

Third Year B. Prosthetics & Orthotics Examination
Computer Science

Date : 01-02-2019, Friday]

[Max. Marks : 100

[Time : 3 Hours

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

Section-1

- Q-1 Define about computer. Explain it's characteristic and its basic application [20]
- OR
- Q-1 Write notes on the function of MS-EXCEL. [20]
- Q-2 Answer in brief any two: [16]
(1) What is hardware of computer? Explain in brief.
(2) What is Operating System of computer?
(3) Discuss about 'Word Art', 'Clip Art', and 'Find/Replace' with respect to MS-WORD
- Q.3 Write Short notes on any two: [14]
(a) Printers
(b) Internet and e-mail.
(c) Power point presentation.

SECTION-II

- Q-4 List out the Draw menu tools and explain it. [20]
- OR
- Q-4 Discuss about 'Product life cycle management' with flow chart.
- Q-5 Answer in brief any two. [16]
(1) How many phases of designing process? Discuss it.
(2) What is automation? explain in brief
(3) Explain about the types of curves.
- Q-6 Write a short note any two. [14]
(1) Use of automation in P&O
(2) Merits and Demerits of CN
(3) Constructional feature of CNC machine.
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Candidate's Seat No : _____

**Third Year B. Prosthetics & Orthotics Examination
Prosthetics & Orthotics Workshop Management**

Date : 21-01-2019, Monday]

[Max. Marks : 100

[Time : 3 Hours

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

Section – I

Q.1. What is organization ? Principles of good organization ? (20)

OR

Q.1. Principles of management ?

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

- (A) Describe distribution of work
- (B) Describe store & store organization
- (C) Explain management characteristics

Q.3 Write short note (Any two) (14)

- (A) Explain industrial accidents
- (B) Use of computer for effective store management
- (C) Explain work sheet

Section –II

Q.4. Explain type of organizational setup workshop administration & management (20)

OR

Q.4. Principles of administrative & management structure

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

- (A) Explain industrial safety & hazards
- (B) Explain different between worksheet & time sheet
- (C) Describe construction

Q.6 Write short note (Any two) (14)

- (A) Explain characteristics of organization
- (B) Describe costing & billing
- (C) Explain ventilation & lighting

Third Year B. Prosthetics & Orthotics Examination
Research Methodology/Project Development

Date : 23-01-2019, Wednesday]

[Max. Marks : 100

[Time : 3 Hours

- Instructions :** (1) Answer to the point.
(2) Figure to the right indicates marks.
(3) Draw diagrams wherever necessary.
(4) Write legibly.
(5) 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. Methods of presentation of data
3. Frequency distribution table and ogive

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

1. Mean, median and mode
2. Likert scale
3. Qualitative and Quantitative data

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 nominal scale. (20)

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

1. 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. Observation, Interview and consumer panels for the collection of data
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Third Year B. Prosthetics & Orthotics Examination
Mobility and Rehabilitation Aids

Date : 25-01-2019, Friday]

[Max. Marks : 100

[Time : 3 Hours

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

Section-1

Q.1 Describe different gait patterns with Axillary crutches. (20)

Or

Q.1 Cushions and its fabrication technique and wheelchair modification.

Q.2 Write Short Notes (2 out of 3) (16)

- a) Advantages and disadvantages of motorized wheelchair.
- b) Para podium.
- c) Walker and their attachments.

Q.3 Write Short Note (2 out of 3) (14)

- a) Low level cart.
- b) Installation/ fabrication parallel bars.
- c) Types of wheelchair.

Section-II

Q.4 Special gadgets to assist in activities of daily living in spinal cord injury patients. (20)

Or

Q.4 Write in detail about biomechanics of various kinds of molded seats.

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

- a) Suspension or right kinds of strapping.
- b) Fabrication of box seat.
- c) Developmental and educational toys.

Q.6 Write Short note on (2 out of 3) (14)

- a) Pressure Relief techniques.
 - b) Care and maintenance of wheelchairs.
 - c) Forearm support.
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Third Year B. Prosthetics & Orthotics Examination
Prosthetics Science-III

Date : 28-01-2019, Monday]

[Max. Marks : 100

[Time : 3 Hours

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

SECTION I

1. Describe with neat diagram about Myo electrical Prosthesis- components, Testing Procedure and how it works. 20.

2. **Write short notes(2out3).** 16.
 - (a) Different types of prosthetic Elbow units.
 - (b) Indication of Munster socket and its advantages.
 - (c) Different types of harness system for B/E Prosthesis.

3. **Write Short notes(2out3).** 14.
 - (a) Advantage of having a wrist flexion unit
 - (b) Different solution for partial hand amputations.
 - (c) Quick change wrist unit

SECTION II

4. Describe with neat diagrams of different types of cable control system used in U/E . Prosthesis with their respective indications. 20.

 5. **Write short notes(2out3).** 16.
 - (a) Munster Socket.
 - (b) Compare hook and hand.
 - (c) Bio mechanics of Upper limb prosthesis.

 6. **Write Short notes(2out3).** 14.
 - (a) Step-up Hinges
 - (b) Types of prosthetic training given to upper limb users.
 - (c) Types of shoulder units for Shoulder Disarticulation Prosthesis.
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Third Year B. Prosthetics & Orthotics Examination
Orthotics Science-III

Date : 30-01-2019, Wednesday]

[Max. Marks : 100

[Time : 3 Hours

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

Section – I

1. Explain Brachial Plexus, and its injury and Role of Orthosis in Brachial Plexus Injury (20 Marks)
 Or
 Upper Extrimity Orthotics management for Acute Tetraplegia
2. Write Short Notes (any two.) (16 marks)
 - a. Burn Claw Hand deformity
 - b. Resting wrist hand orthosis
 - c. Low Profile dynamic extension orthosis
3. Write Short Notes (any two.) (14 Marks)
 - a. Droup out Cast
 - b. Hand orthosis with MCP extension stop
 - c. Mobile Arm Support

Section – II

- 4 Functional bracing of diaphyseal humeral fracture (20 marks)
 Or
 Describe Mechanical Principle of Splinting
 - 5 Write Short Notes (any two) (16 Marks)
 - a. Material used for protective orthosis in sports
 - b. Functional casting and brace of Colle's fracture
 - c. Basic Hand Maneuvers
 - 6 Write Short Notes (any two.) (14 marks)
 - a. Low temperature thermoplastics orthosis
 - b. Dynamic dorsal wrist hand orthosis
 - c. Ulnar deviation orthosis in R.A.
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