

# Rajiv Gandhi University of Health Sciences, Karnataka

MBBS Phase – I Degree Examination – JUNE-2019

Time: Three Hours

Max. Marks: 100 Marks

## Physiology – Paper I (RS2 & RS3)

Q.P. CODE: 1077

Your answers should be specific to the questions asked

Draw neat, labeled diagrams wherever necessary

### LONG ESSAYS

2 x 10 = 20 Marks

1. Define Cardiac output. Describe the various factors regulating cardiac output.
2. Describe the role of counter current mechanism in kidney function.

### SHORT ESSAYS

10 x 5 = 50 Marks

- ~~3.~~ Micturition reflex
4. Functions of plasma proteins
- ~~5.~~ Surfactant
6. Movements of small ~~proteins~~ *intestine*.
- ~~7.~~ Regulation of GFR
- ~~8.~~ Deglutition
- ~~9.~~ Sodium – potassium pump
- ~~10.~~ Juxta medullary nephron
- ~~11.~~ Rh factor and its importance
- ~~12.~~ Periodic breathing

### SHORT ANSWERS

10 x 3 = 30 Marks

- ~~13.~~ Ventilation – perfusion ratio
14. Tubular maximum for Glucose (Tm G)
- ~~15.~~ Anticoagulants
- ~~16.~~ P-R interval
- ~~17.~~ Functions of Gastrin
- ~~18.~~ Heart sounds
19. Dietary fiber
- ~~20.~~ Facilitated diffusion
- ~~21.~~ Morphological classification of anemias
- ~~22.~~ Gap junctions

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**Rajiv Gandhi University of Health Sciences, Karnataka**  
**First Phase MBBS Degree Examination – JUNE-2019**

**Time: Three Hours**

**Max. Marks: 100 Marks**

**Physiology-paper II (RS2 & RS3)**

**QP Code: 1078**

Your answers should be specific to the questions asked  
Draw neat labeled diagrams wherever necessary

**LONG ESSAYS**

**2 x 10 = 20 Marks**

1. Draw a neat labeled diagram of 'slow pain' pathway from right lower limb. Explain 'descending analgesia system'
2. Describe the physiological actions & regulation of secretion of cortisol.

**SHORT ESSAYS**

**10 x 5 = 50 Marks**

3. Give the principal connections & functions of Basal Ganglia.
4. Explain the role of 'cochlea' in 'pitch discrimination'.
5. List the features of 'Brown Sequard syndrome'
6. Give the source, target organs and actions of 'calcitonin'
7. Draw the pathway for 'direct light reflex'
8. List the functions of thalamus.
9. Enumerate the hormones of posterior pituitary and explain the actions of ANY one
10. With examples explain 'positive feedback' control of hormones.
11. Neural pathway & the physiological role of taste sensation.
12. Explain the mechanism of neuromuscular transmission. Add a note on neuromuscular blockers.

**SHORT ANSWERS**

**10 x 3 = 30 Marks**

13. Mention the part of retina with highest visual acuity and give reasons for the same.
14. Indicators of ovulation
15. List the functions of placenta.
16. Impedance matching by the middle ear.
17. Prolactin
18. Superfemale
19. Physiological mechanisms of heat gain
20. Explain the physiological basis of any ONE test to investigate the cause of infertility in a female
21. Rigor mortis
22. Oligodendrocytes