

# Rajiv Gandhi University of Health Sciences, Karnataka

## Fellowship Examination – 07-Sep-2023

**[Time: 3 Hours]****[Max. Marks: 100]**

### **Clinical Embryology & Assisted Reproductive Technology (Embryology and Andrology) - PAPER – I**

**QP Code: 4371**

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

**Answer All The Questions****10 X 10 = 100 Marks**

1. Explain male reproductive systems and role of male reproductive hormones in reproduction.
2. Explain different maturation stages of oocyte with diagram observed in vitro during IVF treatment.
3. Write short note on PICSI and MACS.
4. Explain in detail the zygote grading and blastocyst grading methods.
5. What is human embryo culture? Write pros and cons of open vs closed culture system.
6. Explain the quality control in IVF lab. What are the KPIs in IVF ICSI program?
7. What is vitrification? What are the challenges in oocyte freezing over embryo freezing?
8. What are different causes of female infertility and how IVF technique help to treat them.
9. What is endometrium receptivity index? How it can affect the results of IVF ICSI treatment.
10. Answer the following :
  - i. Age limit of couple opting IVF in India according to ART Act 2022
  - ii. Explain the eligibility criteria for women to act as surrogate in India according to ART act 2022
  - iii. Define infertility.
  - iv. What is called as implantation failure?
  - v. Name any two buffer system used in IVF which do not require CO<sub>2</sub> to maintain their pH.

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