

Third Year Bachelor in Prosthetics & Orthotics Examination
P. & O. Workshop Management

Date : 23-07-2019, Tuesday]

[Time : 3 Hours

[Max. Marks : 100

- Instructions :** (1) Figure to the right indicates marks.
(2) Draw diagram wherever necessary.
(3) Write legibly.
(4) Use separate answer books for each section.

Section – I

Q-1 Plan Layout of Store and Store management (20 marks)

Or

Describe Principle of Management by Henry Fayol

Q-2 Write Short Notes (any two.)

(16 Marks)

- Costing
- Budget System
- Quality Control System

Q-3 Write Short Notes (any two.)

(14 Marks)

- Explain billing
- Explain Inventory Control
- Describe EOQ System

Section – II

Q-4 Describe Man management System

(20 Marks)

Or

Describe Organization and types of Organizational Set up .

Q-5 Write Short Notes (any two)

(16 Marks)

- Explain Records system
- Accessibility of Workshop
- Sanitary Convenience System for Workshop

Q-6 Write Short Notes (any two.)

(14 marks)

- Uses of Computer in Store
 - Management Structure
 - Concept of Industrial management System
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Third Year Bachelor in Prosthetics & Orthotics Examination**Research Methodology/Project Development****Date : 25-07-2019, Thursday]****[Max. Marks : 100****[Time : 3 Hours**

- Instructions :** (1) Figure to the right indicates marks.
(2) Draw diagram wherever necessary.
(3) Write legibly.
(4) Use separate answer books for each section.

Section- I

Q.1 Define statistics, Bio-statistics and explain in detail about various applications of Bio-statistics. (20)

OR

Q.1 Explain about different methods of collection of data in Bio-statistics. Explain about frequency polygon and histogram. (20)

Q.2 Write short notes (Any two) (16)

1. Frequency curve
2. Tabular presentation of data
3. Bar diagram , pie chart and pictogram

Q.3 Write notes in short (Any two) (14)

1. Mean, median and mode
2. Likert scale
3. Scatter and line diagram

Section- II

Q.4 Define research. Explain about defining the research problem, need for research design and objectives of research design. (20)

OR

Q.4 What is sample? Explain about criteria to select a sampling procedure. Explain about Interval scale. (20)

Q.5 Write short notes (Any two) (16)

1. Testing of hypothesis
2. Measurement scales
3. Methods for the collection of primary data

Q.6 Write notes in short (Any two) (14)

1. Sources of error in measurement
 2. Sampling fundamentals
 3. Characteristics of hypothesis
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Third Year Bachelor in Prosthetics & Orthotics Examination
Prosthetics Science-III

Date : 31-07-2019, Wednesday]

[Max. Marks : 100

[Time : 3 Hours

- Instructions :** (1) Figure to the right indicates marks.
(2) Draw diagram wherever necessary.
(3) Write legibly.
(4) Use separate answer books for each section.

Section – A

Q1. Describe the measurement, casting and fabrication procedure of below elbow prosthesis with north western socket design. (20)

Or

Q1. Describe the various harnesses used in body powered upper extremity Prosthetics. (20)

Q2. Write short notes on (any two). (16.)

- (a). Write a brief on Grasp pattern and forces.
- (b). Write a brief on socket design for Trans radial amputee.
- (c). Differentiate body powered and external powered prostheses.

Q3. Write short notes on (any two). (14.)

- (a). Write a brief on body movement used to operate Body powered prosthetic components.
- (b). Elbow units for Trans radial amputee (body powered components).
- (c). Explain control cable system and its types.

Section–B

Q4. Describe a brief on terminal devices used in body powered Prosthesis. (20.)

Or

Q4. Describe the checkout procedure for Trans radial prosthesis (body powered). (20.)

Q5. Write short notes on (any two). (16)

- (a). External powered terminal devices.
- (b). Write level of upper limb Amputation with Prosthesis fitting plan as per level of amputation.
- (c). Immediate post operative fitting for both body powered and external powered Prosthesis

Q6. Write short notes on (any two). (14.)

- (a). Write a brief on Cosmetic restoration.
- (b). Prostheses for Shoulder disarticulation
- (c). Control system in upper extremity prosthetics.

Third Year Bachelor in Prosthetics & Orthotics Examination**Mobility and Rehabilitation Aids****Date : 29-07-2019, Monday]****[Max. Marks : 100****[Time : 3 Hours**

- Instructions :** (1) Figure to the right indicates marks.
(2) Draw diagram wherever necessary.
(3) Write legibly.
(4) Use separate answer books for each section.

Section-1

Q.1 Describe cushions & its fabrication technique & wheel chair modification. **(20 Marks)**

OR

Q.1 Assistive devices for spinal cord injury patient to have a barrier free environment.

Q.2 Write a Short Notes (2 Out of 3) **(16 Marks)**

A) Parapodium

B) Fabrication of Box Seat

C) Developmental and educational Toys.

Q3. Write Short Notes (2 Out of 3) **(14 Marks)**

A) Biomechanics of molded seat

B) Forearm support

C) Types of Tricycles

Section-2

Q.4 Enumerate various types of crutches. Describe in details of Axillary crutch. **(20 Marks)**

OR

Q.4 Describe the casting, modification fabrication of molded seat for paraplegic with sensory loss.

Q.5 Write Short Notes (2 Out of 3) **(16 Marks)**

A) Rollator

B) Assistive Device for Quadriplegic to improve ADL

C) Prone Board

Q.6 Write Short Notes (2 Out of 3) **(14 Marks)**

A) Low level cart

B) Installation of Parallel bar

C) Standing Frame

Third Year Bachelor in Prosthetics & Orthotics Examination
Orthotics Science-III

Date : 02-08-2019, Friday]

[Max. Marks : 100

[Time : 3 Hours

- Instructions :** (1) Figure to the right indicates marks.
(2) Draw diagram wherever necessary.
(3) Write legibly.
(4) Use separate answer books for each section.

Section - A

Q 1 Describe in details Clinical Examination for Splinting. Marks 20

OR

Describe Anatomical and Biomechanical Principles related to splinting.

Q 2 Write short notes (any 2 out of 3) Marks 16

- A Joints of the Fingers and Thumb with neat diagram.
B Key questions for splint provision.
C Write trouble shooting for wrist immobilization splint.

Q 3 Write short notes (any 2 out of 3) Marks 14

- A Splinting for the Quervain's Tenosynovitis.
B Fabrication of a Hand-Based Thumb Immobilization Splint with diagram.
C Conditions that require an Elbow immobilization Splint

Section -B

Q.4 Describe in details Thermoplastic Material Content and properties. Marks 20

OR

Describe Technical Tips for Dynamic Splinting.

Q.5 Write short notes (any 2 out of 3) Marks 16

- A Flexor Tendon Splint.
B Splinting for Leprosy.
C Boutonniere deformity and its Orthotic management.

Q.6 Write short notes (any 2 out of 3) Marks 14

- A Describe Grades of Ligament Sprain Injuries.
B Give Examples of Occupation Based Finger Splinting.
C Describe Upper Extremity Compression Neuropathies and Orthotic treatment.

Third Year Bachelor in Prosthetics & Orthotics Examination
Computer Science

Date : 05-08-2019, Monday]
[Time : 3 Hours

[Max. Marks : 100

- Instructions :** (1) Figure to the right indicates marks.
(2) Draw diagram wherever necessary.
(3) Write legibly.
(4) Use separate answer books for each section.

SECTION-1

QUE: 1 Explain the characteristic of computers. [20]

OR

QUE: 1 Explain the functions of MS-WORD.

QUE: 2 Answer in brief (Any two) [16]

- (1) Explain the following for file or folder in windows
a. Cut b. Paste c. Rename d. Delete
(2) What is spread sheet and database? Explain in detail
(3) Explain LAN, MAN and WAN.

QUE: 3 Write short notes on any two [14]

- (a) Hardware of computers
(b) Virus and Anti-virus
(c) Power point presentation

SECTION-2

QUE: 4 Discuss about 'Product lifecycle management' with flow diagram. [20]

OR

QUE: 4 what is CNC machine? List out its parts and explain about it.

QUE: 5 Answer in brief (Any two) [16]

- (1) What are the methods of modeling?
(2) What is modified toolbar? Explain about 'trim' and 'extend'
(3) Automation.

QUE: 6 Write short notes on any two [14]

- (a) Application of CAD in P&O.
(b) Construction and uses of CNC machine
(c) What is Boundary Representation (B-rep)?
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