

M.Tech. (Bio-Medical Engineering) Entrance Test, 2022

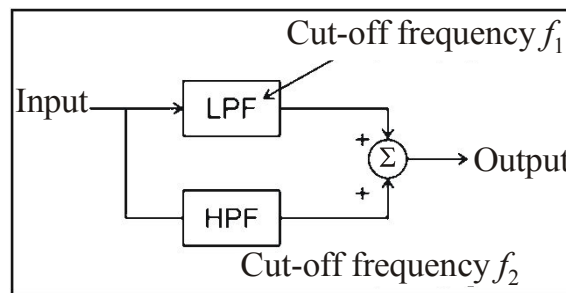
1. The pair of equations  $2X - Y = 5$ ;  $10X - 5Y = 20$  represents two lines which are graphically :
  - (A) Intersecting at one point
  - (B) Parallel
  - (C) Intersecting at two points
  - (D) Coincident
2. Eigen value is defined as :
  - (A) A vector obtained from the coordinates
  - (B) A matrix determined from the algebraic equations
  - (C) A scalar associated with a given linear transformation
  - (D) It is the inverse of the transform
3. The sum of two positive numbers is 20. Find the numbers if their product is maximum :
  - (A) 6, 14
  - (B) 10, 10
  - (C) 8, 12
  - (D) 20, 0
4. The Fourier series expansion of  $Y = X^3$  in the interval  $-1 \leq X < 1$  with periodic continuation has :
  - (A) Only sine terms
  - (B) Only cosine terms
  - (C) Both sine and cosine terms
  - (D) Only sine term and a non-zero constant

5. Which of the following theorem convert line integral to surface integral ?
- (A) Gauss divergence and Stokes' theorem
  - (B) Stokes' theorem only
  - (C) Greens' theorem only
  - (D) Stokes' and Green's theorem
6. The order and degree of the following differential equation are :
- $$\left(\frac{d^3y}{dx^3}\right)^2 + \left(\frac{d^2y}{dx^2}\right)^3 + y = 0$$
- (A) Order-3, Degree-2
  - (B) Order-2, Degree-3
  - (C) Order-2, Degree-2
  - (D) Order-3, Degree-3
7. The first four terms of the Taylor series about  $a = 1$  for the following function :
- $$f(x) = x^2 + 2x + 1$$
- (A)  $0 + 4 + 4(x-1) + (x-1)^2$
  - (B)  $4 + 4(x-1)^2 + (x-1)^3 + 0$
  - (C)  $0 + 0 + 0 + 0$
  - (D)  $4 + 4(x-1) + (x-1)^2 + 0$
8. Increasing the sample size has the following effect upon the sampling error ?
- (A) It increases the sampling error
  - (B) It reduces the sampling error
  - (C) It has no effect on the sampling error
  - (D) All of the above

9. Which of the given strategies helps provide the prediction mechanism by analyzing the relationship between two variables ?
- (A) Regression (B) Standard error  
(C) Correlation (D) None of the preceding
10. The problems which deal with the analysis of electronic circuits consisting of invariant elements depend on :
- (A) Interpolation problems  
(B) Solution of transcendental equations  
(C) The solution of simultaneous algebraic equations  
(D) Finite difference method
11. If the probability that a bomb dropped from a place will strike the target is 60% and if 10 bombs are dropped, find mean and variance :
- (A) 0.6, 0.24 (B) 6, 4  
(C) 0.4, 0.16 (D) 6, 2.4
12. Mathematical model of Linear Programming is important because it :
- (A) Helps in converting verbal description and numerical data into mathematical expression  
(B) Captures the relevant relationship among decision factors  
(C) Enables the use of algebraic techniques  
(D) Predicts future operation

13. Which statement is *not* true with reference to Integration in Mathematics is a method of :
- (A) It is a method of adding or summing up the parts to find the whole.
  - (B) A reverse process of differentiation, where we reduce the functions into parts.
  - (C) It is a method to find the summation under a vast scale.
  - (D) A process to reduce the functions into parts.
14. Which one of the following conditions must be ensured when two batteries are connected in parallel ?
- (A) They should have the same make/brand.
  - (B) They should have the same internal resistance.
  - (C) They should have the same emf.
  - (D) They should have the same ampere-hour capacity.
15. A 120 V source has a series internal resistance of  $1\ \Omega$ . The maximum power that can be delivered to a load is :
- (A) 900 W
  - (B) 1800 W
  - (C) 2700 W
  - (D) 3600 W
16. A heater is rated as 230 V, 10 kW, and A.C. The value 230 V refers to :
- (A) Average voltage
  - (B) R.M.S voltage
  - (C) Peak voltage
  - (D) None of the above

17. A square wave is fed to an R – C circuit. Then :
- (A) Voltage across R is square and across C is not square.
  - (B) Voltage across C is square and across R is not square.
  - (C) Voltage across both R and C is square.
  - (D) Voltage across both R and C is not square.
18. At resonant frequency an R-L-C circuit draws maximum current due to the reason that :
- (A) The difference between capacitive reactance and inductive reactance is zero.
  - (B) The impedance is more than resistance.
  - (C) The voltage across the capacitor equals the applied voltage.
  - (D) The power factor is less than unity.
19. Identify the filter in the following diagram if frequency between  $f_2 > f_1$ :



- (A) Band pass filter
- (B) Band reject filter
- (C) All pass filter
- (D) None of the above

20. Which mathematical notation specifies the condition of periodicity for a continuous time signal ?

(A)  $x(t) = x(t + T_0)$

(B)  $x(n) = x(n + N)$

(C)  $x(t) = e^{-at}$

(D) None of these

21. Which type of result is generated by the addition of a step to a ramp function ?

(A) Ramp function of zero slope

(B) Step function of zero slope

(C) Step function shifted by an amount equal to ramp

(D) Ramp function shifted by an amount equal to step

22. A signal is sampled at Nyquist rate  $f_s = 2f_0$ . The function can be recovered from its samples only. If it is a :

(A) Periodic square wave of fundamental frequency  $f_0$

(B) Triangular wave of fundamental frequency  $f_0$

(C) Periodic sine wave of fundamental frequency  $f_0$

(D) Unit impulse function

23. The  $z$ -transform of  $x(n) = U(n)$  :

(A)  $\frac{z}{z-1}$

(B)  $\frac{1}{z-1}$

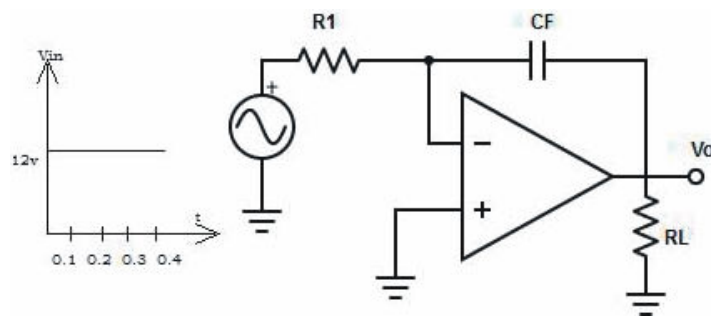
(C)  $\frac{1}{z+1}$

(D)  $\frac{z}{z+1}$

24. The Laplace transform of the function  $f(t) = 1$  for  $t \geq 0$  :

- (A)  $1/s, (s > 0)$  (B)  $s, (s < 0)$   
(C)  $1/(s - a), (s > 0)$  (D)  $s, (s < 0)$

25. What will be the output voltage waveform for the circuit,  $R1 \times CF = 1s$  and input is a step voltage ? Assume that the op-amp is initially nulled :



- (A) Triangular function (B) Unit step function  
(C) Ramp function (D) Square function

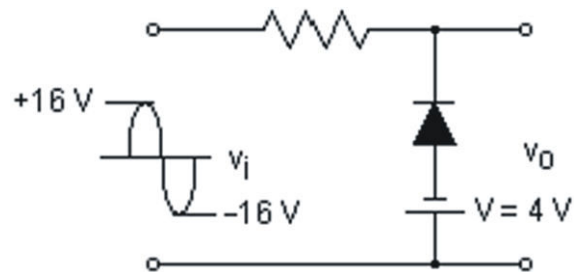
26. If an op-amp has only a positive supply voltage, its output cannot :

- (A) Be negative  
(B) Be zero  
(C) Less than the supply voltage  
(D) Be ac coupled

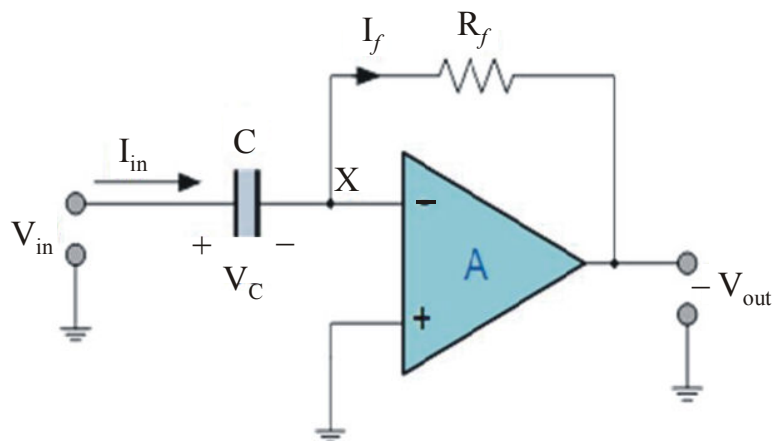
27. Which of the following is *not* a characteristic of an ideal transducer ?

- (A) High dynamic range (B) Low linearity  
(C) High repeatability (D) Low noise

28. Determine the peak for both half cycles of the output waveform. Assume diode is ideal :



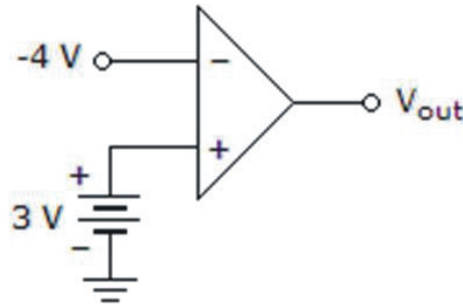
- (A) 16 V, -4 V                      (B) 16 V, 4 V  
(C) -16 V, 4 V                      (D) -16 V, -4 V
29. A square-wave input is applied to the circuit shown in figure. The output voltage is most likely to be :



- (A) Square wave                      (B) Triangular wave  
(C) Sine wave                      (D) Spikes

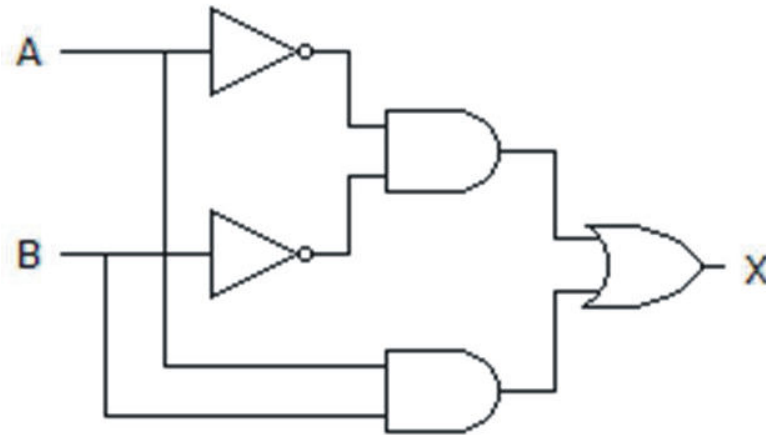


30. Refer to the given figure. With the inputs shown, determine the output voltage :



- (A)  $-7\text{ V}$
  - (B)  $7\text{ V}$
  - (C)  $+V_{sat}$
  - (D)  $-V_{sat}$
31. For an ideal comparator, what should be the value of the response time ?
- (A) Zero
  - (B) Unity
  - (C) Infinite
  - (D) Unpredictable
32. To obtain the good contact between the electrode and the skin, the gap is filled with an electrode paste containing :
- (A) Electrolytes
  - (B) Wax
  - (C) Iodine
  - (D) None of the above

33. What type of logic circuit is represented by the figure shown below ?



- |          |           |
|----------|-----------|
| (A) XOR  | (B) XNOR  |
| (C) XAND | (D) XNAND |

34. In JK flip-flop same input, i.e. at a particular time or during a clock pulse, the output will oscillate back and forth between 0 and 1. At the end of the clock pulse the value of output Q is uncertain. The situation is referred to as ?

- |                           |                     |
|---------------------------|---------------------|
| (A) Conversion condition  | (B) Lock out state  |
| (C) Race around condition | (D) Forbidden state |

35. What is the major advantage of the R/2R ladder digital-to-analog (DAC), as compared to a binary-weighted digital-to-analog DAC converter ?

- (A) It only uses two different resistor values
- (B) It has fewer parts for the same number of inputs
- (C) Its operation is much easier to analyze
- (D) The virtual ground is eliminated

36. How many address lines are required to connect a 4KB RAM to a microprocessor ?
- (A) 10 (B) 16  
(C) 12 (D) 20
37. How many general purpose registers are in 8085 processor ?
- (A) 5 (B) 6  
(C) 7 (D) 8
38. Random errors in a measuring system are due to :
- (A) Environmental changes  
(B) Poor cabling Practices  
(C) Use of uncalibrated instrument  
(D) Unpredictable effects
39. An instrument with a range of 0—10 bar is used for measuring pressure. If the expected value of reading is between 0 and 1 bar, then the instrument will give :
- (A) More accurate readings than the instrument with range of 0—5 bar  
(B) Less accurate readings than the instrument with range of 0—5 bar  
(C) Accuracy of reading is same for both instruments with range of 0—10 bar and 0—5 bar  
(D) None of the above

40. The scale of a dynamometer type instrument marked in terms of rms value would be :
- (A) Uniform throughout
  - (B) Non-uniform crowded near full scale
  - (C) Non-uniform crowded at the beginning
  - (D) Non-uniform crowded around midscale
41. If the length of a potentiometer wire is doubled, the accuracy in determining the null point is :
- (A) Increased
  - (B) Decreased
  - (C) Remain constant
  - (D) No effect
42. What is the characteristic of a good control system ?
- (A) Neither sensitive to parameter variations nor sensitive to input commands
  - (B) Insensitive to the input command
  - (C) Sensitive to parameter variation
  - (D) Insensitive to the parameter variation but sensitive to the input commands
43. Any externally introduced signal affecting the controlled output in a system is called :
- (A) Feedback
  - (B) Stimulus
  - (C) Signal
  - (D) Gain control

44. An oscillator differs from an amplifier because it :
- (A) Has more gain
  - (B) Requires no dc supply
  - (C) Requires no input signal
  - (D) Always have the same input
45. The AC Bridge which is used for the measurement of frequency is :
- (A) Schering Bridge
  - (B) Wien Bridge
  - (C) Hay's Bridge
  - (D) Anderson Bridge
46. What happens to the voltage across the capacitor when the Q factor increases ?
- (A) Increases
  - (B) Decreases
  - (C) Remains the same
  - (D) Becomes zero
47. Fluoroscopic observation of cardiac catheterization is made by :
- (A) Fibre Endoscope
  - (B) Echo cardiography
  - (C) Electrocardiograms
  - (D) X-ray imaging
48. The frequency of the action potential in the relaxed muscle is :
- (A) 20—5000 Hz
  - (B) 60 Hz
  - (C) 0 Hz
  - (D) 50 Hz

49. The level of consciousness can be followed by means of the :
- (A) EEG (B) ECG  
(C) EMG (D) ERG
50. Counting the number of QRS complexes, which of the following can be interpreted ?
- (A) Rate of breathing  
(B) Cardiac output  
(C) Rate of heartbeat  
(D) None of the above
51. What principle does pulse oximetry follow ?
- (A) Law of Absorbance  
(B) Beer–Lambert Law  
(C) Law of Reflection  
(D) Law of Irradiance
52. The gaseous exchange in alveoli is a type of :
- (A) Simple diffusion (B) Osmosis  
(C) Active transport (D) Passive transport
53. How many oxygen molecules bound to haemoglobin to give 50% saturation ?
- (A) 6 (B) 4  
(C) 2 (D) 8

54. Which one of the following is an example of buffer system in blood ?
- (A) Haemoglobin and oxyhaemoglobin
  - (B) Oxygen and carbon dioxide
  - (C) Albumin and globulin
  - (D) Sodium bicarbonate and carbonic acid
55. Which is *not* true about cardiac output ?
- (A) It is the product of heart rate (HR) and stroke volume (SV)
  - (B) It is measured in liters per minute
  - (C) It is the product of respiration rate and stroke volume (SV)
  - (D) It is a volume of blood pumped by the heart in a minute
56. The concentration of sodium, potassium and calcium ions in blood is determined by :
- (A) Flame photometry
  - (B) pH meter
  - (C) Blood gas analyzer
  - (D) Ultrasonic Doppler meter
57. Radio capsule is :
- (A) An encapsulated radio receiver
  - (B) A system emitting radioactive radiations
  - (C) An encapsulated biosignal transmitter
  - (D) A medicine for treatment of cancer

58. An implanted pacemaker that delivers stimuli at a fixed rate, independent of any atrial or ventricular activity is called :
- (A) Synchronous pacemaker
  - (B) Asynchronous pacemaker
  - (C) Demand type pacemakers
  - (D) Responsive pacemaker
59. According to kidney dialysis, the space around the gut is called as :
- (A) Peritoneal cavity
  - (B) Abdominal cavity
  - (C) Vertebral cavity
  - (D) Renal cavity
60. Which of the following is *not* the type of blood cell ?
- (A) Erythrocytes
  - (B) Thrombocytes
  - (C) Leukocytes
  - (D) Eosinocytes
61. The human ear responses to vibrations ranging from :
- (A) 20 kHz – 20 MHz
  - (B) 2 kHz – 20 MHz
  - (C) 20 Hz – 20 kHz
  - (D) 2 Hz – 2 kHz
62. Which is *not* true about the opto-isolators ?
- (A) Coupling of two systems with transmission of photons
  - (B) It eliminates the need for a common ground
  - (C) It uses transformers for coupling of two systems
  - (D) Signal cannot travel in opposite direction



63. Which of the following systems eliminates excess nitrogen from the body ?
- (A) Digestive system                      (B) Urinary system  
(C) Respiratory system                  (D) Lymphatic system
64. Which statement is *not* true ?
- (A) Angiography is an imaging technique  
(B) Angiography is used to visualize the inside of blood vessels and organs of the body  
(C) An angiogram is an X-ray procedure that can be both diagnostic and therapeutic  
(D) Angiography is a surgical technique
65. The major determinant of temporal resolution in CT is :
- (A) Gantry rotation speed                  (B) Reconstruction algorithm  
(C) Fan-beam angle                          (D) Detector collimation
66. The function that contains a single 1 with the rest being 0's is called :
- (A) Identity function  
(B) Inverse function  
(C) Discrete unit impulse  
(D) None of the options

- 67.** The response of the smoothing linear spatial filter is :
- (A) Sum of image pixel in the neighbourhood filter mask
  - (B) Difference of image in the neighbourhood filter mask
  - (C) Product of pixel in the neighbourhood filter mask
  - (D) Average of pixels in the neighbourhood of filter mask
- 68.** What is a collinear system of forces for free body diagrams ?
- (A) The force system having all the forces parallel to each other
  - (B) The force system having all the forces perpendicular to each other
  - (C) The force system having all the forces emerging from a single point
  - (D) Forces cannot form a collinear system of forces, it is not possible
- 69.** In our body ligaments connect :
- (A) Muscle to skin
  - (B) Muscle to bone
  - (C) Muscle to muscle
  - (D) Bone to bone
- 70.** Where is Malleus bone located in our body ?
- (A) Middle ear
  - (B) Outer ear
  - (C) Pinna
  - (D) Eye
- 71.** It is any material that, once placed in the human body, has minimal interaction with its surrounding tissue :
- (A) Bioinert Materials
  - (B) Biominerals
  - (C) Metallic Biomaterials
  - (D) Polysaccharides

72. An analytical device for the detection of an analyte that combines a biological component with a physicochemical detector is called :
- (A) Biopolymer (B) Bioceramic  
(C) Biosensors (D) Biocomposites
73. Which of the following is used in electron microscope ?
- (A) Electron beams  
(B) Magnetic fields  
(C) Light waves  
(D) Electron beams and magnetic fields
74. Fluidity is :
- (A) Reciprocal of density (B) Reciprocal of surface tension  
(C) Reciprocal of volume (D) Reciprocal of viscosity
75. In FTIR, initially spectra is recorded as :
- (A) Volts vs. Time  
(B) % Transmittance vs. Concentration  
(C) Absorbance vs. Concentration  
(D) Absorbance vs. Time
76. Phenomenon of producing sound under mechanical stress is called :
- (A) Magnetostriction (B) Acoustiction  
(C) Electrostriction (D) Acoustic emission

77. Which of the following are called probe microscopes that use electronic probes to maximally magnify objects ?
- (A) SEM and TEM
  - (B) AFM and Scanning Tunneling Microscope
  - (C) Confocal and Fluorescence microscope
  - (D) All of above
78. When current through a Zener diode increases by a factor of 2.5, voltage across its terminals is :
- (A) Halved
  - (B) Doubled
  - (C) Practically unchanged
  - (D) None of these
79. The principle of a Coulter counter to count the blood cells is based on the technique known as :
- (A) Resistive pulse sensing
  - (B) Microscopic counting
  - (C) Spread plate method
  - (D) Inductive pulse sensing
80. What happens if  $|A\beta| < 1$  ?
- (A) Oscillation will die down
  - (B) Oscillation will keep on increasing
  - (C) Oscillation remains constant
  - (D) Oscillation fluctuates

- 81.** Devices in biomedical instrumentation that pass the signal from its source to the measurement device without a physical or galvanic connection by using transformer, optical or capacitive coupling technique are called :
- (A) Buffers (B) Rectifiers  
(C) Isolators (D) Monitor
- 82.** In the flexible optical endoscopes, the images are transmitted through :
- (A) Coaxial cables (B) Electrical pulses  
(C) Optical fibers (D) Glass pipes
- 83.** What's the main point of difference between human and machine intelligence ?
- (A) Human perceive everything as a pattern while machine perceive it merely as data  
(B) Human has more analytical and logical speed  
(C) Human has more IQ and intellect  
(D) Human has sense organs
- 84.** For faithful reproduction of QRS complex of ECG signal, the amplifier bandwidth should be in the following range :
- (A) 0—2000 Hz (B) 0.05—100 Hz  
(C) DC to few kHz (D) 0.05 to 1 Hz
- 85.** To reduce hemolysis, the blood pump design should provide a flow that minimizes :
- (A) Oxygen (B) Turbulence  
(C) Body temperature (D) Continuous flow

86. Which type of laser is *not* used for soft tissue ablation ?
- (A) Nd-Yag (B) He-Ne  
(C) CO<sub>2</sub> (D) Ruby
87. In a PN Junction diode, P-side is grounded and N-side is applied a potential of +5V through a resistance of 1K ohms. The diode shall :
- (A) Conduct fully (B) Not conduct  
(C) Conduct partially (D) None of these
88. In an amplifier, the coupling capacitor are used :
- (A) To match the impedances  
(B) To control the output  
(C) To prevent D.C. mixing with input and output  
(D) To limit the bandwidth
89. An EX-OR gate produces an output only when its two inputs are :
- (A) Same (B) Different  
(C) High (D) Low
90. The shift register belongs to be a class of :
- (A) Sequential logic circuits (B) Combinational circuits  
(C) Analog circuits (D) Multivibrators

91. Therapeutic ultrasound is mainly used for :
- (A) Relief of pain
  - (B) Relief of fracture
  - (C) Relief of tumors
  - (D) Relief of malignancy
92. The improper response time of the amplifier in biomedical recorders :
- (A) Affects the gain of amplifiers
  - (B) Delays the signals
  - (C) Changes the shape of the waveform of the signal
  - (D) Attenuates the signals
93. All the apparatus in contact with a patient during cardiac catheterization must be designed to prevent :
- (A) Leakage current
  - (B) Grounding
  - (C) Macro shock
  - (D) Virus infection
94. The least change of the measured variable which can be detected at the output of the measuring system is :
- (A) Least count
  - (B) Sensitivity
  - (C) Discrimination
  - (D) Accuracy
95. Residual voltage in LVDT is :
- (A) The Amount of voltage during displacement from null position
  - (B) The small amount of voltage at the null position
  - (C) The large amount of voltage at the highest displacement
  - (D) It is the full-scale output voltage

- 96.** When a transistor is used as a switch its operation is confined in :
- (A) Cut-off region
  - (B) Saturation region
  - (C) Cut-off and saturation region both
  - (D) Active region
- 97.** Which of the following is an accessory organ of the gastrointestinal system that is responsible for secreting insulin ?
- (A) Adrenal gland
  - (B) Gallbladder
  - (C) Liver
  - (D) Pancreas
- 98.** The ability of eye-lens for variation of its focal length to form a sharp image on the retina is called :
- (A) Aperture
  - (B) Accommodation
  - (C) Retina control
  - (D) Sutter
- 99.** Angioplasty is done for :
- (A) Testing blood pressure
  - (B) Opening the blockages in blood vessels
  - (C) Suturing the blood vessels
  - (D) Detecting plaque
- 100.** What is an Arrhythmia ?
- (A) Irregular heart beat
  - (B) Slow heart beat
  - (C) Fast heart beat
  - (D) Normal heart beat



### GENERAL APTITUDE

101. Select the missing number from the given alternatives :

17	
20	15
12	24
29	8
?	35

(A) 1

(B) 3

(C) 5

(D) 6

102. **Directions :** Read the following information carefully and answer the question given below :

8 persons from A to H sit around a square table such that 2 persons sit in the middle of each of the sides. The persons sitting on one side of the table face the persons sitting exactly opposite to them on the opposite side of table.

A sits on the immediate right of E. G faces the one who is second to the left of B. 3 persons sit between A and G. Two persons sit between F and D (when counted from one side only), who is adjacent to E. Only one person sits between G and C (when counted from one side only). A is not adjacent to F.

Who faces D ?

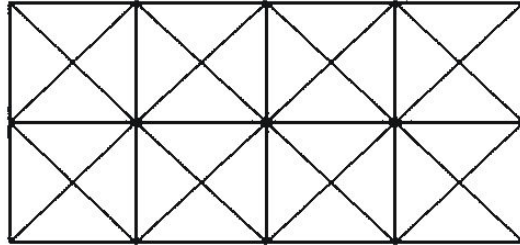
(A) B

(B) C

(C) D

(D) E

**103.** Count the number of squares in the given figure :



- (A) 11                                      (B) 16  
(C) 21                                      (D) 24

**104. Directions :** In the question given below three statements are followed by three conclusions numbered I, II and III. Read the conclusions and then decide which of the given conclusions logically follows from the given statements, disregarding commonly known facts :

**Statements :**

Some idols are metals.

No element is a metal.

Some elements are gases.

**Conclusions :**

- I. Some idols are not elements.  
II. Some gases are not metals.  
III. At least some gases are elements.

- (A) Only I and II follow  
(B) Only II and III follow  
(C) Only III follows  
(D) All follow

**105. Directions :** Read the given instructions carefully and answer the question below :

P + Q states that P is 2 m East of Q

P ^ Q states that P is 2 m South of Q

P & Q states that P is 4 m East of Q

P – Q states that P is 2 m West of Q

P / Q states that P is 2 m North of Q

Read the following information carefully and answer the question

A – B ^ C & D + E, F + B

A point G is drawn from point F towards 2 m north of F. Then C is in what direction and what distance from G ?

(A) 2 m North

(B) 2 m South

(C) 4 m East

(D) 2 m West

**106. Directions :** Read the following information carefully and answer the question given below :

In a certain code language,

‘lavish lifestyle high desires’ is coded as “@16f \$36i @9d \$16g”

‘humanity seldom exhibit mercy’ is coded as “@25h #16f @16g \$16e”

‘opinion matters heart felt’ is coded as “#9g \$25g %9e \$9d”

‘push yourself achieve goals’ is coded as “&9d \$25h \$9g %9e”

Code – ‘\$25i %16f’ stands for which of the following phrases ?

(A) adventure island

(B) horrible nightmare

(C) witness digitally

(D) showcase quality

**107. Complete the series :**

3    14    33    60    ?

(A) 90

(B) 95

(C) 99

(D) 100

**108. Directions :** Study the following informations carefully and answer the question given below :

The Hansraj family consists of eight members P, Q, R, S, T, U, V and W. Among these eight members, there are three generations in which there are four male and four female members. Among all, each off-spring has both the parents alive. The husband of R's sister has two daughters. The husband of T's daughter is married to V. V has only one sibling. U's father-in-law has two granddaughters. W's brother has only one nephew and W is not V's mother. R is unmarried and Q has only one niece.

Which of the following is the grandmother of S ?

- |       |       |
|-------|-------|
| (A) W | (B) T |
| (C) V | (D) U |

**109.** Roentgen is related to X-rays in the same way as Becquerel is related to.....

- |             |                       |
|-------------|-----------------------|
| (A) Uranium | (B) Radioactivity     |
| (C) Fission | (D) Superconductivity |

**110. Directions :** Study the following question carefully and choose the right option :

1. Gold
2. Iron
3. Sand
4. Copper
5. Silver

- |                   |                   |
|-------------------|-------------------|
| (A) 2, 4, 3, 5, 1 | (B) 5, 4, 3, 2, 1 |
| (C) 4, 5, 1, 3, 2 | (D) 3, 2, 4, 5, 1 |

## GENERAL ENGLISH

111. Fill the blank with correct phrasal verb :

I.....for you all morning.

- (A) have searched                      (B) is searching  
(C) have been searching              (D) have been searched

112. The four sentences (labelled 1, 2, 3, and 4) given in this question, when properly sequenced, form a coherent paragraph. Decide on the proper order for the sentences and key in this sequence of four numbers as your answer :

1. They would rather do virtuous side projects assiduously as long as these would not compel them into doing their day jobs more honourably or reduce the profit margins.
2. They would fund a million of the buzzwordy programs rather than fundamentally question the rules of their game or alter their own behavior to reduce the harm of the existing distorted, inefficient and unfair rules.
3. Like the dieter who would rather do anything to lose weight than actually eat less, the business elite would save the world through social-impact-investing and philanthro-capitalism.
4. Doing the right thing — and moving away from their win-win mentality— would involve real sacrifice; instead, it's easier to focus on their pet projects and initiatives.

- (A) 1234                      (B) 1342  
(C) 3241                      (D) 4231

**113.** Fill in the blank :

This man is blind.....his shortcomings.

- (A) with (B) in  
(C) about (D) to

**114. Directions :** The given sentence has been broken up into four different parts. The error, if any, will be in any one part of the sentence. Select the option which contains the part of the sentence which has an error (spelling, grammatical or contextual) :

These reports have (A) deterred some (B)/women to have (C)/ the operation. (D)/

- (A) These reports have  
(B) deterred some  
(C) women to have  
(D) the operation

**115. Directions :** The following question has two blanks, each blank indicating that something has been omitted. Choose the set of words for each blank that best fits in the context of the sentence :

This focus on procedures over outcomes is a recipe for bad management, and explains why PSUs tend to perform so much.....than their private sector.....

- (A) worse, peers  
(B) bad, counterparts  
(C) poorer, friends  
(D) shoddier, foes

116. Find the correctly spelt word :

- |                |                |
|----------------|----------------|
| (A) Inundated  | (B) Innundated |
| (C) Innandated | (D) Inandated  |

117. **Directions** : Identify the words that are contextually similar to the phrase given in bold and mark that as your answer. The options do not need to be correct grammatically :

Housing in the city these days **costs an arm and a leg**.

- |                      |                 |
|----------------------|-----------------|
| (A) Very expensivebn | (B) Uphill task |
| (C) Tiresome job     | (D) Very cheap  |

118. Out of the four alternatives choose the one which can be substituted for the given words/sentence in the question :

**That which is perceptible by touch is**

- |                |                |
|----------------|----------------|
| (A) Contagious | (B) Contingent |
| (C) Tenacious  | (D) Tangible   |

119. Find the synonym of **Resplendent** :

- |               |                |
|---------------|----------------|
| (A) Wonderful | (B) Dazzling   |
| (C) Beautiful | (D) Respectful |

120. Find the antonym of **Eloquent** :

- |                  |                  |
|------------------|------------------|
| (A) Inarticulate | (B) Inadmissible |
| (C) Facile       | (D) Flippant     |