

ANQ

PROVISIONAL ANSWER KEY [CBRT]

Name of The Post	Associate Professor, Pathology, General State Service, Class-1
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Instructions / સૂચના

Candidate must ensure compliance to the instructions mentioned below, else objections shall not be considered: -

- (1) All the suggestion should be submitted in prescribed format of suggestion sheet Physically.
- (2) Question wise suggestion to be submitted in the prescribed format (Suggestion Sheet) published on the website.
- (3) All suggestions are to be submitted with reference to the Master Question Paper with provisional answer key (Master Question Paper), published herewith on the website. Objections should be sent referring to the Question, Question No. & options of the Master Question Paper.
- (4) Suggestions regarding question nos. and options other than provisional answer key (Master Question Paper) shall not be considered.
- (5) Objections and answers suggested by the candidate should be in compliance with the responses given by him in his answer sheet. Objections shall not be considered, in case, if responses given in the answer sheet /response sheet and submitted suggestions are differed.
- (6) Objection for each question shall be made on separate sheet. Objection for more than one question in single sheet shall not be considered & treated as cancelled.

ઉમેદવારે નીચેની સૂચનાઓનું પાલન કરવાની તકેદારી રાખવી, અન્યથા વાંધા-સૂચન અંગે કરેલ રજૂઆતો ધ્યાને લેવાશે નહીં

- (1) ઉમેદવારે વાંધા-સૂચનો નિયત કરવામાં આવેલ વાંધા-સૂચન પત્રકથી રજૂ કરવાના રહેશે.
- (2) ઉમેદવારે પ્રશ્નપ્રમાણે વાંધા-સૂચનો રજૂ કરવા વેબસાઈટ પર પ્રસિધ્ધ થયેલ નિયત વાંધા-સૂચન પત્રકના નમૂનાનો જ ઉપયોગ કરવો.
- (3) ઉમેદવારે પોતાને પરીક્ષામાં મળેલ પ્રશ્નપુસ્તિકામાં છપાયેલ પ્રશ્નક્રમાંક મુજબ વાંધા-સૂચનો રજૂ ન કરતા તમામ વાંધા-સૂચનો વેબસાઈટ પર પ્રસિધ્ધ થયેલ પ્રોવિઝનલ આન્સર કી (માસ્ટર પ્રશ્નપત્ર)ના પ્રશ્ન ક્રમાંક મુજબ અને તે સંદર્ભમાં રજૂ કરવા.
- (4) માસ્ટર પ્રશ્નપત્ર માં નિર્દિષ્ટ પ્રશ્ન અને વિકલ્પ સિવાયના વાંધા-સૂચન ધ્યાને લેવામાં આવશે નહીં.
- (5) ઉમેદવારે જે પ્રશ્નના વિકલ્પ પર વાંધો રજૂ કરેલ છે અને વિકલ્પ રૂપે જે જવાબ સૂચવેલ છે એ જવાબ ઉમેદવારે પોતાની ઉત્તરવહીમાં આપેલ હોવો જોઈએ. ઉમેદવારે સૂચવેલ જવાબ અને ઉત્તરવહીની જવાબ ભિન્ન હશે તો ઉમેદવારે રજૂ કરેલ વાંધા-સૂચન ધ્યાનમાં લેવાશે નહીં.
- (6) એક પ્રશ્ન માટે એક જ વાંધા-સૂચન પત્રક વાપરવું. એક જ વાંધા-સૂચન પત્રકમાં એકથી વધારે પ્રશ્નોની રજૂઆત કરેલ હશે તો તે અંગેના વાંધા-સૂચનો ધ્યાને લેવાશે નહીં.

001. Carcinomas associated with disseminated intravascular coagulation are all except
(A) Carcinoma of pancreas (B) Carcinoma of prostate
(C) Carcinoma of lungs (D) Carcinoma of breast
002. Krukenberg tumour of ovary can occur as a result of metastases from all but
(A) Stomach (B) Breast
(C) Lung (D) Appendix
003. Pathological features of brain in AIDS are all except
(A) Microglial nodules
(B) Macrophage derived multinucleated giant cells
(C) Vasculitis
(D) Reactive gliosis
004. The type of porphyria associated with hepatocellular carcinoma is
(A) Acute Intermittent Porphyria (B) Porphyria Cutanea Tarda
(C) Erythropoietic Porphyria (D) Congenital Erythropoietic Porphyria
005. The following is an example of type 3 hypersensitivity reaction
(A) Bronchial Asthma (B) Contact Dermatitis
(C) Arthus Reaction (D) Good Pasture's Syndrome
006. Which one of the following is an example for dystrophic calcification
(A) Gamma-Gandy bodies of CVC spleen
(B) Basement membrane of tubules in kidney
(C) Internal elastic lamina of blood vessels
(D) Band keratopathy in cornea
007. Causative agent of hairy leukoplakia is
(A) Epstein barr virus (B) HIV
(C) Candida albicans (D) Corynebacterium diptheriae
008. Following are autosomal dominant disorders except
(A) Achondroplasia (B) Congenital adrenal hyperplasia
(C) Acute intermittent porphyria (D) Neurofibromatosis
009. The following malignancy is not an occupational cancer
(A) Acute myeloid leukemia (B) Carcinoma of lung
(C) Hepatic angiosarcoma (D) Hodgkin's lymphoma
010. Anti inflammatory cytokines are
(A) IL8 and TGF Beta (B) IL8 and IL10
(C) IL10 and TGF Beta (D) IL8 and prostacyclin
011. The epidermal derived giant cell among the following is
(A) Touton giant cell (B) Aschoff giant cell
(C) Tzanck giant cell (D) Foreign body giant cell

012. The decalcifying agent suitable for Jamshidi needle biopsy is
 (A) Nitric acid (B) Formic acid
 (C) Hydrochloric acid (D) Picric acid
013. Fish mouth or button hole stenosis is the gross appearance of chronic healed lesion of
 (A) Aortic valve (B) Mitral valve
 (C) Pulmonary valve (D) Tricuspid valve
014. One of the following is a cause of lymphoid leukemoid reaction
 (A) Staphylococcal pneumonia (B) Diphtheria
 (C) Eclampsia (D) Pertussis
015. Tumors associated with neurofibromatosis are all except
 (A) Ependymoma (B) Meningioma
 (C) Medulloblastoma (D) Acoustic neuroma
016. Gross appearance of the following organ looks like 'nutmeg' in venous congestion of
 (A) Lung (B) Liver
 (C) Kidney (D) Spleen
017. Progeria in children is characterised by the following except
 (A) Baldness (B) Cirrhosis of liver
 (C) Cataracts (D) Coronary artery disease
018. The commonest of all leukemias in India is
 (A) Acute myeloid leukemia (B) Chronic myeloid leukemia
 (C) Acute lymphoblastic leukemia (D) Chronic lymphocytic leukemia
019. Substrates commonly used for indirect immunofluorescence are all except
 (A) Monkey Esophagus (B) Bovine Kidney
 (C) Murine Bladder (D) Human Salt-Split Skin
020. Toker cells are seen in
 (A) Spleen (B) Vagina
 (C) Nipple (D) Liver
021. IgG4-related diseases are all except
 (A) Ormond's Disease (B) Riedel Thyroiditis
 (C) Collagenous Colitis (D) Sclerosing Sialadenitis
022. The average number of melanocytes to basal cells in the basal layer of the skin is
 (A) 1 of 3 cells (B) 1 of 5 cells
 (C) 1 of 10 cells (D) 1 of 20 cells
023. Ability of an objective lens to resolve detail is indicated by its
 (A) Magnifying power (B) Illumination
 (C) Numerical aperture (D) Interference

024. Level II lymph nodes are
(A) Posterior triangle nodes (B) Lower jugular nodes
(C) Middle jugular nodes (D) Upper jugular nodes
025. Name the agent used in double fixation to retain the lipids
(A) Glutaraldehyde (B) Osmium tetroxide
(C) Epoxy resin (D) Mercuric chloride
026. Ground glass appearance of hepatocytes are seen in the following conditions except
(A) Lafora disease (B) Following liver transplantation
(C) Wilson disease (D) Andersen disease
027. All are acute phase reactants except
(A) Ferritin (B) Alpha2 macroglobulin
(C) Catenin (D) Fibrinogen
028. The pathological changes in kidneys due to yellow fever include all of the following except
(A) Haemorrhages
(B) Accumulation of fat in tubular epithelium
(C) Coagulative necrosis of proximal tubules
(D) Enlarged and hypercellular glomeruli
029. Long term sequelae of ARDS include all except
(A) Bronchopulmonary dysplasia in neonates
(B) Desquamative interstitial pneumonia
(C) Interstitial fibrosis
(D) Interstitial emphysema
030. The most important cause of cell injury among the following is
(A) Microbial agents (B) Physical agents
(C) Hypoxia-ischemia (D) Immunologic agents
031. Urothelial carcinoma of bladder is associated with all except
(A) Schistosoma haematobium (B) Benzidine
(C) Thorium (D) Arylamines
032. When the mean values of more than two different groups are to be compared, the process is called,
(A) Linear regression (B) Analytical sensitivity
(C) Analysis of variance (D) Dispersion
033. Nephelometry is used to measure
(A) The specific gravity of urine
(B) The intensity of radiation
(C) The concentration of large molecules like antigen antibody complexes
(D) The changes in the colligative properties of a solution

034. Obstructive type of vaso occlusive pulmonary hypertension can occur due to
 (A) Schistosomiasis (B) Cysticercosis
 (C) Aspergillosis (D) Candidiasis
035. Which deficiency causes spinocerebellar degeneration ?
 (A) Niacin (B) Vitamin E
 (C) Vitamin K (D) Folic Acid
036. Myoepithelial markers are all except
 (A) Calponin (B) Smooth muscle myosin heavy chain
 (C) p63 (D) Mammaglobin
037. The following are examples of granulomatous inflammation except
 (A) Tuberculosis (B) Diphtheria
 (C) Leprosy (D) Syphilis
038. The most sensitive cellular indicators of autolytic change are
 (A) Nucleus and Mitochondria
 (B) Nucleus and Golgi apparatus
 (C) Endoplasmic reticulum and Golgi apparatus
 (D) Mitochondria and Endoplasmic reticulum
039. The stopper colour of the vacutainer to which sodium fluoride is added
 (A) Light blue (B) Royal blue
 (C) Grey (D) Yellow
040. The role of CD59 in inflammation is
 (A) Blocks the activation of C1 in classical pathway
 (B) Prevents formation of membrane attack complex
 (C) Prevents the formation of C3 convertase
 (D) Prevents the formation of C5 convertase
041. Kamino bodies are found in
 (A) Hemangiopericytoma (B) Granular cell tumor
 (C) Alzheimer's disease (D) Spitz nevi
042. The following serologic marker is not much useful in distinguishing various categories of rapidly progressive glomerulonephritis
 (A) Serum C3 level (B) Anti GBM antibody
 (C) ANCA (D) IgG
043. The following mendelian disorder is not due to enzyme defect and its consequences
 (A) Phenylketonuria (B) Tay sach's disease
 (C) Severe combined immunodeficiency (D) Cystic fibrosis
044. Interphase scoring criteria for FISH recommends analysis of atleast
 (A) 10 interphase cells (B) 50 interphase cells
 (C) 100 interphase cells (D) 200 interphase cells

045. Flask shaped ulcers in colon are due to
 (A) Tuberculosis (B) Amoebic colitis
 (C) Ulcerative colitis (D) Typhoid
046. Point mutation of the proteins involved in signal transduction-GNAS is associated with
 (A) Colonic carcinoma (B) Pituitary adenoma
 (C) Carcinoma of bladder (D) Neuroblastoma
047. Which of the following is associated with adult polycystic kidney disease?
 (A) Luetic aneurysm (B) Fusiform aneurysm of aorta
 (C) Berry aneurysm in circle of willis (D) Saccular aneurysm of aorta
048. Ability to produce plane polarised light by differential absorption is called
 (A) Polarization (B) Interference
 (C) Isotropism (D) Dichroism
049. Hypercalcemia as a paraneoplastic syndrome is not associated with
 (A) Squamous cell carcinoma of lung (B) Hepatocellular carcinoma
 (C) Renal cell carcinoma (D) Breast carcinoma
050. The most frequently mutated gene in human cancers is
 (A) TP53 (B) APC
 (C) CKDN2A (D) PTEN
051. Cam 5.2 is
 (A) High molecular weight cytokeratin
 (B) Low molecular weight cytokeratin
 (C) Intermediate molecular weight cytokeratin
 (D) Neuroendocrine marker
052. Bart's hydrop fetalis in alpha thalassemia is lethal because
 (A) Hb Bart's cannot bind oxygen
 (B) The excess alpha globin forms insoluble precipitates
 (C) Hb Bart's releases only minimal amount of oxygen to foetal tissues
 (D) Microcytic red cells become trapped in the placenta
053. The following are chronic inflammatory lesions which are associated with increased risk of malignancy except
 (A) Chronic cholecystitis (B) Lichen sclerosis
 (C) Inflammatory bowel disease (D) Chronic bronchitis
054. Overexpression of proto oncogene TGF A is associated with
 (A) Thyroid cancer (B) Hepatocellular carcinoma
 (C) Astrocytoma (D) Osteosarcoma
055. Biallelic loss of expression of CDH1 gene coding for E-cadherin
 (A) Medullary carcinoma of breast (B) Lobular carcinoma of breast
 (C) Mucinous carcinoma of breast (D) Tubular carcinoma of breast

056. Beta-2-microglobulin is associated with
 (A) Primary amyloidosis (B) Medullary carcinoma associated amyloidosis
 (C) Secondary amyloidosis (D) Dialysis associated amyloidosis
057. Black thyroid occurs in patients on treatment with
 (A) Amiodarone (B) Ciprofloxacin
 (C) Minocycline (D) Vancomycin
058. The guardian angel against obesity is
 (A) Adiponectin (B) Ghrelin
 (C) Leptin (D) Incretin
059. The following are true about marked intravascular hemolysis except
 (A) Presence Of Haemoglobin In Urine (B) Urine Conjugated Bilirubin Is Absent
 (C) Urine Urobilinogen Is Decreased (D) Plasma Haptoglobin Is Absent
060. Menke's syndrome is due to deficiency of
 (A) Selenium (B) Copper
 (C) Molybdenum (D) Zinc
061. Which of the following is not a muscular dystrophy
 (A) Duchenne (B) Becker
 (C) Emery - Dreifuss (D) Lambert Eaton
062. Zinc deficiency is not associated with
 (A) Cardiomyopathy (B) Growth retardation
 (C) Infertility (D) Alopecia
063. Following is an example for extracellular hyaline change
 (A) Zenker's degeneration (B) Mallory's hyaline
 (C) Russel bodies (D) Hyalinised glomeruli
064. Codocyte is found in all except
 (A) Hemoglobinopathies (B) Thalassemia
 (C) Liver disease (D) G-6PD deficiency
065. Moth eaten appearance of squamous cells in pap smear is seen in
 (A) Gardnerella vaginalis (B) Trichomonas
 (C) Candida (D) Chlamydia
066. Transport medium for skin specimens to be subjected to immunoflorescence studies
 (A) Robert's medium (B) Michel's medium
 (C) McNeal's medium (D) Rosen's medium
067. One of the following tumours is not associated with secondary polycythemia
 (A) Uterine leiomyoma (B) Cerebellar hemangiopericytoma
 (C) Hepatocellular carcinoma (D) Liposarcoma

068. All of the following are true about essential thrombocythemia except
 (A) Increased platelet count (B) Increased NAP score
 (C) Leucopenia (D) Normal haemoglobin
069. Secondary myelofibrosis is not seen in one of the following disease
 (A) Metastatic carcinoma of the bone marrow
 (B) Hairy cell leukemia
 (C) SLE involving bone marrow
 (D) Tuberculous granuloma of bone marrow
070. Not true regarding waldenstorm macroglobulinemia is
 (A) Hypercalcemia (B) Lymphadenopathy is usually present
 (C) IgM immunoglobulin increased (D) Blood viscosity increased
071. Sezary syndrome is included in the category of
 (A) T cell leukemia (B) Fungal infection of skin
 (C) Pigment disorder of skin (D) B-cell leukemia
072. EDTA is not suitable for the following test
 (A) Platelet count
 (B) Coagulation studies
 (C) HbF estimation and Hb electrophoresis
 (D) Total leukocyte count and differential count
073. One of the following is not a composition of Drabkin's solution
 (A) Potassium cyanide (B) Potassium oxalate
 (C) Potassium ferricyanide (D) Potassium dihydrogen phosphate
074. RBCs stained using new methylene blue can demonstrate all of the following except
 (A) Reticulocyte (B) HbH inclusions
 (C) Heinz bodies (D) Howel Jolly bodies
075. The following stain is useful for differentiating monoblast from myeloblast and lymphoblast
 (A) Myeloperoxidase stain (B) Periodic Acid Schiff stain
 (C) Non specific esterase stain (D) Sudan black B stain
076. High score of Neutrophil Alkaline Phosphatase is not seen in
 (A) Leukemoid reaction (B) PNH
 (C) Polycythemia rubra vera (D) Myelofibrosis
077. Callus is composed of
 (A) Woven bone and cartilage (B) Lamellar bone and cartilage
 (C) Granulation tissue and cartilage (D) Woven bone and granulation tissue
078. Spina bifida is an example for
 (A) Developmental dysplasia (B) Dystraphic anomaly
 (C) Hypoplasia (D) Atresia

079. All are true about lacunar type Reed Stenberg cells except
 (A) Seen in nodular sclerosis type of hodgkins disease
 (B) Appear lacunar due to shrinkage of cytoplasm in formalin fixed tissue
 (C) The pericellular halo is clearly seen if the tissue is fixed in Zenker's fluid
 (D) Positive immunostaining with CD15 and CD30
080. The preferred anticoagulant for red cell enzyme studies like G-6-P D and PK deficiency is
 (A) EDTA (B) Sodium citrate
 (C) Heparin (D) Sodium Fluoride
081. Leishmann Donovan bodies in bone marrow evoke
 (A) Lymphocytic response (B) Neutrophilic response
 (C) Plasma cell response (D) Eosinophilic response
082. During infusion of marrow into recipient during bone marrow transplantation the start of engrafting is confirmed by absolute neutrophil count of
 (A) More than 500 per cu.mm on 3 successive days
 (B) More than 400 per cu.mm on 3 successive days
 (C) More than 500 per cu.mm on 2 successive days
 (D) More than 400 per cu.mm on 2 successive days
083. Fibrinoid necrosis may be all of the following except
 (A) Arthus reaction (B) Polyarteritis nodosa
 (C) Arterioles in hypertension (D) Diabetic glomerulosclerosis
084. One of the following do not present with pancytopenia with normal or increased bone marrow cellularity
 (A) Myelodysplastic syndrome (B) Hypersplenism
 (C) Fanconi's anaemia (D) Megaloblastic Anaemia
085. Blackfan Diamond syndrome is the other name for
 (A) Transient self limited pure red cell aplasia
 (B) Acquired pure red cell aplasia
 (C) Chronic B 19 parvo virus infection
 (D) Congenital pure red cell aplasia
086. The laboratory investigations of disseminated intravascular coagulation includes all of the following except
 (A) Low platelet count
 (B) Increased plasma fibrinogen levels
 (C) Prolonged prothrombin time and thrombin time
 (D) Increased fibrin degradation products
087. Endogenous pyrogens are
 (A) IL - 1 and TNF (B) IL - 6 and LPS
 (C) IL - 6 and TNF (D) IL - 1 and LPS

088. Good prognosis in the cases of acute lymphoblastic leukemia is seen in
 (A) Males
 (B) Presence of lymphadenopathy and splenomegaly
 (C) 2 – 8 years
 (D) Presence of mediastinal mass
089. Dense accumulation of distended, foamy macrophages with partially digested bacteria in the small intestinal lamina propria is the hallmark of
 (A) Escherichia coli infection (B) Clostridium difficile infection
 (C) Whipple's disease (D) Salmonella infection
090. Celiac disease is strongly associated with
 (A) HLA DR4 (B) HLA DQ2
 (C) HLA B27 (D) HLA DQ3
091. Mallory Denk bodies are seen in all conditions except
 (A) Wilson's disease (B) Alcoholic liver disease
 (C) Primary biliary cirrhosis (D) Hepatitis E infection
092. The enzyme marker of cell death aspartate aminotransferase is elevated in the following diseases except
 (A) Viral hepatitis (B) Acute myocardial infarction
 (C) Alcoholic liver disease (D) Acute pancreatitis
093. Killing of cells by ionising radiation is mainly by
 (A) Direct formation of hydroxyl radicals (B) Formation of peroxynitrite
 (C) Formation of Superoxide (D) Formation of hydrogen peroxide
094. The following are haemoprotein derived pigments except
 (A) Haemosiderin (B) Bilirubin
 (C) Porphyrin (D) Lipofuscin
095. Which among the following is not a immunodeficiency disease with B-cell defect
 (A) Digeorge's syndrome
 (B) Bruton's agammaglobulinemia
 (C) Autosomal recessive agammaglobulinemia
 (D) Immunodeficiency with thymoma
096. LE cell test is positive in which of the following disease
 (A) Rheumatoid arthritis (B) Ankylosing spondylitis
 (C) Chronic active hepatitis (D) Coeliac disease
097. The following substance has a doughnut shape when viewed by electron microscopy
 (A) Apolipoprotein E (B) Amyloid
 (C) Sulfated glycosaminoglycans (D) Protein X

098. Fine needle Aspiration to diagnose amyloidosis is preferably done in the following site
 (A) Gingiva (B) Skin
 (C) Tongue (D) Abdominal subcutaneous fat
099. The following are the characteristic features of exudate when compared with transudate except
 (A) Protein content high (B) Low glucose content
 (C) High specific gravity (D) Low LDH
100. Respiratory alkalosis is seen in the following condition
 (A) Meningitis and encephalitis (B) Emphysema
 (C) Severed prolonged vomiting (D) Starvation
101. One of the following deficiency is not a cause for thrombophilia
 (A) Antithrombin III (B) Protein C
 (C) Thromboplastin (D) Proteein S
102. Stem cell niches of skin are not located in the following site
 (A) Bulge area of hair follicle (B) Sebaceous glands
 (C) Lower layer of epidermis (D) Sweat glands
103. One of the following is not a feature of juvenile CML
 (A) Children below 4 years are affected
 (B) Ph Chromosome / BCR-ABL negative
 (C) Anaemia and hepatosplenomegaly are present
 (D) HbF level decreased
104. Increased incidence of minimal change disease is seen with the following malignancy
 (A) Leukemia (B) Multiple myeloma
 (C) Hodgkin lymphoma (D) Carcinoma
105. The following conditions appear to contribute to formation of cholesterol stones
 (A) Hypomobility of gall bladder
 (B) Supersaturation of bile with cholesterol
 (C) Decreased secretion of mucus in the gall bladder
 (D) Accelerated cholesterol crystal nucleation
106. One of the following is not a basic alteration seen in the morphology of pancreas in acute pancreatitis
 (A) Microvascular leak and edema
 (B) Coagulative necrosis
 (C) Destruction of pancreatic parenchyma
 (D) Destruction of blood vessels
107. The most common source of embolism to the brain is
 (A) Fat, tumour or air
 (B) Embolism associated with cardiac surgery
 (C) Cardiac mural thrombi due to myocardial infarct and atrial fibrillation
 (D) Thromboemboli arising in carotid arteries

108. Aortic arch syndrome is the other name for
(A) Giant cell arteritis (B) Takayasu's arteritis
(C) Kawasaki's disease (D) Buerger's disease
109. The secretory production a functioning carcinoid tumor which is significant in the production of carcinoid syndrome is
(A) 5-hydroxytryptamine (B) Histamine
(C) Kallikrein (D) Bradykinin
110. Philadelphia chromosome is an example of
(A) Balanced translocation (B) Deletion
(C) Non-dysjunction (D) Duplication
111. The less commonly found autoantibodies in Hashimoto's thyroiditis is
(A) Thyroid microsomal autoantibodies
(B) Thyroid autoantibodies against follicular cell membranes
(C) Thyroglobulin autoantibodies
(D) TSH receptor autoantibodies
112. The most aggressive of astrocytomas is
(A) Anaplastic Astrocytoma (B) Juvenile pilocytic astrocytoma
(C) Glioblastoma multiforme (D) Pleomorphic xanthoastrocytoma
113. The carcinoma with positive correlation with endemic goitre
(A) Papillary carcinoma (B) Follicular carcinoma
(C) Medullary carcinoma (D) Anaplastic carcinoma
114. The following is not a dialysis related metabolic bone disease
(A) Osteomalacia (B) Osteitis fibrosa cystica
(C) Osteoarthritis (D) Secondary hyperparathyroidism
115. Schiller – Duval body is the characteristic feature of
(A) Choriocarcinoma (B) Yolk sac tumour
(C) Dysgerminoma (D) Embryonal Carcinoma
116. MEN type 2A involves the following organs except
(A) Parathyroid (B) Adrenal
(C) Thyroid (D) Pituitary
117. Bone tumour which is associated with endocrine abnormalities is
(A) Osteogenic sarcoma (B) Ewing sarcoma
(C) Osteoclastoma (D) Fibrous dysplasia
118. Involucrum means
(A) New living bone tissue (B) Dead bone
(C) Intraosseous abscess (D) Destructed articular surface

119. Histology of myositis ossificans mimics
 (A) Osteochondroma (B) Osteogenic sarcoma
 (C) Osteoclastoma (D) Ewing sarcoma
120. Intracytoplasmic, eosinophilic, elongated inclusions seen in parkinsonism
 (A) Negri bodies (B) Lewy bodies
 (C) Neurofibrillary tangles (D) Asteroid bodies
121. The causes of hemorrhagic pericarditis include all except
 (A) Tuberculosis (B) Bleeding diathesis
 (C) Dresslers syndrome (D) Spread of malignant neoplasm
122. Tatarate resistant acid phosphatase (TRAP) positivity in the cytoplasm is the characteristic feature of
 (A) Polymphocytic leukemia (B) Hairy cell leukemia
 (C) Mycosis fungoides (D) Chronic lymphocytic leukemia
123. The main iron regulating hormone released from the liver
 (A) Ferroportin (B) Heparin
 (C) Hephaestin (D) Fibrinogen
124. Fish tapeworm infestation causes
 (A) Vitamin B12 deficiency (B) Folate deficiency
 (C) Vitamin B6 deficiency (D) Iron deficiency
125. Foci of extramedullary haematopoiesis in the liver is seen in
 (A) Chronic myeloid leukemia (B) Polycythemia vera
 (C) Chronic idiopathic myelofibrosis (D) Essential thrombocythemia
126. The cell showing crumpled tissue paper appearance of the cytoplasm
 (A) Neimann Pick cell (B) Gaucher cell
 (C) Sea blue histiocyte (D) Langerhans cell histiocyte
127. The earliest lymph node involved in the metastasis of carcinoma prostate
 (A) Internal iliac nodes (B) Obturator nodes
 (C) Para-aortic nodes (D) Sacral nodes
128. Recurrent painful hemarthrosis and muscle hematomas are the clinical manifestations of
 (A) Thrombocytopenia (B) DIC
 (C) Hemophilia A (D) Von Willwbrand's disease
129. Favourable prognostic factors for neuroblastoma includes all except
 (A) Young age less than one year (B) No N-myc amplification
 (C) Low urinary VMA/HVA ratio (D) High expression of TRK - A

130. Asbestos bodies are made of
 (A) Macrophages with asbestos fibre + haemosiderin + glycoprotein
 (B) Asbestos fibre + haemosiderin + glycoprotein
 (C) Asbestos fibre + glycoprotein + fibrinous exudate
 (D) Macrophages with asbestos fibre + glycoprotein + fibrinous exudate
131. CD 99 immunoreactivity is not seen in the following small round cell tumour
 (A) T – lymphoblastic lymphoma (B) ES / PNET
 (C) Neuroblastoma (D) Poorly differentiated synovial sarcoma
132. The distinct brown colour of Hibernoma is due to
 (A) Prominent vascularity of the tumour
 (B) Profusion of mitochondria in the tumour
 (C) Both (A) and (B)
 (D) None of the above
133. One of the following is not a CSF finding of viral meningitis
 (A) CSF pressure increases (B) Lowered glucose concentration
 (C) Lymphocytosis in CSF (D) CSF bacteriologically sterile
134. Malignant triton tumour is the name given to
 (A) Malignant peripheral tumour with smooth muscle differentiation
 (B) Malignant peripheral nerve sheath tumour with rhabdomyoblastic differentiation
 (C) Malignant peripheral nerve sheath tumour with lipoblastic differentiation
 (D) Malignant peripheral nerve sheath tumour with neuroblastic differentiation
135. Bone marrow trephine biopsy is not an absolute indication in the following disease
 (A) Myelofibrosis (B) Aplastic anaemia
 (C) Megaloblastic anaemia (D) Hypoplastic acute leukemia(AML-MT)
136. The fixative of choice for testicular biopsies
 (A) Buffered formaldehyde and Clark's fluid
 (B) Buffered formaldehyde and Bouin's fluid
 (C) Clark's fluid and Bouin's fluid
 (D) Clark's fluid and Gendre's fluid
137. In tissue processing, the following is added to the dehydrating agents to soften the hard tissue
 (A) Phenol (B) Acetic acid
 (C) Chloroform (D) Toluene
138. The embedding media of choice for electron microscopy is
 (A) Paraffin (B) Agar
 (C) Resin (D) Gelatin

139. Cambium layer, a submucosal zone of markedly increased cellularity is seen in
 (A) Spindle cell Rhabdomyosarcoma
 (B) Pleomorphic Rhabdomyosarcoma
 (C) Alveolar Rhabdomyosarcoma
 (D) Botryoid type embryonal Rhabdomyosarcoma
140. The applications of freeze dried material include all of the following except
 (A) Demonstration of infectious agents (B) Immunocytochemical methods
 (C) Fluroscent antibody studies (D) Immunohistochemical methods
141. The stain mucicarnine is used for the demonstration of
 (A) Mycobacteria (B) Fungi
 (C) Cryptococci (D) Amoeba
142. The various artefact pigments seen in tissue section include all except
 (A) Fomalin (B) Malaria
 (C) Mercury (D) Calcium
143. The following molecular subtype of invasive breast cancer is common in older women and men
 (A) ER positive, HER-2 negative, low proliferation
 (B) ER positive, HER-2 negative, high proliferation
 (C) ER positive or negative, HER-2 positive
 (D) ER negative, HER-2 negative
144. The following is not true about phyllodes tumour
 (A) Less common, arise from intralobular stroma
 (B) Most of them are benign
 (C) Frequently associated with gains in chromosome 1q
 (D) Overexpression of HOXB13 are associated with less aggressive clinical behaviour
145. Most common cause of hyperpituitarism
 (A) Pituitary hyperplasia (B) Adenoma arising in the anterior lobe
 (C) Pituitary carcinoma (D) Hypothalamic disorders
146. Among the following least common cause of hyperfunction of thyroid gland is
 (A) Grave's disease (B) Hyperfunctional multinodular goitre
 (C) Iodine induced hyperthyroidism (D) Hyperfunctional thyroid adenoma
147. While differentiating endometrial adenocarcinoma from endocervical adenocarcinoma the following features are in favour of endocervical adenocarcinoma except
 (A) Negativity for vimentin
 (B) Negativity fo ER and PR
 (C) Presence of mucin and CEA focally and luminally
 (D) Immunoreactivity for p16

148. All are true about neutrophil extracellular traps except
 (A) In the above process nuclei of neutrophils is lost leading to its death
 (B) It can be detected in the blood during sepsis
 (C) Its formation in circulation is independent of platelet activation
 (D) The nuclear chromatin in NETs is a source of antigen in SLE
149. Fractalkine is the only known member of the following chemokine
 (A) CXC chemokine (B) CX3C chemokine
 (C) C-C chemokine (D) C chemokine
150. Classic findings in autopsy of a patient suffering from amniotic fluid embolism include all of the following except
 (A) Presence of squamous cells shed from fetal skin in pulmonary vasculature
 (B) Emboli made of haemopoietic cells and marrow fat in pulmonary circulation
 (C) Mucin derived from fetal respiratory and gastrointestinal tract in pulmonary vasculature
 (D) Marked pulmonary edema
151. False about banding technique
 (A) C banding is used for rapid identification of y chromosome
 (B) G banding yields a defined pattern with alternate light and dark regions
 (C) Q banding is also known as quinacrine fluorescence staining
 (D) R banding results in a chromosome pattern similar to G banding but the bands are reversed
152. All are correct except
 (A) ALK –Anaplastic Lymphoma Kinase Gene
 (B) RAR – Retinoic Acid Receptor α Gene
 (C) ABL –Abelson Bovine Leukemia Virus
 (D) HER2/NEU – Human Epidermal Growth Factor Receptor 2
153. The hematoxylin used to stain myelin
 (A) Cole (B) Solcia
 (C) Loyez (D) Heidenhain
154. Leukocyte common antigen is also known as
 (A) CD 30 (B) CD 15
 (C) CD 45 (D) CD 65
155. The type of inversion in which the breaks appear on the opposite sides of the centromere is called
 (A) Paracentric (B) Pericentric
 (C) Metacentric (D) Reciprocal
156. Munro micro abscesses are found in
 (A) Stratum basale (B) Stratum corneum
 (C) Stratum spinosum (D) Stratum granulosum

157. The following genetic abnormalities are correctly matched except
 (A) Acute promyelocytic leukemia – PML - RARA
 (B) Polycythemia vera – JAK2V617F Mutation
 (C) Acute erythroleukemia- TEL – AML1 Fusion
 (D) Hairy cell leukemia - BRAFV600E Mutation
158. Which of these methods employ protease substrates to detect protease activity in tissues?
 (A) Insitu zymography (B) Chromogenic insitu hybridization
 (C) Polymerase chain reaction (D) Silver precipitation insitu hybridization
159. The following is not an example of trinucleotide repeat disorders with expansions affecting non coding regions
 (A) Huntington disease (B) Fragile X syndrome
 (C) Friedrich ataxia (D) Myotonic dystrophy
160. Wernicke – Korsakoff syndrome is due to the deficiency of
 (A) Biotin (B) Niacin
 (C) Thiamine (D) Pyridoxine
161. The most common odontogenic cyst is
 (A) Dentigerous cyst (B) Periapical cyst
 (C) Paradental cyst (D) Eruption cyst
162. Giant cell lesion of jaws include all of the following except
 (A) Aneurysmal bone cyst
 (B) Cherubism
 (C) Brown tumour of hyperparathyroidism
 (D) Ossifying fibroma
163. The following lesion is not associated with malignant lymphoma of salivary gland
 (A) Sjogren disease (B) Kuttner tumour
 (C) Necrotising sialometaplasia (D) Warthin tumour
164. All are the types of Langerhans cell histiocytosis except
 (A) Letterer Siwe disease (B) Eosinophilic granuloma
 (C) Hand – Schuller Christian disease (D) Kimura disease
165. The more common tumour arising from the adrenal medulla
 (A) Adenoma (B) Carcinoma
 (C) Neuroblastoma (D) Myelolipoma
166. Fluorescent dye used to counter stain DNA
 (A) Diaryl methane (B) Thiazole
 (C) Propidium iodide (D) Diethyl pyrocarbonate
167. Osmotic fragility is increased in all except
 (A) Hereditary spherocytosis (B) Hereditary xerocytosis
 (C) Hereditary elliptocytosis (D) Hereditary stomatocytosis

168. Therapeutic erythrocytapheresis is used in the treatment of
(A) β thalassemia (B) Sickle cell disease
(C) Fanconi's anemia (D) Polycythemia
169. Littoral cells are macrophages in
(A) Liver (B) Spleen
(C) Lung (D) Kidney
170. Sickle cell retinopathy produces the following except
(A) Salmon patch (B) Iridescent spots
(C) Black sunburst lesion (D) Cherry red spots
171. The yellow colour imparted by picric acid fixatives can be removed by
(A) Magnesium chloride (B) Sodium thiosulphate
(C) Lithium carbonate (D) Aluminium hydroxide
172. All are true about cell division except
(A) Prophase is the preparatory phase of mitosis
(B) Telophase is the reversal of prophase and metaphase
(C) Mitotic spindle formation is completed in prometaphase
(D) Polymerization of microtubules occur in metaphase
173. The following infection is not a predisposing condition for spontaneous splenic rupture
(A) Infectious mononucleosis (B) Malaria
(C) Typhoid (D) Leptospirosis
174. Increased ESR is seen in the following conditions except
(A) Hypercholesterolemia (B) Hypoalbuminemia
(C) Rheumatoid arthritis (D) Salicylate intake
175. Which immunoglobulin subclass mediates the haemolytic process in Warm autoimmune haemolytic anemia?
(A) IgA (B) IgE
(C) IgM (D) IgG
176. Pseudo Meissner corpuscles are associated with
(A) Schwannoma (B) Perineurioma
(C) Diffuse neurofibroma (D) Neurothekoma
177. Preferred fixative for DNA
(A) Zenker's (B) Ethanol
(C) Helly's (D) 10% Neutral buffered formalin
178. Marker enzyme of lysosomes in muscle biopsies is
(A) Alkaline phosphatase (B) Succinic dehydrogenase
(C) NADH diaphorase (D) Acid phosphatase

179. Envelope shaped crystals in urine deposits are due to
 (A) Uric acid (B) Cysteine
 (C) Calcium oxalate (D) Triple phosphate
180. Conventional papillary carcinoma thyroid is mostly associated with which of these molecular alterations?
 (A) PAX8 / PPARG (B) BRAF pV600E
 (C) ALK rearrangement (D) TP53
181. Medlar bodies are found in
 (A) Histoplasmosis (B) Phycomycosis
 (C) Aspergillosis (D) Chromoblastomycosis
182. Adhesive slides are all except
 (A) Silanized slides (B) Poly lysine slides
 (C) Albumen coated slides (D) Galvanized slides
183. Which among these codons terminate translation?
 (A) AGA (B) AUG
 (C) UGA (D) UGG
184. Cabbage odour of urine is due to
 (A) Tyrosinemia (B) Methionine malabsorption
 (C) Isovaleric acidemia (D) Cystine malabsorption
185. All are PAS (periodic acid schiff's reagent) reactive except
 (A) Proteoglycans (B) Corpora amylacea
 (C) Thyroid colloid (D) Russell bodies
186. Remnant of mitotic spindle is
 (A) Heinz body (B) Cabot ring
 (C) Basophilic stippling (D) Howell - Jolly body
187. Napsin A and HNF-1 β are usually expressed in which of these ovarian malignancies?
 (A) High grade serous carcinoma (B) Low grade serous carcinoma
 (C) Endometrioid carcinoma (D) Clear cell carcinoma
188. All are contiguous gene syndromes except
 (A) Gorlin syndrome (B) WAGR syndrome
 (C) William syndrome (D) Cri - du- chat syndrome
189. One among these syndromes do not present with large platelets
 (A) Gray platelet syndrome (B) Wiskott-Aldrich syndrome
 (C) Bernard - Soulier syndrome (D) Velocardiofacial syndrome
190. Which among these is not a fat stain?
 (A) Oil Red O (B) Nile blue sulfite
 (C) Bowie's stain (D) Sudan black B

191. True about Exodermis are all except
 (A) They are endometrial cells
 (B) Seen from day 20 – 25 of the menstrual cycle
 (C) Consists of central core of stromal cells surrounded by epithelial cells
 (D) IHC can be performed using CD10 for stromal and cytokeratin for epithelial cells
192. The gene involved in Peutz – Jeghers syndrome is
 (A) PTEN (B) CDH1
 (C) STK11 (D) BRCA2
193. Which molecular subtype of breast cancer is known as Triple negative cancer?
 (A) Luminal A -Like (B) Luminal B -Like
 (C) Basal -Like (D) HER2-Enriched
194. What is a polykaryocyte?
 (A) Type of megakaryocyte
 (B) Hematopoietic stem cell
 (C) Stem cell niche in hair bulb
 (D) Type of multinucleated giant cell in lymphoid tissues
195. TTF1 is expressed by
 (A) Paneth cell (B) Chief cell
 (C) Parietal cell (D) Clara cell
196. Encephalomyelitis is caused by
 (A) Adenocarcinoma lung (B) Squamous cell carcinoma lung
 (C) Small cell carcinoma lung (D) Carcinoid tumor
197. IHC techniques to diagnose Hirschsprung disease include all except
 (A) CD117 (B) Calretinin
 (C) Cathepsin D (D) S100
198. GIST may present in the form of multiple tumours in following situations except
 (A) Carney triad (B) Von Recklinghausen disease
 (C) Carney - Stratakis syndrome (D) Lynch syndrome
199. True about immune proliferative small intestinal disease are all except
 (A) Type of B cell lymphoma
 (B) Associated with presence of monoclonal beta heavy chain of immunoglobulins
 (C) Also known as Mediterranean lymphoma
 (D) Low grade forms show heavy lymphoplasmacytic infiltrates
200. The most common type of small noncoding RNA is
 (A) snoRNA (B) lincRNA
 (C) piRNA (D) snRNA