

25/2015

Maximum : 100 marks

Time : 1 hour and 15 minutes

1. Calculate the velocity of nerve impulse in the Frog's nerve muscle preparation from the data given below:
 - (i) Latent period with stimulation of spinal end of the nerve = 0.01 sec.
 - (ii) Latent period with stimulation of muscle end of the nerve = 0.005 sec.
 - (iii) Length of the nerve between the two stimulated points = 7.5 cm.
so the velocity of the nerve impulse is

(A) 1550 cm (B) 1576 cm
(C) 1500 cm (D) 15000 cm

2. Calculate the respiratory quotient from the data are given :
 - (i) Volume of expired air in 6 minutes = 30 liters
 - (ii) Percentage of CO₂ in expired air = 4.2%
 - (iii) Oxygen consumption in 6 minutes = 1470 ml,
the respiratory quotient (RQ) is

(A) 0.85 (B) 0.75
(C) 0.65 (D) 0.81

3. Determine the oxygen carrying capacity and oxygen content of arterial and venous blood samples from the data are provided :
 - (i) Percentage saturation of arterial blood with oxygen = 97%
 - (ii) Percentage saturation of venous blood with oxygen = 75%
 - (iii) Hemoglobin concentration = 14.5 g/dl.
Oxygen carrying capacity of blood and oxygen content of venous blood are respectively.

(A) 18.33 ml/dl, 14.37 ml/100 ml (B) 19.43 ml/dl, 14.57 ml/100 ml
(C) 56.12 ml/dl, 23.37 ml/100 ml (D) 23.11 ml/dl, 42.23 ml/100 ml

4. Find out the breathing reserve and the dyspnea index from the data provided below :
 - (i) Respiratory rate = 12/min
 - (ii) Tidal volume = 500 ml
 - (iii) Maximum Voluntary Ventilation (MVV) = 130 liters
So Dyspnea index (Breathing reserve percent) is

(A) 88 % (B) 95%
(C) 80% (D) 100%

5. Calculate the heart rate from the ECG provided 1500 by the number of smallest squares between two R waves are assume 18, the heart rate will be:

(A) 82 / min (B) 78 / min
(C) 68 / min (D) 72 / min

A

3

[P.T.O.]

6. Calculate the Renal Blood Flow (RBF) from the data given below. Data are :

- (i) Concentration of PAH in Urine (U_{PAH}) = 14 mg/ml
- (ii) Concentration of PAH in Plasma (P_{PAH}) = 0.03 mg/ml
- (iii) Rate of urine flow (V) = 1.5 ml/min
- (iv) Hematocrit (Hct) = 43%.

The actual renal blood flow is

- (A) 1450 ml per minute
- (B) 1445 ml per minute
- (C) 1340 ml per minute
- (D) 1350 ml per minute

7. Calculate the urea clearance from the given data :

- (i) Concentration of urea in Urine (U) = 20 mg/ml
- (ii) Concentration of urea in Blood (B) = 38 mg/100 ml
- (iii) Rate of Urine Flow (V) = 1.5 ml/min.

Urea clearance is

- (A) 60 ml/min
- (B) 64 ml/min
- (C) 720 ml/min
- (D) 32 ml/min

8. The Red cell count of Males and Females are respectively :

- (A) Males 7.5 – 9.5 million / mm^3
Female 7.0 – 8.5 million / mm^3
- (B) Males 3.5 – 5.5 million / mm^3
Female 3.0 – 5.0 million / mm^3
- (C) Males 4.0 – 7.5 million / mm^3
Females 5.0 – 6.5 million / mm^3
- (D) Males 4.5 – 6.5 million / mm^3
Females 4.0 – 5.5 million / mm^3

9. Hemoglobin of males and female are respectively :

- (A) Male 13.5 – 18 g/dl
Females 11.5 – 16 g/dl
- (B) Male 13.0 – 15 g/dl
Females 10.5 – 15 g/dl
- (C) Male 12.6 – 14 g/dl
Females 10.6 – 12 g/dl
- (D) Male 14.5 – 19 g/dl
Females 12.5 – 17 g/dl

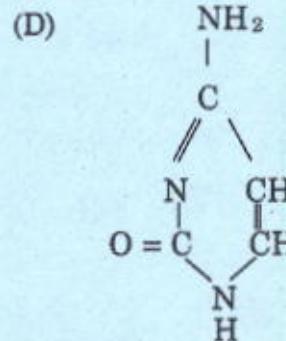
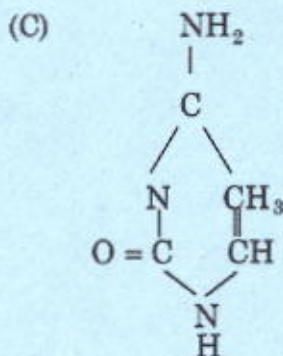
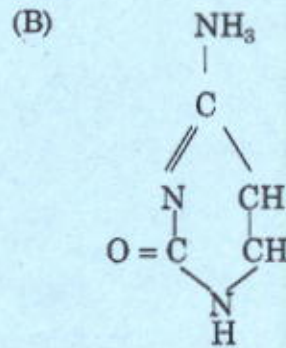
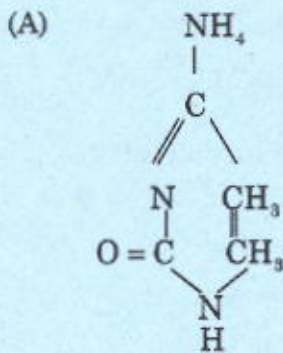
10. Blood – reference intervals of Arterial gases is :

- (A) PaCO_2 : 38 – 48 mm Hg
- (B) PaCO_2 : 45 – 60 mm Hg
- (C) PaCO_2 : 60 – 70 mm Hg
- (D) PaCO_2 : 35 – 45 mm Hg

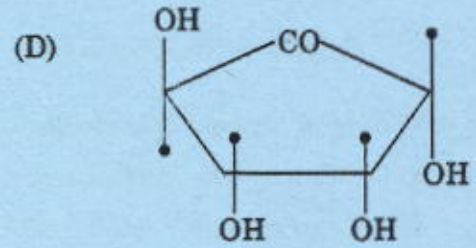
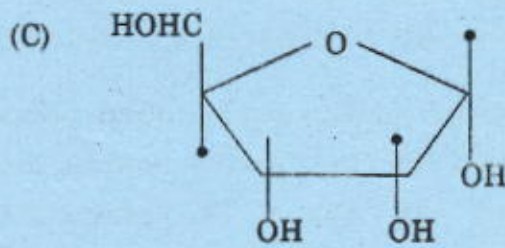
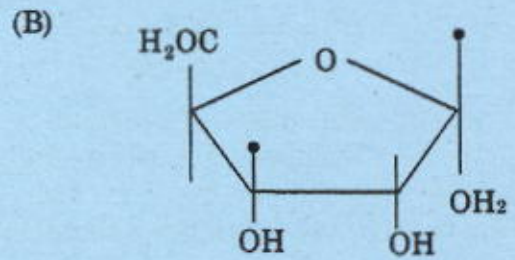
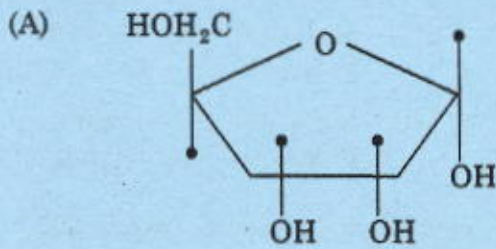
11. In respiratory system contain inspired air normally :

- (A) O_2 : 30.96% ; CO_2 : 0.09% ; N_2 = 69.95%
- (B) O_2 : 40% ; CO_2 : 1% ; N_2 = 59%
- (C) O_2 : 20.96% ; CO_2 : 0.04% ; N_2 = 79%
- (D) O_2 : 15% ; CO_2 : 1% ; N_2 = 84%

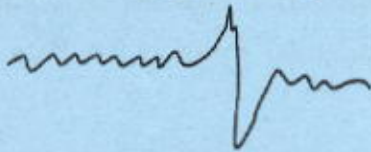
12. Kidneys of renal in maximum glucose reabsorptive capacity (Tm_c) is normally :
- (A) Male 100 – 300 mg/min
Females 200 – 250 mg/min
- (B) Male 100 – 300 mg/min
Females 100 – 300 mg/min
- (C) Male 300 – 450 mg/min
Females 200 – 300 mg/min
- (D) Male 300 – 450 mg/min
Females 250 – 350 mg/min
13. The food item of dates, dried contains calories, proteins and fats are respectively.
- (A) Calories 317 Proteins 2.5 Fats 0.4 (B) Calories 217 Proteins 5.5 Fats 0.2
- (C) Calories 615 Proteins 4.7 Fats 0.1 (D) Calories 1012 Proteins 5.7 Fats 0.1
14. The food item of Mutton of boiled contains calories, proteins and fats are respectively.
- (A) Calories 300 Proteins 25.5 Fats 17.3 (B) Calories 194 Proteins 18.5 Fats 13.6
- (C) Calories 400 Proteins 35.7 Fats 4.7 (D) Calories 250 Proteins 17.5 Fats 10.9
15. In milk of cow's and curd contains calories, proteins and fats are respectively.
- (A) Calories 67 Proteins 3.2 Fats 4.1 (B) Calories 100 Proteins 10.7 Fats 1.2
- (C) Calories 102 Proteins 15.6 Fats 1.3 (D) Calories 50 Proteins 2.6 Fats 3.3
16. Molecular structure of cytosine bases of DNA is :



17. The classes of sugar of monosaccharide of example of Ribose is :



18. The following EEG diagram is represent :



(A) Biphasic spilce

(B) Biphasic sharp wave

(C) Monophasic sharp wave

(D) Slow wave sleep wave

19. EEG typically has frequency range of Beta (β) is represented the following :

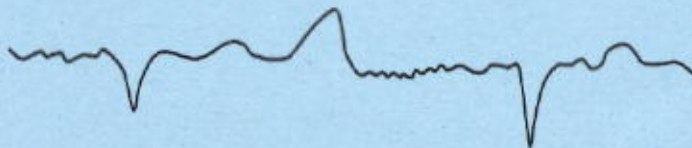
(A) Beta (β) frequency range (above 17.5 Hz)

(B) Beta (β) frequency range (2.5 – 3.5 Hz)

(C) Beta (β) frequency range (7.5 – 12.5 Hz)

(D) Beta (β) frequency range (above 12.5 Hz)

20. The following ECG diagram is represented :



(A) PVC

(B) Normal sinus rhythm

(C) Tachy cardia

(D) None of them

21. The cross correlation between the template sequence of the QRS complex and the incoming signal is computed using the following equation :

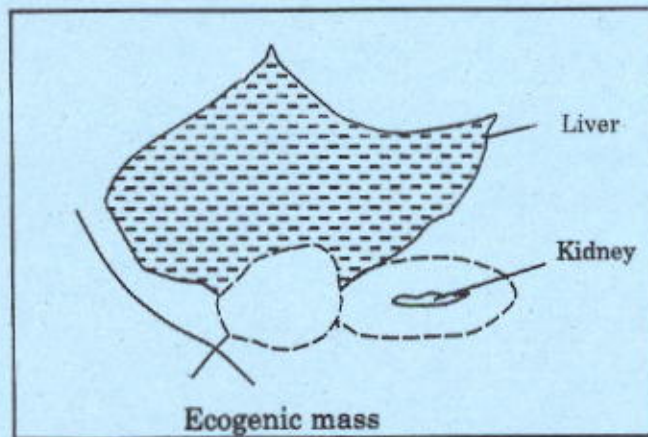
$$(A) \quad V_{xy}(m) = \begin{cases} \frac{1}{N} \sum_{n=0}^{N-m-1} x(n+m)y(n^2) & \text{for } 0 \leq m \leq N-1 \\ \frac{1}{N} \sum_{n=0}^{N-|m|-1} x(n) y(n+m) & \text{for } -(N-1) \leq m < 0 \end{cases}$$

$$(B) \quad V_{xy}(m) = \begin{cases} \frac{1}{N} \sum_{n=0}^{N-m-1} x(n+m)y(n) & \text{for } 0 \leq m \leq N-1 \\ \frac{1}{N} \sum_{n=0}^{N-|m|-1} x(n^2) y(n+m) & \text{for } -(N-1) \leq m < 0 \end{cases}$$

$$(C) \quad V_{xy}(m) = \begin{cases} \frac{1}{N} \sum_{n=0}^{N-m-1} x(n+m)y(n) & \text{for } 0 \leq m \leq N-1 \\ \frac{1}{N} \sum_{n=0}^{N-|m|-1} x(n) y(n+m) & \text{for } -(N-1) \leq m < 0 \end{cases}$$

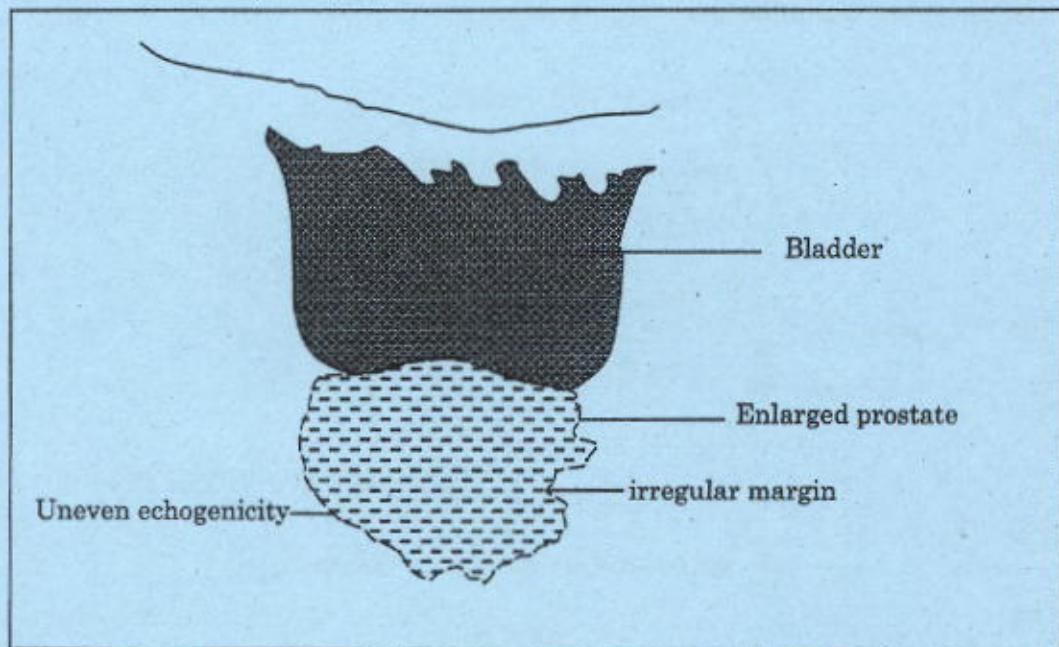
- (D) None of them

22. The following diagram of ultrasound appearances is represented :



- (A) Myelolipoma (LS)
 (B) Neuroblastoma (LS)
 (C) Pheochromocytoma (LS)
 (D) Right adrenal mass (LS)

23. The following ultrasound of prostate of MALE PELVIS related image represented as :



- (A) Normal Prostate (LS) (B) Benign Prostatic Hypertrophy (LS)
 (C) Prostatitis (LS) (D) Prostatic Car Cinoma (TS)

24. Laws of Radiations is defined by:

- (A) $\text{New dose} = \frac{\text{New dose} \times (\text{new distance})^2}{(\text{Old distance})^2}$
 (B) $\text{New dose} = \frac{(\text{Old dose})^2 \times (\text{new distance})}{(\text{Old distance})^2}$
 (C) $\text{New dose} = \frac{(\text{Old dose})^2 \times (\text{new distance})^2}{(\text{Old distance})}$
 (D) $\text{New dose} = \frac{\text{Old dose} \times (\text{new distance})^2}{(\text{Old distance})^2}$

25. The following laws is states the rays must be absorbed to produce the effect will be produced at that which the rays are absorbed.

- (A) Law of Grothus - Drapper (B) Cosine Law
 (C) Law of Square (D) Arndt - Schultz law

26. Which one electrodes used to method is used over larger area of the body. eg spine and is also called parallel method of placement?

- (A) Co-planar positioning of electrode (B) Contra-planar positioning of electrode
(C) Mono – polar method (D) Cross – fire technique

27. Convert 120 ° F to ° C (conversion of Fahrenheit Scale to Centigrade Scale) is :

- (A) 48.8° C (B) 56.8°C
(C) 30°C (D) 42°C

28. This type of microscope has a triple nosepiece with three objectives and two eye pieces.

- (A) Leitz Wetzler microscope (B) Bausch and Lomb microscope
(C) Moreau microscope (D) Wilson's screw barrel type microscope

29. This type of objective lenses used in microscopes and corrected for Aplanatic, no spherical and chromatic aberration of red, blue, green. This type of lense is :

- (A) Aplanatic (B) Apochromatic
(C) Achromatic (D) (A) and (C)

30. In rate of sedimentation defined as following :

- (A) $\gamma = \frac{2}{9} \times \frac{\gamma_p^2 (\rho_p - \rho_m)}{\eta} \times g$ (B) $\gamma = \frac{2}{9} \times \frac{\gamma_p (\rho_p - \rho_m)^2}{\eta^2} \times g$
(C) $\gamma = \frac{2}{18} \times \frac{\gamma_p^2 (\rho_p - \rho_m)^2}{\eta^2} \times g$ (D) $\gamma = \frac{2}{18} \times \frac{\gamma_p^2 (\rho_p - \rho_m)}{\eta} \times g$

31. This type of Rotors used for low-speed centrifugation are made up of brass or steel and fixed zero angle rotor, the pellet is deposited along entire length of the outer wall.

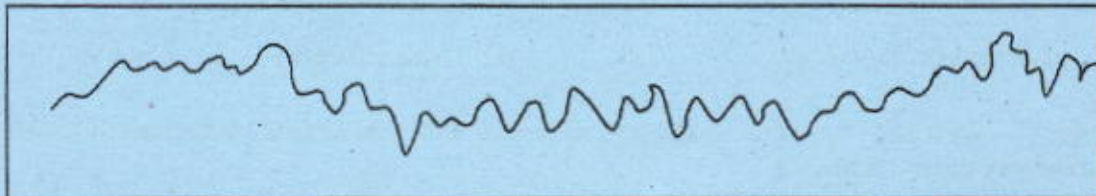
- (A) Fixed angle rotors (B) Elutriator rotors
(C) Vertical tube rotors (D) Zonal rotors

32. This type of electrode contains mercury chloride and saturated solution of Potassium Chloride for pH measurements.

- (A) Glass Electrode (B) Calomel Electrode
(C) Compound Electrode (D) Armstrong Electrode

33. This type of manometers is used measure pressure and contains upto 14 experimental flasks and small U-tube capillaries are connected to the same reference flask by gassing manifold.
- (A) Warburg manometer (B) Tilted manometer
(C) Gilson constant manometer (D) A U-tube manometer
34. The first form of chromatography was used by Martin Consden and Gordon to separate a mixture of amino acids.
- (A) Paper chromatography (B) Thin layer chromatography
(C) Column chromatography (D) Adsorption chromatography
35. The following X-ray technique and methods of X-ray spectroscopy are based on the scattering of X-rays by crystals.
- (A) X-ray absorption (B) X-ray reflection
(C) X-ray diffraction (D) X-ray fluorescence
36. The output signal voltage of an amplifier is 5 V and the output noise voltage is 0.005 V. Determine the signal-to-noise power ratio in decibels. Ignore the source resistance. The signal to noise power ratio in decibels is :
- (A) 70 dB (B) 10 dB
(C) 60 dB (D) 1000 dB
37. A strain gauge of 120 Ω (nominal) resistance with a gauge factor $GF = 2$ is mounted on a rod. The 5 m rod stretches by only 2 mm under a heavy stress. Find the change in resistance is :
- (A) 0.096 Ω (B) 1 k Ω
(C) 0.05 Ω (D) 0.5 Ω

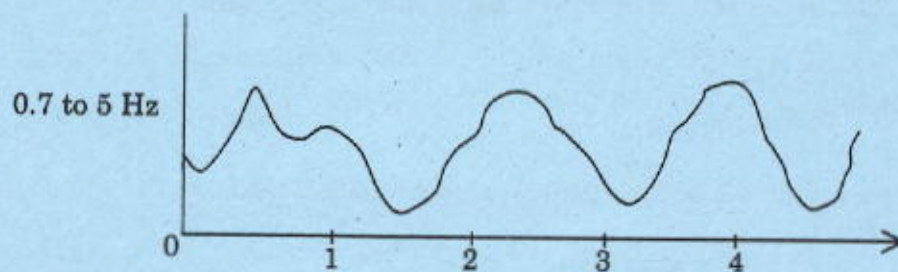
38. The following irregular ECG shows what type of abnormal of ECG signal :



- (A) Sinus tachycardia (B) Atrial flutter
(C) Ventricular fibrillation (D) First degree AV block

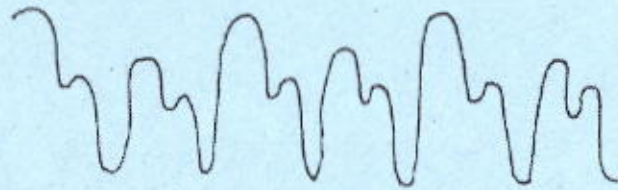
39. A patient has an 8 l/min CO. His pulmonary artery has a 14 mm diameter with a 20 mm Hg pressure. His left atrium pressure is 8 mm Hg. What is the patient's pulmonary vascular resistance?
- (A) 2.5 mm Hg/l/min (B) 1.5 mm Hg/l/min
(C) 5.6 mm Hg/l/min (D) 3.5 mm Hg/l/min
40. Which law states that the total pressure exerted in the vessel is equal to the sum of the partial pressures of the various gases in the mixture?
- (A) Bayer's Law (B) Boyle's Law
(C) Dalton's Law (D) Charle's Law
41. The following devices detects some heart rhythm disorders, such as premature ventricular complexes and automatically delivers shocks to terminate such rhythm disorders :
- (A) Automated external defibrillator (B) Inplantable cardio verter defibrillator
(C) Both of (A) and (B) (D) None of them
42. This type of pacemaker paces the ventricle, but since it does not sense the ventricles, there is no response to sensory input. This type of pacing is achieved after by pass surgery with a handheld external pacemaker.
- (A) VVI (B) DVI
(C) VOO (D) DDD
43. Non-invasive blood pressure measurement can be automated by replacing the hand pump with an automatic pump can be set to inflate the cuff when activated. This method is :
- (A) Oscillometric method (B) Non-invasive method
(C) Automated hand pump method (D) Auscultatory method
44. This type of infusion pumps performs uses a fluid that is hung above the pump and two tubes for the fluid to flow in to body this pump is also called a peristaltic pump.
- (A) Volumetric infusion pump (B) Syringe infusion pump
(C) Fluid infusion pump (D) Multiple infusion pump
45. This device is used to decrease myocardial oxygen demand while at the same time increasing Cardial Output (CO) :
- (A) Dialysis machine (B) Intra-aortic balloon pump machine
(C) Heart-lung machine (D) Aphaeresis machine

46. The sum of the tidal volume and the inspiratory reserve volume is called :
- (A) Expiratory reserve volume (B) Residual volume
(C) Total Lung capacity volume (D) Inspiratory capacity
47. Apnea is a :
- (A) Sleep abnormality (B) Cessation of breathing
(C) Nervous disorder (D) Infection
48. Sensitivity of a transducer or electrode is defined as the following :
- (A) Input of electrode / Output of electrode (B) Change of input / change of output
(C) Actual output / measured output (D) None of them
49. The resistance temperature detector of resistance at T predicted by the formula.
- (A) $R(T) = R(T) \times [1 + \alpha_0(T_0 - T)]$ (B) $R(T) = R(T_0) \times [1 + \alpha_0(T_0 - T)]$
(C) $R(T) = R(T_0) \times [1 + \alpha_0(T - T_0)]$ (D) $R(T) = R(T) \times [1 + \alpha_0(T - T_0)]$
50. This device is used for spraying liquid or medication into the patient's airways. The gas is forced through the jet by squeezing the rubber bulb :
- (A) Humidifier (B) Nebulizer
(C) Sprayfier (D) LTV - series
51. The following formula is represented find the capacity by :
- Volume of the Chamber \times Change in chamber pressure due to breathing
Change in thorax pressure
- (A) Urine bladder capacity (B) Heart volume capacity
(C) Breathing volume capacity (D) Total lung capacity
52. The following brain waves of diagram is represented.



- (A) Alpha (B) Beta
(C) Theta (D) Delta

53. This type of noise wave form is called as:



- (A) Noise of Erratic ragged waveform
 - (B) Flattened waveform
 - (C) Alteration of high and low waves in a regular pattern
 - (D) Normal waveform
54. The percentage reflections of ultrasound at tissue interface of Blood-Brain, Blood Kidney are given and which one is correct?
- (A) Blood Brain : 0.3%, Blood Kidney 0.7%
 - (B) Blood Brain : 0.7%, Blood Kidney 12%
 - (C) Blood Brain : 3%, Blood Kidney 17%
 - (D) Blood Brain : 3%, Blood Kidney 13%
55. What type of echoes represents as clots rather than vertical deflections and the brightness represents the strength of the reflected echo of ultrasound?
- (A) A - mode
 - (B) B - mode
 - (C) M - mode
 - (D) N - mode
56. This type of transducer format use to endovaginal for the sequoia ultrasound machine :
- (A) 5 C₂
 - (B) 4 V₂
 - (C) 8 C₄
 - (D) EV - 8 C₄
57. Radiographic systems classified as :
- (A) Chest X-ray radiography, surgical systems
 - (B) Dental radiography, computer tomography
 - (C) Portable or mobile units, chiropractic systems
 - (D) Both of (A), (B), (C)
58. This is involves a dynamic X-ray imaging of physiological functions such as flow of barium through the intestine or the process of injecting a contrast medium into the heart :
- (A) Fluoroscopy
 - (B) Tomography
 - (C) Vertical Bucky
 - (D) Echography

59. This type of image is examination and inspection of the interior of body organs, joints or cavities through an device is :
- (A) Fluoroscopy (B) Endoscopy
(C) Colonoscopy (D) Sigmoidoscopy
60. This type of tube uses viewing pulmonologist or a thoracic surgeon called :
- (A) Colonoscopy (B) Sigmoidoscopy
(C) Endoscopy (D) Bronchoscopy
61. What type of laser is used for photocoagulation in ophthalmology?
- (A) Argon laser (B) Ruby laser
(C) Nd : YAG laser (D) CO₂ laser
62. Which formula is correct for the total count of either WBC or RBC is given as?
- (A) Total of count = $\frac{(\text{Number of cells counted}) \times (\text{Depth } 0.2 \text{ mm})}{(\text{Area counted mm}^2) \times (\text{Dilution factor})}$
- (B) Total of count = $\frac{(\text{Number of cells counted}) \times (\text{Dilution factor})}{(\text{Area counted mm}^2) \times (\text{Depth } 0.1 \text{ mm})}$
- (C) Total of count = $\frac{(\text{Area counted mm}^2) \times (\text{Depth } 0.1 \text{ mm})}{(\text{Number of cells counted}) \times (\text{Dilution factor})}$
- (D) None of them
63. What LAB referred to an anatomic pathology prepares tissue and bone samples used for diagnosing many diseases including cancer?
- (A) Microbiology lab (B) Virology lab
(C) Speciality chemistry lab (D) Histology lab
64. Person who responsible for the daily operation of the lab including scheduling of personal :
- (A) Lab Administrator (B) Lab Supervisor
(C) Lab Director (D) Lab Manager
65. This technician who draws the patient's blood and ensures that sample are submitted to the laboratory for proper testing :
- (A) Lab Technician (B) Nurse
(C) Phlebotomist (D) Clinic Technician

66. This type of shock hazards occurs when current is applied to the surface of the body, producing tissue injury and unnecessary stimulation :

- (A) Macro shock
- (B) Electric shock
- (C) Electrode shock
- (D) Micro shock

67. OSHA standard under 29 CFR 1910.1200 for the safety of :

- (A) Radiation safety
- (B) Biological safety
- (C) Fire and explosive safety
- (D) Chemical safety

68. MSDS stands for :

- (A) Micro Shock Distribution System
- (B) Medical Supply Distribution System
- (C) Metrial Safety Data Sheet
- (D) None of the above

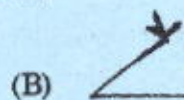
69. DICOM for standard defined as :

- (A) Digital Internet Communication
- (B) Digital Image Components
- (C) Digital Imaging and Communications in Medicine
- (D) Digital Internel and Communication in Medicine

70. NIC for :

- (A) Network Internet Card
- (B) Network Internet COM
- (C) Network Internet Communication
- (D) Network Interface Card

71. Which one is correct for standard symbols used in electro surgery of hand operated output connection for hand operated monopolar accessories?



72. This type of shock occurs when a patients has lost 15-25% of intravascular volume :

- (A) Hypovolemic shock
- (B) Cardiogenic shock
- (C) Septic shock
- (D) Electric shock

73. Leptospira is the example of the following which one of :

- (A) Bacteria
- (B) Spirochaetes
- (C) Bacilli
- (D) Rickettsias

74. The example of Aspirin is the following which one of the source of drugs :
- (A) Mineral (B) Micro-organisms
(C) Vegetable (D) Synthetic
75. Which one is a water-soluble benzodiazepine which is 2-3 times more potent than diazepam?:
- (A) Midazolam (B) Ketamine
(C) Diethyl Ether (D) Propofol
76. ASCII character 'A' of 8-bit octal is represented by :
- (A) 201 (B) 101
(C) 1 (D) 301
77. Which one is a searchable database of the location of files that are available for the public to download?
- (A) Archie (B) Gophers
(C) WAIS (D) Veronica
78. Which one is correct for teaching and training at a distance, providing real time guidance such as through surgical procedures?
- (A) Tele radiology (B) Tele-dermatology
(C) Tele psychiatry (D) Tele mentoring
79. Which is example web address of Tele-teaching for a national project in teaching undergraduate surgery at Versity College, London?
- (A) <http://av.avc.ucl.ac.uk/ttpp/insurrect.html>
(B) <http://www.atmeda.org/news.overview.html>
(C) <http://telemedicine.org/lecturer.html>
(D) <http://www.healthnet.org/teaching.html>
80. TIE is an online information service through Internet represented by :
- (A) Telecommunication Internet Equipment
(B) Telemedicine Information Exchange
(C) Telecare Information Exchange
(D) Telemetry Informatics Encoding
81. India's Mars mission is officially known as :
- (A) Mangalyan (B) Mangala
(C) Mars mission (D) Mars Orbitor mission

82. Which country won the Davis Cup Tournament 2013?
(A) Zchek Republic (B) Russia
(C) America (D) England
83. Bitcoin is the digital currency used for internet trading. Where is the World's first Bitcoin ATM is located?
(A) China (B) Canada
(C) Singapore (D) Sweedan
84. Who is the new Director General of World Trade Organization?
(A) Pascal Lamy (B) Margarete Chan
(C) Roberto Asavedo (D) Ban Ki Moon
85. Who won the Abel prize 2013?
(A) Pierre Deligne (B) Endre Szemerédi
(C) John Torence (D) John Milnor
86. Sreenagar the capital city of Jammu and Kashmir situated on which river bank?
(A) Beas (B) Chenab
(C) Indus (D) Jhelum
87. The Soil Survey of India established in which year?
(A) 1976 (B) 1949
(C) 1956 (D) 1963
88. The leaders of Home Rule Movement in India borrowed the term Home Rule from a similar movement in :
(A) Scotland (B) Ireland
(C) England (D) Finland
89. Who was the first commander of Indian National Army?
(A) Mohan Singh (B) Subhash Chandra Bose
(C) Rash Bihari Bose (D) Capt. Lakshmi
90. Mixed Economy was envisaged for the first time in the :
(A) Preamble of Indian Constitution (B) First Five Year Plan
(C) Second Five Year Plan (D) Bombay Plan

91. River Pamba originates from :
 (A) Marayur (B) Peerumedu
 (C) Iravikulam (D) Munnar
92. Which among the following is the major soil type of Kerala?
 (A) Laterite (B) Alluvial
 (C) Red soil (D) Black soil
93. According to 2011 census which District in Kerala has the highest density of population :
 (A) Alappuzha (B) Malappuram
 (C) Thiruvananthapuram (D) Kollam
94. In which year Peoples Planning introduced in Kerala?
 (A) 1995 (B) 1996
 (C) 1997 (D) 1998
95. Time Magazines "Person of the year 2013" goes to :
 (A) Edward Snodan (B) Barac Obama
 (C) Francis Pope (D) Edith Windsdin
96. Who first introduced the system "A school along with every church"?
 (A) Poikayil Yohannan (B) Kuriakose Chavara
 (C) Dr.Hermen Gundert (D) Dr.Benjamin Baily
97. The Malayali who worked under Gandhiji as the Editor of Young India?
 (A) M.C.Joseph (B) T.K.Madhavan
 (C) K.Ayyappan (D) Barrister George Joseph
98. The social reformer in Kerala who received Padma Bhushan in 1966?
 (A) Sree Narayana Guru (B) Chattambi Swamikal
 (C) Mannathu Padmanabhan (D) Ayyankali
99. Who put forwarded the slogan "One caste, one religion, one clan, one world, one God"?
 (A) Dr.Ayyathan Gopalan (B) Kurumban Daivathan
 (C) Ayya Vaikundar (D) Vagbhatananda
100. Who came to be known as the Lincoln of Kerala?
 (A) Thycad Ayya (B) Pandit Karuppan
 (C) Dr. Palpu (D) Kumaranasan