

## Rajiv Gandhi University of Health Sciences, Karnataka

II Year Bachelor in Prosthetics and Orthotics Degree Examination – OCT-2019

Time: Three Hours

Max. Marks: 80 Marks

### PROSTHETIC SCIENCE - II

**Q.P. CODE: 2822**

Your answers should be specific to the questions asked

Draw neat, labeled diagrams wherever necessary

#### ESSAYS TYPE (answer any Two)

**2 x 10 = 20 Marks**

1. Explain in detail about assessment, casting, measurement and alignment procedure of knee disarticulation modular prosthesis.
2. What are the causes of abnormal gait? Explain the following gait deviations (a) Asymmetrical pelvis (b) Lumbar Lordosis (c) Circumductory gait.
3. What are the types of prosthetic knee joint? Discuss about hydraulic and pneumatic control unit of knee.

#### SHORT ESSAYS TYPE (answer any Six)

**6 X 5 = 30 Marks**

4. Write about trans femoral endoskeleton prosthetic components with neat diagram.
5. Explain the Anterior Posterior (AP) forces in trans femoral prosthesis during stance phase with neat diagram.
6. Write the advantages and disadvantages of endoskeleton and exoskeleton trans femoral prosthesis.
7. Write the checkout procedure of trans femoral prosthesis.
8. Write the care, maintenance and instructions to be given before discharging the prosthesis.
9. Write the position of hip joint in hip disarticulation prosthesis with diagram.
10. Write the biomechanical advantage of long stump over short stump in trans femoral prosthesis.
11. What is alignment? Explain any two types of alignment for trans femoral prosthesis.

#### SHORT ANSWERS TYPE (answer any Ten)

**10 x 3 = 30 Marks**

12. Define energy storing foot.
13. What is ISNY and CAD/CAM socket?
14. Write the level of amputation for lower limb.
15. Write the advantages and disadvantages of Silesian suspension.
16. Draw the pathway of Instantaneous Center of Rotation (ICR).
17. Define hemipelvectomy.
18. Define single axis foot.
19. Write the function of Quadrilateral socket.
20. Write the material used in the fabrication of trans femoral socket.
21. What is Marlo Anatomica Socket (MAS socket)?
22. Write the causes for abducted gait.
23. Write the tools used for trans femoral casting.

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