[LH 0815] **AUGUST 2015** **Sub. Code: 2434**

BACHELOR IN PROSTHETICS & ORTHOTICS (BPO)
THIRD YEAR
PAPER IV – PROSTHETICS SCIENCE - III

Q.P. Code: 802434

Time: Three hours **Maximum : 100 Marks**

Answer all Questions

I. Elaborate on: **(3 x 10 = 30)**

1. Explain about Mechanical Elbow Joint.
2. Bionic Arm.
3. Prosthetic Management for Elbow Disarticulation.

II. Write notes on: **(8 x 5 = 40)**

1. Types of wrist units.
2. Advantages of Mechanical Hand.
3. Prosthetic Management for Transcarpal Amputation.
4. Types of Terminal Device.
5. Shoulder Disarticulation Suspension System.
6. Trans Radial Prosthetic Components.
7. Levels of Amputation.
8. Trans Humeral Socket Biomechanics.

III. Short answers on: **(10 x 3 = 30)**

1. Shoulder disarticulation Socket Trimlines.
2. Hinges for Elbow Disarticulation Prosthesis.
3. Control Cable System.
4. Wrist Disarticulation.
5. Types of Hinges.
6. Cosmetic Finger Prosthesis.
7. Trans Humeral Prosthesis Socket Suspension.
8. Material used for making Sockets.
9. Trans Humeral Prescription criteria.
10. Trans Radial Measurement Procedures.

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[LJ 0816] AUGUST 2016 **Sub. Code :2454**

B.Sc. PROSTHETICS AND ORTHOTICS
(New Syllabus 2013-2014)

THIRD YEAR

PAPER IV – PROSTHETICS SCIENCE - III

Q.P. Code: 802454

Time: Three Hours **Maximum : 100 Marks**

Answer All questions

I. Elaborate on: **(3 x 10 = 30)**

1. Trans humeral prosthesis parts and briefly explains about functions of each part.
2. Explain about Prosthetics elbow joints and functions of each joint.
3. Functional shoulder disarticulation prosthesis and types of shoulder joints.

II. Write notes on: **(8 x 5 = 40)**

1. What is heavy duty Trans radial harness system?
2. Explain about friction wrist units.
3. What is outside-locking hinges and inside –locking elbow units?
4. Explain about general concept of myoelectric prosthesis.
5. What is the Difference between hand and hook?
6. Check out procedure of Trans humeral prosthesis.
7. Explain about bio-feedback.
8. Write about Functional prosthesis for partial hand amputation.

III. Short answers on: **(10 x 3 = 30)**

1. What is grasp pattern?
2. Write the parts of the trans humeral prosthesis.
3. Describe about activity specific prosthesis.
4. Indication for external elbow unit.
5. What is voluntary opening and closing?
6. Write the Trim lines of Trans humeral socket.
7. Block diagram of myoelectric prosthesis.
8. What is the Difference between internal and external elbow unit?
9. What is Nudge control unit?
10. Components of myoelectric prosthesis.

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[LL 0817] AUGUST 2017 **Sub. Code :2434**

BACHELOR IN PROSTHETICS AND ORTHOTICS

THIRD YEAR

PAPER IV – PROSTHETICS SCIENCE - III

Q.P. Code: 802434

Time: Three Hours **Maximum : 100 Marks**

Answer All questions

I. Elaborate on: **(3 x 10 = 30)**

1. Briefly explain about upper limb myoelectric prosthesis.
2. Transhumaral harnessing system.
3. Explain upper limb prosthesis Terminal devices.

II. Write notes on: **(8 x 5 = 40)**

1. Describe congenital deficiency.
2. Explain about socket design of partial hand prosthesis.
3. Explain Bilateral below elbow harness system.
4. Explain about prosthetic options for upper limb amputees.
5. Explain about elbow hinges.
6. Types of wrist units.
7. Explain about split socket prosthesis.
8. Explain transradial TRAC socket.

III. Short answers on: **(10 x 3 = 30)**

1. Define figure of 9 harness?
2. What is Inverted Y strap?
3. Describe about activity specific prosthesis.
4. Indication and contra indication for myoelectric prosthesis.
5. What is body powered and externally powered prosthesis?
6. Trim lines of Trans radial socket.
7. Nudge control unit.
8. Define krukenberg amputation.
9. What is Muenster socket?
10. Difference between internal and external elbow unit.

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[LM 0218] FEBRUARY 2018 **Sub. Code: 2434**

BACHELOR IN PROSTHETICS AND ORTHOTICS

THIRD YEAR

PAPER IV – PROSTHETICS SCIENCE - III

Q.P. Code: 802434

Time: Three Hours **Maximum : 100 Marks**

Answer All questions

I. Elaborate on: **(3 x 10 = 30)**

1. Trans humeral prosthesis parts and briefly explains about functions of each part.
2. Explain about Prosthetics elbow joints and functions of each joint.
3. Functional shoulder disarticulation prosthesis and types of shoulder joints.

II. Write notes on: **(8 x 5 = 40)**

1. What is heavy duty Trans radial harness system?
2. Explain about friction wrist units.
3. What is outside-locking hinges and inside –locking elbow units?
4. Explain about general concept of myoelectric prosthesis.
5. What is the Difference between hand and hook?
6. Check out procedure of Trans humeral prosthesis.
7. Explain about bio-feedback.
8. Write about Functional prosthesis for partial hand amputation.

III. Short answers on: **(10 x 3 = 30)**

1. What is grasp pattern?
2. Write the parts of the trans humeral prosthesis.
3. Describe about activity specific prosthesis.
4. Indication for external elbow unit.
5. What is voluntary opening and closing?
6. Write the Trim lines of Trans humeral socket.
7. Block diagram of myoelectric prosthesis.
8. What is the difference between internal and external elbow unit?
9. What is Nudge control unit?
10. Components of myoelectric prosthesis.

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[LN 0818] AUGUST 2018 **Sub. Code: 2434**

BACHELOR IN PROSTHETICS AND ORTHOTICS

THIRD YEAR

PAPER IV – PROSTHETICS SCIENCE - III

Q.P. Code: 802434

Time: Three Hours **Maximum : 100 Marks**

Answer All questions

I. Elaborate on: **(3 x 10 = 30)**

1. Explain about upper limb levels of amputation.
2. Shoulder Disarticulation Prosthesis Check out Procedures.
3. Types of Elbow Units.

II. Write notes on: **(8 x 5 = 40)**

1. Types of prosthetic terminal device.
2. Cosmetic hand gloves and fingers.
3. Prosthetic Management for Elbow Disarticulation Prosthesis.
4. Wrist Disarticulation amputation patient assessment.
5. Biomechanics of Trans Radial Prosthesis.
6. Trans Radial Prosthesis checkout procedure.
7. Types of shoulder joints.
8. Trans Humeral Prosthesis Components.

III. Short answers on: **(10 x 3 = 30)**

1. Types of wrist units.
2. Control cable system.
3. Myoelectric Prosthesis.
4. Trans Humeral measurement technique.
5. Biomechanics of Trans Humeral Prosthesis.
6. Prosthetic Management for Partial Hand.
7. Fabrication procedure for double wall socket.
8. Trans humeral amputation stump assessment procedure.
9. Trans Radial socket trim lines.
10. Functional Electrical Stimulation (FES).

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[LP 0819] AUGUST 2019 **Sub. Code: 2434**

BACHELOR IN PROSTHETICS AND ORTHOTICS

THIRD YEAR

PAPER IV – PROSTHETICS SCIENCE - III

Q.P. Code: 802434

Time: Three Hours **Maximum : 100 Marks**

Answer All questions

I. Elaborate on: **(3 x 10 = 30)**

1. Prosthetic Management for Partial hand prosthesis.
2. Biomechanics of Trans Radial Prosthesis.
3. Explain about Functional Electrical Stimulation (FES).

II. Write notes on: **(8 x 5 = 40)**

1. Trans Radial Prosthesis checkout procedure.
2. Explain about myoelectric prosthesis.
3. Explain about bio-feedback.
4. What is outside-locking hinges and inside –locking elbow units?
5. Explain about friction wrist units?
6. Explain about split socket prosthesis.
7. Write about Hosmer, Dorrance functional hands.
8. What is heavy duty Trans radial harness system?

III. Short answers on: **(10 x 3 = 30)**

1. What is grasp pattern?
2. What is Muenster socket?
3. What is voluntary opening and closing?
4. What is Nudge control unit?
5. Define figure of 9 harness?
6. What is single axis hinge and polycentric hinge?
7. Types of prosthetic terminal device.
8. What is the Difference between internal and external elbow unit?
9. Measurement techniques for shoulder Disarticulation Prosthesis.
10. Definition of prehension.

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