

पुस्तिका में पृष्ठों की संख्या : 24  
Number of Pages in Booklet : 24

प्रश्न-पत्र पुस्तिका संख्या /  
Question Paper Booklet No.

पुस्तिका में प्रश्नों की संख्या : 180  
No. of Questions in Booklet : 180

Paper Code : 08

**MSDP-02**

5218057

SUBJECT : Pathology

परीक्षा दिनांक - 16/09/2020

समय : 3.00 घण्टे  
Time : 3.00 Hours

परीक्षा समय - 2:00 to 5:00

अधिकतम अंक : 180  
Maximum Marks : 180

प्रश्न-पत्र पुस्तिका एवं उत्तर पत्रक के पेपर सील/पॉलिथीन बैग को खोलने पर परीक्षार्थी यह सुनिश्चित कर लें कि उसके प्रश्न-पत्र पुस्तिका पर वही प्रश्न-पत्र पुस्तिका संख्या अंकित है जो उत्तर पत्रक पर अंकित है। इसमें कोई भिन्नता हो तो वीक्षक से दूसरा प्रश्न-पत्र प्राप्त कर लें। ऐसा न करने पर जिम्मेदारी अभ्यर्थी की होगी।

The candidate should ensure that Question Paper Booklet No. of the Question Paper Booklet and Answer Sheet must be same after opening the Paper Seal / Polythene bag. In case they are different, a candidate must obtain another Question Paper. Candidate himself shall be responsible for ensuring this.

**परीक्षार्थियों के लिए निर्देश**

1. सभी प्रश्नों के उत्तर दीजिए।
2. सभी प्रश्नों के अंक समान हैं।
3. प्रत्येक प्रश्न का केवल एक ही उत्तर दीजिए।
4. एक से अधिक उत्तर देने की दशा में प्रश्न के उत्तर को गलत माना जाएगा।
5. प्रत्येक प्रश्न के चार वैकल्पिक उत्तर दिये गये हैं, जिन्हें क्रमशः 1, 2, 3, 4 अंकित किया गया है। अभ्यर्थी को सही उत्तर निर्दिष्ट करते हुए उनमें से केवल एक गोले अथवा बबल को उत्तर पत्रक पर नीले बॉल प्वाइंट पेन से गहरा करना है।
6. OMR उत्तर पत्रक इस परीक्षा पुस्तिका के अन्दर रखा है। जब आपको परीक्षा पुस्तिका खोलने को कहा जाए, तो उत्तर-पत्र निकाल कर ध्यान से केवल नीले बॉल पॉइंट पेन से विवरण भरें।
7. प्रत्येक गलत उत्तर के लिए प्रश्न अंक का 1/3 भाग काटा जायेगा। गलत उत्तर से तात्पर्य अशुद्ध उत्तर अथवा किसी भी प्रश्न के एक से अधिक उत्तर से है। किसी भी प्रश्न से संबंधित गोले या बबल को खाली छोड़ना गलत उत्तर नहीं माना जायेगा।
8. मोबाइल फोन अथवा इलेक्ट्रॉनिक यंत्र का परीक्षा हॉल में प्रयोग पूर्णतया वर्जित है। यदि किसी अभ्यर्थी के पास ऐसी कोई वर्जित सामग्री मिलती है तो उसके विरुद्ध आयोग द्वारा नियमानुसार कार्यवाही की जायेगी।
9. कृपया अपना रोल नम्बर ओ.एम.आर. पत्रक पर सावधानीपूर्वक सही भरें। गलत अथवा अपूर्ण रोल नम्बर भरने पर 5 अंक कुल प्राप्तांकों में से काटे जा सकते हैं।

**चेतावनी :** अगर कोई अभ्यर्थी नकल करते पकड़ा जाता है या उसके पास से कोई अनधिकृत सामग्री पाई जाती है, तो उस अभ्यर्थी के विरुद्ध पुलिस में प्राथमिकी दर्ज कराते हुए विविध नियमों-प्रावधानों के तहत कार्यवाही की जाएगी। साथ ही विभाग ऐसे अभ्यर्थी को भविष्य में होने वाली विभाग की समस्त परीक्षाओं से विवर्जित कर सकता है।

**INSTRUCTIONS FOR CANDIDATES**

1. Answer all questions.
2. All questions carry equal marks.
3. Only one answer is to be given for each question.
4. If more than one answers are marked, it would be treated as wrong answer.
5. Each question has four alternative responses marked serially as 1, 2, 3, 4. You have to darken only one circle or bubble indicating the correct answer on the Answer Sheet using BLUE BALL POINT PEN.
6. The OMR Answer Sheet is inside this Test Booklet. When you are directed to open the Test Booklet, take out the Answer Sheet and fill in the particulars carefully with blue ball point pen only.
7. 1/3 part of the mark(s) of each question will be deducted for each wrong answer. A wrong answer means an incorrect answer or more than one answers for any question. Leaving all the relevant circles or bubbles of any question blank will not be considered as wrong answer.
8. Mobile Phone or any other electronic gadget in the examination hall is strictly prohibited. A candidate found with any of such objectionable material with him/her will be strictly dealt as per rules.
9. Please correctly fill your Roll Number in O.M.R. Sheet. 5 Marks can be deducted for filling wrong or incomplete Roll Number.

**Warning :** If a candidate is found copying or if any unauthorized material is found in his/her possession, F.I.R. would be lodged against him/her in the Police Station and he/she would liable to be prosecuted. Department may also debar him/her permanently from all future examinations.

इस परीक्षा पुस्तिका को तब तक न खोलें जब तक कहा न जाए।

Do not open this Test Booklet until you are asked to do so.

08-□



1. Which of the following is known as Guardian of genome ?

- (1) p53
- (2) PTEN
- (3) ATM
- (4) MDM 2

2. Cells most sensitive to hypoxia are

- (1) Myocardial cells
- (2) Neurons
- (3) Hepatocytes
- (4) Renal tubular epithelial cells

3. Fibrosis is due to

- (1) TGF -  $\beta$
- (2) IL - 7
- (3) IL - 10
- (4) VEGF

4. Leiden factor is

- (1) Factor VI
- (2) Factor IV
- (3) Factor VIII
- (4) Factor V

5. Macroglossia is seen in

- (1) Amyloidosis
- (2) Folic acid deficiency
- (3) Iron deficiency
- (4) Motor neurone disease

6. Lines of Zahn occur in

- (1) Coralline thrombus
- (2) Embolus
- (3) Infarct
- (4) Post Mortem Clot

7. Basement membrane consist of

- (1) Type I collagen
- (2) Type II collagen
- (3) Type III collagen
- (4) Type IV collagen

8. Tubercle bacilli in caseous lesions are best demonstrated in

- (1) Caseous centre
- (2) Margin of necrosis with viable tissue
- (3) Epithelioid cells
- (4) Langhans' giant cells

9. Transudate differs from exudate in having the following, except :
- (1) No inflammatory cells
  - (2) Low protein content
  - (3) Low specific gravity
  - (4) Low glucose content
10. Granuloma is formed by
- (1) Neutrophil
  - (2) Cytotoxic cell
  - (3) Helper T cell
  - (4) NK Cells
11. HIV is which type of virus ?
- (1) Pox virus
  - (2) Herpes virus
  - (3) Picorna virus
  - (4) Retro virus
12. The causative organisms of plague are
- (1) *Yersinia pestis*
  - (2) *Haemophilus ducreyi*
  - (3) *Bordetella pertusis*
  - (4) *Pseudomonas aeruginosa*
13. Malignant cerebral Malaria caused by
- (1) *P. vivax*
  - (2) *P. falciparum*
  - (3) *P. ovale*
  - (4) *P. malariae*
14. Elevation of carcinoembryonic antigen (CEA) level is seen in
- (1) Liver Cell Cancer
  - (2) Ovarian Cancer
  - (3) Breast Cancer
  - (4) Carcinoma of Colon
15. In Good pasture disease, the antigen is
- (1) Basement membrane collagen IV
  - (2) Bacterial products
  - (3) Cationic products
  - (4) DNA
16. Most common paraneoplastic syndrome associated with squamous cell carcinoma of Lung :
- (1) Hypercalcemia
  - (2) Cushing syndrome
  - (3) Carcinoid syndrome
  - (4) Hypoglycemia



17. Most common tumour of Heart is

- (1) Leiomyosarcoma
- (2) Myxoma
- (3) Fibroma
- (4) Rhabdomyosarcoma

18. Popcorn cell seen in which type of Hodgkin's Lymphoma ?

- (1) Nodular Sclerosis type
- (2) Mixed Cellularity type
- (3) Lymphocyte predominance type
- (4) Lymphocyte depletion type

19. Chronic gastritis is caused by all, except :

- (1) Alcohol
- (2) Overuse of salicylates
- (3) *Helicobacter pylori*
- (4) Pernicious anaemia

20. Mallory bodies seen in

- (1) Primary biliary Cirrhosis
- (2) Hepatitis C infection
- (3) Post necrotic cirrhosis
- (4) Amebic liver abscess

21. Kimmelstiel-Wilson lesion is characteristic of :

- (1) Diabetic nephropathy
- (2) HIV nephropathy
- (3) Malignant Hypertension
- (4) Renal Cell Carcinoma

22. In 50-80 percent cases of acute appendicitis, the inflammatory lesion initiated by

- (1) Bacterial infection
- (2) Luminal obstruction
- (3) Viral infection
- (4) Ischemia

23. Malakoplakia of Urinary bladder is a form of

- (1) Dysplasia
- (2) Metaplasia
- (3) Papillary hyperplasia
- (4) Chronic inflammation

24. Heubner arteritis is

- (1) Endarteritis Obliterans
- (2) Cerebral Syphilitic arteritis
- (3) Hypersensitivity vasculitis
- (4) Giant cell arteritis

25. Curschmann spirals are seen in
- (1) Chronic Bronchitis
  - (2) Bronchiectasis
  - (3) Bronchial Asthma
  - (4) Wegner's Granulomatosis
26. Type of Emphysema associated most often with  $\alpha$ -1 antitrypsin deficiency is
- (1) Panacinar Emphysema
  - (2) Distal Emphysema
  - (3) Centrilobular Emphysema
  - (4) Irregular Emphysema
27. The most common Lung cancer in women and non-smokers is
- (1) Small Cell Carcinoma
  - (2) Squamous Cell Carcinoma
  - (3) Adenocarcinoma
  - (4) Large Cell Carcinoma
28. Lichen Planus is characterized by following, except :
- (1) Lymphocytic infiltrate at damoepidermal junction
  - (2) Resolution of Basal layer
  - (3) Presence of elongated and broad rete ridges
  - (4) Presence of Civatte bodies
29. Patients of AIDS have the following type of oral leukoplakia :
- (1) Speckled
  - (2) Hairy
  - (3) Nodular
  - (4) Wrinkled
30. Bilaterally Symmetrical Contracted Kidney is seen in
- (1) Nephrosclerosis
  - (2) Chronic Pyelonephritis
  - (3) Chronic Glomerulonephritis
  - (4) End stage renal disease
31. Cowdry body seen in
- (1) Astrocytes
  - (2) Neuron
  - (3) Oligodendroglia
  - (4) Microglia
32. Seminoma is a
- (1) Benign tumour
  - (2) Borderline tumour
  - (3) Malignant tumour
  - (4) Locally aggressive tumour

33. Caplan's syndrome may develop in the following types of pneumoconiosis, except :
- (1) Berylliosis
  - (2) Asbestosis
  - (3) Coal-Worker's pneumoconiosis
  - (4) Silicosis
34. Crohn's disease is characterised by the following histopathologic features, except :
- (1) Stricture formation in chronic cases
  - (2) Widening of submucosa due to oedema
  - (3) Superficial mucosal ulceration
  - (4) Non-caseating sarcoid like granulomas
35. Marker of level of progressive liver damage in case of hepatitis B is
- (1) IgG anti HBs
  - (2) Anti HCV antibodies
  - (3) HBV DNA
  - (4) HBc Antigen
36. Psammoma bodies are found in
- (1) Follicular Carcinoma Thyroid
  - (2) Adenocarcinoma Breast
  - (3) Adenocarcinoma Stomach
  - (4) Serous ovarian tumour
37. Paget's Disease has a risk for
- (1) Osteoma
  - (2) Osteosarcoma
  - (3) Fibrosarcoma
  - (4) Fibroadenoma
38. Osteoclasts are stimulated by
- (1) Calcitonin
  - (2) Parathyroid hormone (PTH)
  - (3) Estrogen
  - (4) Thyroxin
39. The following types of carcinoma of the Breast is characterized by Single file pattern of tumour cells :
- (1) Infiltrating duct carcinoma
  - (2) Invasive lobular carcinoma
  - (3) Medullary Carcinoma
  - (4) Tubular Carcinoma
40. BRCA 2 not associated with
- (1) Breast cancer
  - (2) Pancreatic cancer
  - (3) Ovarian cancer
  - (4) Vulval cancer

41. Which of the following is post inflammatory pseudotumour of Ear ?

- (1) Otosclerosis
- (2) Cholesteatoma
- (3) Chondrodermatitis nodularis
- (4) Paraganglioma

42. Molluscum Contagiosum caused by

- (1) Human Papilloma Virus
- (2) Pox Virus
- (3) Herpes Simplex Virus
- (4) Epstein Bar Virus

43. Conn Syndrome is

- (1) Chronic hypercortisolism
- (2) Secondary hyperaldosteronism
- (3) Primary hyperaldosteronism
- (4) Adrenogenital Syndrome

44. Strap Cells in histopathology are seen in

- (1) Rhabdomyosarcoma
- (2) Rhabdomyoma
- (3) Histiocytoma
- (4) Leiomyosarcoma

45. Sjogren's syndrome produces the following pathological change in the eye

- (1) Uveitis
- (2) Glaucoma
- (3) Keratoconjunctivitis
- (4) Phthisis bulbi

46. The following tumour is characterised by biphasic pattern of growth :

- (1) Osteosarcoma
- (2) Osteochondroma
- (3) Malignant fibrous histiocytoma
- (4) Synovial sarcoma

47. In rheumatic fever fibrinoid necrosis occurs in

- (1) Collagen
- (2) Myocardium
- (3) Pericardium
- (4) Endocardium

48. Duodenal ulcers are found most commonly at

- (1) First part, anterior surface
- (2) First part, posterior surface
- (3) Second part, anterior surface
- (4) Second part, posterior surface

49. Barrett's oesophagus predispose to development of
- (1) Reflux oesophagitis
  - (2) Oesophageal varices
  - (3) Squamous cell carcinoma
  - (4) Adenocarcinoma
50. The following type of renal calculi are radiolucent
- (1) Calcium phosphate
  - (2) Uric acid
  - (3) Magnesium ammonium phosphate
  - (4) Cystine
51. Lymphatic metastasis of Prostatic carcinoma occur initially to
- (1) Obturator lymph node
  - (2) Perivesical lymph node
  - (3) Iliac lymph node
  - (4) Presacral lymph node
52. Krukenberg tumour is bilateral metastatic tumour from the following primary site, except :
- (1) Colon
  - (2) Endometrium
  - (3) Ovary
  - (4) Stomach
53. Which is the most frequently altered oncogene in Pancreatic cancer ?
- (1) K-ras
  - (2) RB1 (13q)
  - (3) MKK4 (17p)
  - (4) MYB (6q)
54. Herring bone pattern seen in
- (1) Fibrosarcoma
  - (2) Leiomyoma
  - (3) Osteoma
  - (4) Osteosarcoma
55. Bullous lesion of the skin is
- (1) Lichen Planus
  - (2) Seborrhoeic dermatitis
  - (3) Pemphigus Vulgaris
  - (4) Psoriasis
56. Antoni A and Antoni B growth pattern seen in
- (1) Schwannoma
  - (2) Neurofibroma
  - (3) Meningioma
  - (4) Ganglioma



57. Most common cyst arising from Dental tissue is

- (1) Dermoid Cyst
- (2) Radicular Cyst
- (3) Gingival Cyst
- (4) Eruption Cyst

58. The pseudocartilag in mixed salivary tumour is a product of

- (1) Connective tissue mucin
- (2) Ductal epithelial cell origin
- (3) Myoepithelial cell origin
- (4) Combination of all mucin

59. Serum marker for Rapidly Progressive Glomerulonephritis (RPGN) type III is

- (1) C<sub>3</sub>
- (2) Anti-Neutrophil Cytoplasmic antibody (ANCA)
- (3) Anti GBM Antibody
- (4) Good pasture antigen

60. Starry sky pattern is characteristic of

- (1) Follicular lymphoma
- (2) Small lymphocytic lymphoma
- (3) Hodgkin's lymphoma
- (4) Burkitt lymphoma

61. The first event in the pathogenesis of cholesterol stones is

- (1) Infection
- (2) Bile Stasis
- (3) Mucus secretion in the lumen
- (4) Supersaturation of bile with cholesterol

62. Pseudo rosette seen in all, except :

- (1) Neuroblastoma
- (2) Neurocysticercosis
- (3) Retinoblastoma
- (4) Medulloblastoma

63. Nesidioblastosis is due to hyperplasia of

- (1) Alpha Cells
- (2) Acinus
- (3) Beta Cells
- (4) D-Cells

64. In Pheochromocytoma Malignancy is indicated by

- (1) Metastases
- (2) Mitotic figures
- (3) Capsular invasion
- (4) Vascular invasion



65. Wermer Syndrome is
- (1) MEN type 2A
  - (2) MEN type 1
  - (3) MEN type 2B
  - (4) Von Hippel - Lindau
66. Schiller-Duval body seen in
- (1) Endodermal sinus tumour
  - (2) Dysgerminoma
  - (3) Choriocarcinoma
  - (4) Granulosa theca cell tumour
67. Anaemia with reticulocytosis is seen in
- (1) Haemolysis
  - (2) Iron deficiency anaemia
  - (3) Vit. B<sub>12</sub> deficiency
  - (4) Aplastic anaemia
68. In hereditary spherocytosis, the following membrane structure is deficient :
- (1) Band 3 protein
  - (2) Glycophorin
  - (3) Spectrin
  - (4) Glycolipid
69. Intracorpouscular haemolytic anaemia is seen in
- (1) Thalassaemia
  - (2) Auto immune haemolytic anaemia (AIHA)
  - (3) Idiopathic Thrombocytopenic Purpura (ITP)
  - (4) Infection
70. Bone marrow finding in Myelofibrosis is
- (1) Dry tap (Hypocellular)
  - (2) Megaloblastic
  - (3) Microcytic cells
  - (4) Thrombocytosis
71. Deletion of all four normal  $\alpha$ -globin genes will most likely produce
- (1)  $\alpha$ -Thalassaemia
  - (2)  $\beta$ -Thalassaemia
  - (3) Haemoglobin H disease
  - (4) Hydrops fetalis
72. Neutrophil secretes
- (1) Lysosomal enzyme
  - (2) Catalase
  - (3) Superoxide dismutase
  - (4) Cathepsin

73. Paroxysmal nocturnal Haemoglobinuria (PNH) due to defect in
- (1) CD 59
  - (2) CD 15
  - (3) CD 100
  - (4) CD 20
74. Iron is absorbed from enterocytes through which of the following ?
- (1) Divalent metal transporter 1 (DMT 1)
  - (2) Hephaestin
  - (3) Ferroportin
  - (4) Transferrin
75. All are Vitamin K dependent factors, except :
- (1) Factor II
  - (2) Factor VI
  - (3) Factor VII
  - (4) Factor IX
76. Which is NOT True of Bombay Blood group ?
- (1) Lack of A, B, H antigen on erythrocyte.
  - (2) Can donate red blood cells to any member of ABO blood group.
  - (3) They cannot receive blood from A, B or O group donor.
  - (4) Express 'H' antigen on erythrocyte.

77. Holly – leaf shape RBC seen in
- (1) Sickle cell anaemia
  - (2) Microangiopathic haemolytic anaemia
  - (3) Thalassaemia
  - (4) Anaemia of chronic disorder
78. Porphyria result from the abnormal synthesis of
- (1)  $\alpha$ -Globin
  - (2)  $\beta$ -Globin
  - (3) Spectrin
  - (4) Heme
79. Antibodies in Idiopathic Thromocytopenic purpura (ITP) are
- (1) IgG
  - (2) IgM
  - (3) IgE
  - (4) IgA
80. The earliest haematologic evidence of response to treatment in Iron Deficiency anaemia is
- (1) Reticulocytosis
  - (2) The red cell indices
  - (3) Increase in Iron binding capacity
  - (4) Increase in haemoglobin



81. Chromosome for Rh :
- (1) 9
  - (2) 13
  - (3) 19
  - (4) 1
82. Blood stored at what temperature in Blood Bank ?
- (1) 2 to 6 degree Celsius
  - (2) 6 to 8 degree Celsius
  - (3) -2 to -6 degree Celsius
  - (4) 6 to 12 degree Celsius
83. Complications of Massive Blood transfusion is
- (1) Hyperthermia
  - (2) Hypercalcaemia
  - (3) Hyperfibrinogenaemia
  - (4) Hyperkalaemia
84. Thalassaemia gives protection against
- (1) Filaria
  - (2) Kala-azar
  - (3) Malaria
  - (4) None of these
85. Blood Transfusion reactions are
- (1) Type I Hypersensitivity
  - (2) Type II Hypersensitivity
  - (3) Type III Hypersensitivity
  - (4) Type IV Hypersensitivity
86. Under Blood Safety Programme, compulsory Tests are done all, except :
- (1) HIV
  - (2) Malaria
  - (3) Hepatitis E
  - (4) Hepatitis C
87. Test for factor VIII deficiency identification is
- (1) PT
  - (2) APTT
  - (3) Ddimer
  - (4) FDP
88. Cryoprecipitate is rich in
- (1) Protein
  - (2) Factor VIII
  - (3) Factor VI
  - (4) Factor X
89. Platelet stored at what temperature in Blood Bank ?
- (1) 22 to 24 degree celsius
  - (2) 6 to 12 degree celsius
  - (3) 1 to 6 degree celsius
  - (4) 30 to 37 degree celsius

90. Severe deficiency of coagulation Factor IX produce disorder

- (1) Haemophilia A
- (2) Haemophilia B
- (3) Von Willebrand's disease type I
- (4) Von Willebrand's disease type II

91. Stain used for demonstration of Reticulocyte is

- (1) Giemsa stain
- (2) Wright stain
- (3) Brilliant Cresyl blue
- (4) Alcian blue

92. Fresh Frozen Plasma (FFP) stored at Blood Bank for

- (1) 35 days
- (2) 60 days
- (3) 3 months
- (4) 1 year

93. In an emergency situation in which the patient is at risk for death from blood loss, if transfusion is delayed, which blood product may be released without compatibility testing ?

- (1) Frozen deglycerized RBCs
- (2) Irradiated Blood
- (3) RBCs lacking high incidence antigen
- (4) Group 'O' Rh negative RBCs

94. Fresh Frozen Plasma (FFP) is most appropriate for which of the following situation ?

- (1) Severe accident with chest trauma and suspected internal bleeding.
- (2) As a nutritional source in a severely cachectic patient
- (3) Gastro-intestinal haemorrhage with abnormally elevated PT and APTT.
- (4) As a Plasma expander in a patient with severe burn.

95. Aplastic Anaemia can progress to all, except :

- (1) Acute Myeloid Leukaemia (AML)
- (2) Myelodysplastic Syndrome (MDS)
- (3) Pure red cell aplasia
- (4) Paroxysmal nocturnal Haemoglobinuria (PNH)

96. All of the following may cause severe thrombocytopenia, except :

- (1) A markedly enlarged spleen
- (2) Von Willebrand's disease
- (3) Massive blood transfusion
- (4) Disseminated intravascular coagulation



97. Mutation characteristic for Polycythaemia vera is
- (1) JAK 2 Mutation
  - (2) Ber-abl Mutation
  - (3) p53 Mutation
  - (4) RAS Mutation
98. Pseudo Pelger – Huet Cells are seen in
- (1) Hodgkin's Lymphoma
  - (2) Multiple Myeloma
  - (3) Non-Hodgkin's Lymphoma
  - (4) Myelodysplastic Syndrome
99. Auer rods are derived from
- (1) RNA
  - (2) DNA
  - (3) Azurophilic granules
  - (4) Secondary granules
100. Haemolytic disease of new borne (HDN) occurs when
- (1) Mother Rh +ve foetus Rh -ve
  - (2) Mother Rh -ve foetus Rh +ve
  - (3) Both mother and foetus Rh -ve
  - (4) Both mother and foetus Rh +ve
101. Which of the following metabolic abnormality is seen in Multiple Myeloma ?
- (1) Hypercalcaemia
  - (2) Hypernatraemia
  - (3) Hyperkalaemia
  - (4) Hyperphosphataemia
102. Which is NOT a reducing sugar in Urine ?
- (1) Glucose
  - (2) Galactose
  - (3) Sucrose
  - (4) Fructose
103. If Urine is kept for a long time
- (1) Becomes Black
  - (2) Urea increases
  - (3) Urea decreases
  - (4) Creatinine increases
104. Five ml of a coloured solution has an absorbance of 0.500. The absorbance of 10 ml of the same coloured solution will be
- (1) 1.000
  - (2) 0.500
  - (3) 0.250
  - (4) 0.800

105. The enzyme used as a marker for alcohol abuse is

- (1) Gamma glutanyl transferase
- (2) Alanine Amino transferase
- (3) Aspartatic amino transferase
- (4) Alkaline Phosphates

106. Markedly decreased blood levels of which one of the following substances are most characteristic of Intravascular haemolysis ?

- (1) Bilirubin
- (2) Haptoglobin
- (3) Methemoglobin
- (4) Lactate Dehydrogenase

107. Hypernatraemia occurs in all of the following, except :

- (1) Cushing disease
- (2) Dehydration
- (3) Hypothalaemic injury
- (4) Haemorrhage

108. The cell of origin of meningioma is

- (1) Dura mater
- (2) Arachnoid cap cell layer
- (3) Pia mater
- (4) Choroid plexus

109. Bile duct obstruction can be diagnosed by

- (1) Asparate Transaminase (AST)
- (2) Total Bilirubin
- (3) Bilirubin in Urine
- (4) Ester bilirubin

110. Which of these is not a Ketone body ?

- (1) Acetone
- (2) Aceto acetic acid
- (3)  $\beta$  - Hydroxy butyric acid
- (4) Butyric acid

111. Two days after receiving antimalarial drug primaquine a 27-years-old man develops Intravascular haemolysis resulting in decreased haematocrit, haemoglobinaemia and haemoglobinurea. Examination of Peripheral Blood Film (PBF) shows bite cells.

The most likely diagnosis is :

- (1) Hereditary Spherocytosis (HS)
- (2) Glucose-6-Phosphate Dehydrogenase deficiency (G6PD)
- (3) Paroxysmal Nocturnal Haemoglobinuria (PNH)
- (4) Auto Immune Haemolytic Anaemia (AIHA)



112. The stain used for demonstration of neuroglial tissue, except :

- (1) Phospho tungstic acid haematoxylin (PTAH)
- (2) Holzer stain
- (3) Cajal's gold sublimate
- (4) Masson's Trichome

113. Insulin dependent glucose uptake is NOT seen in

- (1) Skeletal muscle
- (2) Heart
- (3) Adipose tissue
- (4) Kidney

114. Beri Beri is caused due to deficiency of

- (1) Vitamin B<sub>1</sub>
- (2) Vitamin B<sub>2</sub>
- (3) Vitamin E
- (4) Vitamin K

115. Which antibody class has the ability to cross the Placenta ?

- (1) IgM
- (2) IgG
- (3) IgA
- (4) IgD

116. High Amylase level in Pleural fluid suggests the diagnosis of :

- (1) Tuberculosis
- (2) Malignancy
- (3) Rheumatoid arthritis
- (4) Pulmonary infarction

117. A patient admitted to the hospital for chemotherapy, develops Disseminated Intravascular coagulation (DIC). He received multiple Platelet transfusion but is not responding now to the same. The reason for this platelet refractoriness is :

- (1) Neutropenic fever
- (2) Sepsis
- (3) DIC
- (4) HLA immunization

118. Altitude sickness is typically caused due to :

- (1) Partial pressure of oxygen
- (2) Increased level of CO<sub>2</sub> in Blood
- (3) Cold temperature
- (4) None of these

119. The reagent used for occult Blood test in stool :

- (1) Orthodianisidine
- (2) Sodium Chloride
- (3) Benedict's reagent
- (4) Sodium Nitropruside

120. In immunohistochemistry, the immunozymatic method is based on

- (1) Fluorescein
- (2) Rhodamine
- (3) Auramine
- (4) Biotin - Avidin technique





121. Exfoliative Cytology is NOT useful in

- (1) Diseases of Cervix
- (2) Diseases of Urinary Bladder
- (3) Diseases of Liver
- (4) Diseases of Stomach

122. Which virus causes the disease COVID-19 ?

- (1) SARS – COV – 2
- (2) SARS
- (3) MERS
- (4) Haemophilus Influenza

123. All of the following causes Decrease in Haematocrit, except :

- (1) Blood loss
- (2) Anaemia
- (3) Leukaemia
- (4) Polycythaemia Vera

124. Which stain is used in frozen section of Liver tissue for demonstration of fat ?

- (1) Mucicarmine
- (2) Periodic Acid Schiff (PAS)
- (3) Alcian blue
- (4) Oil Red O

125. Testing of recipient cells against Donor serum is

- (1) Major Cross Match
- (2) Minor Cross Match
- (3) Direct Coomb's Match
- (4) Rh Group Matching

126. Which Anticoagulant used for coagulation tests ?

- (1) EDTA
- (2) Sodium Citrate
- (3) Sodium Fluoride
- (4) Double Oxalate

127. Test for checking mean Plasma Glucose concentration over previous 8 to 12 weeks is

- (1) HbA1c
- (2) Oral Glucose tolerance test
- (3) Fructosamine test
- (4) Fasting Plasma Glucose Concentration

128. Which test is not employed for assessment of Glomerular Filtration Rate (GFR) ?

- (1) Urea clearance
- (2) Inulin clearance test
- (3) Creatinine clearance test
- (4) Insulin clearance test



129. Abnormal constituent in Gastric juice is

- (1) Gastrin
- (2) Hydrochloric acid (HCl)
- (3) Intrinsic factor
- (4) Bile

130. Which type of cast seen in Urine of normal person after strenuous exercise ?

- (1) Epithelial Cast
- (2) Waxy Cast
- (3) Hyaline Cast
- (4) Granular Cast

131. Condition with low specific gravity of Urine is :

- (1) Glycosuria
- (2) Albuminuria
- (3) Benign Nephrosclerosis
- (4) Acute glomerulonephritis

132. Increase in MCHC is associated with :

- (1) Iron Deficiency anaemia
- (2) Megaloblastic anaemia
- (3) Anaemia of chronic disease
- (4) Hereditary spherocytosis

133. Western Blot is used for

- (1) Protein
- (2) DNA
- (3) RNA
- (4) Sugar

134. Low ESR is seen in :

- (1) Sickle Cell anaemia
- (2) Hereditary Spherocytosis
- (3) Thalassaemia
- (4) Microangiopathic haemolytic anaemia

135. Which disease is congenital but not genetic ?

- (1) Congenital adrenal hyperplasia
- (2) Congenital Syphilis
- (3) Marfan's Syndrome
- (4) Huntington disease

136. FIGLU excretion test is used for assessment of deficiency of

- (1) Vitamin B<sub>12</sub>
- (2) Pyridoxine
- (3) Folic Acid
- (4) Niacin

137. In Down Syndrome there is non-dysjunction of chromosome :

- (1) Chromosome 13
- (2) Chromosome 15
- (3) Chromosome 18
- (4) Chromosome 21

138. Which of the following changes best describe the pathophysiology involved in the production of pulmonary oedema in patients with congestive heart failure ?

- (1) Wide spread endothelial damage
- (2) Decreased plasma oncotic pressure
- (3) Increased hydrostatic pressure
- (4) Acute lymphatic obstruction

139. All are reversible injury of cell, except :

- (1) Vacuole
- (2) Karyorrhexis
- (3) Fat accumulation
- (4) Cell wall swelling

140. Which cells can lyse tumour cells or virus injected cells without prior sensitization ?

- (1) B Cells
- (2) T Cells
- (3) NK Cells
- (4) Macrophages

141. Pro-apoptotic proteins are :

- (1) bcl 2 – bcl × L
- (2) bcl 2 – Mcl – 1
- (3) Bax and Bak
- (4) Ced 9

142. In cell death myelin figures are derived from

- (1) Plasma Membrane
- (2) Cytoplasm
- (3) Nucleus
- (4) Mitochondria

143. Wear and tear pigment in the body refers to

- (1) Melanin
- (2) Lipochrome
- (3) Haemosiderin
- (4) Anthracotic pigment

144. All are features of carcinoma, except :

- (1) Anaplasia
- (2) Metaplasia
- (3) Dysplasia
- (4) Autonomous



145. Not a premalignant condition :

- (1) Ulcerative colitis
- (2) Achalasia cardiac
- (3) Xeroderma pigmentosa
- (4) Barrettes oesophagus

146. Which of the following is oncogenic RNA virus ?

- (1) HPV
- (2) HHV-8
- (3) HTLV-1
- (4) EBV

147. Which of the complement components act as a chemo-attractant ?

- (1) C<sub>4</sub>b
- (2) C<sub>4</sub>a
- (3) C<sub>3</sub>b
- (4) C<sub>5</sub>a

148. Which of the following is autosomal recessive disorder ?

- (1) Marfan Syndrome
- (2) Hereditary Spherocytosis
- (3) Homocystinurea
- (4) Myotonic dystrophy

149. HLA-B 27 is associated with

- (1) Rheumatoid arthritis
- (2) Osteo arthritis
- (3) Ankylosing Spondylitis
- (4) Suppurative arthritis

150. The most common cause of acute bacterial meningitis in neonates is

- (1) *Listeria monocytogenes*
- (2) *H. influenza*
- (3) *Escherichia coli*
- (4) *Streptococcus pneumonia*

151. All are antigen presenting cell, except :

- (1) Langerhan's cells
- (2) Dendritic cells
- (3) T-Cells
- (4) B-Cells

152. Cytokeratin is a tumour marker for

- (1) Melanoma
- (2) Carcinoma
- (3) Sarcoma
- (4) Lymphoma

153. Soft chancre is caused by

- (1) Syphilis
- (2) Tuberculosis
- (3) Chancroid
- (4) *L. donovaoni*

154. All are cellular adaptation, except :

- (1) Hypertrophy
- (2) Hyperplasia
- (3) Necrosis
- (4) Metaplasia

155. Which Thyroid carcinoma has amyloid deposition ?

- (1) Anaplastic
- (2) Papillary
- (3) Follicular
- (4) Medullary

156. Red infarct is seen in

- (1) Liver
- (2) Brain
- (3) Kidney
- (4) Lung

157. CD marker for cytotoxic T cells :

- (1) CD4
- (2) CD8
- (3) CD21
- (4) CD45

158. Fatty liver is due to accumulation of

- (1) Lipoprotein
- (2) LDL
- (3) Triglyceride
- (4) VLDL

159. A simple bacterial test for mutagenic carcinogens is

- (1) Ames test
- (2) Redox test
- (3) Bacteriophage
- (4) Gene Splicing

160. Acanthosis means

- (1) Loss of intracellular connection
- (2) Abnormal premature keratinization
- (3) Diffuse epidermal hyperplasia
- (4) Thickening of stratum corneum

161. Hemartoma is

- (1) Malignant tumour
- (2) Benign tumour
- (3) Haemorrhage in vessel
- (4) Development malformation

162. Liquefactive necrosis is seen in

- (1) Heart
- (2) Brain
- (3) Lung
- (4) Spleen

163. Squamous Cell Carcinoma spread commonly via

- (1) Implantation
- (2) Haematogenous Spread
- (3) Lymphatic Spread
- (4) Transcoelomic Spread



164. Heart failure cells are

- (1) Lipofuscin granules in cardiac cells
- (2) Pigmented alveolar macrophages
- (3) Pigmented pancreatic acinar cells
- (4) Pigmented cells in liver

165. Excessive fibrosis tumours is called

- (1) Anaplasia
- (2) Metaplasia
- (3) Dysplasia
- (4) Desmoplasia

166. What is hyperplasia ?

- (1) Decrease in cell size
- (2) Increase in cell size
- (3) Increase in cell number
- (4) Decrease in cell number

167. Which of the following cellular adaptation may be irreversible ?

- (1) Atrophy
- (2) Metaplasia
- (3) Hyperplasia
- (4) Hypertrophy

168. Calcification in necrotic tissue is called :

- (1) Metastatic Calcification
- (2) Dystrophic Calcification
- (3) Calcinosis
- (4) Tumoral Calcinosis

169. Epithelioid cell is a modified :

- (1) Lymphocyte
- (2) Eosinophil
- (3) Mast Cell
- (4) Macrophage

170. Fat necrosis occurs in

- (1) Omentum
- (2) Heart
- (3) Kidney
- (4) Brain

171. Diabetic foot is associated with following type of gangrene :

- (1) Dry gangrene
- (2) Wet gangrene
- (3) Gas gangrene
- (4) Fournier's gangrene

172. Russell bodies are seen in

- (1) Lymphocytes
- (2) Neutrophil
- (3) Macrophage
- (4) Plasma cell

173. Rubor in inflammation is due to
- (1) Dilation of arterioles
  - (2) Increased vascular permeability
  - (3) Increased viscosity of blood
  - (4) Edema

174. Opsonins are

- (1) C<sub>3</sub>a
- (2) IgM
- (3) IgE
- (4) Selectins

175. Grade of tumour denotes

- (1) Degree of differentiation
- (2) Stage of disease
- (3) Vascular invasion
- (4) Degree of anaplasia

176. The most common source of embolism :

- (1) Deep Vein Thrombosis (DVT)
- (2) Trauma
- (3) Infection
- (4) Surgery

177. Hereditary angioedema is due to deficiency of

- (1) Angiotensin
- (2) Angiotensin converting enzyme
- (3) C1 inhibitor
- (4) Histamin

178. Autoimmunity is caused

- (1) Inappropriate selection of MHC proteins
- (2) Negative selection of T cells in thymus
- (3) Expression of cryptic antigens
- (4) Pressure of forbidden clones

179. Which cell type lacks HLA antigen ?

- (1) Monocyte
- (2) Thrombocyte
- (3) Neutrophil
- (4) Red blood cell

180. Immune system in the body is activated by

- (1) Cell adhesion molecules
- (2) Cytokines
- (3) G-protein receptors
- (4) Ion Channels



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