

10. 17 men can do a piece of work in 5 days. How many men would be required to do the same work in  $8\frac{1}{2}$  days?

17 ଜଣ ପୁରୁଷ ଗୋଟିଏ କାର୍ଯ୍ୟକୁ 5 ଦିନରେ ଶେଷ କରିପାରନ୍ତି । ତେବେ କେତେ ଜଣ ପୁରୁଷ ସେହି କାର୍ଯ୍ୟଟିକୁ  $8\frac{1}{2}$  ଦିନରେ କରିପାରିବେ ?

- (A) 8 (B) 10 (C) 12 (D) 15

### Part-II

ENGLISH : 05 Marks

Instructions: Each Question under this Part carries **One** mark. Please read the instructions carefully and answer the questions by selecting the most appropriate answer out of the multiple answers given below each as A, B, C and D.

**There shall be negative marking @ 0.25 mark per question for wrong/multiple answers.**

11. The teacher said, "Honesty is the best policy".

(Transform the sentence into Indirect speech.)

- (A) The teacher said that honesty is the best policy.  
 (B) The teacher said that honesty was the best policy.  
 (C) The teacher said that honesty would be the best policy.  
 (D) The teacher said that honesty will be the best policy.

12. Cut your coat according to your cloth.

(Choose the correct meaning in Odia of the English proverb.)

- (A) ଧୂର ପାଣି ପଥର କାଟେ (B) ଆକାଶ କଇଁଆ ଚିଲିକା ମାଛ (C) ଆୟ ଦେଖି ବ୍ୟୟ କର (D) ଗରଜିଲା ମେଘ ବରଷେ ନାହିଁ

13. The Ganges \_\_\_\_\_ a holy river.

(Fill in the blank with appropriate verb.)

- (A) are (B) is (C) am (D) were

14. Haste makes waste.

(Choose the correct part of speech of the underlined word.)

- (A) noun (B) pronoun (C) Adjective (D) Adverb

15. The boy is devoid \_\_\_\_\_ common sense.

(Fill in the blanks with appropriate preposition)

- (A) from (B) into (C) of (D) in

### Part-III

MEDICAL LABORATORY TECHNOLOGY : 85 Marks

Instructions: Each Question under this Part carries **One** mark. Please read the instructions carefully and answer the questions by selecting the most appropriate answer out of the multiple answers given below each as A, B, C and D.

**There shall be negative marking @ 0.25 mark per question for wrong/multiple answers.**

16. When performing a venipuncture bright red blood spurts into the tube. This means:

- (A) An arterial puncture (B) High hemoglobin (C) High blood pressure (D) High blood ph

17. Outer-cortex of kidney is \_\_\_\_\_ in colour.

- (A) Blue-black (B) Reddish-brown (C) Yellowish-green (D) Orange-red

18. Smear should be prepared and fixed immediately for cytology because:

- (A) Exfoliated cells degenerate rapidly (B) Exfoliated cells may be blown away  
 (C) The nuclei of the cells get extruded from the cell (D) Cytoplasm develops granularity

19. Which part of central nervous system is present in the vertebral canal.
- (A) Cerebrum (B) Mid brain (C) Cerebellum (D) Spinal cord
20. Which skin test is done to demonstrate circulating diphtheria antitoxin.
- (A) Petroff's method (B) Mantoux test (C) Schick's test (D) Lepromin skin test
21. Which of the following is a substitute for crystal violet used in gram-staining procedure?
- (A) Methylene blue (B) Bromocresol green (C) Safranin (D) Phenolphthaleine
22. Which chondroitin sulphate is present in bone and cornea.
- (A) Chondroitin sulfate A (B) Chondroitin sulfate C  
(C) Chondroitin sulfate B (D) All options
23. Which of the following items are examples of storage devices?
- (A) Floppy / hard disks (B) CD-ROMs (C) Tape devices (D) All of the above
24. What is the name of the computer terminal which gives paper printout?
- (A) Display screen (B) Soft copy terminal (C) Hard copy terminal (D) Plotter
25. The respiratory gases that are present in plasma are
- (A) Helium and oxygen (B) Nitrogen and oxygen  
(C) Oxygen and carbon dioxide (D) Hydrogen and oxygen
26. In the human body, the largest endocrine gland is called.
- (A) Parathyroid gland (B) Thyroid gland (C) Pituitary gland (D) Adrenal gland
27. Largest virus is:-
- (A) Parvo Virus (B) Herpes Virus (C) Pox Virus (D) Mycoplasma
28. Cholesterol is synthesized mainly in which part of the body.
- (A) Heart (B) Lung (C) Liver (D) Kidney
29. Glycosylated hemoglobin is performed on the following sample:
- (A) Serum (B) Plasma (C) Whole blood (D) Urine
30. \_\_\_\_\_ is secreted by posterior pituitary gland.
- (A) Vasopressin (B) Luteinizing Hormone  
(C) Growth Hormone (D) Follicle Stimulating Hormone
31. For electron microscopy study, dehydration of tissue is started with \_\_\_\_\_ percent alcohol.
- (A) 40% (B) 50% (C) 60% (D) 70%
32. Which solvent is not flammable:
- (A) Ether (B) Ethanol (C) Methanol (D) Saline
33. During section cutting if paraffin wax is too soft, then section is
- (A) Crumbled (B) Thick (C) Thin (D) None option
34. Which piece of histology equipment is not temperature dependant:
- (A) Wax (B) Microtome (C) Embedding center (D) Water bath
35. Neuromuscular transmission is mediated by
- (A) Acetylcholine (B) Lipoprotein (C) Triglyceride (D) Nitroglycerine

36. Knott concentration method is used for demonstration of

- (A) Malarial parasite in blood film (B) Microfilariae in peripheral blood film  
(C) Leishmania donovani in bone marrow aspirate (D) Trypanosoma cruzi in blood.

37. Antioxidant property of vitamin C is due to :

- (A) Phenolic hydroxyl group (B) Sulfhydryl group  
(C) Active reducing group (D) Alcoholic group

38. Catalase production is negative in which of the following?

- (A) Streptococcus (B) Salmonella (C) Proteus (D) Staphylococcus

39. Which of the following is cytological fixative.

- (A) Flemming's fluid (B) Carnoy's fluid (C) Gendre's fluid (D) None option

40. \_\_\_\_\_ is the longest bone.

- (A) Hip bone (B) Scapula (C) Tarsal bone (D) Femur

41. When virus antigen is abundant in lesions, then it can be detected by which method.

- (A) Complement fixation test (B) Immunofluorescence test  
(C) Neutralization test (D) All options

42. Osteoporosis occurs as a result of \_\_\_\_\_ mineral deficiency.

- (A) Sodium (B) Iodine (C) Calcium (D) Iron

43. In which condition, there is no increase in blood glucose level.

- (A) Hyperglycemic glycosuria (B) Renal glycosuria  
(C) Alimentary glycosuria (D) All options

44. Which of these amino acids are essential for infants?

- (A) Methionine (B) Arginine and Histidine  
(C) Valine (D) Lysine and Leucine

45. Section cutting is best after.

- (A) Heating the block (B) Cold treatment (C) Room temperature (D) At 37°C

46. The eosin solution used in H and E stains are prepared from \_\_\_\_\_.

- (A) Eosin Y (B) Eosin Z (C) Eosin C (D) Eosin R

47. Find the INCORRECT statement about the biological functions of lipids.

- (A) Storage form of metabolic fuel  
(B) Have a protective function in bacteria, plant and insect  
(C) The structural component of membranes  
(D) Exhibit increased catalytic activity

48. How many types of tissues are present in Human Muscular System?

- (A) 3 (B) 5 (C) 4 (D) 2

49. Which fixative is used in PAP stain.

- (A) Formalin (B) Alcohol-ether (C) Carnoy's fluid (D) Bovin's fluid

50. Animal cells are interconnected by

- (A) Plasma membrane (B) Cell wall (C) Desmosomes (D) Plasmodesmata

51. What is the purpose of CSSD?  
 (A) Storage of clean equipment  
 (B) Providing sterile equipment to the operation theater  
 (C) Storing sterile equipment  
 (D) Pharmacy of the operation theatre
52. The general formula of polysaccharides is  
 (A)  $(C_6H_{10}O_5)_n$       (B)  $(C_6H_{12}O_5)_n$       (C)  $(C_6H_{10}O_6)_n$       (D)  $(C_6H_{12}O_6)_n$
53. The tablet used for glucose testing in urine is:  
 (A) Clinitest      (B) Ictotest      (C) Ace test      (D) TCA
54. Chicken-pox is caused by  
 (A) Herpes simplex virus      (B) Varicella virus  
 (C) Adenovirus      (D) None option
55. Which simple protein is soluble in dilute alcohol but not in absolute alcohol.  
 (A) Scleroprotein      (B) Histones      (C) Prolamines      (D) Protamines
56. The agents which prevent multiplication of bacteria is known as  
 (A) Bactericidal      (B) Disinfectant      (C) Germicidal      (D) Bacteriostatic
57. Which alcohol is most frequently used as skin disinfectant.  
 (A) Methyl alcohol      (B) Industrial alcohol      (C) Isopropyl alcohol      (D) All options
58. Which method is used for cultivation of viruses.  
 (A) Animal inoculation      (B) Inoculation of embryonated eggs  
 (C) Tissue culture method      (D) All options
59. By which tube, middle ear communicates anteriorly with nasopharynx.  
 (A) Trachea      (B) Eustachian tube      (C) Oesophagus      (D) None option
60. Before performing an R & M on a specimen, the urine would be:  
 (A) Filtered      (B) Brought to room temperature  
 (C) Centrifuged      (D) Well-mixed
61. Which of the following enzyme is a sensitive marker of alcoholic liver disease  
 (A) Alanine transaminase      (B) Aspartate transaminase  
 (C) Alkaline phosphatase      (D) Gamma-Glutamyltransferase
62. Absorption of calcium is enhanced by:  
 (A) Vitamin A      (B) Vitamin E      (C) Vitamin D      (D) Vitamin L
63. \_\_\_\_\_ is not a salivary gland  
 (A) Submandibular gland      (B) Sublingual gland      (C) Parotid gland      (D) Thyroid gland
64. Inability to write is known as  
 (A) Alexia      (B) Aphasia      (C) Agraphia      (D) Myopia
65. Section cutting machine is also known as:  
 (A) Microtome      (B) Histomat      (C) Histocut      (D) Histoform
66. Which hormone is a polypeptide.  
 (A) TSH      (B) Insulin      (C) Both A & B      (D) None option

67. Which type of phospholipid is found in brain tissues.

- (A) Phosphatidyl ethanolamine (B) Phosphatidyl choline  
(C) Phosphatidyl serine (D) Plasmalogens

68. In animals, carbohydrate is stored in which part of the body.

- (A) Liver (B) Muscles (C) Both A & B (D) Intestine

69. Immunoglobulins are which type of Protein in Nature ?

- (A) Alpha Globulin (B) Beta Globulin (C) Gamma Globulin (D) Delta Globulin

70. Fallopian tubes in females has

- (A) An uterine end (B) An ampulla (C) A fimbrial end (D) All options

71. The secretion from the lungs which is tested for malignant cells is called:

- (A) Spit (B) Semen (C) Saliva (D) Sputum

72. Which technique is used in histology for immediate diagnosis.

- (A) Paraffin technique (B) Frozen section technique  
(C) Celloidin section technique (D) None option

73. Which converts the user data into machine readable form?

- (A) Input unit, output unit, control unit (B) Central processing unit  
(C) Output unit (D) Decoder unit

74. Commonest bacteria in milk

- (A) Bacillus cereus (B) Lactobacilli (C) Coliform bacilli (D) Proteus vulgaris

75. The most common cause of bacterial sore throat is

- (A) Streptococcus pyogenes (B) Haemophilus influenzae  
(C) Both A & B (D) Mycoplasma pneumonia

76. Which unit converts user data into machine readable form?

- (A) Input unit (B) Output unit (C) ALU (D) Control Unit

77. Iron in tissue is detected by which reaction.

- (A) Silver impregnation method (B) Prussian blue reaction  
(C) Uranyl nitrate method (D) Toluidine blue method

78. Silver methenamine stain is used for detection of

- (A) Bacteria (B) Parasite (C) Fungi (D) All options

79. Large intestine has all parts except \_\_\_\_\_.

- (A) Caecum (B) Sigmoid colon (C) Ascending colon (D) Jejunum

80. In which type of stain, the organism is stained in a different shade of colour from that of the stain.

- (A) Indirect stain (B) Negative stain  
(C) Metachromatic stain (D) Spore stain

81. Which part supplies nutrients from maternal blood to the foetus.

- (A) Uterus (B) Placenta (C) Fallopian tubes (D) Vagina

82. What is the responsibility of the logical unit in the CPU of a computer?
- (A) To produce result (B) To compare numbers  
(C) To control flow of information (D) To do math's works
83. What reagent is mutagenic/clastogenic:
- (A) Crystal violet (B) Picric acid (C) Zenker's fluid (D) Brazil fixative
84. Commercially available ELISA kits are used for the detection of \_\_\_\_\_
- (A) Rotavirus (B) Hepatitis B surface antigen  
(C) Anti-HIV antibodies (D) All of these
85. How many ribs are present in a human body?
- (A) 12 (B) 12 pairs (C) 24 pairs (D) 14
86. Which acid increases staining intensity of eosin.
- (A) Hydrochloric acid (B) Acetic acid (C) Nitric acid (D) Trichloroacetic acid
87. Name the structure analog of vitamin K, which is used as anticoagulant?
- (A) Warfarin (B) Tocopherol (C) Ergocalciferol (D)  $\beta$ -carotene
88. Somatic Nervous system consists of \_\_\_\_\_ pairs of cranial nerves.
- (A) 12 (B) 18 (C) 65 (D) 8
89. Which type of radiations are used for sterilizing syringes & catheters.
- (A) Ultraviolet radiations (B) Infrared radiations  
(C) Gamma radiations (D) X-rays
90. Which enzyme is more active between pH 8 and 10.
- (A) Amylase (B) Lipase  
(C) Alkaline phosphatase (D) Acid phosphatase
91. Which type of Microscope is mostly used for routine microbiological work?
- (A) Phase-contrast Microscope (B) Brightfield Microscope  
(C) Electron Microscope (D) Fluorescence Microscope
92. Which part of the brain controls intellectual ability?
- (A) Frontal lobe (B) Parietal lobe (C) Temporal lobe (D) Occipital lobe
93. An organ or structure that is not a component of the urinary system.
- (A) Urethra. (B) Urinary bladder. (C) Ureter (D) Adrenal gland.
94. Which method is most commonly used for uric acid estimation.
- (A) Berthelot method (B) Caraway method  
(C) Diacetyl Monoxime method (D) Sulphosalicylic acid test
95. Most naturally occurring antigens are
- (A) Proteins (B) Lipids (C) Polysaccharides (D) Nucleic acids
96. Which biochemical test is done for identification of Pseudomonas, Neisseria and Vibrio groups.
- (A) Gluconate test (B) Oxidation-fermentation test  
(C) Urease test (D) Oxidase test

97. Cramp is involuntary, painful and localized \_\_\_\_\_ of muscles.

- (A) Contraction                      (B) inflammation                      (C) Relaxation                      (D) Infection

98. Which mineral is required for the synthesis of DNA, RNA and phospholipids.

- (A) Sodium                      (B) Calcium                      (C) Potassium                      (D) Phosphorus

99. In essential pentosuria, urine contains

- (A) D-Ribose                      (B) D-Xylulose                      (C) L-Xylulose                      (D) D-Xylose

100. Which enzyme is present mainly in the prostate and increased in prostatic cancer.

- (A) Alkaline phosphatase                      (B) Isocitrate dehydrogenase  
(C) Acid phosphatase                      (D) Amylase