

PARUL UNIVERSITY
Faculty of Physiotherapy
BPT, Examination, November-2017

Year: 2

Subject Code: 07101205

Subject Name: Biomechanics and Kinesiology - II

Date: 01/12/2017

Time: 10:00 am to 12:00 pm

Total Marks: 35

Instructions:

1. All questions are mandatory.
2. Figures to the right indicate full marks.
3. Draw Diagram wherever necessary.
4. Write sections – A, sections – B on separate answer sheets.

SECTION - A

Q.1 Write a note on the muscles and Ligaments of a vertebral column & their functions. **(15)**

OR

Q.1 Define Gait. Describe various phases of Gait cycle and write in detail about kinematics and kinetics of Gait. **(15)**

Q.2 Write Short Notes (any two) (5 Marks Each) **(10)**

- (a) Pelvic tilt
- (b) Write in detail about Impetus.
- (c) Occupational Hazards

SECTION - B

Q.1 Multiple Choice Question (1 Mark Each) **(10)**

1. Bucket handle movement of thorax involves

| | |
|--|--|
| (a) Increase in lateral diameter | (b) Increase in anterior –posterior diameter |
| (c) Increase in posterior – lateral diameter | (d) Increase in anterior – lateral diameter |
2. Normal Lumbo-sacral angle is

| | |
|--------|--------|
| (a) 20 | (b) 30 |
| (c) 35 | (d) 70 |
3. C2 cervical vertebrae is also called as

| | |
|-----------|--------------------------------|
| (a) Axis | (b) Pivot |
| (c) Atlas | (d) Median Atlanto axial joint |
4. Study of joint is called

| | |
|-----------------|-------------------|
| (a) Kinesiology | (b) Biology |
| (c) Arthrology | (d) Anthropometry |
5. The vertebral column is composed of Total how many intervertebral discs

| | |
|--------|--------|
| (a) 25 | (b) 33 |
| (c) 23 | (d) 24 |
6. Which of the following muscle is used during quiet breathing?

| | |
|--------------------------|--------------------------|
| (a) Scalene | (b) Pectoralis major |
| (c) Internal intercostal | (d) External intercostal |
7. The semispinalis capitis is responsible for:

| | |
|-----------------------------|-----------------------|
| (a) Lateral flexion of neck | (b) Extension of neck |
| (c) Flexion of neck | (d) Rotation of neck |
8. Transverse abdominal muscle pulls rib cage

| | |
|-----------------------|------------------|
| (a) Cephalic | (b) Caudally |
| (c) Anteroposteriorly | (d) Horizontally |
9. The Quadratus lumborum is an important

| | |
|---------------------------------|------------------------------|
| (a) Sagittal plane stabilizer | (b) Frontal plane stabilizer |
| (c) Horizontal plane stabilizer | (d) Oblique plane stabilizer |
10. During first 20% of stance phase contralateral side drops about:

| | |
|--------------|--------------|
| (a) 2 degree | (b) 3 degree |
| (c) 5 degree | (d) 7 degree |