

1. Volunteer Caption of the Guruvayoor Satyagraha was
 - A) K. Kelappan
 - B) T. K. Madhavan
 - C) A. K. Gopalan
 - D) K. P. Kesava Menon
2. Who was the Maharaja of Travancore issued the famous Temple Entry Proclamation ?
 - A) Sri Chithira Thirunal
 - B) Sri Uthram Thirunal
 - C) Sri Moolam Thirunal
 - D) Sri Karthika Thirunal
3. Which year UN proclaimed the convention on the Right of the Child ?
 - A) 10th December 1945
 - B) 20th November 1989
 - C) 20th November 1945
 - D) 10th December 1980
4. Which agitation was related to Joint Political Congress ?
 - A) Vaikkam Satyagraha
 - B) Malayali Memorial
 - C) Guruvayoor Satyagraha
 - D) Nivarthana Agitation
5. Who was the Malayali Leader mentioned by Gandhiji in his autobiography ?
 - A) C. Kesavan
 - B) T. K. Madhavan
 - C) K. Kelappan
 - D) G. P. Pillai
6. Name the renaissance leader of Kerala who opposed the "Uzhiyam" or forced labour.
 - A) Vaikunda Swamikal
 - B) Chattambi Swamikal
 - C) Ayyankali
 - D) Narayana Guru
7. Select the author of the poem "Keralam"
 - A) Keralavarma Valiyakoyi Thampuran
 - B) Kodungallur Kunhikkuttan Thampuran
 - C) Ulloor S. Parameswara Iyer
 - D) G. Sankara Kurup
8. Who is the Architect of Fundamental Rights in Indian Constitution ?
 - A) Sardar Vallabhbhai Patel
 - B) Dr. Rajendra Prasad
 - C) Dr. B. R. Ambedkar
 - D) Jawaharlal Nehru
9. Who is known as Kerala Valmeeki ?
 - A) Ulloor Parameswara Iyer
 - B) Ezhuthachan
 - C) Vallathol Narayana Menon
 - D) Kumanasaan
10. Name the Maharaja of Travancore issued the famous Channar Proclamation.
 - A) Sri Chithira Thirunal
 - B) Sri Moolam Thirunal
 - C) Sri Uthram Thirunal
 - D) Sri Karthika Thirunal

11. The square matrix A has an inverse if and only if
 A) $|A| = 0$ B) $|A| \neq 0$ C) $|A| > 1$ D) $|A| < 1$
12. If A and B are symmetric matrices, then
 A) A + B is symmetric B) A + B is skew symmetric
 C) A + B is identity D) None of these
13. If two rows of a matrix A are identical, then
 A) $|A| = 1$ B) $|A| = 0$
 C) $|A| \neq 0$ D) None of these
14. The expansion of $(3 - 4x^2)^5$ has _____ terms.
 A) 4 B) 5 C) 6 D) 7
15. The value of $\tan 315^\circ =$
 A) 1 B) -1 C) 0 D) $\sqrt{3}$
16. What is the slope of the straight line perpendicular to the straight line $3x - 4y + 12 = 0$?
 A) $\frac{3}{4}$ B) $\frac{4}{3}$ C) $-\frac{4}{3}$ D) $-\frac{3}{4}$
17. The value of $\lim_{x \rightarrow 1} (5x - 3) =$
 A) 5 B) 3 C) 1 D) 2
18. What is the slope of the parabola $y = x^2$ at the point (2, 4)?
 A) 4 B) 2 C) 1 D) 0
19. The value of the integral $\int_{-2}^1 5dx$ is
 A) 5 B) 10 C) -15 D) 15
20. The general solution of the differential equation $\frac{dy}{dx} = -\frac{x}{y}$ is
 A) $x^2 + y^2 = c$, c an arbitrary constant B) $x^2 - y^2 = c$
 C) $x = -y$ D) $x + y = c$

21. When a brick is cut off length wise, the cut out bricks are called
- A) Queen closer
 - B) King closer
 - C) Corbel
 - D) Bat
22. While laying bricks in a wall, frog of the brick must be kept
- A) Sideward
 - B) Downward
 - C) Upward
 - D) In any position
23. Metallic tapes are made of
- A) Steel
 - B) Cloth and Wires
 - C) Invar
 - D) Nickel
24. The line of collimation method of reduction of levels, does not provide a check on
- A) Reduced Levels
 - B) Back Sights
 - C) Fore Sights
 - D) Intermediate Sights
25. A Total Station measures
- A) Co-ordinates alone
 - B) Slope distance and horizontal distance
 - C) Co-ordinates and horizontal distance
 - D) Vertical, horizontal angles and slope distance

26. In a four stroke engine when one stroke of the piston completed, the crank rotates through
- A) 90°
 - B) 180°
 - C) 270°
 - D) 360°
27. The excess energy developed during power stroke in an engine is stored by
- A) Governor
 - B) Flywheel
 - C) Crank shaft
 - D) Piston
28. The function of a differential is to
- A) Connect two rear wheels in correct alignment
 - B) Receive power from the engine and to transmit to the rear wheels
 - C) Absorb shocks and keeps the stability of the vehicle
 - D) Provide relative motion to the two rear wheels when the vehicle is taking a turn
29. A condenser in a steam power plant is used to
- A) Generate steam
 - B) Increase pressure
 - C) Exchange the heat of low pressure steam to the cooling medium
 - D) Convert heat energy of steam to mechanical energy
30. Which power plant is more efficient ?
- A) Hydro-electric power plant
 - B) Nuclear power plant
 - C) Thermal power plant
 - D) Diesel power plant

31. Voltage applied across 40W lamp is halved. Power consumed by this lamp at this voltage is
- A) 20W
 - B) 10W
 - C) 40W
 - D) 5W
32. Which of the following statement associated with purely inductive circuit is True ?
- A) Current lead the voltage by 90°
 - B) Current is in phase with voltage
 - C) Power factor unity
 - D) Average power zero
33. R L C series circuit will resonate, if
- A) $X_L > X_C$
 - B) $X_L < X_C$
 - C) $X_L = X_C$
 - D) $X_L = 1/X_C$
34. Energy consumed by 750 W electric iron for 6 minutes is
- A) 0.075 kWh
 - B) 0.45 kWh
 - C) 4.5 kWh
 - D) 0.75 kWh
35. Permiance of a magnetic circuit is given by reciprocal of
- A) Permeability
 - B) Flux density
 - C) Reluctivity
 - D) Reluctance

36. Which colour is emitted by an LED when the semiconductor material Gallium Arsenide phosphide is used ?
- A) Yellow
 - B) Red
 - C) Green
 - D) Blue
37. Name the sensor which is used to detect the presence of near by objects without any physical contact with the object.
- A) Limit Switch
 - B) Relay
 - C) Proximity Switch
 - D) DPDT
38. The program for a microcontroller is stored in its _____
- A) ROM
 - B) RAM
 - C) CPU
 - D) None of the above
39. Which of the following technology is used in CDMA ?
- A) Time Division
 - B) Frequency Division
 - C) GSM
 - D) Spread Spectrum
40. Nowadays, the battery available for exclusive usage in inverters are _____
- A) Nickel-Cadmium Batteries
 - B) Lithium Batteries
 - C) Tubular Batteries
 - D) None of the above

41. The most popular technology in time-division switching is called the
A) TSI B) STI C) ITS D) None of the above
42. Which multiplexing technique involves signals composed of light beams ?
A) WDM B) FDM C) TDM D) None of the above
43. Which of the following primarily uses guided media ?
A) Radio broadcasting B) Satellite communications
C) Local telephone system D) Cellular telephone system
44. When a beam of light travels through media of two different densities, if the angle of incidence is greater than the critical angle, _____ occurs.
A) Refraction B) Reflection C) Criticism D) Incidence
45. In IP networking, network and Host address are separated using
A) ARP B) Separator C) Net mask D) TCP
46. In a router, what is the name of the structure that tells where to deliver IP packet ?
A) Routing address B) Routing table
C) Delivery table D) Status table
47. What is the nominal bit rate of fast Ethernet ?
A) 10 MB/s B) 100 MB/s C) 10 GB/s D) 1000 MB/s
48. The synchronous modems are more costly than the asynchronous modems because
A) They produce large volume of data
B) They operate with a larger bandwidth
C) They transmit the data with stop and start bits
D) They contain clock recovery circuits
49. What is data encryption standard ?
A) Block cipher B) Stream cipher C) Bit cipher D) None of the above
50. Which of the malicious program do not replicate automatically ?
A) Worm B) Trap doors C) Logic bomb D) Trojan horse
51. In which OSI layer, bits are converted to frames ?
A) Presentation layer B) Data link layer
C) Transport layer D) Network layer
52. A firewall protect
A) Viruses
B) Fire
C) Worms
D) Unauthenticated interactive logins from outside world

53. A 32 : 1 multiplexer can be designed using
 A) Two 16 : 1 multiplexers and one two input OR gate
 B) Two 16 : 1 multiplexers and one two input AND gate
 C) Two 16 : 1 multiplexers and two two input OR gate
 D) Two 16 : 1 multiplexers only
54. Which logic device is called a data distributor ?
 A) Multiplexer
 B) Encoder
 C) Decoder
 D) Demultiplexer
55. A full adder can be realized using
 A) One half adder and two OR gates
 B) Two half adders and one OR gate
 C) Two half adders and two OR gates
 D) Two half adders and one AND gates
56. The output frequency of a mod-12 counter is 6 kHz. It's input frequency is
 A) 6 kHz
 B) 500 Hz
 C) 24 kHz
 D) 72 kHz
57. Which of the following flip flop is used as a latch ?
 A) T flip flop
 B) Master slave flip flop
 C) JK flip flop
 D) D flip flop
58. A decoder with 64 output lines has _____ select lines.
 A) 4
 B) 6
 C) 12
 D) 8
59. The instruction queue in a microprocessor is a _____ group of registers.
 A) First in first out
 B) Last in first out
 C) Last in last out
 D) First in last out
60. The physical memory size of 8086 processor is
 A) 1 terabyte
 B) 1 Mbyte
 C) 64 kilobyte
 D) 20 megabyte
61. In 8086, the interrupts initiated by executing "INT n" instruction are called
 A) Vectored interrupt
 B) Non vectored interrupt
 C) Hardware interrupt
 D) Software interrupt
62. Type 4 interrupt in 8086 is called
 A) Divide by zero interrupt
 B) Break point interrupt
 C) Overflow interrupt
 D) Single step interrupt
63. In _____ addressing mode, the instruction itself will specify the data to be operated by the instruction.
 A) Direct addressing
 B) Relative addressing
 C) Indexed addressing
 D) Implied addressing

64. The maximum mode in 8086 is called
A) Uniprocessor mode
B) Multiprocessor mode
C) Handshake mode
D) Bidirectional mode
65. The idea of cache memory is based on which of the following ?
A) The property of locality of reference
B) The heuristic 90-10 rule
C) The fact that references generally tend to cluster
D) All of the above
66. In a virtual memory system the addresses used by the programmer belongs to
A) Memory space
B) Physical address
C) Address space
D) Main memory system
67. The _____ provides path between the CPU and peripheral devices which are connected via interface cards.
A) Computer
B) Expansion bus
C) Memory
D) CPU
68. A nonvolatile type of memory that can be programmed and erased in sectors, rather than one byte at a time is
A) Flash memory
B) EEPROM
C) MROM
D) EPROM
69. A complete microcomputer system consists of
A) Microprocessor
B) Memory
C) Peripheral equipment
D) All of the above
70. The address mapping is done, when the program is initially loaded is called
A) Dynamic relocation
B) Relocation
C) Static relocation
D) Dynamic as well as static relocation
71. Semaphores are mostly used to implement
A) System calls
B) IPC mechanism
C) System protection
D) None of the above
72. Optimal page-replacement algorithm is
A) Replace the page that has not been used for a long time
B) Replace the page that has been used for a long time
C) Replace the page that will not be used for a long time
D) None of the above
73. Bankers algorithm for resource allocation deals with
A) Deadlock prevention
B) Deadlock recovery
C) Mutual exclusion
D) Deadlock avoidance