King Saud University

Collage of applied medical sciences

Rehabilitation sciences department

Occupational therapy program

Final Exam

RHS 422

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Student’s name:……………………………….

Student’s no. …………………………………

|  |  |
| --- | --- |
| Section | Mark |
| A | /5 |
| B | /5 |
| C | /5 |
| D | /5 |
| Total /20 |  |

**A: choose the correct answer:**

1. Cross site amputation is:
   1. Amputation of one upper limb and one lower limb.
   2. Amputation of all four limbs at any level.
   3. Amputation at one level on one limb and a different level on the other.
2. Partial hand amputation is:
   1. Amputation of the hand at its longitudinal midline.
   2. Amputation of the upper limb distal to the wrist joint.
   3. Amputation of one hand.
3. Forequarter amputation:
   1. Amputation of all four limbs at any level.
   2. Amputation of the upper limb at the capula-thoracic and the sternoclavicular joints. Interscapulthorasic amputation.
   3. Amputation of the forefoot.
4. With short trans-femoral amputations:
   1. 60 % of femoral length is present.
   2. 40 % of femoral length is present.
   3. Less than 35% of femoral length is present.
5. In very short trans-tibial amputation
   1. Less than 20 % of tibial length.
   2. 15 % of tibial length is present.
   3. 30 % of tibial length is present.

**B: Write “true’ in front of the true statement, and ‘false’ in front of the false statement:**

1. To design an orthosis the OT must understand basic biomechanical principles of joint motion. ……T……
2. In three-point loading system, a proximal and distal forces applied in the same direction are countered by (or balanced against) a third force applied in the same direction at a point somewhere in between them. …F….
3. Most orthotic designs use a balanced parallel force system to control joint motion. ………T…..
4. Hip-disarticulation is amputation of the whole lower limb together with all or part of the hemipelvis. …F….
5. At least 8 cmof tibia is required below the knee joint for optimal fitting of a prosthesis. …..T…...

**C: Match sentences from column A with related sentences from column B**

|  |  |  |  |
| --- | --- | --- | --- |
| **A** | | **B** | |
| 1 | The Lisfranc amputation | 5 | Lumbo-sacral orthosis |
| 2 | Suspension system | 2 | Upper limb prosthetic components |
| 3 | Corrosion resistance | 1 | Amputation at the tarsometatarsal joint and involves a disarticulation of all five metatatarsal and digitis. |
| 4 | For patient with unstable ankle | 3 | The degree to which the material is susceptible to chemical degradation |
| 5 | LSO: stands for | 4 | An ankle-foot orthosis (AFO) |

**D: Answer the following questions:**

1. Mention 2 indications of orthosis in lower limb conditions:

* Rheumatoid arthritis and acute injury:
* Post operative management
* to protect the joint orthoses can serve as stabilizing substitute for muscles
* to correct alignment and prevent further deformity

1. what makes an ideal orthosis?

* comfortable during use
* meets his or her needs and goals.

1. Define **amputation:**

* removal of a body extremity by [trauma](http://en.wikipedia.org/wiki/Physical_trauma) or [surgery](http://en.wikipedia.org/wiki/Surgery).

1. Name 2 indecations of amputation:

* Malignant tumors
* Extensive gangrene
* Massive trauma
* Or advanced infection.

1. What are the 2 types of upper limb prosthesis:
   * Cosmetic
   * Functional

**Good luck..**