

# Online Examinations (Even Sem/Part-I/Part-II Examinations 2020 - 2021)

Course Name - Basics of Biomechanics

Course Code - BPT204

\* You can submit the form ONLY ONCE.

\* Fill the following information for further process.

\* Required

1. Email \*

---

2. Name of the Student \*

---

3. Enter Full Student Code \*

---

4. Enter Roll No \*

---

5. Enter Registration No \*

---

6. Enter Course Code \*

---

7. Enter Course Name \*

---

8. \*

Mark only one oval.

- Diploma in Pharmacy
- Bachelor of Pharmacy
- B.TECH.(CSE)
- B.TECH.(ECE)
- BCA
- B.SC.(CS)
- B.SC.(BT)
- B.SC.(ANCS)
- B.SC.(HN)
- B.Sc.(MM)
- B.A.(MW)
- BBA
- [B.COM](#)
- B.A.(JMC)
- BBA(HM)
- BBA(LLB)
- B.OPTOMETRY
- B.SC.(MB)
- B.SC.(MLT)
- B.SC.(MRIT)
- B.SC.(PA)
- LLB
- [B.SC\(IT\)-AI](#)
- B.SC.(MSJ)
- Bachelor of Physiotherapy
- B.SC.(AM)
- Dip.CSE
- Dip.ECE
- [DIP.EE](#)
- DIP.CE

- [DIP.ME](#)
- PGDHM
- MBA
- M.SC.(BT)
- M.TECH(CSE)
- LLM
- M.A.(JMC)
- M.A.(ENG)
- M.SC.(MATH)
- M.SC.(MB)
- MCA
- M.SC.(MSJ)
- M.SC.(AM)
- M.SC.CS)
- M.SC.(ANCS)
- M.SC.(MM)
- B.A.(Eng)

Answer all the questions. Each question carry one mark.

9. 1. Which is not a saddle joint?

*Mark only one oval.*

- Carpometacarpal of thumb
- Ankle
- Sternoclavicular
- Acromio clavicular

10. 2. Normal carrying angle is

*Mark only one oval.*

- 0 – 20 degree
- 0-30 degree
- 0-10 degree
- 0-40 degree

11. 3. Which class is lever of power

*Mark only one oval.*

- 1st
- 2nd
- 3rd
- 4th

12. 4. Which is not an anatomical pulley

*Mark only one oval.*

- FDP contraction
- Quadriceps contraction
- Hamstring contraction
- Peroneal contraction

13. 5. A small carrying angle means there is a risk of \_\_\_\_\_

*Mark only one oval.*

- Inferior dislocation
- Posterior dislocation
- Superior dislocation
- Anterior dislocation

14. 6. The range of abduction of shoulder is less when shoulder is

*Mark only one oval.*

- Externally rotated
- Internally rotated
- In neutral
- In flexion

15. 7. Static stabilization of glenohumeral articular surface is provided by

*Mark only one oval.*

- Coracohumeral ligament
- Coraco clavicular ligament
- Superior joint capsule
- Coraco humeral ligament and superior joint capsule

16. 8. Which is the most important muscle to produce upwards rotation of the scapula

*Mark only one oval.*

- Serratus anterior
- Trapezius
- Levator scapulae
- Deltoid

17. 9. The role of gastrocnemius at knee is

*Mark only one oval.*

- Static stabilizer
- Mobilizer for flexion
- Dynamic stabilizer
- Synergistic for knee flexion

18. 10. Which one of the muscle is not included in pes anserinus

*Mark only one oval.*

- Gracilis
- Semimembranosus
- Semi tendinosus
- Sartorius

19. 11. Which two muscles act to prevent entrapment of menisci during knee motion

*Mark only one oval.*

- Semitendinosus & popliteus
- Semimembranosus & popliteus
- Sartoris & popliteus
- Gastrocnemius & popliteus

20. 12. The joint which is able to withstand the most compressive force

*Mark only one oval.*

- Facet joint
- Hip joint
- Knee joint
- Ankle joint

21. 13. The primary contributor to the resistance to passive stretching is

*Mark only one oval.*

- Cross bridges of myosin filament
- Titin
- Thixotrophy of muscle
- Stiffness of tendon



22. 14. Second class lever will always have a lever arm

*Mark only one oval.*

- Equal to 1
- More than 1
- Less than 1
- More than 2

23. 15. In pulled elbow syndrome there is dislocation of

*Mark only one oval.*

- Radio-humeral joint
- Radio-ulnar joint
- Humero-ulnar joint
- Wrist joint

24. 16. In triceps paralysis which shoulder muscle can substitute for it

*Mark only one oval.*

- Anterior deltoid
- Posterior deltoid
- Supraspinatus
- Short head of biceps brachi

25. 17. The resultant pull of quadriceps femoris in frontal plane is

*Mark only one oval.*

- 7degree to 10 degree medially
- 15 degree to 20 degree laterally
- 10 degree to 15 degree medially
- Option 4

26. 18. Patellofemoral joint reaction force is maximum at

*Mark only one oval.*

- Knee extension force
- 15 degree knee flexion
- 60 degree knee flexion
- 100 degree knee flexion

27. 19. Hyaline cartilages are found in

*Mark only one oval.*

- IVD
- Ears
- Epiglottis
- Joints

28. 20. Zone of weakness in femur is that

*Mark only one oval.*

- Where system trabeculae is relatively thin
- Blood supply is less
- muscle coverage is less
- Ligaments are slack

29. 21. Quadriceps femoris shows peak force at

*Mark only one oval.*

- Outer range
- Inner range
- Mid range
- Through out the range muscle force same

30. 22. Delayed onset muscle soreness is most severe at

*Mark only one oval.*

- 5-10 hours
- 10 – 30 hours
- 30 – 45 hours
- 45 – 60 hours

31. 23. Which knee joint ligament helps in locking

*Mark only one oval.*

- ACL
- PCL
- LCL
- Posterior capsule

32. 24. Instability occurs at which degree sprain?

*Mark only one oval.*

- 1 degree
- 2 degree
- 3 degree
- 2 & 3 degree

33. 25. In functional position of hand which muscle length is kept at optimal length

*Mark only one oval.*

- Wrist extensor
- Wrist flexor
- Finger extensor
- Finger flexors

34. 26. For meniscus injury there should be

*Mark only one oval.*

- Shear of compressed knee
- Torsion of compressed knee
- Shear and torsion of knee
- Torsion of extended knee

35. 27. The arthrokinematics of shoulder flexion is

*Mark only one oval.*

- Roll and slide along joints longitudinal diameter
- Roll and slide along transverse diameter
- Spin movement of articular surface
- A roll of the articulating surface

36. 28. During complete shoulder abduction the clavicular movement is

*Mark only one oval.*

- Elevation and anterior rotation
- Elevation and posterior rotation
- Depression and posterior rotation
- Option 4

37. 29. In which condition muscle force production is more?

*Mark only one oval.*

- Less velocity middle range
- More velocity middle range
- Less velocity outer range
- More velocity inner range

38. 30. When two forces applied from one point as the angle between the forces decrease the resultant force.

*Mark only one oval.*

- Decrease
- Increase
- Remains same
- Becomes twice

39. 31. Location of centre of mass of body segment is at \_\_\_\_\_ % from proximal end

*Mark only one oval.*

- 0.4
- 0.5
- 0.45
- 0.55

40. 32. Weight of HAT is about \_\_\_\_\_ % of bodyweight

*Mark only one oval.*

40 %

50 %

60 %

70 %

41. 33. The centre of gravity of HAT is at

*Mark only one oval.*

T10

T11

L1

T9

42. 34. The lever arm of gastrosoleus muscle force ankle joint

*Mark only one oval.*

2"

1"

3"

1.5"

43. 35. At slow speed injury the failure of ligament results in

*Mark only one oval.*

- Ligament disruption
- Avulsion
- Complete tear
- Mild tear

44. 36. The inability to control pronation by \_\_\_\_\_ results in tendonitis.

*Mark only one oval.*

- Peroneus longus.
- Peroneus brevis
- Peroneus tertius.
- Opponens pollicis

45. 37. Which muscle may not be an extensor of wrist when the forearm is pronated

*Mark only one oval.*

- ECRL
- Extensor digitorum
- ECRB
- ECU



46. 38. Which muscle is the key extensor of the wrist because of its force production

*Mark only one oval.*

ECRL

ECRB

ECU

ED

47. 39. External rotation of a segment occurs in \_\_\_\_\_.

*Mark only one oval.*

a sagittal plane

a transverse plane

a frontal plane

a longitudinal plane

48. 40. These cells are responsible for forming new bone.

*Mark only one oval.*

Osteoclasts

Osteopaths

Osteocytes

Osteoblasts

49. 41. A diarthrodial joint is also known as a \_\_\_\_\_ joint.

*Mark only one oval.*

- hinge
- condyloid
- synarthrodial
- synovial

50. 42. The most mobile type of joint is the \_\_\_\_\_ joint.

*Mark only one oval.*

- ball-and socket
- saddle
- pivot
- hinge

51. 43. Stress is

*Mark only one oval.*

- the ratio of the change in length to the resting length
- the amount of force at a particular strain
- the force per unit area
- the stored mechanical energy

52. 44. As a person sits from a standing position, what is the predominant contraction type in the lower extremity?

*Mark only one oval.*

- Concentric
- Eccentric
- Isotonic
- Isometric

53. 45. A single neuron and all the muscle cells it innervates is \_\_\_\_.

*Mark only one oval.*

- a peripheral nerve
- a spinal nerve
- a motor pool
- a motor unit

54. 46. The GTO is sensitive to \_\_\_\_.

*Mark only one oval.*

- muscle length
- movement
- joint position
- muscle tension

55. 47. Which muscle is biarticular?

*Mark only one oval.*

- Biceps brachii
- Brachialis
- Brachioradialis
- Coracobrachialis

56. 48. The biceps brachii can develop the most force \_\_\_\_.

*Mark only one oval.*

- when the forearm is pronated
- when the forearm is supinated
- when the forearm is in the neutral position
- when the shoulder is flexed

57. 49. Which structure is not on the scapula?

*Mark only one oval.*

- Inferior angle
- Glenoid fossa
- Coracoid process
- Radial notch

58. 50. Rotator cuff problems can be exacerbated by shoulder \_\_\_\_.

*Mark only one oval.*

- flexion
- extension
- abduction
- adduction

59. 51. Power is \_\_\_\_\_

*Mark only one oval.*

- the rate of change of velocity
- the product of length and tension
- the product of torque and acceleration
- the product of force and velocity

60. 52. The connective tissue component of a skeletal muscle that surrounds fibers is called the \_\_\_\_\_.

*Mark only one oval.*

- perimysium
- epimysium
- endomysium
- tendomysium

61. 53. The all-or-none principle refers to \_\_\_\_.

*Mark only one oval.*

- a muscle
- a muscle fiber
- a muscle fascicle
- a motor unit

62. 54. The synaptic gap occurs \_\_\_\_.

*Mark only one oval.*

- at a node of Ranvier
- in the soma
- at the neuromuscular junction
- at a collateral branch of the nerve

63. 55. The structure that connects the radius to the ulna is the \_\_\_\_.

*Mark only one oval.*

- interosseous membrane
- annular ligament
- ulnar collateral ligament
- radial collateral ligament

64. 56. The sacral movements are \_\_\_\_

*Mark only one oval.*

- flexion, extension, abduction, adduction, and rotation
- flexion, extension, nutation, and counternutation
- flexion, extension, and rotation
- flexion and extension

65. 57. The axon of motoneurons is fairly large, making it capable of transmitting impulses up to \_\_\_\_ m/s.

*Mark only one oval.*

- 30
- 100
- 300
- 500

66. 58. Projections on the cell body receive information called

*Mark only one oval.*

- dendrites
- ganglia
- schwann cells
- microglia

67. 59. What is the muscle structure from smallest to largest?

*Mark only one oval.*

- Myofilaments, myofibrils, fascicles, fibers, muscle
- Myofibrils, myofilaments, fascicles, fibers, muscle
- Myofibrils, myofilaments, fibers, fascicles, muscle
- Myofilaments, myofibrils, fibers, fascicles, muscle

68. 60. This characteristic of bone suggests that the stiffness depends on the rate of loading.

*Mark only one oval.*

- Isotropic
- Anisotropic
- Anisotonic
- Viscoelastic

---

This content is neither created nor endorsed by Google.

Google Forms