

**BACHELOR OF PHYSIOTHERAPY  
SIXTH SEMESTER  
BIOENGINEERING  
BPT – 604 [REPEAT]**  
[USE OMR SHEET FOR OBJECTIVE PART]

**SET  
A**

Duration: 3 hrs.

Full Marks: 70

Time: 30 min.

( Objective )

Marks: 20

*Choose the correct answer from the following:*

*1×20=20*

- Three point system in orthosis was given by
  - Jordan
  - Milwakee
  - Tyson
  - None
- This gait pattern is used when one side lower extremity (LE) is unable to bear any weight
  - 1 point gait
  - 2 point gait
  - 3 point gait
  - 4 point gait
- Gutter walker is given when patient have problems with the
  - Shoulder
  - Forearm
  - Arm
  - Wrist
- This is the opening of shoe located at base of orthosis
  - Vamp
  - Throat
  - Toe box
  - Tongue
- It is space between outer sole and floor, which helps to produce a rocker effect
  - Sole
  - Ball
  - Shank
  - Toe spring
- In halo cervical orthosis, cranial ring is secured to skull using how many rings
  - 1
  - 2
  - 3
  - 4
- Which prosthetic system uses the patients own body residual limb or body strength
  - Passive system
  - Body powered system
  - Externally powered system
  - A hybrid system
- PK sethi and team developed
  - Dynamic response
  - Jaipur foot
  - Syme''s prosthesis
  - Multi Axis feet
- Missing limb can be relaced by
  - Orthosis
  - Prosthesis
  - Splint
  - All

10. Whole of lower limb with one side of ilium removed
  - a. Symes amputation
  - b. Lisfranc amputation
  - c. Hind Quarter amputation
  - d. Hip Disarticulation
11. This is designed to allow unilateral forward movement of one side
  - a. Gutter walker
  - b. Reciprocal walker
  - c. Rollator
  - d. All
12. In tredelenberg test, which muscle is weak
  - a. Gluteus maximus
  - b. Gluteus minimums
  - c. Steppage gait
  - d. Antalgic gait
13. Measurement is taken from ulnar styloid to a point 20 cm lateral to heel of shoe
  - a. Axillary crutch
  - b. Standard canes
  - c. Elbow crutch
  - d. Gutter crutch
14. It has a planter transverse convexity which changes stance phase loading
  - a. Metatarsal bar
  - b. Rocker bar
  - c. Metatarsal pads
  - d. Internal heel orthosis
15. Swivel joints is present between vertical and horizontal bars
  - a. Foldable walker
  - b. Gutter walker
  - c. Reciprocal walker
  - d. Rollator
16. This cable system is called
  - a. Juxtacable
  - b. Selsesian Bags
  - c. Bowden dual control system
  - d. Harrison hooks
17. Propulsion of inside or standard rim turns in .....direction in hemiplegic wheelchair
  - a. Same
  - b. Opposite
  - c. All
  - d. Static
18. Joystick power seating system have.....seat positions
  - a. 4
  - b. 5
  - c. 6
  - d. 7
19. Hoists must have capacity to lift weight of.....kg in wheelchair maintainence
  - a. 90-100
  - b. 100-120
  - c. 100-150
  - d. 150-200
20. Intetarsal amputation is also callecd
  - a. Syme''s amputation
  - b. Chopart''s amputation
  - c. Lisfranc amputation
  - d. Krukenberg amputation

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**( Descriptive )**

Time : 2 hrs. 30 min.

Marks : 50

*[ Answer question no.1 & any four (4) from the rest ]*

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| 1. What is prosthesis? Write about parts of a prosthesis. Explain the difference between exoskeleton and endoskeleton prosthesis   | 2+4+4<br>=10   |
| 2. What is knee ankle foot orthosis? Mention the different knee joints and knee locks in Knee ankle foot orthosis.   | 3+7=10         |
| 3. What is crutch? How many types of crutch are present? Write about axillary crutch in details  | 2+4+4<br>=10   |
| 4. What are the four different categories of upper limb prosthetic system? Explain in details  | 10             |
| 5. What is Milwaukee brace? Write the frame of Milwaukee brace how it is designed? In what conditions it is used? Write the advantages and disadvantages of Milwaukee brace? | 2+4+4<br>=10   |
| 6. What is wheelchair? Mention any two different types of wheelchair? Write function and propulsion of a tricycle?   | 2+4+4<br>=10   |
| 7. What is cane? What are the different types of cane ? What is hemiwalker/ Write about the measuring canes.   | 2+2+2+4<br>=10 |
| 8. What is splint? Write the classification of splint? What are the general functions of splint? What is Dynamic MCP splint?   | 2+4+4<br>=10   |

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