



## CSIR Integrated Skill India Initiative

### Certificate Courses on Real time RT-PCR



### Code – IICB-RTPCR

As the Coronavirus that causes the COVID-19 disease is spreading across the world, CSIR-IICB is offering its support and expertise to help healthcare workers to use Real Time Reverse Transcription Polymerase Chain Reaction (real time RT-PCR), one of the most accurate laboratory methods for detecting, tracking and studying the COVID-19 Coronavirus.

- Educational Qualifications** : UG or PG (in any branch of Science/Technology/Pharmaceuticals) (Pursuing/ Completed degree)
- Venue Of the course** : CSIR-IICB, Jadavpur Campus and Salt Lake Campus
- Age group** : 18 and above
- Course Fee** : Rs. 5,000/-
- Duration** : 01 week (15<sup>th</sup> Sept -19<sup>th</sup> Sept 2025)

### Training Curriculum

:

- Technical overview on Real Time PCR
- RNA isolation and cDNA synthesis
- Primer Designing
- Gene expression studies
- Data Analysis and Troubleshooting







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#### **Day 1 Schedule (Theory by Online mode)**

- RNA extraction and RNA handling (1 Hr)
- Biosafety measures required to handle the samples (1 Hr)
- Principles of PCR analysis and Real-Time PCR technique and its implication in diagnosis and testing (1 hr)

#### **Day 2 Schedule (Theory by Online mode)**

- Realtime PCR technique including machine handling and data analysis (1 Hr)
- Reverse transcription and multiplex RT-qPCR (1 Hr)

#### **Day 3 Schedule**

Practical-I: RNA extraction and Measurement (Either Salt Lake or Jadavpur Campus)

#### **Day 4 Schedule**

Practical-II (RT-PCR) (Either Salt Lake or Jadavpur Campus)

#### **Day 5 Schedule**

Evaluation (11 am –until completion)







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#### Salient Features of the courses:

- ☐ Theory and practical sessions are per the course curriculum
- ☐ Hand-out information on teaching modules
- ☐ Hands on training through several practical classes in laboratories
- ☐ Exposure to all relevant instruments
- ☐ Continuous assessment through theoretical assignments & practical examinations for evaluation
- ☐ A certificate will be issued to the successful candidates
- ☐ **Seats Available : 10 (Shortlisting will be based on first come-first serve policy and eligibility criteria of the course)**
- ☐ Due to limited availability of seats, early registration through online application is recommended .
- ☐ **Candidates can apply for multiple courses. In such cases, shortlisting will be based on fulfilment of eligibility conditions, availability of seat and number of single choice applicants for the course**
- ☐ Admission process is completely online including the payment of fees.
- ☐ Once a candidate is shortlisted for a particular course, any request for change of course will not be accepted .
- ☐ Candidates cannot take admission simultaneously in two different courses
- ☐ Theoretical sessions through webinar
- ☐ Two practical sessions at any campus of CSIR-IICB

