

## ANNEX C (Revised2015)

### EXAMINATION FOR CYTOTECHNICIANS

**Basic qualification and experience in** Higher Secondary in biological Sciences **cytology** with diploma in Medical Lab. Technology/ certificate course and one year experience in cytology.

OR

Higher secondary in biological Sciences with 5 years experience in cytology

OR

B.Sc. Medical with 6 months experience in Cytology

#### 1. **Schedule of examination**

- i) Examination should consist of **theory, practical & viva-voce**
- ii) **Theory paper (100 marks)** : Should have 40 MCQs (40 marks); 5 matching type question (20 marks) and 8 short answer questions (40 marks) (duration 3 hours)
- iii) Distribution of **theory questions** should be as follows:
  - Basic cytology 20%
  - Gynaecological cytology 20%
  - Non-gynaecological cytology  
Including FNAC 20%
  - Techniques 40%
- iv) **Practical : 100 marks**
  - Practical** : To have 3 practical exercises :
    - i) Papanicolaou stain (10)
    - ii) Preparatory techniques/Cytospin/Millipore filter preparation etc. (14)
    - iii) Special stain/MGG etc (10)

**Spots:** Consisting of 15 objective structure practical examination stations.

- i) 7 stations on instruments. (7x2=14)
- ii) 8 stations on identification of cells etc. (8x4=32)

Total marks: 80

A candidate has to pass separately in theory and practical + viva voce. A candidate must secure at least 50% in each.

**Fees** ₹ 600/- (by a bank draft drawn in favour of Treasurer, Indian Academy of Cytology)

**Certificate** A certificate will be issued to successful candidates.

**Time of examination** Around September / October of every year

## **COURSE FOR CYTOTECHNICIAN**

### **i) Staining of cytopathology Specimen**

- a) Principles of fixation and various fixatives used.
- b) Papanicolaou staining-principles, advantages and techniques.

### **ii) Centrifugation techniques**

- a) Centrifugation principle and applications.
- b) Cytocentrifuge - principle and applications.
- c) Membrane filters - principle and applications.

### **iii) Cytochemistry**

- a) Routine cytochemistry staining procedure like MGG, alcian blue, mucicarmine, PAS, fat stain etc.
- b) Basic principles of immunocytochemistry, cell block preparation
- c) Liquid Based Cytology

### **iv) Female Genital tract**

- a) Anatomy, structure & physiology of female genital tract.
- b) Various techniques of collecting material from female genital tract.
- c) Various types of cells from female genital tract
- d) Cytology of uterine cervix.

### **v) Respiratory tract**

- a) Anatomy and physiology of respiratory tract.
- b) Collection and preparation (of sputum, TBNA, BAL fluids) including LBC and cell block preparation)

### **vi) Urinary tract**

- a) Anatomy and physiology of urinary tract
- b) Collection and preparation (Millipore filter technique, cytospin, LBC etc).

### **vii) Gastro-intestinal tract**

- a) Anatomy and physiology of gastrointestinal tract.

b) Processing and collection of material from gastrointestinal tract and its preparation.

viii) **Effusion**

a) Anatomy of serous cavities

b) Processing and Collection and preparation of fluid for cytological examination.

ix) **Introduction of cytogenetics(Molecular biology)**

a) Collection of material and staining for sex chromatin.

b) Culture of lymphocytes and making smears and staining.

c) Preparation and processing knowledge of preparation of Cytological material for PCR/RT PCR/Microarray/Gene sequencing.

x) FNAC: Preliminary knowledge on **fine needle aspiration** cytology, preparation of smears and staining.