir) is _____.
 - (a) Spiti
 - (b) Zanskari
 - (c) Marwari
 - (d) Bhutia

7. Indian breed horse from Sikkim and Darjeeling is _____.
 - (a) Spiti
 - (b) Zanskari
 - (c) Marwari
 - (d) Bhutia



8. Indian breed horse from Manipur and Assam is _____.
- (a) Spiti
 - (b) Zanskari
 - (c) Marwari
 - (d) Manipuri

Short Answer Questions

1. What are warmbloods originally bred for?
2. Name any two Indian horse breeds and their native regions.
3. What are the two classifications of mules used in the Indian Army?
4. Which breed of horses is renowned for its racing ability and originated from cross-breeding in England?
5. Where are Bhutia ponies commonly found?

Long Answer Questions

1. Discuss the evolution and characteristics of warm blood horse breeds used in modern equestrian sports.
2. Describe the origin and unique features of at least four Indian horse breeds.
3. Explain the classification system of horses and mules used in the Indian Army.
4. Compare and contrast the Thoroughbred and Indian sporting breeds in terms of their use, origin, and traits.
5. Provide an overview of the distribution of horse breeds in India and their relevance to regional geography and utility.

**ANIMAL MANAGEMENT (JD/JW)****CHAPTER III: COLOURS OF HORSES****TEACHING INSTRUCTIONS**

Code	:	AM- 03
Period	:	02 (1+1) Two
Type	:	Lecture and Demo
Year	:	2nd Year JD/ JW
Conducting Officer	:	ANO
Training Aids	:	Black board and chalk.
Time Plan		
➤ Introduction	:	05 Mins
➤ Different Colours of Horses	:	30 Mins
➤ Conclusion	:	05 Mins



INTRODUCTION

1. Horses come in a wide variety of beautiful colours and patterns. These colours are determined by their **genes** and can change slightly with age, season, or even sun exposure. The colour of a horse includes its **coat**, as well as features like the **mane**, **tail**, and **skin**.

PREVIEW

The lecture will be conducted in the one part:-

- Part I: Different Colours of Horses.

LEARNING OBJECTIVES



- To acquaint the cadets on colours of the horses.






COLOURS OF HORSES






- **Colour.** Simply the coat colour of the horse
- **Colour Pattern.** The way the colour/colours are laid out or designed on the coat of the horse
- **Markings.** Terms used to define or describe white places on face and legs of the horse Colour
- **Colour Pattern & Markings.** Especially when used in combination, they can serve to describe a horse or identify a specific horse.

PART I: DIFFERENT COLOURS OF THE HORSES

2. Colours of Horses.

S No	Colour	Picture
(a)	<u>Bay.</u> Bay varies considerably in shade from dull red approaching brown, to a yellowish colour approaching chestnut, but it can be distinguished from the chestnut by the fact that the bay has a black mane and tail and almost invariably has black on the limbs and tips of the ears	
(b)	<u>Dark Bay.</u> Brownish overall appearance, but mahogany bay is not as dark as dark bay. Bay markings appear in some parts of the coat e.g. bay-brown.	

S No	Colour	Picture
(c)	<p><u>Dun.</u> The body coat is of a cream colour, with black mane and tail. When the term "Isabella" is used in German it usually refers to a body coat of cream and yellow, with mane and tail of the same cream or yellow colour</p>	
(d)	<p><u>Red Dun.</u> This horse is a dun, but with reddish/ chestnut highlights. It has a dorsal stripe down the middle of the back, and the legs are darker than the body colour</p>	
(e)	<p><u>Roan.</u> Permanent colour with a mixture of white hairs and one or two other colours of hairs in the coat.</p>	
(f)	<p><u>Grey.</u> Where the body coat is a varying mosaic of black and white hairs, with the skin black. With increasing age the coat grows lighter in colour. The flea-bitten grey may contain three colours or two basic colours and should be so described. A pure white is exceptional</p>	
(g)	<p><u>Chestnut.</u> A Chestnut can be any shade of red with no black points like the bay. There are many variations in the colour. Think of the different colours a penny can be, from brand new to very old and tarnished, Chestnuts can come in all of these colours. A Chestnut with a light coloured mane while, almost white is said to be a Chestnut with a flaxen mane and tail. A very dark Chestnut, one the colour of a very tarnished penny, is called a 'Liver Chestnut' and they too can have flaxen manes and tails, a very eye-catching combination</p>	

S No	Colour	Picture
(h)	Black. Where black pigment is general throughout the coat, limbs, mane and tail, with no pattern factor present other than white markings	
(j)	Piebald. The body coat consists of large irregular patches of black and white. The line of demarcation between the two colours is generally well defined	
(k)	Skewbald. The body consists of large irregular patches of white and of any definite colour except black. The line of demarcation between the colours is generally well-defined	
(l)	Palomino. The body coat is a newly-minted gold coin colour (lighter or darker shades are permissible) with a white mane and tail.	
(m)	Appaloosa. Body colour is grey, covered with a mosaic of black or brown spots	

IMPORTANCE OF COLOUR

- People use colours and markings to identify individual horses.
- Some breed associations prefer or require horses to be certain colours for registration into the association and discriminate against other colours.
- Horses come in several basic body colours and there are several variations of each basic colour.
- The five basic body colours include black, bay, brown, chestnut, and white.

**ASSESSMENT EXERCISE**

1. A horse with varying mosaic of black and white hairs on its skin coat with black skin would be called of _____ colour.

- (a) Bay
- (b) Grey
- (c) Chestnut
- (d) Roan

2. A horse whose body coat consists of large irregular patches of white and black is referred to be of _____ colour.

- (a) Skewbald
- (b) Roan
- (c) Palomino
- (d) Piebald

3. A horse whose body coat consists of large irregular patches of white and any colour other than black is referred to be of _____ colour.

- (a) Skewbald
- (b) Roan
- (c) Palomino
- (d) Piebald

4. Body coat consists of large irregular patches of white and any other colour other than black.

- (a) Piebald
- (b) Skewbald
- (c) Roan
- (d) Grey

5. The hair and skin are white in colour in

- (a) White
- (b) Roan
- (c) Grey
- (d) Palomino

6. Golden yellow body coating with yellow to golden yellow mane and tail.

- (a) White
- (b) Roan
- (c) Grey
- (d) Palomino

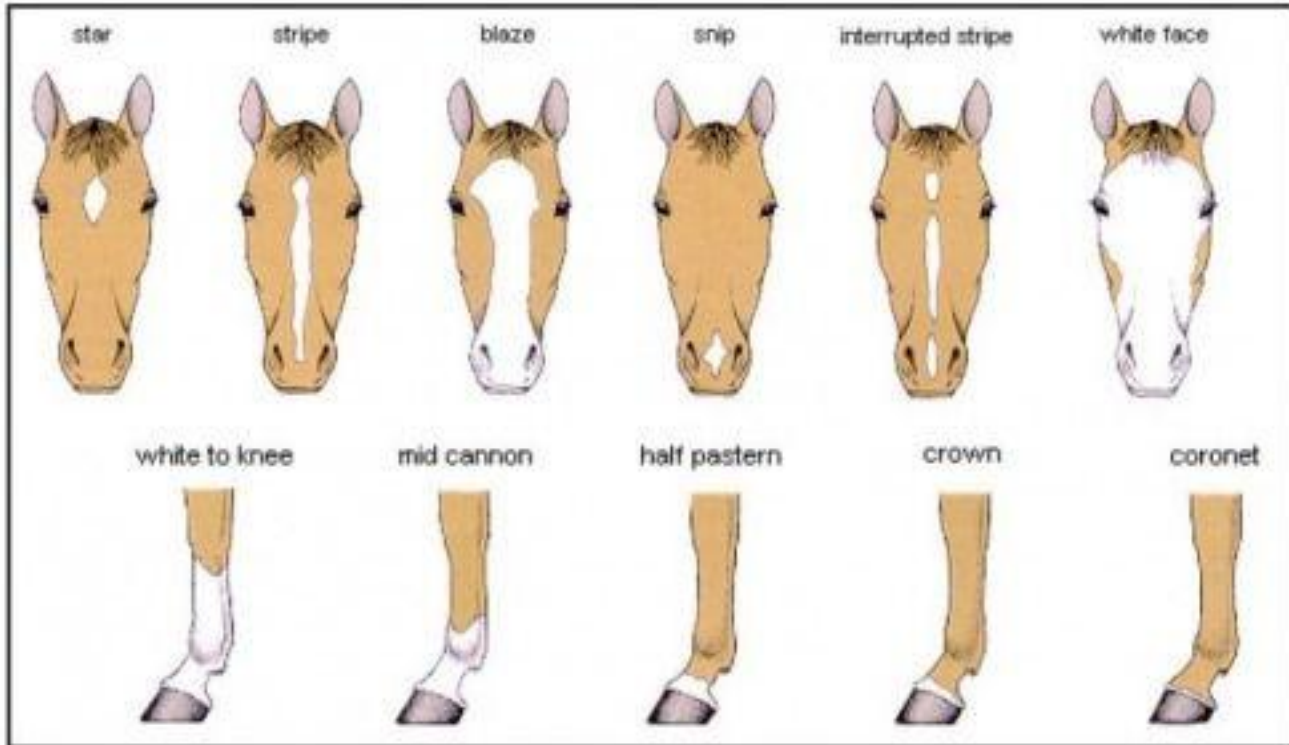


Short Answer Questions

1. What key feature distinguishes a bay horse from a chestnut horse?
2. What is the primary difference between a piebald and a skewbald horse?
3. Which horse coat colour is characterized by a mixture of white hairs with one or two other colours throughout the coat?
4. What colour is a Palomino horse's mane and tail?
5. What coat colour does a horse have if it appears completely black with no pattern, except for white markings?

Long Answer Questions

1. Describe the characteristics and variations of the bay coat colour in horses, including its subtypes like dark bay and light bay.
2. Compare and contrast the chestnut and black coat colours in horses, including their unique variations.
3. Explain the features and visual appearance of dun and red dun horses, including specific markings and colour highlights.
4. Discuss the differences between roan, grey, and appaloosa horse coat patterns, focusing on how they change or remain consistent with age.
5. Define and differentiate piebald, skewbald, and palomino coat patterns in horses, including their colour combinations and common identifying features.

**ANIMAL MANAGEMENT (JD/JW)****CHAPTER IV: IDENTIFICATION OF HORSES****TEACHING INSTRUCTIONS**

Code	:	AM- 04
Period	:	03 (1+2) Three
Type	:	Lecture and Demo
Year	:	2nd Year JD/ JW
Conducting Officer	:	JCO
Training Aids	:	Black board and chalk.

Time Plan

➤ Introduction	:	05 Mins
➤ Identification of Horses	:	30 Mins
➤ Conclusion	:	05 Mins



INTRODUCTION

1. Identifying a horse is required for recognizing and recording its physical features, colour and markings or documents to distinguish it from other horses. Proper identification is important for ownership, breeding, competition, veterinary care, and security. It helps ensure that the right horse is being treated, trained, or registered.

<u>PREVIEW</u>	<u>LEARNING OBJECTIVES</u>
<p>The lecture will be conducted in following parts:-</p> <ul style="list-style-type: none"> ➤ Part I: Identification of Horses. 	<ul style="list-style-type: none"> ➤ To acquaint the cadets with identification of horses.


PART I: IDENTIFICATION OF HORSES




2. Horses can be identified by the following:-

- (a) Color and markings (such as white patches on the face or legs).
- (b) Height and build.
- (c) Breed and age.
- (d) Application of microchips and branding.
- (e) Registration of the horses.



3. By carefully observing and recording these details, horse owners, vets, and trainers keep accurate records and ensure the well-being of each horse.

4. **Facial Markings of Horse.** Facial markings are distinctive white areas on an otherwise dark coat, help identify individual horses and are present at birth, not changing over their lifetime. Common markings include stars, snips, blazes, stripes, and various leg markings.

S No	Facial Mark	Description
(a)		<p><u>Snip.</u> A white mark on the muzzle, between the nostrils.</p>

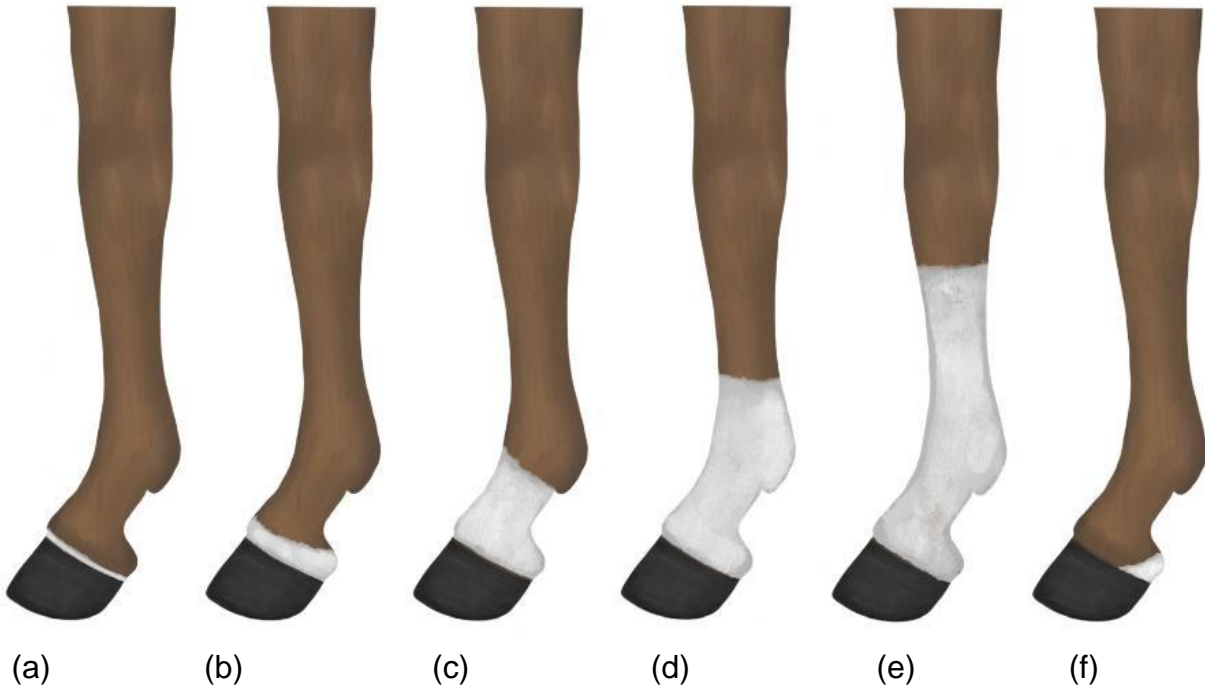
S No	Facial Mark	Description
(b)	 <p style="text-align: center; color: green;">star</p>	<p><u>Star.</u> A white marking on the forehead, between or above the eyes.</p>
(c)	 <p style="text-align: center; color: green;">stripe</p>	<p><u>Stripe.</u> A narrow white strip that runs down the middle of a horse's face.</p>
(d)	 <p style="text-align: center; color: green;">bald face</p>	<p><u>Bald Face.</u> A very wide blaze, extending to or past the eyes.</p>



S No	Facial Mark	Description
(e)		<p>Blaze. A wide white stripe running down the face from the forehead to the muzzle.</p>
(f)		<p>Broken Stripe. A stripe that is not straight or continuous.</p>

5. **Leg Markings.** The outline of markings found on horses' legs are described as under:-

- (a) **Coronet Band.** White coat just above the hoof, around the coronary band and usually no more than 2.5 cm above the hoof.
- (b) **Pastern.** White marking that extends above the top of the hoof but stops below the fetlock.
- (c) **Fetlock.** White marking that extends over the fetlock, occasionally called a "boot".
- (d) **Sock.** White marking that extends higher than the fetlock but not as high as the knee or hock.
- (e) **Stocking.** White marking that extends at least to the bottom of the knee or hock, sometimes higher.
- (f) **Partial or Half Pastern.** White marking which includes only half the pastern above the coronet.



Leg Markings of a Horse

6. **Brandings.** Branding in horses is a traditional method of permanent identification, achieved by creating a lasting mark on the skin through either hot or freeze branding used to identify. The army horses are branded on left shoulder and left thigh.

- (a) **Left Shoulder.** Arrow with Place of Birth
- (b) **Left Thigh.** Father's Name



CONCLUSION

7. Identifying horses accurately is essential for effective management, breeding, and health care. Understanding key features such as breed characteristics, markings, and conformation helps in proper classification and record-keeping. This knowledge ensures better handling, enhances safety, and supports the preservation of valuable genetic traits across various horse breeds.



ASSESSMENT EXERCISE

- 1. Which of the following is NOT a method of identifying horses?**
 - (a) Colour and markings
 - (b) Height and build
 - (c) Breed and age
 - (d) Application of microchips and branding
 - (e) Shoe size

- 2. What is the purpose of observing and recording details about horses?**
 - (a) To increase their speed
 - (b) To ensure their well-being and maintain accurate records
 - (c) To reduce their workload
 - (d) To identify their diet preferences

- 3. What is a "Star" marking on a horse?**
 - (a) A white mark on the muzzle
 - (b) A narrow white strip down the face
 - (c) A white marking on the forehead between or above the eyes
 - (d) A wide white stripe running down the face

- 4. What is a "Snip" marking on a horse?**
 - (a) A white mark on the muzzle between the nostrils
 - (b) A narrow white strip down the face
 - (c) A white marking on the forehead
 - (d) A stripe that is not straight or continuous

- 5. Which marking is described as a wide white stripe running down the face from the forehead to the muzzle?**
 - (a) Blaze
 - (b) Bald Face
 - (c) Stripe
 - (d) Star

- 6. What is a "Coronet Band" marking on a horse's leg?**
 - (a) A white marking that extends over the fetlock
 - (b) A white marking just above the hoof around the coronary band
 - (c) A white marking higher than the fetlock but below the knee
 - (d) A white marking that extends to the bottom of the knee



7. Which marking extends higher than the fetlock but not as high as the knee or hock?

- (a) Stocking
- (b) Sock
- (c) Pastern
- (d) Fetlock

8. What is the purpose of branding horses?

- (a) To identify their diet preferences
- (b) To create a permanent mark for identification
- (c) To increase their speed
- (d) To reduce their workload

9. Where are army horses branded?

- (a) Left shoulder and left thigh
- (b) Right shoulder and right thigh
- (c) Left hoof and left knee
- (d) Right hoof and right knee

10. What does the branding on the left thigh of an army horse represent?

- (a) Place of birth
- (b) Father's name
- (c) Breed type
- (d) Age

Short Answer Questions

1. What are the two main types of branding used for horse identification?
2. Where are army horses typically branded, and what information is included in each location?
3. What is a "star" marking on a horse?
4. How does a "sock" leg marking differ from a "stocking"?
5. Name any two characteristics used to identify a horse.

Long Answer Questions

1. Explain the different facial markings found on horses and how they help in individual identification.
2. Describe the various leg markings used to identify horses, including the height and location of each marking.



3. Discuss how microchipping and branding contribute to the permanent identification of horses.
4. Describe the branding practices used in the army for horses, including the type of branding and the significance of each mark.
5. Why is accurate identification of horses important, and how do owners, vets, and trainers ensure this?

ANIMAL MANAGEMENT (JD/JW)

CHAPTER V: ROUTINE EQUINE MANAGEMENT



TEACHING INSTRUCTIONS

Code	:	AM- 05
Period	:	02 (1+1) Two
Type	:	Lecture and Demo
Year	:	1st Year JD/ JW
Conducting Officer	:	PI Staff
Training Aids	:	Black board and chalk.

Time Plan

➤	Introduction	:	05 Mins
➤	Part I: Watering and feeding	:	20 Mins
➤	Part II: Grooming	:	10 Mins
➤	Conclusion	:	05 Mins



INTRODUCTION

1. Watering, feeding and grooming to keep a horse in good health, obtain the best appearance, find hidden injuries and develop better understanding between man and animal. This is an important aspect of animal management to ensure fitness of the horses.

PREVIEW

The lecture will be conducted in following parts:-

- Part I: Watering and Feeding
- Part II: Grooming

LEARNING OBJECTIVES

- To acquaint the cadets with advantages of watering, feeding and grooming to keep a horse in good health, obtain the best appearance, find hidden injuries and develop an understanding between man and animal.

PART I: WATERING AND FEEDING

2. Golden rules of Feeding and Watering.

- (a) Feed a fibre-based diet and only supplement it with hard feed if absolutely necessary.
- (b) Always offer water before feeding.
- (c) Feed at the same time every day.
- (d) Make any changes to the horses' diet or routine gradually.
- (e) Always feed good quality, clean food.
- (f) Feed according to type, temperament and amount of work being done by the horse.
- (g) Always leave at least an hour between feeding and riding.
- (h) Feed little and often, subdividing the ration into several smaller feeds throughout the day.
- (j) Feed chaff mixed with the hard food so that the horse has to chew every mouthful.
- (k) Feed something succulent.

FEEDING MANAGEMENT

- Quality feeds
- Balanced rations
- Most of the ration – Hay
- Free choice to Salt
- Monitor Teeth regularly
- Regular Exercise
- Feed as Individuals



Watering

3. Horses drink approximately 25 to 55 litres of water per day depending on the weather, their diet and the level of work they are doing. Water is essential to maintain a horses' health and it is vital that horses should have access to fresh clean water at all times, in the stable and the field.

Water in the Stable

4. Water buckets in the stable should be made from plastic, rubber or polythene. The water should be changed frequently and the buckets kept clean. Where possible, the water buckets should be placed in the corner of the stable to prevent them being knocked over. Automatic drinking bowls are a good alternative to water buckets, although they can cause problems because some horses do not take to them and it is difficult to tell how much has been drunk. Buckets and automatic watering devices must be kept clean so that the water remains fresh.

Feeding

5. The following are the various types of feeds of horses: -



Barley



Gram



Bran



Hay

6. Other Feeds.

(a) Oats. They are the best grain for horses, though maize and wheat can be useful substitutes/additives as part of the ration depending on cost effectiveness. Both maize and wheat are less palatable as compared to oats.



(b) **Green Forage.** Green forage, such as grass, oats, lucerne, berseem or maize, assists a horses' digestion and keeps his body coat in good order.

(c) **Oil Supplements.** Adding oil to the horses' diet is a way of giving more energy without increasing the bulk of feed. The horse readily utilizes all kinds of oil; however, they may differ in palatability. Amount of oil that can be fed in the diet is up to 10% maximum of the total weight of the grain.

7. **Standard Daily Scale of Rations in Indian Army.**

<u>S No</u>	<u>Animals</u>	<u>Gram Crushed in Kgs</u>	<u>Barley Crushed in Kgs</u>	<u>Bran inKgs</u>	<u>Salt in Kgs</u>	<u>Fodder/ Hay in Kgs</u>	<u>Hay for Bedding In Kgs</u>
(a)	Rides, CI A	1.360	2.040	1.130	0.030	9.070	1.360
(b)	Rides, CI B	1.360	1.810	0.910	0.030	8.160	1.360
(c)	Mules Mountain Artillery	1.130	1.360	-	0.020	9.070	-
(d)	Mules General Service, Ponies	-	2.490	-	0.020	7.260	-

PART II: GROOMING

8. A horse in work must be groomed regularly to keep the pores of the skin open and free from scurf and dirt. Every horse should be groomed at least once a day. Without proper grooming the sweat glands cannot act efficiently, the horse's skin will become unhealthy and germs which can cause disease are likely to collect. Thorough grooming once a day will keep a horse in health, but to obtain the best appearance a horse should be groomed twice a day. Hidden injuries are discovered while grooming and it develops better understanding between man and animal.



9. A horse should be groomed systematically, the objective being to clean the horse both thoroughly and quickly. Hard boots should always be worn and spurs should always be removed.

10. The grooming equipment includes: -

(a) Dandy brush, for removing dry mud or dry sweat.



(b) Body brush, for cleaning the horse



(c) Hoof Pick



(d) Cloth sponge, for cleaning the horse's eyes, lips, nostrils and dock.



(e) Curry comb, for cleaning the body brush



11. **Grooming Parade.** Schedule of grooming is as under.

S No	Activity	Duration
(a)	Brush massage	20 min
(b)	Hand massage	10 Min
(c)	Hoof Cleaning	05 Min
(d)	Nose, Eyes, Ear and Dock cleaning with duster	05 Min
(e)	Wiping and Patting the horse	05 Min
(f)	Cleaning the mane and tail	05 Min
(g)	Inspection	06 Min
(h)	Total	56 Min

CONCLUSION

12. Watering, Feeding and Grooming are essential and basic aspects of horse management and ensuring that these drills are followed in letter and spirit is paramount to ensure fitness of the horses to keep a horse in good health, obtain the best appearance, improve their performance.



ASSESSMENT EXERCISE

- 1. Which of the following is NOT a golden rule of feeding and watering?**
 - (a) Feed a fibre-based diet
 - (b) Always offer water before feeding
 - (c) Feed immediately before riding
 - (d) Feed little and often

- 2. How much water does a horse typically drink per day?**
 - (a) 10–20 litres
 - (b) 25–55 litres
 - (c) 60–80 litres
 - (d) 5–10 litres

- 3. What material should water buckets in the stable be made of?**
 - (a) Metal
 - (b) Plastic, rubber, or polythene
 - (c) Glass
 - (d) Wood

- 4. What is one disadvantage of automatic drinking bowls?**
 - (a) They are too expensive
 - (b) Some horses do not take to them
 - (c) They are difficult to clean
 - (d) They cannot hold enough water

- 5. What is the first guiding rule of feeding?**
 - (a) Feed in small quantities and often
 - (b) Feed after and not before watering
 - (c) Do not work horses immediately after feeding
 - (d) Feed at the same time every day

- 6. Why should horses be fed at the same time every day?**
 - (a) To prevent them from overeating
 - (b) To avoid disturbing and injuring other horses
 - (c) To reduce their workload
 - (d) To increase their appetite

- 7. How many times a day should a horse be fed at a minimum?**
 - (a) Two times
 - (b) Three times
 - (c) Four times
 - (d) Five times



- 8. What is the ideal proportion of grain to hay for horses doing hard work?**
- (a) More hay than grain
 - (b) Equal amounts of hay and grain
 - (c) More grain than hay
 - (d) No hay, only grain
- 9. What is the purpose of adding oil supplements to a horse's diet?**
- (a) To improve digestion
 - (b) To provide more energy without increasing bulk
 - (c) To reduce the horse's appetite
 - (d) To make the horse's coat shinier
- 10. What is the daily fodder/hay requirement for a Class A ride in the Indian Army?**
- (a) 7.260 kg
 - (b) 8.160 kg
 - (c) 9.070 kg
 - (d) 10.000 kg
- 11. Why is grooming important for a horse?**
- (a) To make the horse look attractive
 - (b) To keep the pores of the skin open and free from dirt
 - (c) To reduce the horse's workload
 - (d) To increase the horse's appetite
- 12. How often should a horse be groomed for the best appearance?**
- (a) Once a day
 - (b) Twice a day
 - (c) Once a week
 - (d) Twice a week
- 13. What is the purpose of a dandy brush?**
- (a) For cleaning the horse's eyes and nostrils
 - (b) For removing dry mud or sweat
 - (c) For cleaning the body brush
 - (d) For cleaning the horse's hooves
- 14. How long should a brush massage last during a grooming parade?**
- (a) 10 minutes
 - (b) 15 minutes
 - (c) 20 minutes
 - (d) 25 minutes



15. What is the total time required for a grooming parade?

- (a) 45 minutes
- (b) 50 minutes
- (c) 56 minutes
- (d) 60 minutes

Short Answer Questions

1. What is the ideal time gap between feeding a horse and riding it?
2. How much water does a horse typically drink per day?
3. What are the three main guiding rules of feeding horses?
4. Name any two grooming tools and their primary use.
5. What is the daily fodder/hay allowance for a Class A riding horse in the Indian Army?

Long Answer Questions

1. List and explain the golden rules of feeding and watering horses. Why are these rules important?
2. Describe the standard daily ration of different categories of animals used in the Indian Army and explain the differences in feeding requirements.
3. Discuss the importance of regular grooming in horse management, including how it affects the health and appearance of a horse.
4. Explain the systematic process of grooming, listing the tools used and their functions.
5. What is the significance of a grooming parade, and how is time distributed across its different components?

EQUITATION AND EQUESTRIAN SPORTS

CHAPTER INDEX: EQUITATION AND EQUESTRIAN SPORTS (JD/JW)

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EQUITATION AND EQUESTRIAN SPORTS (JD/JW)

CHAPTER I: HANDLING OF DISMOUNTED HORSE



TEACHING INSTRUCTIONS

Code	:	EQTN- 01
Period	:	03 (1+2) Three
Type	:	Lecture and Demo
Year	:	1st Year JD/JW
Conducting Officer	:	PI Staff
Training Aids	:	Black board and chalk.

Time-plan

➤	Introduction	:	05 Mins
➤	Handling of Dismounted Horse	:	30 Mins
➤	Conclusion	:	05 Mins

INTRODUCTION

1. Handling a horse requires knowledge, patience, and confidence to ensure the safety of both the handler and the animal. Horses are sensitive and intelligent creatures that respond to human behavior, making calm and consistent handling essential. Understanding equine behavior, body language, and proper techniques is crucial for tasks such as grooming, leading, tying, and medical care. Good handling builds trust between horse and handler, reduces stress, and prevents accidents. Whether for daily care or specialized training, learning the basics of horse handling is a fundamental skill for anyone involved in equine management or welfare.

PREVIEW

The lecture will be conducted in following parts:-

- Part I: Handling the dismounted horse

LEARNING OBJECTIVES

- To acquaint the cadets about handling the dismounted horse.
- Lead rope length
- Calm and confident demeanor
- Always lead from the left
- Avoid over-tension

PART I: HANDLING THE DISMOUNTED HORSE

2. **Stand attention with Your Horse.** The rider stands at attention as for foot drill, on the near side of the horse, his toes in line with the horse's fore feet. The left cheek rein is held in the **Right Hand** near the ring, back of the hand to the right; hand as high as the shoulder, arm at full extent. If the cheek reins have been taken over the horse's head, the end will be held in the **Left Hand**, which will hang down by the side without constraint. This is the position of "attention with your horse".



3. **Stand at Ease.** The **Right Hand** slides down the reins to the full extent of the arm, the end of the cheek reins being retained in the **Left Hand**. The position of the rider's legs and feet is the same as in foot drill.



4. **In Front of your Horses.** Rider takes a full pace forward with the right foot, turns to the right-about and take one rein in each hand near the ring, still holding the horse's head. Hands and elbows to be as high as the shoulders. This is the position in which a rider should stand when showing a horse for inspection.



5. **Off side stand to your Horse.** Rider takes a full pace forward with the left foot to the horse's off side, turning right-about, the **Left Hand** holding the right rein near the ring back of the hand to the left, hand as high as the shoulder, the **Right Hand** taking hold of the ends of the reins and hanging down by the side without constraint.



CONCLUSION

6. Properly leading and handling a dismounted horse is a fundamental skill that plays a crucial role in ensuring both rider and horse safety. By using calm, confident techniques and understanding horse behavior, handlers can build a strong bond with their horses. Effective ground control is essential for the horse's training and well-being, promoting a positive and safe environment for both horse and handler. The skills learned in leading can have far-reaching effects on a horse's performance, trust.



ASSESSMENT EXERCISE

- 1. What is the primary reason for learning horse handling techniques?**
 - (a) To increase horse speed
 - (b) To ensure safety and build trust
 - (c) To improve feeding habits
 - (d) To reduce grooming time

- 2. In the “attention with your horse” position, where does the rider stand?**
 - (a) Behind the horse
 - (b) On the off side
 - (c) On the near side, toes in line with forefeet
 - (d) Directly in front of the horse

- 3. How is the left cheek rein held during “attention with your horse”?**
 - (a) In the left hand at waist level
 - (b) In the right hand near the ring
 - (c) Loosely in both hands
 - (d) In the left hand near the ring

- 4. What is the position of the rider’s arm in “attention with your horse”?**
 - (a) Bent at the elbow
 - (b) Hanging loosely
 - (c) At full extent
 - (d) Crossed over chest

- 5. What action defines “stand at ease” with your horse?**
 - (a) Dropping the reins
 - (b) Sliding the right hand down the reins
 - (c) Crossing the reins
 - (d) Stepping away from the horse

- 6. What remains unchanged in “stand at ease” compared to foot drill?**
 - (a) Hand position
 - (b) Leg and foot position
 - (c) Rein tension
 - (d) Arm movement

- 7. What does the rider do to stand in front of the horse for inspection?**
 - (a) Turn left-about
 - (b) Step back and hold reins
 - (c) Take a full pace forward with right foot, turn right-about
 - (d) Cross reins and stand still



- 8. How should the reins be held when standing in front of the horse?**
- (a) One rein in each hand near the ring
 - (b) Both reins in left hand
 - (c) Loosely in both hands
 - (d) Crossed over the chest
- 9. What is the first step to move to the off side of the horse?**
- (a) Turn left-about
 - (b) Take a full pace forward with left foot
 - (c) Drop the reins
 - (d) Step back and turn
- 10. In the “off side stand to your horse” position, how is the right hand placed?**
- (a) Holding reins tightly
 - (b) Crossed over chest
 - (c) Hanging down by the side without constraint
 - (d) Holding reins near the ring

Short Answer Questions

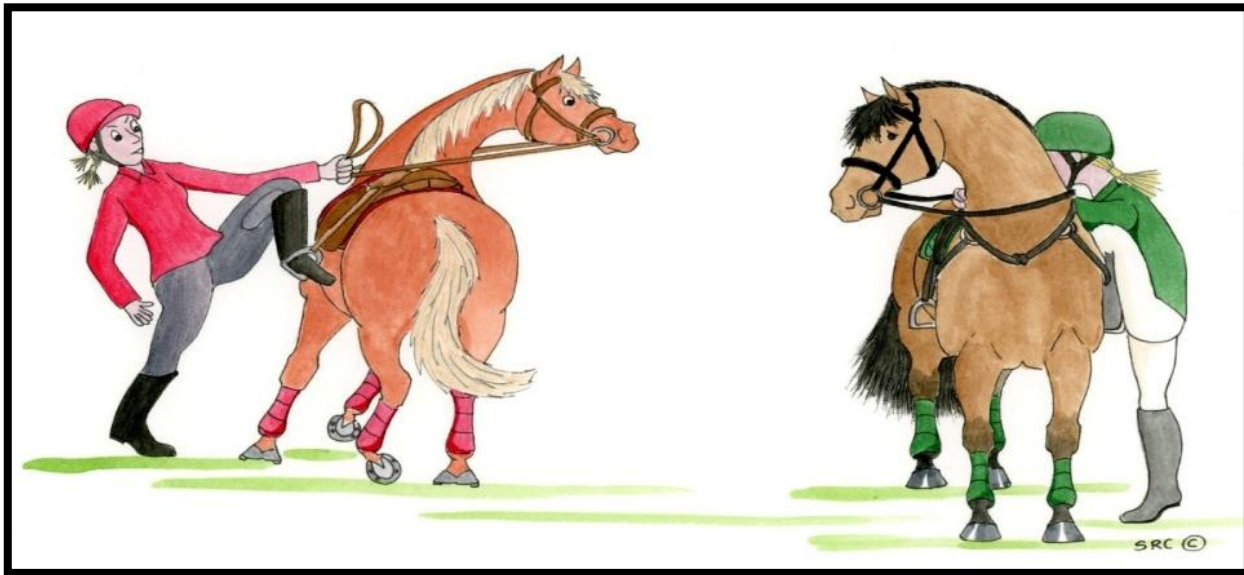
1. What is the purpose of proper horse handling?
2. In the "Attention with your horse" position, which hand holds the left cheek rein?
3. What does the "In front of your horse" position signify, and when is it used?
4. Describe the basic stance of the rider's feet and legs during "Stand at Ease."
5. What is meant by "Off side stand to your horse"?

Long Answer Questions

1. Explain the importance of proper horse handling and how it affects the relationship between horse and handler.
2. Describe the "Attention with your horse" position in detail, including hand and body placement.
3. What are the differences between the "Stand at Ease" and "In Front of your Horses" positions?
4. Discuss the theoretical and practical components of training cadets in handling dismounted horses.
5. Outline the key skills and knowledge required for safe and effective horse handling in various scenarios like grooming, medical care, and leading

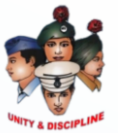
EQUITATION AND EQUESTRIAN SPORTS (JD/JW)

CHAPTER II: MOUNTED DRILL



TEACHING INSTRUCTIONS

Code	:	EQTN- 02
Period	:	03 (1+2) Three
Type	:	Lecture and Demo
Year	:	1st Year JD/JW
Conducting Officer	:	PI Staff
Training Aids	:	Black board and chalk.
Time-plan		
➤ Introduction	:	05 Mins
➤ Mounted drill	:	30 Mins
➤ Conclusion	:	05 Mins



INTRODUCTION

1. Knowledge of mounted and dismounted drill introduces the novice riders to basic riding

PREVIEW

The lecture will be conducted in following parts:-

- Part I: Mounted Drill

LEARNING OBJECTIVES

- To acquaint the cadets about mounted drill while on horse's back

PART I: MOUNTED DRILL

Mounted - With the Horse

2. Attention (reins in both hands) The seat should be in the centre of the saddle. The positions of the head, neck and body are the same as when dismounted. The arms should hang easily from the shoulders, upper arm perpendicular and lightly touching the sides. Hands slightly below the level of the elbows about four inches apart, wrists slightly bent, back of the hands outwards and slightly turned up, thumbs pointing obliquely across each other. Flat of the thighs and inside of the knees lightly pressed against the saddle, legs from the knees downwards slightly behind the perpendicular, toes at a natural angle, heels forced downwards and pressure of the stirrup iron on the sole of the boot.



3. The horse should be attention as well as the rider, that is, "collected".
4. On the command "sit-at-ease", the reins should be relaxed by dropping the left and on the front Arch of the saddle .the **Right Hand** should rest on the left, back upper-most.



RULES

- Safety First
- Proper Mounting/Dismounting
- Clear Instructions
- Respect Personal Space
- Horse Positioning.

CONCLUSION

5. Mounted drills are crucial for both horse and rider development. They enhance the rider's balance, control, and communication skills while improving the horse's obedience and response to commands. These drills not only ensure safety and discipline but also create a deeper bond between the horse and rider, leading to more efficient and enjoyable riding experiences. Regular practice of these drills is essential for the growth and success of any equestrian athlete.



ASSESSMENT EXERCISE

1. **What is the correct position of the rider's seat when mounted with the horse at attention?**
 - (a) Slightly forward on the saddle
 - (b) Centred in the saddle
 - (c) Leaning back in the saddle
 - (d) Off-centre to the left

2. **How should the rider's hands be positioned during attention?**
 - (a) Above shoulder level, palms facing down
 - (b) Close together with wrists straight
 - (c) Slightly below elbows, about four inches apart
 - (d) Resting on the thighs with fingers curled

3. **What describes the correct leg position from the knees downwards?**
 - (a) Perpendicular to the ground
 - (b) Slightly behind the perpendicular
 - (c) Bent forward at the ankle
 - (d) Hanging loosely without contact

4. **What does the term "collected" refer to in this context?**
 - (a) Rider's posture only
 - (b) Horse's gait only
 - (c) Both horse and rider being attentive
 - (d) Rider dismounting carefully

5. **On the command "sit-at-ease," what should the rider do with the reins and hands?**
 - (a) Tighten reins and raise both hands
 - (b) Drop the left rein and rest right hand on left
 - (c) Hold reins in both hands and lean forward
 - (d) Cross arms over chest and relax

Short Answer Questions

1. Where should the rider's seat be positioned when mounted?
2. How far apart should the rider's hands be when at attention?
3. What part of the saddle should the left hand rest on during "sit-at-ease"?
4. What is the proper position of the rider's heels in the attention position?
5. What does it mean when the horse is described as "collected"?

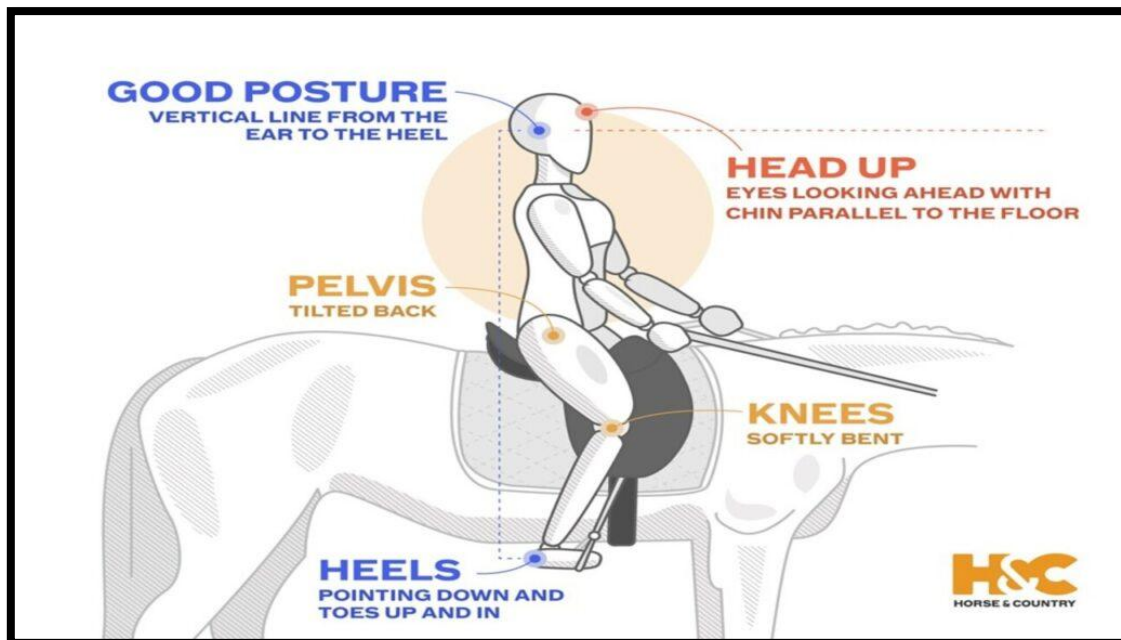


Long Answer Questions

1. Describe the correct body posture and hand position of a rider in the "Attention (reins in both hands)" mounted position.
2. Explain how both horse and rider should appear when at "Attention" and why this alignment is important.
3. Detail the transition from the mounted "Attention" position to the "Sit-at-ease" position, including hand and rein movement.
4. Discuss the importance of proper leg and stirrup positioning in maintaining balance and control while mounted.
5. Compare the purpose and posture differences between the dismounted attention position and mounted attention position.

EQUITATION AND EQUESTRIAN SPORTS (JD/JW)

CHAPTER III: BASIC SEAT & POSTURES



TEACHING INSTRUCTIONS

Code	:	EQTN- 03
Period	:	03 (1+2) Three
Type	:	Lecture and Demo
Year	:	1st Year JD/JW
Conducting Officer	:	Officer/ PI Staff
Training Aids	:	Black board and chalk.
Time Plan		
➤ Introduction	:	05 Mins
➤ Basic seat & posture	:	30 Mins
➤ Conclusion	:	05 Mins



INTRODUCTION

1. Knowledge of basic seat and posture helps cadet grasp the instruction of the training and apply the aids to horses. If they understand the methods before advanced training, it helps in solid initial basic training.

PREVIEW

The lecture will be conducted in one part as under:-

- Part I: Basic Seat and Postures

LEARNING OBJECTIVES

To acquaint the cadets with basic Seat and Postures while on the Horses' back.

PART I: SEAT AND BASIC POSTURES

2. The principal natural aids are the seat, the hands, and the legs. The rider's voice and eyes are also considered natural aids.

The Seat

3. The term Seat is used to refer to the distribution of the rider's weight on the buttocks and ischia, the seat bones. The seat has following influences on the horse's balance: -

4. The term seat is used to refer to the distribution of the rider's weight on the buttocks and ischia, the seat bones. The seat has following influences on the horse's balance:-

- (a) Leaning forward causes the horse to increase speed.
- (b) Leaning backwards causes the horse to slow down.
- (c) Increasing weight on the seat bone and stirrup iron on one side causes the horse to bear in that direction

RULES

- Neutral Spine
- Shoulders Back
- Elbows Soft
- Heels Down
- Light Contact with the Horse

The Hands

5. The hands act, resist, and yield through the reins to regulate horse's forward motion. The hands act to slow the speed, change the gaits downward, modify the horse's balance



and give direction. They should always act without pulling. Following are the ways hands act:-

- (a) By squeezing the fingers on the reins.
- (b) By turning the wrists, fingernails up to increase the tension.
- (c) By raising the wrist 2 to 3 inches, to increase the tension. Tension can be increased still further by leaning the upper body backwards.

6. The hands yield to reward obedience as soon as the horse has obeyed, without losing contact with the horse's mouth. Following actions are the progressive steps to reward obedience:-

- (a) By lowering the wrists.
- (b) By moving the wrists forward.
- (c) By opening the fingers.

The Legs

7. The legs act, resist, and yield to produce and maintain the horse's forward motion – to change the gait (upwards) and increase the speed. They are also used to position the horse's hindquarters and engage his hind legs (cause him to bring his hind legs forward and directly under his body). They create and sustain impulsion, which is both the horse's attentiveness and the actual will or energy that makes him respond to the rider's commands. The legs act together at the girth, 4 to 6 inches behind – to drive the horse forward. The legs act individually behind the girth up to 8 to 10 inches behind while doing advanced movements to make the horse move his hindquarters. The following actions are the progressive steps to obtain obedience:

- (a) By squeezing and releasing the calves continuously.
- (b) By squeezing and releasing the heels.
- (c) By kicking with the heels.

8. The legs resist preventing or opposing a lateral displacement of the horse's haunches in the following way:

- (a) By maintaining pressure with the calves or the heels.
- (b) By kicking (only if necessary).

9. The legs yield to reward obedience in the following way:-

- (a) By ceasing to act or resist.
- (b) By lightening their pressure.



10. Legs should always stay in light contact with the horse's barrel, so that they are ready to act without startling the horse by a sudden movement. When training a horse, or riding an ill-trained horse, legs will have to act strongly to obtain obedience. As the horse progresses in training, he will become more sensitive to the aids and leg action can be gentler.

The Voice

11. The rider's voice is an indispensable aid while teaching a young horse. The tone of voice creates confidence and respect as under:-

- (a) A quiet voice calms the horse.
- (b) A loud voice upsets the horse.

12. Words remind the horse what to do and it is most important not to confuse him. There must be a specific word to use all the time for each command. Words as 'walk', 'trot', 'canter' are used in the training of the horse and later the voice commands are replaced with leg and hand actions. Use of word commands when the horse is trained, conveys lack of security and confidence by the rider and therefore should be dispensed with.

The Eyes

13. The rider's eyes, attentive to the direction, initiate the use of the appropriate aids. A rider must always look in the direction in which the horse is to go. While jumping it is imperative the rider looks up and away 'as looking down imbalances both the horse and rider.

The Artificial Aids

14. Artificial aids come in handy to reinforce the natural aids. The whip, the spurs, and the longer whip are artificial aids.

Accord of the Aids

15. The accord of the aids is the harmonious co-ordination of all the natural aids. Together, the seat, hands, and legs act, resist and yield to create regulate and facilitate the correct execution of the different movements demanded by the rider.

- (a) The seat sets the rhythm of the gaits.
- (b) The hands control the horse's forehand, i.e. **Left Leg** controls the horse's left foreleg, and **Right Hand** controls the horse's right hind leg.
- (c) The legs create the impulsion and hands regulate it.



CONCLUSION

16. In horse riding, developing rider balance and promoting effective communication are key to building a strong connection with the horse. Ensuring comfort allows the rider to stay relaxed and focused, enhancing control and fluidity. These elements together foster confidence, enabling riders to approach new challenges with assurance. As confidence grows, so does the ability to master advanced riding skills. This foundation not only improves technique but also deepens the bond between horse and rider, creating a more harmonious and rewarding experience. With these essentials in place, riders are well-equipped to progress in their equestrian journey.



ASSESSMENT EXERCISE

- 1. What does the term "seat" refer to in horseback riding?**
 - (a) Rider's posture and arm position
 - (b) Distribution of weight on thighs
 - (c) Distribution of weight on buttocks and ischia
 - (d) Position of the stirrup irons

- 2. What effect does leaning forward in the saddle have on the horse?**
 - (a) Slows the horse down
 - (b) Causes the horse to turn
 - (c) Increases the horse's speed
 - (d) Improves balance

- 3. How do the hands act to regulate the horse's motion?**
 - (a) By pulling the reins sharply
 - (b) By squeezing fingers, turning wrists, or raising wrists
 - (c) By dropping the reins and leaning forward
 - (d) By tapping the reins lightly

- 4. What is the correct way for the hands to yield to reward obedience?**
 - (a) By pulling the reins harder
 - (b) By opening the fingers and dropping contact
 - (c) By lowering or moving wrists forward and opening fingers
 - (d) By raising the reins and leaning back

- 5. What is the primary role of the legs in riding?**
 - (a) To steer the horse's forehand
 - (b) To create and sustain impulsion
 - (c) To slow the horse down
 - (d) To support the rider's posture

- 6. How do legs act individually during advanced movements?**
 - (a) At the girth
 - (b) 2 to 4 inches behind the girth
 - (c) 8 to 10 inches behind the girth
 - (d) Directly under the saddle

- 7. How do legs resist lateral displacement of the horse's haunches?**
 - (a) By kicking continuously
 - (b) By maintaining pressure with calves or heels
 - (c) By relaxing completely
 - (d) By shifting weight forward



- 8. What tone of voice calms a horse during training?**
- (a) Loud and firm
 - (b) High-pitched
 - (c) Quiet and steady
 - (d) Sharp and commanding
- 9. Why should voice commands be phased out after training?**
- (a) They confuse the horse
 - (b) They are ineffective
 - (c) They show lack of rider confidence
 - (d) They are too loud
- 10. What does “accord of the aids” refer to?**
- (a) Using artificial aids only
 - (b) Coordinating seat, hands, and legs harmoniously
 - (c) Replacing natural aids with voice
 - (d) Using reins and stirrups together

Short Answer Questions

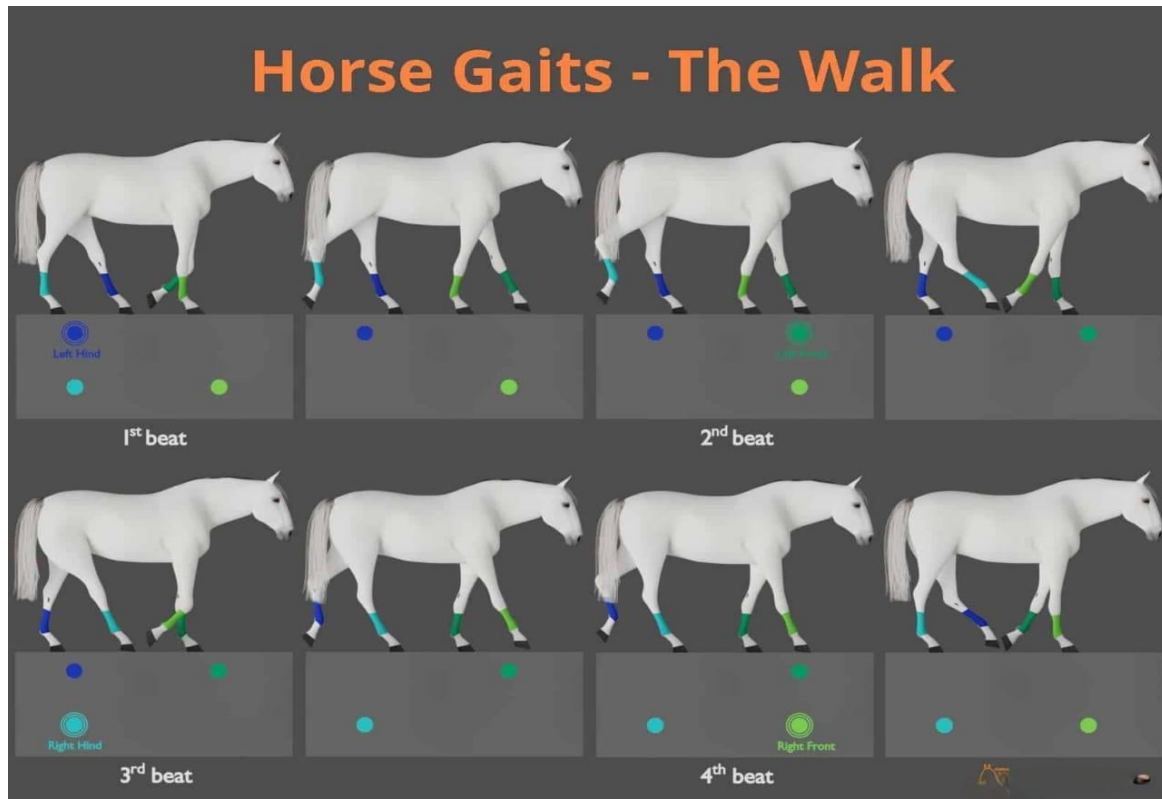
1. What happens when a rider leans backward in the saddle?
2. Name any two progressive steps the hands use to reward obedience.
3. How should the rider’s legs be positioned when not actively giving an aid?
4. What effect does a loud voice have on a horse during training?
5. What are the three artificial aids used to reinforce the rider’s commands?

Long Answer Questions

1. Explain how the seat influences the horse's balance and direction. Include how shifting weight can affect the horse’s movement.
2. Describe how hands act, resist, and yield through the reins, including how tension is applied and released.
3. Discuss the functions of the rider’s legs in producing forward motion, resisting unwanted movement, and rewarding obedience.
4. Explain the role of voice and eyes in horse training. Why should voice aids eventually be replaced?
5. Define "accord of the aids" and explain how the seat, hands, and legs must work together to communicate effectively with the horse.

EQUITATION AND EQUESTRIAN SPORTS (SD/SW)

CHAPTER IV: THE WALK



TEACHING INSTRUCTIONS

Code	:	EQTN- 04
Period	:	03 (1+2) Three
Type	:	Lecture and Demo
Year	:	2nd Year JD/ JW
Conducting Officer	:	PI Staff
Training Aids	:	Black board and chalk.
Time Plan		
➤ Introduction	:	05 Mins
➤ Walk: Introduction to Walk & Its Aids	:	30 Mins
➤ Conclusion	:	05 Mins



INTRODUCTION

1. Introduction to walk and its aids helps the trainee riders to understand pace of the horses as well as the application of word of command given by the instructor during the training.

PREVIEW

The lecture will be conducted as follows:-

- Part I: Introduction to walk and its aids

LEARNING OBJECTIVES

To acquaint the cadets with pace of the horses' walk.

PART I: INTRODUCTION TO WALK AND ITS AIDS

2. The Walk is a pace (movement) of four time. All the limbs move one after the other. Four distinct hoof beats are heard for every step as each foot in turn strikes the ground.

3. At the Walk, the horse moves his entire body. His legs move forward by diagonals, one at a time. Rider action in walk are :-

- (a) **Seat.** Relax and swing seat back and forth, one seat bone at a time, following the horse's motion.
- (b) **Legs.** Continuously increase and decrease the pressure of the inner part of the calves, one after the other.
- (c) **Hands.** Move continuously forwards and backward, left and right, following the horse's head.

4. **Effects of Natural Aids in Walk.**

- (a) **Seat.** Moves in unison with the horse and to set the rhythm for the gait.
- (b) **Legs.** Maintain the forward motion.
- (c) **Hands.** Allow the horse's head movements while maintaining contact.

IMPORTANCE OF THE WALK

- Fundamental Gait
- Warm-Up & Cool-Down
- Safety
- Establishes Rhythm
- Promotes Relaxation

OBJECTIVES OF THE WALK

- Develop Rider's Position
- Establish Rhythm and Relaxation
- Teach Control and Aids
- Improve Horse's Flexibility
- Warm-Up and Cool-Down



CONCLUSION

5. The walk is an essential gait in equestrian riding, forming the base for developing a rider's position, communication with the horse, and overall control. It plays a vital role in warming up and cooling down, establishing rhythm and relaxation, and enhancing the rider's balance and confidence. By using the correct aids and maintaining proper posture, riders can effectively guide the horse through the walk, ensuring smooth transitions to other gaits and improving performance. It's an indispensable element in both training and competition, providing the foundation for all other movements.



ASSESSMENT EXERCISE

1. **What characterizes the walk gait in a horse?**
 - (a) Two-time pace with diagonal leg movement
 - (b) Four-time pace with each limb moving in sequence
 - (c) Three-time pace with simultaneous leg movement
 - (d) Four-time pace with paired leg movement

2. **How many distinct hoof beats are heard during each step at the walk?**
 - (a) Two
 - (b) Three
 - (c) Four
 - (d) One

3. **What is the correct rider seat action during the walk?**
 - (a) Keep seat rigid and centered
 - (b) Swing seat side to side continuously
 - (c) Relax and swing seat back and forth, one seat bone at a time
 - (d) Lean forward and tighten the seat

4. **What is the role of the rider's hands during the walk?**
 - (a) Hold reins tightly to control movement
 - (b) Move forward and backward, left and right, following the horse's head
 - (c) Keep hands still to maintain contact
 - (d) Pull reins to slow the horse

5. **What is the effect of the seat as a natural aid during the walk?**
 - (a) To stop the horse
 - (b) To move in unison and set the rhythm
 - (c) To push the horse forward
 - (d) To control the horse's head

Short Answer Questions

1. How many hoof beats are heard during one complete walk cycle?
2. In what sequence do the horse's legs move during the walk?
3. What is the rider's seat action at the walk?
4. How do the rider's legs act during the walk?
5. What is the role of the rider's hands during the walk?

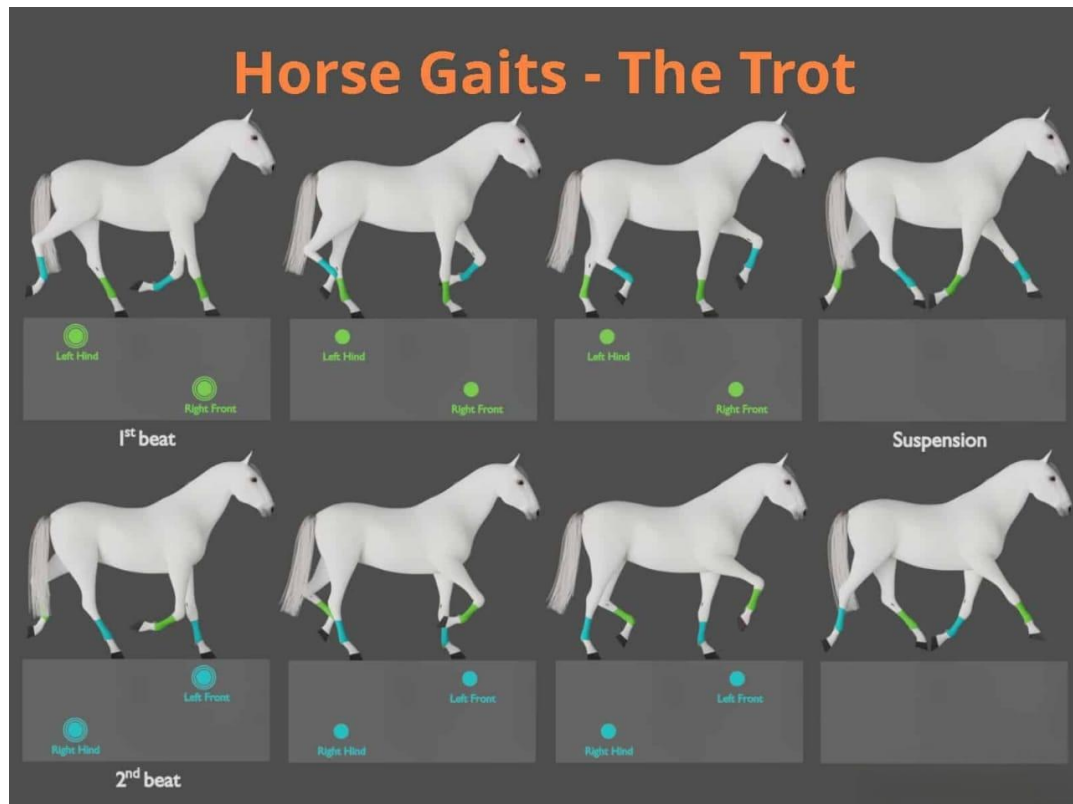


Long Answer Questions

1. Describe the walk gait in horses and explain the sequence of limb movements and sounds produced.
2. Explain the rider's seat, leg, and hand actions during the walk and how these actions complement the horse's natural movement.
3. Discuss the effects of the natural aids (seat, legs, hands) on the horse's movement at the walk.
4. Why is it important for the rider's hands to follow the horse's head movement during the walk?
5. How does the rider's seat contribute to setting the rhythm for the walk gait?

EQUITATION AND EQUESTRIAN SPORTS (JD/JW)

CHAPTER V : TROT



TEACHING INSTRUCTIONS

Code	:	EQTN- 05
Period	:	04 (1+3) Four
Type	:	Lecture and Demo
Year	:	2nd Year JD/ JW
Conducting Officer	:	PI Staff
Training Aids	:	Black board and chalk.
Time Plan		
➤ Introduction	:	05 Mins
➤ Introduction to Trot, its Aids and Movements	:	30 Mins
➤ Conclusion	:	05 Mins



INTRODUCTION

1. Introduction to trot, its aids and rising movements helps the trainee riders to understand pace of the horses as well as the application of word of command given by the instructor during the training.

PREVIEW

The lecture will be conducted as follows:-

➤ Part I: Introduction to Trot, its Aids and Movements.

LEARNING OBJECTIVES

To acquaint the cadets with pace of the horse, introduction to trot, its aids and rising movements

PART I: INTRODUCTION TO TROT, ITS AIDS AND MOVEMENTS

2. The trot is pace of two times. It is a symmetrical diagonal movement wherein both the feet of a diagonal pair of legs strike the ground together with both feet of other i.e., supporting pair of legs in suspension. These diagonal pairs are:-

(a) Right fore-leg (RF) and Left hind (LH) moving together with Left foreleg (LF) and Right hind (RH) bearing weight on ground known as the Right Diagonal.

(b) Left fore-leg (LF) and Right hind (RH) moving together with Right foreleg (RF) and Left hind (LH) bearing weight on ground known as the Left Diagonal.

3. In the trot the rider either 'sits' in the saddle or 'rises' out of the saddle. The rider rises out of the seat and sits on one particular diagonal. Rising in the stirrup makes the movement easier for the rider and the horse.

4. In rising trot, the rider rises up on Right or the Left diagonal pair of legs. When the rider is rising on the Right diagonal, the seat and upper body rise when the horse's Right diagonal pair moves forwards and, in the air, and come down in the saddle when the horse's Right diagonal is on the ground. Similarly rising on the Left diagonal, the seat and upper body rise when the horse's Left diagonal moves forward in the air and come down into the saddle when the horse's Left diagonal moves backwards and on the ground.

5. When the rider rises on the Left diagonal, this diagonal pair works a little harder than the Right Diagonal because when the rider is seated and Left diagonal is on the ground, the horse exerts more effort to lift this diagonal because of his weight. As soon as horse lifts the Left diagonal, then the opposite diagonal i.e., the Right then carries weight. While riding long distances, it is less fatiguing for the horse if the rider keeps changing the diagonals after some distance.



<u>IMPORTANCE OF TROT</u>	<u>AIDS FOR THE TROT</u>
<ul style="list-style-type: none"> ➤ Building Rider Balance ➤ Horse's Strength and Flexibility ➤ Foundation for other Gaits ➤ Enhanced Communication ➤ Comfort and Control 	<ul style="list-style-type: none"> ➤ Leg Aids ➤ Seat Aids ➤ Rein Aids ➤ Voice Aids

6. Use of the Natural aids at the Sitting Trot

- (a) **Seat.** Pushes the two seat bones forward on every step.
- (b) **Legs.** Continuously squeeze and release both calves simultaneously.
- (c) **Hands.** Hands are still and at a fixed distance from the horse's mouth.

<u>FACTS AND HIGHLIGHTS</u>	
➤	<u>Speed</u> 8-12 miles per hour (13-19 km/h).
➤	<u>Types of Trots.</u> Working trot and extended trot
➤	<u>Diagonal Gait.</u> Horse moves its front and opposite hind legs simultaneously.
➤	<u>Rising Trot Comfort.</u> Absorb the horse's motion.
➤	<u>Sitting Trot Challenge.</u> More challenging for beginners

<u>SYNCHRONISING THE RISING MOVEMENT IN TROT</u>	
➤	<u>Rising Trot.</u> The rider rises out of the saddle in time with the horse's diagonal leg movements. As the horses' outside front leg and inside hind leg move forward, the rider rises; when the opposite legs move forward, the rider sits back down.
➤	<u>Timing.</u> Proper synchronization is key. The rising and sitting motions should be smooth and fluid, following the rhythm of the trot, without jerking or bouncing in the saddle.
➤	<u>Core Engagement.</u> The rider needs to use their core muscles to push off slightly when rising and to sit back down without slouching or stiffening.
➤	<u>Without Rising.</u> Sitting trot, or trotting without rising, involves staying seated in the saddle, following the horse's movement. This requires strong core muscles to absorb the motion of the trot, making it more challenging but important for developing balance and control



CONCLUSION

7. The Trot is a vital gait in equestrian riding, serving as both a foundational training tool for rider balance and communication and a means to develop the horse's strength and flexibility. By practicing rising and sitting trot, riders can improve their posture, timing, and coordination, setting the stage for more advanced skills. Understanding and mastering the trot are crucial for any equestrian, as it enhances control, rhythm, and overall performance in both training and competitions.



ASSESSMENT EXERCISE

1. **What type of gait is the Trot?**
 - (a) Four-time pace with lateral movement
 - (b) Two-time symmetrical diagonal movement
 - (c) Three-time pace with alternating legs
 - (d) Two-time lateral movement with suspension

2. **Which legs move together in the Right Diagonal during Trot?**
 - (a) Left foreleg and right hind
 - (b) Right foreleg and left hind
 - (c) Right foreleg and right
 - (d) Left foreleg and left hind

3. **What is the supporting pair of legs during the Right Diagonal movement?**
 - (a) Right foreleg and right hind
 - (b) Left foreleg and left hind
 - (c) Left foreleg and right hind
 - (d) Right foreleg and left hind

4. **What does the rider do during rising Trot?**
 - (a) Stays seated throughout
 - (b) Rises randomly without rhythm
 - (c) Rises and sits in sync with a diagonal pair
 - (d) Leans forward and pulls reins

5. **When rising on the Right diagonal, when does the rider sit back in the saddle?**
 - (a) When the Right diagonal is in the air
 - (b) When the Left diagonal is in the air
 - (c) When the Right diagonal is on the ground
 - (d) When both hind legs are in suspension

6. **What happens when the rider rises on the Left diagonal?**
 - (a) The Right diagonal works harder
 - (b) The Left diagonal works harder
 - (c) Both diagonals work equally
 - (d) The horse slows down

7. **Why is it helpful to change diagonals during long rides?**
 - (a) To confuse the horse
 - (b) To improve rider posture
 - (c) To reduce fatigue for the horse
 - (d) To increase speed

**8. What is the correct seat action during sitting Trot?**

- (a) Swing seat side to side
- (b) Push both seat bones forward on every step
- (c) Keep seat rigid and still
- (d) Lean back and tighten seat

9. How should the rider's legs act during sitting Trot?

- (a) Kick alternately
- (b) Squeeze and release both calves simultaneously
- (c) Keep legs loose and inactive
- (d) Press heels down continuously

10. What is the correct hand position during sitting Trot?

- (a) Move hands forward and backward
- (b) Keep hands still and at fixed distance from horse's mouth
- (c) Pull reins to slow the horse
- (d) Raise hands above shoulder level

Short Answer Questions

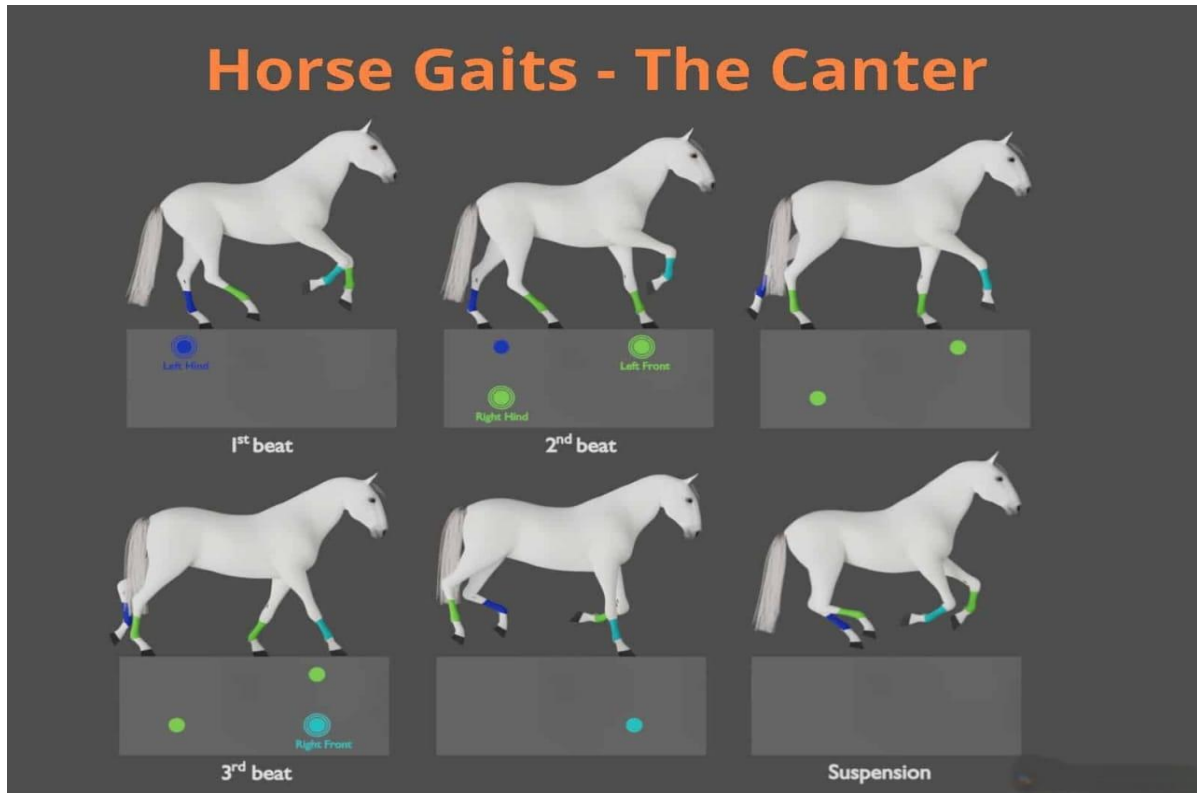
1. What type of gait is the trot in terms of timing?
2. Which pairs of legs move together during the trot?
3. What are the two ways a rider can ride the trot?
4. Why is it beneficial to change diagonals when riding long distances?
5. During the sitting trot, what is the position of the rider's hands?

Long Answer Questions

1. Describe the movement pattern of the trot gait including the role of the diagonal pairs of legs.
2. Explain the difference between rising trot and sitting trot, focusing on the rider's movements and their timing relative to the horse's legs.
3. Discuss why the diagonal on which the rider rises affects the effort exerted by the horse.
4. Describe the natural aids used by the rider during the sitting trot and explain how they influence the horse's movement.
5. Why is rising in the stirrup helpful for both rider and horse during the trot?

EQUITATION AND EQUESTRIAN SPORTS (JD/JW)

CHAPTER VI: THE CANTER



TEACHING INSTRUCTIONS

Code	:	EQTN- 06
Period	:	04 (1+3) Four
Type	:	Lecture and Demo
Year	:	2nd Year JD/ JW
Conducting Officer	:	PI Staff
Training Aids	:	Black board and chalk.

Time Plan

➤	Introduction	:	05 Mins
➤	Canter (Aids Synchronizing with Horse)	:	30 Mins
➤	Conclusion	:	05 Mins



INTRODUCTION

1. Introduction to canter, its aids and synchronizing with horse helps the trainee riders to understand pace of the horses as well as the application of word of command given by the instructor during the training.

PREVIEW

The lecture will be conducted as follows:-

- Part I: Introduction to canter, its aids and synchronizing with the horse

LEARNING OBJECTIVES

To acquaint the cadets with canter, its aids and synchronizing with horse

RULES OF CANTER

The lecture will be conducted in following parts:-

- Correct Lead
- Consistent Rhythm
- Proper Position
- Smooth Transitions
- Balance and Straightness

OBJECTIVES OF CANTERING

- Develop Rider's Balance
- Strengthen Horse's Muscles
- Enhance Control
- Refine Communication
- Smooth Transitions


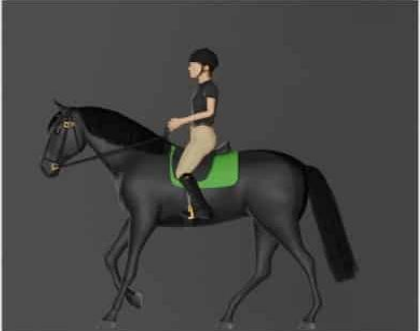

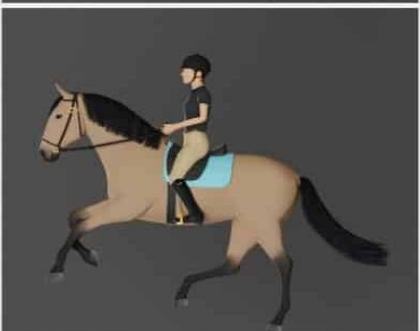
PART I: INTRODUCTION TO CANTER (AIDS, SYNCHRONIZING WITH HORSE)

2. The canter is movement of three times, with a moment of suspension. In canter a horse leads with either of its forelegs. Horse in canter 'initiates' its movement striking off with either of its hinds, followed by the diagonal pair of the other hind and fore, finally the leading leg. For the horse leading by left fore-leg, order of movement of the legs is:-

- (a) RH (strikes off)
- (b) RF/LH (diagonal pair)
- (c) Suspension
- (d) LF (leading leg)

3. The aids described below are for the left lead canter. They should be reversed for the right lead.

- (a) **Seat.** Pushes seat bones forward every stride: the left is slightly more forward than the right.
- (b) **Legs.** The legs should be squeezed and released together: the **Right Leg** should be slightly behind the girth. Left remains on the girth.
- (c) **Hands.** Hands move forwards following the horse's head.

<h2 style="text-align: center; color: orange;">VARIATIONS OF THE CANTER</h2>		
<p style="color: orange; font-weight: bold; margin: 0;">Collected Canter</p> <p style="font-size: small; margin: 0;">Short strides. The horse is on the bit. He is in collection, with engaged hindquarters and light forehand.</p> <p style="font-size: small; margin: 0;">The neck is raised and arched with the head in a vertical position.</p>	<p style="margin: 0;">Speed: 198m/min</p> <p style="margin: 0;">Stride length: 2.0m</p> <p style="margin: 0;">Stride rate: 99 strides/m</p>	
<p style="color: orange; font-weight: bold; margin: 0;">Working Canter</p> <p style="font-size: small; margin: 0;">Medium stride (stride length between the collected and medium trot).</p> <p style="font-size: small; margin: 0;">The horse is on the bit</p> <p style="font-size: small; margin: 0;">This canter used when training the horse for the collected canter, thus the name working canter.</p>	<p style="margin: 0;">Speed: 238m/min</p> <p style="margin: 0;">Stride length: 2.4m</p> <p style="margin: 0;">Stride rate: 99 strides/m</p>	
<p style="color: orange; font-weight: bold; margin: 0;">Medium Canter</p> <p style="font-size: small; margin: 0;">Longer strides, but not as much as in the extended canter.</p> <p style="font-size: small; margin: 0;">The horse moves with impulsion from the hindquarters, at a faster speed but without hurrying.</p>	<p style="margin: 0;">Speed: 293m/min</p> <p style="margin: 0;">Stride length: 2.9m</p> <p style="margin: 0;">Stride rate: 101 strides/m</p>	
<p style="color: orange; font-weight: bold; margin: 0;">Extended Canter</p> <p style="font-size: small; margin: 0;">The strides have the longest length, with the longest moment of suspension due to the great impulsion from the hindquarters.</p> <p style="font-size: small; margin: 0;">The horse lengthens his body covering maximum ground but without rushing the rhythm and remaining balanced.</p>	<p style="margin: 0;">Speed: 368m/min</p> <p style="margin: 0;">Stride length: 3.5m</p> <p style="margin: 0;">Stride rate: 105 strides/m</p>	



4. At the canter, the horse's rocking motion causes the rider's seat to leave the saddle slightly. When rider feels the seat leaving the saddle, he must push it forward, increasing the leg pressure. The hands yield by moving forward when horse's head moves down and returning to their original position when the head comes back up.

CONCLUSION

5. The Canter is a crucial gait in equestrian sports, serving as a bridge between the slower trot and the faster gallop. It helps improve the rider's balance, strength, and coordination while building muscle and flexibility in the horse. Mastering the aids to synchronize with the canter allows the rider to maintain control, direction, and rhythm while strengthening the horse's performance.



ASSESSMENT EXERCISE

- 1. What type of gait is the Canter?**
 - (a) Two-time pace with diagonal movement
 - (b) Three-time pace with a moment of suspension
 - (c) Four-time pace with lateral movement
 - (d) Three-time pace without suspension

- 2. In the Canter, which leg strikes off first for the left lead?**
 - (a) Left hind (LH)
 - (b) Right hind (RH)
 - (c) Left foreleg (LF)
 - (d) Right foreleg (RF)

- 3. In a left lead Canter, which leg moves first?**
 - (a) Left hind
 - (b) Right hind
 - (c) Left fore
 - (d) Right fore

- 4. What is the role of the seat during the left lead Canter?**
 - (a) Pushes both seat bones backward
 - (b) Pushes seat bones forward, with the left slightly more forward
 - (c) Keeps seat rigid and centered
 - (d) Pushes seat bones downward

- 5. How should the rider's legs act during the left lead Canter?**
 - (a) Both legs remain on the girth
 - (b) Right leg slightly behind the girth, left leg on the girth
 - (c) Left leg slightly behind the girth, right leg on the girth
 - (d) Both legs squeeze continuously without release

- 6. What is the correct hand action during the Canter?**
 - (a) Keep hands still and rigid
 - (b) Move hands backward to slow the horse
 - (c) Move hands forward following the horse's head
 - (d) Pull reins tightly to maintain control

- 7. What happens to the rider's seat during the Canter?**
 - (a) It remains firmly in the saddle
 - (b) It leaves the saddle slightly due to the horse's rocking motion
 - (c) It moves side to side with the horse's motion
 - (d) It stays completely still



- 8. What should the rider do when their seat leaves the saddle during the Canter?**
- (a) Lean backward and tighten the reins
 - (b) Push the seat forward and increase leg pressure
 - (c) Relax completely and let the horse guide
 - (d) Pull the reins and stop the horse
- 9. How do the hands yield during the Canter?**
- (a) By pulling the reins upward
 - (b) By moving forward when the horse's head moves down
 - (c) By keeping hands still and rigid
 - (d) By moving backward when the horse's head moves up
- 10. What is the purpose of the moment of suspension in the Canter?**
- (a) To slow the horse down
 - (b) To allow the horse to change leads
 - (c) To create a smooth and balanced gait
 - (d) To increase the horse's speed

Short Answer Questions

1. What type of gait is the canter in terms of timing?
2. Describe the order of leg movements for a horse leading with the left foreleg in canter.
3. Which foreleg leads in the left lead canter?
4. How should the rider's seat move during the canter?
5. How should the rider's hands move in relation to the horse's head at canter?

Long Answer Questions

1. Explain the sequence of hoofbeats in a canter when the horse is on the left lead.
2. Describe the natural aids used by the rider during the left lead canter and their purpose.
3. Discuss how the rider should synchronize their movements with the horse's rocking motion during the canter.
4. Compare the rider's leg positions and actions for the left lead canter versus the right lead canter.
5. Explain why it is important for the rider's hands to follow the horse's head movement during the canter?

SADDLE FITTING

4

CHAPTER INDEX: SADDLE FITTING (JD/JW)

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SADDLE FITTING (SD/SW)

CHAPTER I: TYPES OF SADDLES AND ITS PARTS



TEACHING INSTRUCTIONS

Code	:	SF- 01
Period	:	03 (1+2) (Three)
Type	:	Lecture and Demo
Year	:	1st Year JD/ JW
Conducting Officer	:	PI Staff

Time Plan

➤ Introduction	:	05 Mins
➤ Saddle and its Parts	:	15 Mins
➤ Types of Saddle	:	15 Mins
➤ Conclusion	:	05 Mins



INTRODUCTION

1. Knowledge of types of saddle is very important aspect of training during learning phase of the novices as well as during equestrian events. The animal management depends on proper saddlery, its use as per the various events, for optimum performance of the horse, safety of the rider and also preventing the avoidable injuries to the horse.

PREVIEW

The lecture will be conducted in following parts:-

- Part I: Types of Saddles
- Part II: Saddle and its Parts.

LEARNING OBJECTIVES

- To acquaint the cadets with types of Saddle and its parts.

PART I: TYPES OF SADDLES

2. All personnel dealing with equitation should be able to identify each item of harness and saddlery. They must also know in how many sizes each item is manufactured and the particulars of each size. Unless they know all this, they will not be able to make the best use of the saddlery and may injure the animals by using wrong size or wrong patterns of saddles.

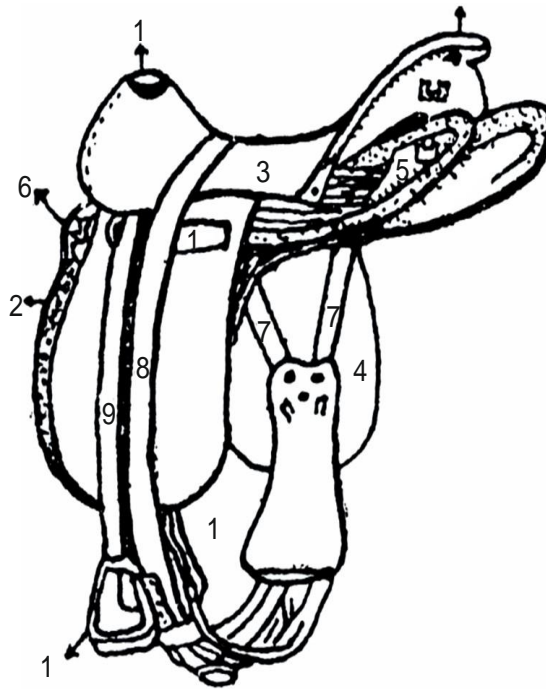
3. The following **four** types of saddles are used in the Army:-

- (a) Casualty Saddle or Hamilton Saddle.
- (b) Saddle Pack General Service (Saddle PGS).
- (c) Saddle Universal (SU)(Riding Saddle).
- (b) Sporting Saddle – Show Jumping / Dressage).

4. **Casualty Saddle (or Hamilton Saddle).** A saddle universal with certain modifications of the super structure is changed into a casualty saddle. Four iron rods are fixed on the arches (two each on the rear and front arches). A horizontal bar joins the front pillars and helps the casualty to hold on for support for the back. The casualty thus can rest on it. Similarly, the front and rear rods of the same side are joined by webbing and this arrangement ensures safety against falling. This saddle is sometimes referred to as '**Hamilton Saddle**' also.

5. **Saddle PGS.** Is used for draught purpose to carry loads in animal transport unit of Indian Army on mules in mountainous terrains

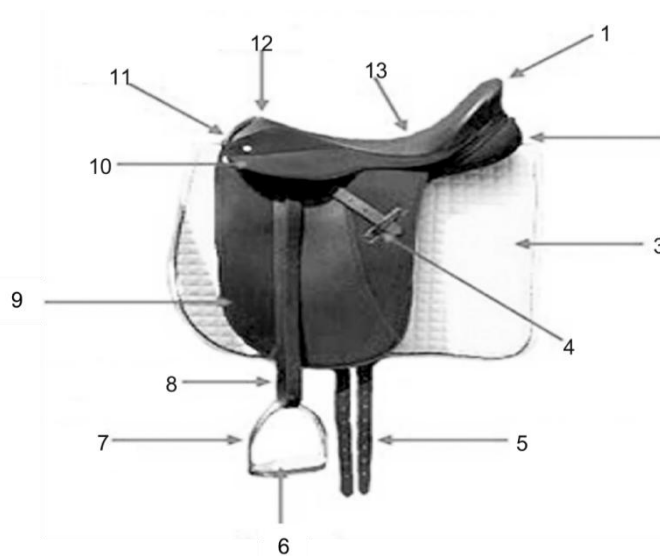
6. **Saddle Universal (SU).**



1- Pommel (Front Arch); 2- Cantle (Rear Arch); 3- Seat; 4- Flap; 5- Fan; 6- Burr; 7- 'V' Attachment; 8- Surcingle; 9- Stirrup Leather; 10- Stirrup Iron; 11- Girth (Cord or Leather); 12- Numnah Panel.

The Saddle Universal – Description & Fittings

7. **Sporting Saddle – Show Jumping / Dressage.**



1- Cantel; 2- Lining; 3- Numnah (Saddle Pad); 4- Loop; 5- Long Billets; 6- Stirrup Pad; 7- Stirrup Fillis Irons; 8- Stirrup Leathers; 9- Flap; 10- Skirt; 11- Gullets; 12- Pommel; 13- Seat.

The Sporting Saddle – Description & Fittings

8. Misc Types of Saddles.



General Purpose Saddle



Dressage Saddle



Jumping Saddle



Hunting Saddle



Kids Saddle



Western Saddle

PART II: PARTS OF SADDLES

9. Parts of Saddle.

(a) Saddle Tree. The front and rear arches are made of steel, the front arch is called pommel and the rear arch is called cantle. Both arches are riveted to the side bars.

(b) The Felt Channels. Side bars are fitted with detachable felt channels which are secured by straps and buckles.

(c) 'V' Girth Attachment. 'V' girth attachment consists of two straps (front and rear) which connect the sweat flap to the side bar, meeting in a 'V' shape on the sweat flap to which they are riveted.

(d) The Seat. It is made of leather and covers the frame of saddle between the front and rear arches which are connected by a string of webbing.

(e) The Flap. It is the covering on the side of the saddle made of leather and, of such a shape as to suit the bend of the rider's leg.

(f) The Stirrup Leather. It is used to hold the stirrup iron.



- (g) **The Stirrup Iron.** These are made of steel. The tread is on the flat portion on which the rider's foot rests.
- (h) **The Girth.** It is 2'- 6" to 3', made of leather or cord.

CONCLUSION

10. There are various types of saddles used, but the basis of their construction is the same. The underlying principle is to avoid any injury to the animal by equal distribution of weight over its back.



ASSESSMENT EXERCISE

1. Why is it important for personnel dealing with equitation to identify each item of saddlery?

- (a) To ensure proper storage of saddlery
- (b) To avoid injuring animals by using incorrect sizes or patterns
- (c) To improve the appearance of the horse
- (d) To reduce the cost of saddlery maintenance

2. Which of the following is NOT a type of saddle used in the Army?

- (a) Saddle Universal (SU)
- (b) Sporting Saddle
- (c) Saddle Pack General Service (PGS)
- (d) Racing Saddle

3. What is the front arch of the Saddle Universal (SU) called?

- (a) Cantle
- (b) Pommel
- (c) Stirrup
- (d) Flap

4. What is the purpose of the felt channels in the Saddle Universal (SU)?

- (a) To provide comfort to the rider
- (b) To secure the saddle to the horse
- (c) To protect the side bars and secure them with straps and buckles
- (d) To hold the stirrup leathers

5. What is the 'V' girth attachment in the Saddle Universal (SU)?

- (a) A strap connecting the stirrup to the saddle
- (b) Two straps connecting the sweat flap to the side bar in a 'V' shape
- (c) A leather covering for the saddle seat
- (d) A steel bar connecting the pommel and cantle

6. What material is the seat of the Saddle Universal (SU) made of?

- (a) Steel
- (b) Felt
- (c) Leather
- (d) Cord

7. What is the purpose of the flap in the Saddle Universal (SU)?

- (a) To hold the stirrup iron
- (b) To cover the side of the saddle and suit the rider's leg bend
- (c) To connect the pommel and cantle
- (d) To secure the girth attachment



- 8. What is the tread of the stirrup iron used for?**
- To secure the saddle to the horse
 - To provide a resting place for the rider's foot
 - To attach the stirrup leather to the saddle
 - To adjust the length of the stirrup
- 9. What is the length of the girth used in the Saddle Universal (SU)?**
- 1'-6" to 2'
 - 2'-6" to 3'
 - 3'-6" to 4'
 - 4'-6" to 5'
- 10. Which type of saddle is specifically used for show jumping or dressage?**
- Saddle Universal (SU)
 - Sporting Saddle
 - Saddle Pack General Service (PGS)
 - Casualty Saddle

Short Answer Questions

- Name the four types of saddles used in the Army.
- What material is used to make the pommel and cantle of the SU saddle?
- What is the function of the felt channels in a Saddle Universal?
- What connects the pommel and cantle under the leather seat in the SU saddle?
- What is the purpose of the flap on a saddle?

Long Answer Questions

- Explain the construction and parts of the Saddle Universal (SU).
- Discuss the role of proper saddlery fitting in preventing injury to horses.
- Describe the design and function of the 'V' girth attachment and how it contributes to the saddle's fit.
- Compare the uses of the four saddle types in the Indian Army.
- Detail the differences between a Saddle Universal and a Sporting Saddle used for show jumping or dressage.

SADDLE (SD/SW)

CHAPTER II: FITTING OF THE SADDLE



TEACHING INSTRUCTIONS

Code	:	SF- 02
Period	:	2 (1+1) Two
Type	:	Lecture and Demo
Year	:	2nd Year JD/ JW
Conducting Officer	:	PI Staff
Training Aids	:	Black board and chalk.
Time Plan		
➤ Introduction	:	05 Mins
➤ Fitting of Saddle	:	30 Mins
➤ Conclusion	:	05 Mins



INTRODUCTION

1. Knowledge of saddle fitting, parts of saddle is very important aspect of training during equestrian events as well as learning phase of the novices. The animal management depends on proper saddlery, its maintenance in preventing the avoidable injuries for ensuring functional efficiency of the horse.

PREVIEW

The lecture will be conducted as follows:-

- Part I: Fitting of Saddle

LEARNING OBJECTIVES

To acquaint the cadets with Fitting of Saddles

PART I: FITTING OF THE SADDLE

2. Fitting of Saddle is one of the most important aspects in learning horse riding thus holding great learning value.

(a) The general condition of the leatherwork throughout should be examined. All straps, reins and other flexible portions of the harness should be capable of being bent over the forefinger at any point without showing signs of cracking. The cracking of leather is proof that it has perished due to lack of grease or soap.

(b) The stitching should be carefully examined to see that no portion is giving way, and care should be taken to see that, portion of the harness which comes in contact with the animals' body is flat, smooth and free from knots;

(c) All metal portions should be sound and in thoroughly good working order.

(d) The places where harness is likely to wear out are the stitching, the places where various straps, traces, etc, are buckled and eyes.

(e) The age of harness and the amount of work that it has done can be fairly well estimated by noticing the amount of wear that has occurred in the metal work at the wearing parts.

3. **Principles of Saddle Fitting.** The following are the principles of saddle fitting: -

(a) The withers must not be pinched or pressed upon.

(b) There must be no pressure on the horse's spine.

(c) The shoulder blades must have free and unimpeded movement.

(d) The weight must not be put on the loins but on the upper part of the ribs through the medium of the muscles covering them.



- (e) The weight must be evenly distributed over a surface
- (f) The saddle should be level on the horse's back neither dipped in front nor in rear.

4. **Points to be Observed while Fitting Saddle**. While putting saddle on a horse following points should be kept in mind:-

- (a) Proper size of saddle.
- (b) Presence of injuries on the back of the Animal.
- (c) Use clean blanket.
- (d) Clean the horse before saddling.
- (e) Girth should be fitted properly.
- (f) Saddle should be soft and well maintained.
- (g) If any nails are sharp metallic edges of the saddle are noticed; the saddle should not be used.

Saddle Blanket

5. **Uses of Saddle Blanket**. The saddle blanket is used to provide a cushion between the saddle and the animal's back and to protect it against injuries by rivets, the hard surface of the leather and the saddle tree. Ordinary towel, felt or any other soft cloth can be used in place of a blanket.

6. **Methods of Folding Blankets**. A saddle blanket is folded in three ways: -

- (a) Normal Fold.
- (b) Channel Fold.
- (c) Envelope Fold.

CONCLUSION

7. The importance of saddle fitting cannot be over emphasised. A slightly bad adjustment will cause a gall on the animal's back and put the latter out of action. Initial saddle fitting must be carried out by the Officer-in-Charge animals and the monthly refitting must be observed as a regular parade. Principles of saddle fitting must be strictly adhered to when fitting saddlery on animals. Use of blanket will be resorted to in emergency only.



ASSESSMENT EXERCISE

- 1. Which part of the horse must not be pinched or pressed upon by the saddle?**
 - (a) Loins
 - (b) Withers
 - (c) Ribs
 - (d) Shoulder blades

- 2. What is the correct location for distributing the rider's weight through the saddle?**
 - (a) Horse's spine
 - (b) Loins
 - (c) Upper ribs via muscles
 - (d) Shoulder blades

- 3. Which of the following is NOT a principle of saddle fitting?**
 - (a) Saddle should be dipped in front
 - (b) No pressure on spine
 - (c) Free movement of shoulder blades
 - (d) Even weight distribution

- 4. Before saddling, what should be checked on the horse's back?**
 - (a) Colour of the coat
 - (b) Presence of injuries
 - (c) Length of tail
 - (d) Hoof condition

- 5. What is the purpose of a saddle blanket?**
 - (a) Decoration
 - (b) Insulation
 - (c) Cushion and protection
 - (d) Identification

- 6. Which of the following is NOT a recommended practice before saddling?**
 - (a) Use clean blanket
 - (b) Clean the horse
 - (c) Ignore sharp edges on saddle
 - (d) Fit girth properly

- 7. Which fold is NOT a method of folding a saddle blanket?**
 - (a) Channel Fold
 - (b) Envelope Fold
 - (c) Spiral Fold
 - (d) Normal Fold



- 8. What should be done if sharp metallic edges are found on the saddle?**
- (a) Use extra blanket
 - (b) Ignore and proceed
 - (c) Use saddle anyway
 - (d) Avoid using the saddle
- 9. Why must the saddle be level on the horse's back?**
- (a) For aesthetic balance
 - (b) To prevent slipping
 - (c) To ensure even weight distribution
 - (d) To reduce saddle cost
- 10. What material can be used in place of a saddle blanket?**
- (a) Plastic sheet
 - (b) Felt or towel
 - (c) Woolen rug
 - (d) Canvas tarp

Short Answer Questions

1. List any three principles of saddle fitting.
2. What part of the horse must remain free of pressure when fitting a saddle?
3. Where should the weight of the saddle ideally be distributed?
4. Mention any three points to be checked before placing a saddle on a horse.
5. Name the three methods of folding a saddle blanket.

Long Answer Questions

1. Explain the principles of saddle fitting in detail.
2. Describe the important points to be observed before placing a saddle on a horse.
3. What are the uses of a saddle blanket, and how does it help the horse?
4. Describe the three methods of folding a saddle blanket and when each might be used.
5. Discuss how poor saddle fitting can affect a horse's performance and comfort.

SADDLE FITTING (SD/SW)

CHAPTER III: HARNESSING THE HORSE



TEACHING INSTRUCTIONS

Code	:	SF- 03
Period	:	2 (1+1) Two
Type	:	Lecture and Demo
Year	:	2nd Year JD/ JW
Conducting Officer	:	PI STAFF
Training Aids	:	Black board and chalk.
Time Plan		
➤ Introduction	:	05 Mins
➤ Harness and its Parts	:	15 Mins
➤ Fitting of Harness	:	15 Mins
➤ Conclusion	:	05 Mins

INTRODUCTION

1. Harnessing a horse is a fundamental practice in equine management that enables the animal to perform a variety of tasks, from pulling carriages and agricultural equipment to participating in competitions and recreational driving. The process involves fitting the horse with specialized equipment — collectively known as a harness — designed to distribute weight, provide control, and ensure the horse's comfort and safety. Proper harnessing requires knowledge of both the horse's anatomy and the purpose of the work to be done, as different types of harnesses are suited to different functions.

PREVIEW

The lecture will be conducted as follows:-

- Part I: Harness and its parts
- Part II: Harness a Horse

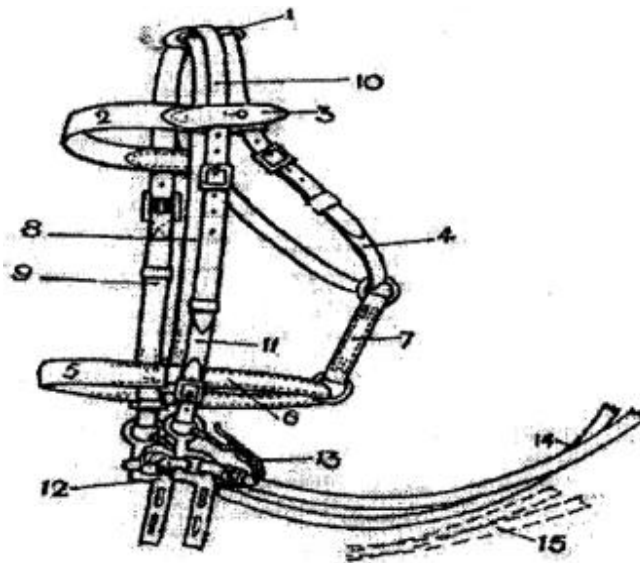
LEARNING OBJECTIVES

To acquaint the cadets with harnessing of the horse

PART I: HARNESS AND ITS PARTS

Head Collar

2. The service head collar as shown in figure below is constructed in such a way that it can be used either as a bridle or as a head collar in the stables and on the picket line. It consists of the following parts:-



- 1- Crown Loop; 2- Brow Band; 3- Brow Band Tap; 4- Throat Lash; 5- Nose Band; 6- Back Stay; 7- Jowl Piece; 8- Cheek Piece; 9- Buckling Piece; 10- Long Piece of Bridle Head; 11- Short Piece of Bridle Head; 12- Bit; 13- Curb Chain; 14- Cheek Rein; 15- Curb Rein.

Head Collar – Description And Fittings



- (a) **Crown Loop.** It is a small piece of leather, consisting of two loops which connect the cheek piece and throat lash at the top of the bridle on the animal's poll.
- (b) **Brow Band.** It consists of a leather strap with two loops at each end, through which both the cheek piece and throat lash pass, and over these loops lie the tabs, which are small leather straps stitched on to the brow band and fastened by a brass stud which is sewn into the loop on the brow band, through which the bridle head passes. The object of the brow band is to prevent the cheek piece and throat lash from slipping backwards. The object of the tab is to hold the bridle head in position.
- (c) **Cheek Piece.** It consists of a strap of leather sewn at one end of the square which connects the noseband and back stay together on the near side. At the other end it is punched with holes for securing to the buckle of the buckling piece.
- (d) **Buckling Piece and the Cheek Piece.** It consists of a strap sewn on at one end to the square which connects the nose band and back stay together, but on the opposite square to that which holds the cheek piece. At the other end of the buckling piece is a buckle to which the cheek piece is fastened. The cheek piece and buckling piece when fastened together, support nose band and back stay in position.
- (e) **Throat Lash.** It consists of a plain leather strap with a buckle at one end and punched with holes at the other end for adjustment. The throat lash secures the bridle on the animal's head.
- (f) **Nose Band and Back Stay.** These are two leather straps connected to each other by two square links. On the backstay runs the lower ring of the jowl piece.
- (g) **Jowl Piece.** It consists of a short piece of double leather with a ring sewn on to each end connecting both the throat lash and back stay.
- (h) **Bridle Head.** It is in two parts:-
- (i) The long piece has a buckle and leather billet at one end for securing to the bit, and punched with holes at the other end for adjusting with the short piece.
 - (ii) The short piece has buckle and leather billet at one end for securing to the bit and at the other end is a buckle for engaging with the long piece.

PART II: HARNESS A HORSE

3. **Instructions for Fitting.** The various parts are to be fitted as below:-
- (a) **Brow Band.** The brow band should be just long enough to allow the cheek piece to pass from the crown down, without rubbing the bones on each side of the temple or cutting the base of the horse's ears.
- (b) **Cheek Piece and Buckling Piece.** The cheek piece and buckling piece should be parallel to and behind the projecting cheekbone.



(c) **Throat Lash.** The throat lash should fit loosely; being only sufficiently tight to prevent the head collar from slipping, over the horse's ears, thus in no way interfering with the breathing or swallowing. A good guide is to allow space equal to breadth of the hand between the throat lash and the horse's cheek. The buckle of the strap should be in line with the horse's eye on the near side.

(d) **Nose Band and Back Stay.** The noseband and backstay should fit so as to admit the breadth of two fingers between the horse's nose in front and the noseband, and between the horse's jaw and the back stay. The noseband and backstay should hang so as to allow to finger-breadth below the projecting cheekbone.

(e) **Neck Strap.** It provides a useful support for the rider if he goes off balance, and also keep the martingale in the proper position by preventing it from drooping which may entrap the fore legs of an excited horse.

4. **Bridling.** The bit should be put in the horse's mouth with the smooth side of the bar against the tongue. It should be so placed that it is not high enough to wrinkle the lips. The mouthpiece will be correctly placed between these limits when the lower cheek being drawn back to approximately 45 degrees to the mouth, the curb chain, lies flat and truly in the chin groove. The proper length of the curb chain, and the right position of the mouthpiece, depends on each other, and on the sensitiveness of the horse's mouth.

CONCLUSION

5. When correctly fitted and used, a harness ensures the horse's comfort, safety, and efficient performance, while allowing the handler better control and communication. mastering the art of harnessing is not just a practical skill but a reflection of responsible and compassionate horsemanship.



ASSESSMENT EXERCISE

- 1. What is the function of the brow band in a head collar?**
 - (a) To secure the bit in the horse's mouth
 - (b) To prevent cheek piece and throat lash from slipping backwards
 - (c) To support the rider's balance
 - (d) To connect the noseband and backstay

- 2. Which part connects the cheek piece and throat lash at the top of the bridle?**
 - (a) Jowl piece
 - (b) Buckling piece
 - (c) Crown loop
 - (d) Bridle head

- 3. What is the correct fitting guideline for the throat lash?**
 - (a) Tight enough to restrict breathing
 - (b) Loose enough to allow a hand's breadth between it and the cheek
 - (c) Should touch the horse's throat
 - (d) Should be parallel to the cheekbone

- 4. Which part consists of two leather straps connected by square links?**
 - (a) Bridle head
 - (b) Nose band and back stay
 - (c) Brow band
 - (d) Cheek piece

- 5. What is the purpose of the neck strap?**
 - (a) To hold the bit in place
 - (b) To prevent the martingale from drooping
 - (c) To secure the bridle head
 - (d) To adjust the cheek piece

- 6. Which part of the bridle includes a ring sewn at each end and connects the throat lash and back stay?**
 - (a) Jowl piece
 - (b) Crown loop
 - (c) Buckling piece
 - (d) Bridle head

- 7. How should the brow band be fitted?**
 - (a) Loosely to allow movement
 - (b) Tight against the ears
 - (c) Long enough to avoid rubbing the temple bones
 - (d) Short enough to press against the cheekbone



8. Which part of the bridle has a buckle and leather billet for securing to the bit?
- (a) Cheek piece
 - (b) Bridle head
 - (c) Jowl piece
 - (d) Throat lash
9. What is the correct fitting for the noseband and backstay?
- (a) Tight against the nose and jaw
 - (b) Hanging below the cheekbone with two-finger space
 - (c) Touching the horse's lips
 - (d) Parallel to the throat lash
10. What determines the proper length of the curb chain and position of the mouthpiece?
- (a) Horse's height
 - (b) Rider's preference
 - (c) Sensitiveness of the horse's mouth
 - (d) Size of the brow band

Short Answer Questions

1. What is the purpose of the crown loop in a head collar?
2. How does the brow band help in securing the bridle?
3. What is the function of the cheek piece and buckling piece?
4. How much space should be between the nose band and the horse's nose?
5. How many parts does the bridle head have, and what are they?

Long Answer Questions

1. Explain in detail the construction and function of any five major parts of the head collar.
2. Describe the correct fitting instructions for the brow band, cheek piece, throat lash, and noseband.
3. What are the key functions of the head collar, and why is proper fitting essential?
4. Write a short note on the bridling procedure, including the correct position of the bit and the curb chain.
5. Discuss how improper fitting of a head collar may affect the horse's comfort and performance.

SADDLE FITTING (SD/SW)

CHAPTER IV: CARE, MAINTENANCE AND PRESERVATION OF SADDLE & HARNESS



TEACHING INSTRUCTIONS

Code	:	SF- 04
Period	:	2 (1+1) Two
Type	:	Lecture and Demo
Year	:	1st Year JD/ JW
Conducting Officer	:	PI Staff
Training Aids	:	Black board and chalk.

Time Plan

➤	Introduction	: 05 Mins
➤	Care, Maintenance and Preservation of Saddle & Harness	: 30 Mins
➤	Conclusion	: 05 Mins



INTRODUCTION

1. Taking care of saddle goes beyond appearances; it's a responsibility for equestrians. A maintained saddle looks great and guarantees the comfort and safety of the horse and rider. Regularly cleaning and conditioning the saddle prevents the build-up of dirt, sweat, and grime that can degrade the material over time, potentially leading to safety issues like breakage or slipping.

PREVIEW

The lecture will be conducted in following parts:-

➤ Part I: Care, Maintenance and Preservation of Saddle & Harness'

LEARNING OBJECTIVES

To acquaint the cadets about care maintenance and preservation of saddle & harness

PART I: CARE, MAINTENANCE AND PRESERVATION OF SADDLE & HARNESS

Examination of Harness

2. The following points should be particularly noted:-

(a) The general condition of the leather should be examined thoroughly to check that no portion is worn out or in partially perished condition. All straps, reins and other flexible portions of the harness should be capable of being bent over the forefinger at any point without showing signs of cracking. The cracking of leather is usually a proof that it is in a perished or partially perished condition from lack of grease or soap, or from soaking and scouring in hot water.

(b) The stitching should be carefully examined to see that no portion is withered way, and care should be taken to see that, portion of the harness which comes in contact with the animal's body is flat, smooth and free from knots. Prominent, coarse or knotted stitching may cause galls.

(c) All metal portions should be sound and in thoroughly good working order.

(d) Traces should be most carefully examined to see that they are of equal length and in thoroughly serviceable condition.

3. The places where harness is likely to wear out are the stitching, the places where various straps, traces, etc, are buckled and eyes.



Preservation of Leather

4. Leather in constant use should be well dubbed every six months as follows: -
- (a) The leather should be moistened with a sponge and the dubbin. After two or three days the leather should be well polished with a brush or cloth.
 - (b) Leather must not be washed with soda or soaked in water.
 - (c) Drying leather by the fire destroys its durable properties and is forbidden.
 - (d) Dry cleaning by brush and rubbing is sufficient to remove dust and dirt.
 - (e) Seats and flaps of saddles and handled parts of reins should not be polished.
 - (f) All saddlery and harness should be taken to pieces, periodically and carefully inspected. Once or twice a year, certain parts, such as the inside of breaching and breast collars, should be dubbed.
 - (g) Ropes, web girths and whips should be scrubbed with clean cold water, when necessary.
 - (h) Saddle blanket, panels and numdahs should be placed in the sun or wind to dry, and then brushed.
 - (j) Steel or ironwork should be wiped over immediately after use and then rubbed with an oily rag.

CONCLUSION

5. Proper care and maintenance of saddlery and harness are essential for the safety, comfort, and performance of both horse and rider. Regular cleaning, inspection, and storage prevent wear and damage, extending the equipment's lifespan. Well-maintained tack ensures effective communication and promotes animal welfare during work or riding activities.

**ASSESSMENT EXERCISE**

- 1. What should be checked in the general condition of leather during harness examination?**
 - (a) Presence of oil
 - (b) Cracks in the leather
 - (c) Colour of the leather
 - (d) Weight of the leather

- 2. Why should stitching be carefully examined in harness?**
 - (a) To ensure it is decorative
 - (b) To prevent galls caused by coarse or knotted stitching
 - (c) To check the leather's flexibility
 - (d) To ensure it is waterproof

- 3. What is the primary concern when examining metal portions of the harness?**
 - (a) They should be polished
 - (b) They should be sound and in good working order
 - (c) They should match the leather colour
 - (d) They should be lightweight

- 4. What should be ensured about the traces during harness examination?**
 - (a) They are of equal length and in serviceable condition
 - (b) They are polished regularly
 - (c) They are made of metal
 - (d) They are loosely attached

- 5. Which areas of the harness are most likely to wear out?**
 - (a) Metal portions
 - (b) Stitching and buckled areas
 - (c) Leather straps only
 - (d) Saddle flaps

- 6. How often should leather in constant use be dubbed?**
 - (a) Every month
 - (b) Every six months
 - (c) Once a year
 - (d) Every week

- 7. What is the correct method for dubbing leather?**
 - (a) Soak the leather in water before applying dubbin
 - (b) Moisten the leather with a sponge and apply dubbin
 - (c) Wash the leather with soda and then apply dubbin
 - (d) Dry the leather by the fire before dubbing



- 8. What is forbidden when caring for leather?**
- (a) Polishing with a brush
 - (b) Washing with soda or soaking in water
 - (c) Dry cleaning with a cloth
 - (d) Inspecting the stitching
- 9. What is the recommended method for cleaning dust and dirt from leather?**
- (a) Washing with hot water
 - (b) Dry cleaning by brushing and rubbing
 - (c) Using soap and water
 - (d) Polishing with oil
- 10. Which parts of saddles should not be polished?**
- (a) Seats and flaps
 - (b) Buckles and straps
 - (c) Stitching areas
 - (d) Metal portions
- 11. How often should saddlery and harness be taken apart for inspection?**
- (a) Once a month
 - (b) Periodically, at least once or twice a year
 - (c) Every week
 - (d) Only when damaged
- 12. What should be done with ropes, web girths, and whips when necessary?**
- (a) Polished with dubbin
 - (b) Scrubbed with clean cold water
 - (c) Washed with soda
 - (d) Dried by the fire
- 13. What is the correct care for saddle blankets, panels, and numdahs?**
- (a) Soaked in water and dried by the fire
 - (b) Placed in the sun or wind to dry and then brushed
 - (c) Polished with oil
 - (d) Washed with soap and water
- 14. What should be done to steel or ironwork after use?**
- (a) Polished with dubbin
 - (b) Wiped over and rubbed with an oily rag
 - (c) Washed with water
 - (d) Left to dry naturally



15. What is the purpose of dubbing the inside of breaching and breast collars?

- (a) To make them waterproof
- (b) To maintain their durability and flexibility
- (c) To improve their appearance
- (d) To prevent them from shrinking

Short Answer Questions

1. What are the common areas where harness is most likely to wear out?
2. Why is prominent or coarse stitching on harness considered a problem?
3. How should leather be treated every six months for preservation?
4. What is the correct way to clean ropes, web girths, and whips?
5. Why should leather never be dried near a fire?

Long Answer Questions

1. Describe the key points to check during the examination of a harness and explain their importance.
2. List and explain the steps involved in preserving leather saddlery and harness.
3. Discuss the consequences of using poorly maintained harness on a horse.
4. Explain the dos and don'ts of cleaning leather equipment used in horse riding.
5. Describe the procedure for inspecting and maintaining the metallic and non-leather parts of the harness.

SHOEING

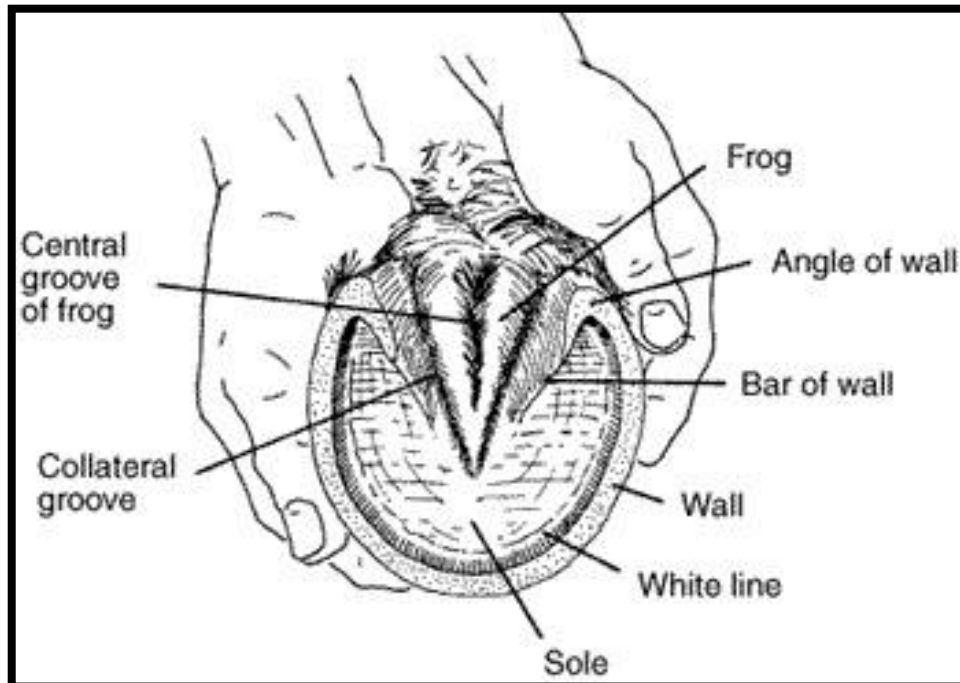
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CHAPTER INDEX: SHOEING (SD/SW)

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SHOEING (SD/SW)

CHAPTER I: THE HOOF



TEACHING INSTRUCTIONS

Code	:	S- 01
Period	:	2 (1+1) Two
Type	:	Lecture and Demo
Year	:	1st Year JD/ JW
Conducting Officer	:	Officer/ Farrier
Time Plan		
➤ Introduction	:	05 Mins
➤ Structure of Horse Hoof	:	30 Mins
➤ Conclusion	:	05 Mins

INTRODUCTION

1. The **hoof of a horse** is a tough, keratin-covered structure that forms the outer part of the horse's foot. It plays a crucial role in supporting the horse's weight, absorbing shock, and providing traction. Each hoof consists of several parts, including the **wall**, **sole**, **frog**, and **heel**, all working together to protect the inner bones and tissues. Healthy hooves are essential for a horse's overall well-being and mobility, which is why regular care like trimming and shoeing is important. The saying "no hoof, no horse" highlights just how vital hooves are to a horse's health and performance.

PREVIEW

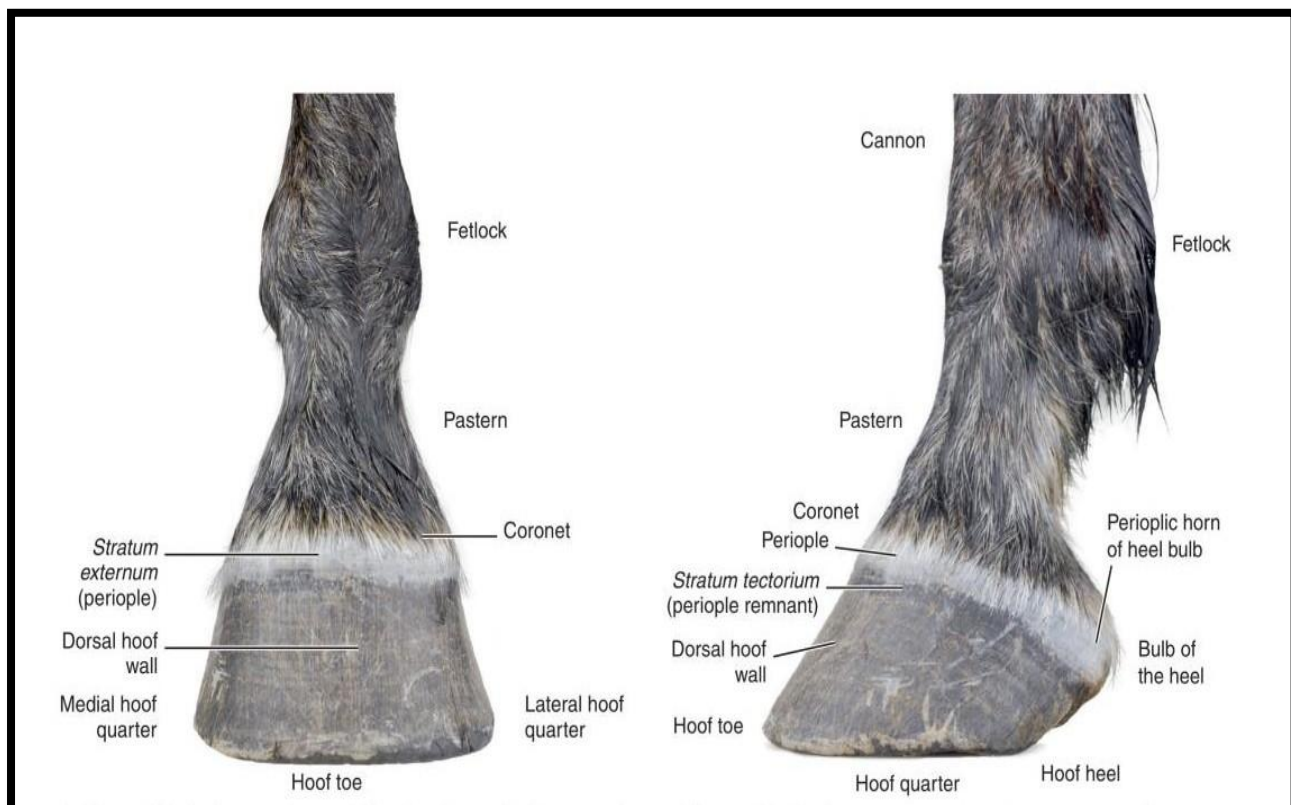
The lecture will be conducted as follows:-

- Part I: Parts of Hoof of a Horse.

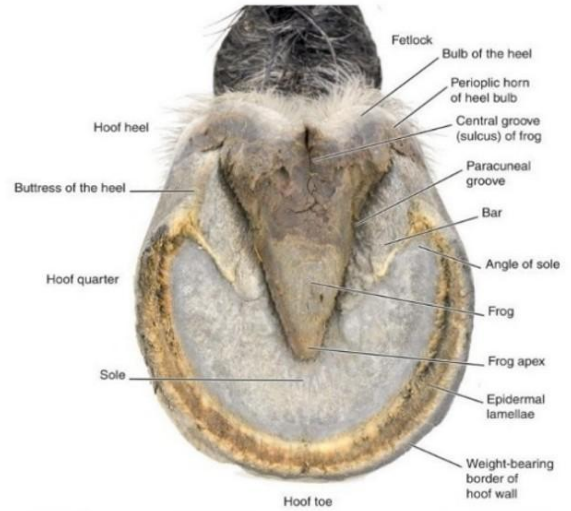
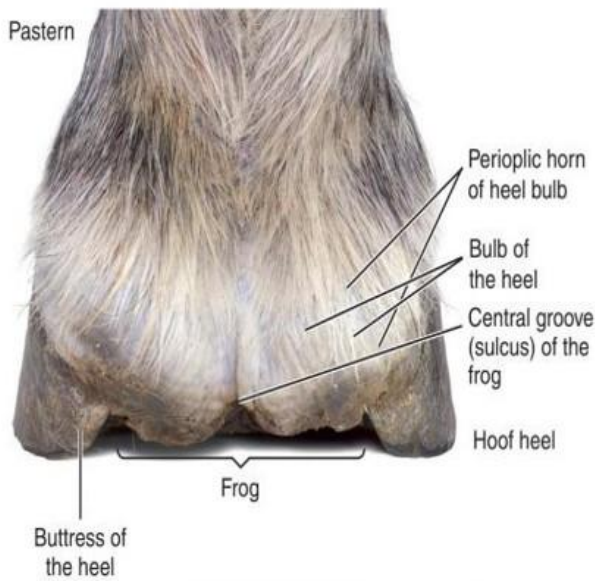
LEARNING OBJECTIVES

- To acquaint the cadets with Hoof and parts of Hoof of a Horse.

PART I: STRUCTURE OF HORSE HOOF

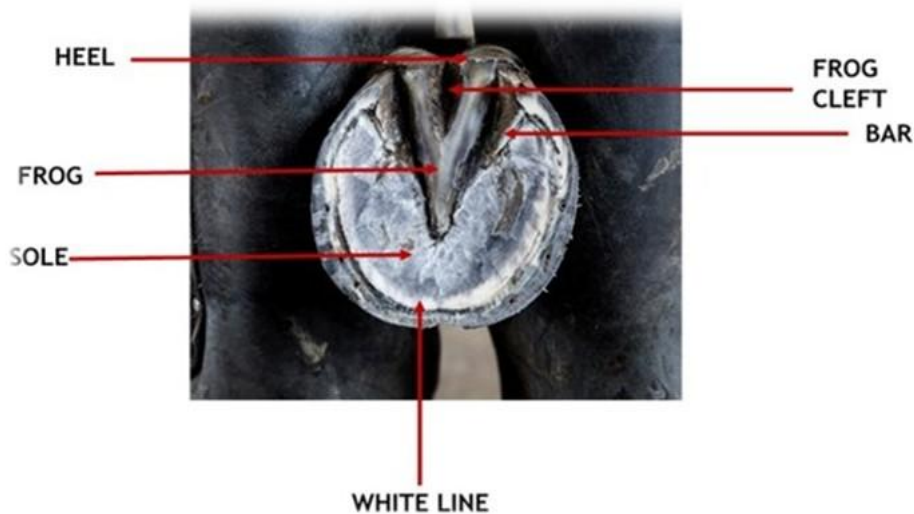


Surface Anatomy of the Dorsal Aspect of a Normal Distal Forelimb



Surface Anatomy of the Palmar Aspect of a Normal Distal Foot

Surface Anatomy of the Solar Aspect of a Normal Distal Foot



Parts of Hoof

2. **Hoof Wall.** This is the exterior part of the hoof that can be seen and encases the internal structures offering a hard layer of protection. The material which makes up the hoof wall is keratin-based, which is also known as 'horn'. It takes approximately 9-12 months for the horn to grow from the coronary band to the toe.
3. **Coronary Band.** The coronary band is located where the skin joins the hoof wall.
4. **Sole.** The sole is located underneath the horse's foot and is also made up of horn and shouldn't encounter the ground. It's a tough structure which provides protection to the internal, sensitive parts of the hoof.



5. **Frog.** The frog is a triangle-shaped structure and is softer than the horn. This structure plays an important role in weight-bearing, absorbing concussion and circulation.
6. **Bulbs of the Heel.** The bulbs of the heel are of a similar texture to the frog. The heels in conjunction with the hoof wall aid shock absorption by moving in and out as well as up and down.
7. **The White Line.** The white line forms where the hoof wall meets the sole of the foot. It's the only visible part of the horse's laminae; it's therefore very important to monitor the white line closely for stretching or signs of infection.

CONCLUSION

8. Understanding the hoof of a horse is essential for anyone involved in equine care, training, or riding. The hoof plays a critical role in the overall health, movement, and performance of the horse.



ASSESSMENT EXERCISE

- 1. What is the primary function of the hoof in a horse?**
 - (a) To provide insulation
 - (b) To support weight, absorb shock, and provide traction
 - (c) To enhance speed
 - (d) To protect the tail

- 2. What material makes up the hoof wall?**
 - (a) Bone
 - (b) Keratin-based horn
 - (c) Cartilage
 - (d) Muscle

- 3. How long does it take for the hoof wall to grow from the coronary band to the toe?**
 - (a) 3-6 months
 - (b) 6-9 months
 - (c) 9-12 months
 - (d) 12-15 months

- 4. Where is the coronary band located?**
 - (a) At the base of the frog
 - (b) Where the skin joins the hoof wall
 - (c) At the tip of the hoof wall
 - (d) Between the sole and the frog

- 5. What is the function of the sole in a horse's hoof?**
 - (a) To absorb shock
 - (b) To provide traction
 - (c) To protect internal, sensitive parts of the hoof
 - (d) To connect the hoof wall to the frog

- 6. Which part of the hoof is triangle-shaped and softer than the horn?**
 - (a) Sole
 - (b) Frog
 - (c) Bulbs of the heel
 - (d) White line

- 7. What is the role of the frog in the hoof?**
 - (a) To protect the coronary band
 - (b) To absorb concussion and aid circulation
 - (c) To connect the hoof wall to the sole
 - (d) To provide a hard layer of protection



8. What texture do the bulbs of the heel share with another part of the hoof?

- (a) The hoof wall
- (b) The frog
- (c) The sole
- (d) The coronary band

9. How do the heels and hoof wall contribute to shock absorption?

- (a) By remaining rigid
- (b) By moving in and out as well as up and down
- (c) By compressing the coronary band
- (d) By stretching the white line

10. What is the white line in the hoof?

- (a) The junction between the frog and the sole
- (b) The visible part of the horse's laminae
- (c) The outermost layer of the hoof wall
- (d) The base of the coronary band

11. Why is it important to monitor the white line closely?

- (a) To check for signs of infection or stretching
- (b) To ensure the hoof wall grows evenly
- (c) To prevent the frog from hardening
- (d) To maintain the shape of the sole

12. What does the saying "no hoof, no horse" emphasize?

- (a) The importance of hoof care for a horse's health and performance
- (b) The need for regular shoeing
- (c) The role of the frog in weight-bearing
- (d) The growth rate of the hoof wall

13. Which part of the hoof should not encounter the ground?

- (a) Frog
- (b) Sole
- (c) Coronary band
- (d) White line

14. What is the primary composition of the sole?

- (a) Bone
- (b) Horn
- (c) Cartilage
- (d) Muscle



15. Which part of the hoof is responsible for protecting the inner bones and tissues?

- (a) Frog
- (b) Sole
- (c) Hoof wall
- (d) Coronary band

Short Answer Questions

1. What is the primary material that makes up the hoof wall?
2. Where is the coronary band located on a horse's hoof?
3. What is the function of the frog in a horse's hoof?
4. Why should the sole of the hoof not encounter the ground?
5. What is the significance of the white line in hoof health?

Long Answer Questions

1. Describe the structure and function of the hoof wall. How long does it take to grow from the coronary band to the toe?
2. Explain the roles of the frog and bulbs of the heel in shock absorption and circulation.
3. Discuss the importance of monitoring the white line in a horse's hoof. What can change in its appearance indicate?
4. Provide a detailed explanation of the different parts of the hoof and their respective roles in maintaining hoof health.
5. How do the structural features of the sole and frog contribute to the protection and support of internal hoof structures?



SHOEING (SD/SW)

CHAPTER II: OBJECTIVES OF SHOEING



TEACHING INSTRUCTIONS

Code	:	S- 02
Period	:	01 (One)
Type	:	Lecture
Year	:	2nd Year JD/ JW
Conducting Officer	:	Farrier Instructor
Training Aids	:	Black board and chalk.
Time Plan		
➤ Introduction	:	05 Mins
➤ Objectives of Shoeing	:	30 Mins
➤ Conclusion	:	05 Mins



INTRODUCTION

1. Knowledge of shoeing of Horses is an important aspect of animal management and helps student understand the technicalities of shoeing and its importance in ensuring functional efficiency of the horse.

<u>PREVIEW</u>	<u>LEARNING OBJECTIVES</u>
<p>The lecture will be conducted as follows:-</p> <ul style="list-style-type: none"> ➤ Part I: Objectives of Shoeing 	<ul style="list-style-type: none"> ➤ To acquaint the cadets with shoeing of Horses.

PART I: OBJECTIVES OF SHOING

2. The Objectives of Shoeing can be enumerated as under:-

- (a) To prevent undue wear of the foot when working upon surface, which otherwise, would tend to reduce the foot by friction to the extent where lameness would occur.
- (b) To prevent the wall from cracking and splitting.
- (c) To afford the horse a better grip on slippery surfaces.
- (d) To reduce a certain amount of concussion which the foot would have to sustain where no shoes used.

3. **The Aim of Horse Shoeing.** The aim of shoeing is to provide the horse with a well-balanced foot that will allow them to work for longer periods of time without excessively wearing the hoof down and to help maintain the hoof shape. The use of horseshoes can give the horse a secure grip, due to the groove called a fuller, which runs around the surface of the shoe.

4. **Materials Used in Shoeing.** Various materials used in shoeing of horses and mules are as under:-

- (a) Shoes {(2, 3, 4, 5 No's Shoes for Mules (All Classes) & 4, 5, 6, 7, 8 No's Shoes for Horses (All Classes)}.
- (b) Nails.
- (c) Farrier Tools.



5. **Stages of Shoeing**. The whole procedure of shoeing is divided into six definite stages:-

- (a) Removal.
- (b) Preparation of Foot.
- (c) Fitting of Shoe.
- (d) Nailing On.
- (e) Finishing.
- (f) Inspection.

CONCLUSION

6. Shoeing a horse is not just about protecting the hoof - it's a specialized practice with several key goals that support the horse's health, performance, and comfort.



ASSESSMENT EXERCISE

- 1. What is one of the primary objectives of horse shoeing?**
 - (a) To increase hoof size
 - (b) To prevent undue wear of the foot and reduce lameness
 - (c) To enhance the horse's speed
 - (d) To improve the horse's appearance

- 2. Which of the following is NOT an objective of horse shoeing?**
 - (a) To prevent the hoof wall from cracking
 - (b) To reduce concussion on hard surfaces
 - (c) To enhance the horse's tail movement
 - (d) To provide better grip on slippery surfaces

- 3. What is the aim of horse shoeing?**
 - (a) To reduce the size of the hoof
 - (b) To provide a well-balanced foot and maintain hoof shape
 - (c) To increase the horse's speed
 - (d) To prevent hoof growth

- 4. What is the groove called that runs around the surface of a horseshoe?**
 - (a) Ridge
 - (b) Fuller
 - (c) Channel
 - (d) Notch

- 5. Which material is NOT listed as used in shoeing?**
 - (a) Nails
 - (b) Farrier tools
 - (c) Leather straps
 - (d) Shoes

- 6. What is the first stage of shoeing?**
 - (a) Preparation of Foot
 - (b) Removal
 - (c) Fitting of Shoe
 - (d) Inspection

- 7. What is the purpose of the preparation of the foot stage in shoeing?**
 - (a) To remove the old shoe
 - (b) To trim and clean the hoof for the new shoe
 - (c) To punch holes in the shoe
 - (d) To inspect the hoof



- 8. Which stage of shoeing involves attaching the shoe to the hoof?**
- (a) Removal
 - (b) Nailing On
 - (c) Finishing
 - (d) Inspection
- 9. What is the final stage of shoeing?**
- (a) Finishing
 - (b) Inspection
 - (c) Nailing On
 - (d) Fitting of Shoe
- 10. Why is shoeing important for horses working on hard or slippery surfaces?**
- (a) To reduce hoof size
 - (b) To prevent wear and provide better grip
 - (c) To increase hoof growth
 - (d) To enhance the horse's speed

Short Answer Questions

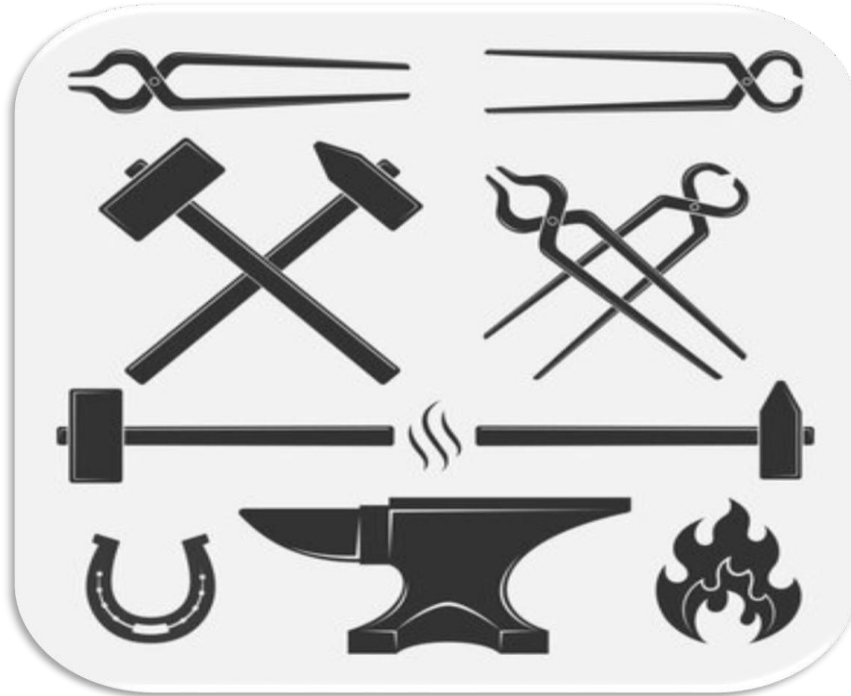
1. What is one primary objective of shoeing a horse?
2. What is the name of the groove in a horseshoe that improves grip?
3. Name any two materials used in shoeing a horse.
4. Which numbers of shoes are used for horses of all classes?
5. List any two stages in the procedure of shoeing.

Long Answer Questions

1. Explain the main objectives of horse shoeing and how it benefits a working horse.
2. Describe the aim of horse shoeing and how it contributes to hoof balance and protection.
3. List and explain the six stages involved in the shoeing of a horse.
4. Discuss how horseshoes help prevent injuries related to hoof wear and environmental surfaces.
5. Explain the importance of using the correct size of shoe and how improper shoeing can impact the horse's performance.

SHOEING (SD/SW)

CHAPTER III: FARRIER TOOLS AND THEIR USES



TEACHING INSTRUCTIONS

Code	:	S- 03
Period	:	3 (2+1) Three
Type	:	Lecture and Demo
Year	:	2nd Year JD/ JW
Conducting Officer	:	Farrier Instructor

Time Plan

➤	Introduction	: 05 Mins
➤	Part I - Types of Farrier Tools	: 10 Mins
➤	Part II - Farrier Tools in Shoeing of Horses	: 20 Mins
➤	Conclusion	: 05 Mins



INTRODUCTION

1. Knowledge of use of farrier tools is very important aspect of animal management and helps Cadets to understand the usage of various farrier tools and their importance in ensuring a perfect shoeing.

PREVIEW

The lecture will be conducted in following parts:-

- Part I- Types of Farrier Tools
- Part II- Farrier Tools in Shoeing of Horses

LEARNING OBJECTIVES

- To acquaint the cadets with use of Farrier Tools in shoeing of Horses.

PART I: TYPES OF FARRIER TOOLS

2. Two types of farrier tools are used in farriery as under:-

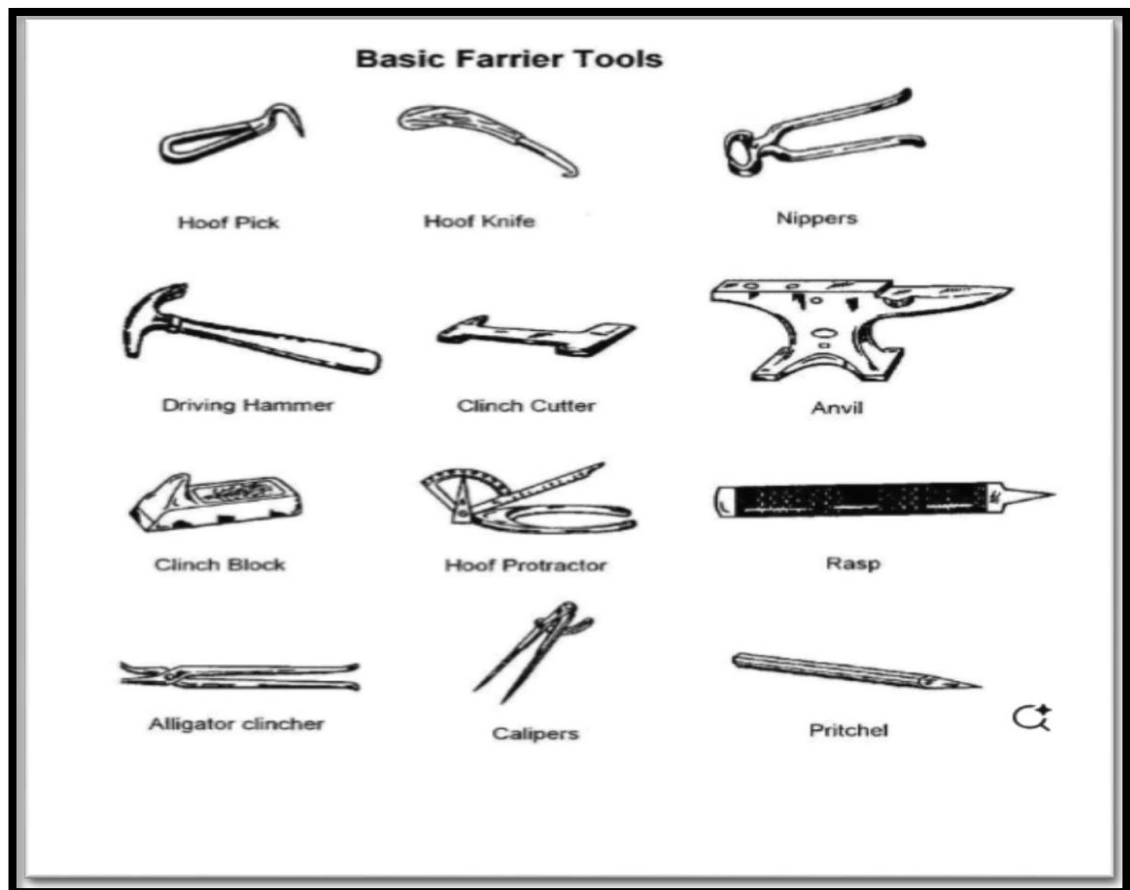
(a) **Basic Farrier Tools.**

- (i) Shoeing Hammer
- (ii) Buffer Farrier
- (iii) Drawing Knife
- (iv) Searching Knife
- (v) Regstone
- (vi) Rasp Farrier
- (vii) Pincer Farrier
- (viii) Pritchel Farrier
- (ix) Apron Leather
- (x) Farrier Tools Bag

(b) **Supplementary Farrier Tools.**

- (i) Turning Hammer
- (ii) Turning Tongs
- (iii) Flatter Smith
- (iv) Fire Tongs
- (v) Fuller Smith
- (vi) Pritchel Farrier
- (vii) Stamp Farrier
- (viii) Anvil Heel Cutter

- (ix) Anvil
- (x) Set Smith
- (xi) Sledge Hammer
- (xii) Slice Forge
- (xiii) Poker Smith
- (xiv) Tool Box



PART II: FARRIER TOOLS IN SHOEING OF HORSES

3. Various uses of the farrier tools during different stages of shoeing are as under:-

(a) **Trimming the Hoof.**

(i) **Hoof Pick.** Farriers need these to clean out the horse's feet before they can get to work with the other tools.



(ii) **Shoe Puller.** These tools look like giant pliers, help in getting the shoe off of the hoof without damaging the foot.



(iii) **Nail puller.** This tool is used to pull nails out of a horseshoe one at a time, either to get the shoe off before a trim, or to remove a loose nail.



(iv) **Hoof Testers.** It is a two-pronged tool that lets a farrier see if/where a horse's foot is sore. It uses a pinching motion to put pressure on different points of the horse's sole or heel when the horse reacts to the pressure that usually indicates a sore spot.



(v) **Nippers.** These are giant pair of nail clippers, used to trim around the hoof wall.



(vi) **Knife.** The knife is used to pare away excess sole, and get rid of loose, dead frog so that healthy tissue can breathe. Different kinds of knives used in farriery are viz Loop knives, curved blade knives, double- edged knives.



(vii) **Rasp.** It is like a huge nail file. Once the foot has been trimmed to the right length, it needs to be evened out and made level, and the edges of the foot rounded slightly. The rasp also gets used at the end of a shoe job to smooth out nails and make sure that the edges of the hoof exactly meet the edges of the horseshoe.



(viii) **Buffer Farrier.** A farrier buffer is a specialized tool used by farriers to primarily lift and remove nails when taking off a horse's horseshoe, often featuring additional functions like cutting clinches on one end and a pritchel on the other for further hoof cleaning and nail hole preparation; essentially, it helps with the process of removing old shoes from a horse's hoof with ease and precision.



(b) **Shaping the Shoes**

(i) **Forge.** Usually powered by gas nowadays, although coal-fired ones are still used, the forge heats up metal to the point where it can be shaped and moulded.



(ii) **Anvil.** Its work surface is for shaping horseshoes, or any metal. Typically made of stainless steel, anvils are designed with a flat top and a rounded “horn.” The top surface is where the bulk of the hammering gets done, as it ensures that the shoe will end up being level. The horn lets the farrier bend and curve the metal.



(iii) **Tongs.** Usually two-ended, the tongs hold hot horseshoes for all of the obvious reasons. The narrow end is used to take the horseshoe in and out of the forge, and the wider end holds the horseshoe on both sides so it can be pressed to the hoof of the horse.



(iv) **Cross and Straight Pin Hammer.** These hammers create horseshoes from raw metal. One end is flat, with the other forming a wedge. If the wedge is parallel to the handle, it's a straight pin. If it faces the other way, it's called a cross pin.



Cross Pin Hammer



Straight Pin Hammer

(v) **Rounding Hammer.** This type of hammer is used to shape the horseshoes themselves. It has a convex face, and is used on a hot shoe when it comes out of the forge.



(vi) **Pritchel.** Like a very pointy chisel, the pritchel punches holes in shoes or pads, widens nail holes where necessary, and can help remove nails that have become embedded in the hoof wall.



(vii) **Leather Apron.** A leather apron protects a farrier's legs from horse hooves and hot metal. It also protects from sharp blades and accidental self-injury while rasping. They can be customized to have pockets for tools and accessories like hoof knives and magnets for nails. They are generally designed to be comfortable and provide back support to the farrier.



(c) **Putting Shoes On.**

(i) **Driving/Nailing Hammer.** This is the hammer that gets the nails through the horse's feet so the shoes stay on. It's shaped like a claw hammer, and the claws are used to break off the excess nail.



(ii) **Nail Cutter.** This tool, shaped like a smaller pair of nippers, can also be used to clip off excess nail once the shoe has been nailed onto the hoof.



(iii) **Clinch Blocks.** A small metal block with an angled edge, the clinch block is put underneath the nail end to help set the nails before they're clinched down.



(iv) **Clinchers.** Tool used to bend over and secure the ends of horseshoe nails, preventing them from pulling out and ensuring a strong, secure fit of the shoe on the horse's hoof.



(v) **Clinch Cutters.** A bit like a small hatchet, this tool has a sharp edge that removes excess nail points once the nail has been clinched. It gets tapped lightly with the hammer, and the nail point is cut away.



(vi) **Hoof Stand**. The hoof stand supports the horse's foot in the final stages of the trim/shoe job. The horse rests its foot on the top of the stand so the farrier can have both hands free to clinch and rasp. It also means a little less strain on the farrier's knees and back should the horse try to pull its foot away.



(vii) **Hoof Gauge**. The angles of a horse's hooves need to be correct (that is, in line with the pastern), and even left and right. The front feet might differ in angle from the rear, but each pair should be even. Lots of farriers prefer to check by sight, but this little device will let a farrier objectively measure angles and balance.



CONCLUSION

4. Understanding farrier tools is essential for anyone involved in horse care. These tools are used to trim, shape, balance, and shoe a horse's hooves, and each has a specific function that contributes to the health, soundness, and performance of the horse.

**ASSESSMENT EXERCISE**

- 1. Which of the following is a basic farrier tool?**
 - (a) Turning Hammer
 - (b) Shoeing Hammer
 - (c) Sledge Hammer
 - (d) Poker Smith

- 2. What is the primary use of a rasp farrier?**
 - (a) To punch holes in shoes
 - (b) To trim and level the hoof edges
 - (c) To remove nails
 - (d) To shape the horseshoe

- 3. Which tool is used to clean out the horse's feet before shoeing?**
 - (a) Hoof Pick
 - (b) Nail Puller
 - (c) Buffer Farrier
 - (d) Pincer Farrier

- 4. What is the function of a shoe puller?**
 - (a) To trim the hoof wall
 - (b) To remove the shoe without damaging the hoof
 - (c) To punch nail holes
 - (d) To bend the horseshoe

- 5. Which tool is used to detect soreness in a horse's foot?**
 - (a) Hoof testers
 - (b) Nippers
 - (c) Clinchers
 - (d) Forge

- 6. What is the purpose of a forge in farriery?**
 - (a) To punch holes in shoes
 - (b) To heat metal for shaping
 - (c) To trim the hoof wall
 - (d) To remove nails

- 7. Which tool is used to shape horseshoes?**
 - (a) Anvil
 - (b) Hoof Gauge
 - (c) Clinch Block
 - (d) Nail Cutter



- 8. What is the purpose of a rounding hammer?**
- (a) To trim the hoof wall
 - (b) To shape the horseshoes themselves
 - (c) To punch holes in shoes
 - (d) To remove nails
- 9. Which tool punches holes in shoes or pads?**
- (a) Pritchel
 - (b) Tongs
 - (c) Driving Hammer
 - (d) Buffer Farrier
- 10. What is the function of a clincher?**
- (a) To pull nails from the hoof
 - (b) To bend over and secure nail ends
 - (c) To shape the horseshoe
 - (d) To trim the hoof wall
- 11. Which tool is used to clip off excess nail after nailing the shoe?**
- (a) Nail Cutter
 - (b) Hoof Pick
 - (c) Clinch Block
 - (d) Knife
- 12. What is the purpose of a leather apron in farriery?**
- (a) To clean the hoof
 - (b) To protect the farrier's legs from horse hooves and hot metal
 - (c) To hold tools
 - (d) To shape the shoe
- 13. Which tool supports the horse's foot during the final stages of shoeing?**
- (a) Hoof Gauge
 - (b) Hoof Stand
 - (c) Clinch Cutter
 - (d) Pincer Farrier
- 14. What is the purpose of a hoof gauge?**
- (a) To measure angles and balance of the hoof
 - (b) To trim the hoof wall
 - (c) To punch holes in shoes
 - (d) To remove nails

**15. Which tool is used to remove excess nail points after clinching?**

- (a) Clinch Cutter
- (b) Driving Hammer
- (c) Hoof Pick
- (d) Nail Puller

Short Answer Questions

1. What is the purpose of a hoof gauge in farriery?
2. Name any two basic farrier tools used in trimming the hoof.
3. Which tool is used to shape horseshoes on an anvil after heating in the forge?
4. What is the function of a clincher during horse shoeing?
5. Name any one protective gear used by farriers and its purpose.

Long Answer Questions

1. Describe the three main stages of shoeing a horse and list the tools used at each stage.
2. Explain the roles of a forge, anvil, and rounding hammer in shaping horseshoes.
3. Discuss the use of the rasp, buffer, and hoof knife during hoof preparation.
4. List and explain the functions of any five tools used during the nailing and finishing phase of shoeing.
5. Differentiate between basic and supplementary farrier tools, giving at least three examples of each with their specific use.

ANSWER KEY

**ORGANISATION AND FUNCTIONING OF RVC (JD / JW)****ANSWER KEY TO MULTIPLE CHOICE QUESTIONS**

Q No	ORG 01
1	B
2	D
3	E
4	D
5	C
6	B
7	A
8	B
9	B
10	A
11	B
12	B
13	D
14	B
15	A
16	C
17	C

**ANIMAL MANAGEMENT (JD / JW)****ANSWER KEY TO MULTIPLE CHOICE QUESTIONS**

Q No	AM 01	AM 02	AM 03	AM 04	AM 05
1	B	B	B	E	C
2	A	C	D	B	B
3	A	A	A	C	B
4	A	C	B	A	B
5	A	A	A	A	B
6		B	D	B	B
7		D		B	C
8		D		B	C
9				A	B
10				B	C
11					B
12					B
13					B
14					C
15					C



EQUITATION (JD / JW)

ANSWER KEY TO MULTIPLE CHOICE QUESTIONS

Q No	EQTN 01	EQTN 02	EQTN 03	EQTN 04	EQTN 05	EQTN 06
1	B	B	C	B	B	B
2	C	C	C	C	B	A
3	B	B	B	C	C	B
4	C	C	C	B	C	B
5	B	B	B	B	C	B
6	B		C		B	C
7	C		B		C	B
8	A		C		B	B
9	B		C		B	B
10	C		B		B	C

**SADDLE FITTING (JD / JW)****ANSWER KEY TO MULTIPLE CHOICE QUESTIONS**

Q No	SF 01	SF 02	SF 03	SF 04
1	B	B	B	B
2	D	C	C	B
3	B	A	B	B
4	C	B	B	A
5	B	C	B	B
6	C	C	A	B
7	B	C	C	B
8	B	D	B	B
9	B	C	B	B
10	B	B	C	A
11				B
12				B
13				B
14				B
15				B



OBJECTIVES OF SHOEING (JD / JW)

ANSWER KEY TO MULTIPLE CHOICE QUESTIONS

Q No	S 01	S 02	S 03
1	B	B	B
2	B	C	B
3	C	B	A
4	B	B	B
5	C	C	A
6	B	B	B
7	B	B	A
8	B	B	B
9	B	B	A
10	B	B	B
11	A		A
12	A		B
13	B		B
14	B		A
15	C		A



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