

# University of Mumbai

## Examination 2020

Program: BE Biomedical Engineering

Curriculum Scheme: Rev2016

Examination: Third Year Semester V

Course Code: BMDLO5013 and Course Name: Elective 1 - Rehabilitation Engineering

Time: 1 hour

Max. Marks: 50

Note to the students: - All the Questions are compulsory and carry equal marks .

Q1.	What is not a part of preventive rehabilitation?
Option A:	Rehabilitation not at birth
Option B:	Rehabilitation at the onset of birth
Option C:	Rehabilitation after the occurrence of a primary disability
Option D:	Rehabilitation before the child is born
Q2.	Measure taken before the onset of any disease is called as
Option A:	Primary Prevention
Option B:	Secondary Prevention
Option C:	Tertiary Prevention
Option D:	Quaternary Prevention
Q3.	The COG of the adult human in the anatomical position while standing is _____
Option A:	Anterior Superior Spine of Ilium
Option B:	First Sacral vertebra
Option C:	Second Sacral Vertebra
Option D:	Third Sacral Vertebra
Q4.	Degree of freedom refers to the property of a mechanical joint which is subjected to _____
Option A:	Rotational Motion
Option B:	Translational Motion
Option C:	Both Rotational and Translational Motion
Option D:	Oscillatory Motion
Q5.	Any loss or abnormality of psychological, physiological, or anatomical structure or function.
Option A:	Impairment
Option B:	Depression
Option C:	Disability
Option D:	Handicap
Q6.	Orthotics works on _____ principle.
Option A:	Two point pressure
Option B:	Three point pressure
Option C:	One point pressure
Option D:	Five point pressure

**University of Mumbai**  
**Examination 2020**

Q7.	Below knee amputation is also called as _____ amputation
Option A:	Transfemoral
Option B:	Transtibial
Option C:	Ankle disarticulation
Option D:	Syme's
Q8.	Which one of the following is incorrect for exoskeletal prosthesis?
Option A:	has a rigid outer shell
Option B:	provides structural strength
Option C:	provides cosmetic shape
Option D:	has a tubular structure connecting the components and is covered by cosmetic foam
Q9.	ADL is an abbreviation for _____
Option A:	Activities of daily living
Option B:	Actions of daily living
Option C:	Addiction of daily living
Option D:	Anti-Defamation living
Q10.	In _____ amputation the entire shoulder girdle is removed
Option A:	Transradial
Option B:	Forequarter
Option C:	Humeral head
Option D:	Transhumeral
Q11.	Which among the following statements concerning the Barthel index is incorrect?
Option A:	It assesses 10 aspects of daily life
Option B:	It allows comparison between services
Option C:	It has predictive value
Option D:	It takes cognitive function into account
Q12.	FIM is the abbreviation for
Option A:	Functional Independence Measure
Option B:	Full Independence Measure
Option C:	Freedom Independence Measure
Option D:	First Independence Measure
Q13.	If three Kinematic Pairs are considered together, it is called as _____
Option A:	Serial Chain
Option B:	Branched Chain
Option C:	Kinematic Chain
Option D:	Biomechanical Chain
Q14.	Movement of a joint is an ideal example for _____
Option A:	Kinematics
Option B:	Kinetics
Option C:	Kinematic Pair

**University of Mumbai**  
**Examination 2020**

Option D:	Applied Kinesiology
Q15.	A person with a knee amputation and supported with a wheel chair will have his COG at _____
Option A:	Second Sacral Vertebra
Option B:	Level below Second Sacral Vertebra
Option C:	Level Above Second Sacral Vertebra
Option D:	Third Sacral Vertebra
Q16.	While applying an external resistance, the maximum resistance torque of the weight occurs when the segment subjected to force is _____
Option A:	Horizontal
Option B:	Vertical
Option C:	Oblique
Option D:	Parallel
Q17.	While performing a jump, what will be the DOF when the metatarsal has just touched the floor?
Option A:	4
Option B:	6
Option C:	3
Option D:	2
Q18.	In blood, 95% of the formed elements are
Option A:	RBCs
Option B:	WBCs
Option C:	Platelets
Option D:	Clotting factors
Q19.	The lifespan of RBCs is _____ days
Option A:	30
Option B:	60
Option C:	90
Option D:	120
Q20.	Which of the following is not a characteristics of laminar flow.
Option A:	Steady
Option B:	velocity profile independent of time
Option C:	coefficient of friction is negligible
Option D:	contains Eddies
Q21.	Which of the following is type of Hip deformity
Option A:	Genu recurvatum
Option B:	Scissoring
Option C:	Triple displacement
Option D:	Equinus
Q22.	Which of the following is type of Knee deformity

**University of Mumbai**  
**Examination 2020**

Option A:	Scissoring
Option B:	Pes Valgus
Option C:	Triple displacement
Option D:	Torticollis
Q23.	The Pes Cavus is characterized by
Option A:	Abnormally high longitudinal arches
Option B:	Triple displacement
Option C:	Collapse of longitudinal arches
Option D:	Curvature in the spine
Q24.	Which of the following splint can be used for Hip Flexion, Adduction, Internal Rotation deformity
Option A:	Abductor splint
Option B:	Cock up splint
Option C:	Knee splint
Option D:	Serial casting
Q25.	_____ Levels are greater than 10 times normal in children with DMD.
Option A:	Creatine Phosphokinase (CPK)
Option B:	Blood Sugar levels
Option C:	Albumin
Option D:	Phosphate

# University of Mumbai

## Examination 2020

Program: BE Biomedical Engineering

Curriculum Scheme: Rev2016

Examination: Third Year Semester V

Course Code: BMDLO5013 and Course Name: Elective 1 - Rehabilitation Engineering

Time: 1 hour

Max. Marks: 50

---

---

Question	Correct Option (Enter either 'A' or 'B' or 'C' or 'D')
Q1.	A
Q2.	A
Q3.	C
Q4	C
Q5	A
Q6	B
Q7	B
Q8.	D
Q9.	A
Q10.	B
Q11.	D
Q12.	A
Q13.	B
Q14.	B
Q15.	C
Q16.	A
Q17.	A
Q18.	A
Q19.	D
Q20.	D
Q21.	B
Q22.	C
Q23.	A
Q24.	A
Q25.	A