

**PATHOLOGY**

**PAPER – II**

PATH/J/17/32/II

Time : 3 hours

Max. Marks : 100

**Important instructions:**

- Attempt all questions in order.
- Each question carries 10 marks.
- Read the question carefully and answer to the point neatly and legibly.
- Do not leave any blank pages between two answers.
- Indicate the question number correctly for the answer in the margin space.
- Answer all the parts of a single question together.
- Start the answer to a question on a fresh page or leave adequate space between two answers.
- Draw table/diagrams/flowcharts wherever appropriate.

Write short notes on:

1. a) Use of IDH, ATRX and lp19q in classification of gliomas in recent WHO Classification. 5+5  
b) Techniques of Cell block preparation for fine needle and exfoliative cytology samples.
2. a) Principle and applications of confocal microscopy. 5+5  
b) Pathophysiology of autophagy and its role in tumour development and storage disorders.
3. a) Role of histopathologists in stratified medicine treatment of cancers. 6+4  
b) Nesidioblastosis
4. a) Anti-NMDA encephalitis. 5+5  
b) Merits and demerits of various serum/tissue fluids based tuberculosis test.
5. a) Endoscopic ultrasound guided FNA and approach to cystic pancreatic lesion reporting. 5+5  
b) Intra-operative squash smear cytology reporting of CNS lesion - advantage and limitations.
6. a) Next Generation Sequencing (NGS): Its role and advantages. 5+5  
b) siRNA and its role in disease and treatment.
7. a) Compare and contrast between "ThinPrep" Vs 'SurePath' preparations of liquid based cytology. 5+5  
b) BRAF V600 E mutation and its role in CNS and other lesions.
8. a) Components and principles of Papanicolaou stain. 5+5  
b) HPV-Hybrid capture technique - principles and assessment.
9. a) Cytotoxicatives and its type: Use and advantages. 5+5  
b) Role of cytogenetics in diagnosis and management of soft tissue tumours.
10. a) miRNA in cancer. 5+5  
b) Pathology of acute lung injury.

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