

089/22

Question Booklet Alpha Code

A

Question Booklet Sl. No.

Total Number of Questions : 100

Time : 90 Minutes

Maximum Marks : 100

INSTRUCTIONS TO CANDIDATES

1. The Question Paper will be given in the form of a Question Booklet. There will be four versions of Question Booklets with Question Booklet Alpha Code viz. **A, B, C & D**.
2. The Question Booklet Alpha Code will be printed on the top left margin of the facing sheet of the Question Booklet.
3. The Question Booklet Alpha Code allotted to you will be noted in your seating position in the Examination Hall.
4. If you get a Question Booklet where the alpha code does not match to the allotted alpha code in the seating position, please draw the attention of the Invigilator IMMEDIATELY.
5. The Question Booklet Serial Number is printed on the top right margin of the facing sheet. If your Question Booklet is un-numbered, please get it replaced by new Question Booklet with same alpha code.
6. The Question Booklet will be sealed at the middle of the right margin. Candidate should not open the Question Booklet, until the indication is given to start answering.
7. Immediately after the commencement of the examination, the candidate should check that the Question Booklet supplied to him/her contains all the 100 questions in serial order. The Question Booklet does not have unprinted or torn or missing pages and if so he/she should bring it to the notice of the Invigilator and get it replaced by a complete booklet with same alpha code. This is most important.
8. A blank sheet of paper is attached to the Question Booklet. This may be used for rough work.
9. **Please read carefully all the instructions on the reverse of the Answer Sheet before marking your answers.**
10. Each question is provided with four choices **(A), (B), (C)** and **(D)** having one correct answer. Choose the correct answer and darken the bubble corresponding to the question number using Blue or Black Ball Point Pen in the OMR Answer Sheet.
11. **Each correct answer carries 1 mark and for each wrong answer 1/3 mark will be deducted. No negative mark for unattended questions.**
12. No candidate will be allowed to leave the examination hall till the end of the session and without handing over his/her Answer Sheet to the Invigilator. Candidates should ensure that the Invigilator has verified all the entries in the Register Number Coding Sheet and that the Invigilator has affixed his/her signature in the space provided.
13. Strict compliance of instructions is essential. Any malpractice or attempt to commit any kind of malpractice in the Examination will result in the disqualification of the candidate.

089/22

A

- 3-

089/22

7. Identify the wrongly matched pair :

- A) T. K. Madhavan – Sivayogavilasam
- B) C. Krishnan – Mitavadi
- C) Brahmananda Sivayogi – Mokshapradeepam
- D) Kesavan Asan – Sujananandini

8. Which one of the following statements is not correct ?

- A) Basel Evangelical Mission (BEM) took the initiative of Spreading English Education in Travancore.
- B) Rev. Dawson started a school at Mattanchery in Kochi.
- C) Rajya Samacharam and Paschimodayam were published from Thalassery by Herman Gundert.
- D) The London Mission Society took the initiative of Spreading Western Education in Travancore in the beginning of the nineteenth century.

9. The book 'Kerala Simham' is written by

- A) C. V. Raman Pillai
- B) P. Kesavadev
- C) K. M. Panikkar
- D) Appu Nedungadi

10. The slogan 'American Model Arabikadalil' is related to

- A) Kayyur Revolt
- B) Nivarthana Agitation
- C) Attingal Revolt
- D) Punnapra Vayalar Struggle

11. Consider following statements :

- i. The idea of an Indian Constituent Assembly was put forward by M. N. Roy in the Newspaper 'Indian Patriot'.
- ii. The Cripps Mission was appointed in 1946.
- iii. In 1934, the Indian National Congress officially demanded for a Constituent Assembly.
- iv. The Constituent Assembly was set up as per the recommendation of the Cabinet Mission.

Which of the statements given above is/are correct ?

- A) i, ii, iv
- B) i, iii, iv
- C) iv, ii
- D) iii, iv

A

20. The first woman cricketer to appear in six cricket world cups
 - A) Harman Preet Kaur
 - B) Mithali Raj
 - C) Smrithi Mandana
 - D) Jhulan Goswami
21. 88-108 MHz frequency range is used for transmitting
 - A) TV signals
 - B) AM short wave
 - C) FM
 - D) Microwave
22. Line-of-sight communication uses
 - A) Ground wave
 - B) Sky wave
 - C) Space wave
 - D) Surface wave
23. 100% modulation is produced in AM when
 - A) Carrier amplitude equal to signal amplitude
 - B) Carrier amplitude exceeds signal amplitude
 - C) Carrier frequency equal to signal frequency
 - D) Carrier frequency exceeds signal frequency
24. In superheterodyne broadcast receiver the frequency of local oscillator is
 - A) Higher than the incoming signal
 - B) Lower than the incoming signal
 - C) Equal to the incoming signal
 - D) None of these
25. In frequency modulation
 - A) Amplitude of the carrier remains same
 - B) Frequency of the carrier varies in accordance with the amplitude of the modulating signal
 - C) The no. of sidebands are infinite
 - D) All of the above
26. In AM transmission the frequency which is not transmitted is
 - A) Upper sideband
 - B) Lower sideband
 - C) Carrier frequency
 - D) Audio frequency
27. Pre-emphasis circuit is placed
 - A) After modulation circuit
 - B) Before modulation circuit
 - C) Before deflection circuit
 - D) After deflection circuit
28. Demodulation occurs in
 - A) Transmitting antenna
 - B) Transmitter
 - C) Radio receiver
 - D) None of these

29. In FM the output noise can be further decreased by
A) Decreasing frequency deviation B) Increasing frequency deviation
C) Keeping deviation constant D) None of these
30. In a television the aspect ratio is defined as
A) The ratio of raster width to height
B) The ratio of raster height to width
C) The ratio of horizontal scanning frequency to vertical scanning frequency
D) None of these
31. Most commonly used antenna type with TV receiver is
A) Yagi antenna B) Rhombic antenna
C) Loop antenna D) V antenna
32. In case of Indian TV system the difference between video IF and sound IF is
A) 4.5 MHz B) 5.5 MHz C) 6 MHz D) 6.5 MHz
33. In television video transmitter the type of amplitude modulation used is
A) DSB B) SSB
C) VSB D) Suppressed carrier DSB
34. The Shadow mask in colour picture tube is used to
A) Reduce X-ray radiation
B) Ensure that each primary colour beam hits only its own dots
C) Increases screen brightness
D) None of the above
35. The colour TV system adopted in India is
A) PAL system B) NTSC C) SECAM D) None of these
36. Balun in a TV receiver is located
A) At AGC stage B) Between feeder and receiver
C) At antenna D) Between RF stage and mixer
37. In colour TV receiver colour killer circuit
A) Prevents colour over loading
B) Ensuring separation of colours
C) Cuts off the Chroma stage during monochrome reception
D) Cuts off reception during back porch

089/22

38. Interlacing is used in TV frames to
- A) Ensure scanning of all lines
 - B) Avoid flicker
 - C) Produce illusion of motion
 - D) None of the above
39. In RGB colour model used in TV, complementary colour of green is
- A) Yellow
 - B) Red
 - C) Cyan
 - D) Magenta
40. A degaussing coil in colour television is used for
- A) Demagnetising transformer core
 - B) Demagnetising colour picture tube
 - C) Rotating directional antenna
 - D) Trap circuit
41. Which of the phenomenon caused, when Radio waves travel in two or more paths during propagation and produce slowly-changing phase differences between signals at the receiving end
- A) Fading
 - B) Absorption
 - C) Doppler shift
 - D) Diffraction
42. The region between the far end of ground waves received to the nearest point where the sky waves returns to earth is called as
- A) Angle of radiation
 - B) Skip distance
 - C) Skip zone
 - D) Multiple skip
43. The mechanism that causes the electromagnetic waves to return back to earth by anyone of layers of ionosphere is
- A) Only Reflection
 - B) Only Refraction
 - C) Only Diffraction
 - D) None of the above
44. 60 percentage of modulation is given to the carrier of an AM signal that has power of 1000 watts. Calculate the power in lower sideband.
- A) 600 watts
 - B) 180 watts
 - C) 90 watts
 - D) 320 watts
45. The major advantage of frequency modulation over amplitude modulation is
- A) Small frequency deviation
 - B) Higher carrier frequency
 - C) Smaller bandwidth
 - D) Reception is less noisy
46. Phase locked loop can be used as
- A) AM demodulator
 - B) FM demodulator
 - C) AM receiver
 - D) FM receiver

A

47. Calculate the dissipated power of a 91% efficient antenna if the transmitted power is 15.4 W.
 A) 1.83 W B) 1.38 W C) 1.54 W D) 1.43 W
48. Due to smaller dimensions of helix compared to wavelength which mode of radiations occur in Helical antenna ?
 A) Elliptical B) Axial C) Normal D) Circular
49. An antenna has 40 Ω antenna resistance and 60 Ω radiation resistance. Calculate the efficiency of antenna.
 A) 30% B) 60% C) 40% D) 50%
50. A pulse amplitude modulated signal can be detected by using
 A) An ADC B) Low pass filter C) High pass filter D) Band pass filter
51. Under which of the following condition aliasing takes place ?
 A) Sampling signal frequency less than Nyquist rate
 B) Sampling signal frequency more than Nyquist rate
 C) Sampling signal frequency equal to Nyquist rate
 D) Sampling signal frequency at a rate which is twice the Nyquist rate
52. If the synchronization between the transmitter and receiver falls which of the following pulse systems would be affected ?
 A) PAM B) PWM
 C) PPM D) None of these
53. If the radius of the split cell is 50% of the radius of the original cell, the coverage area of the split cell is _____ the coverage area of the original cell.
 A) Equal to B) One half of
 C) One fourth of D) One tenth of
54. Which among the following is the decentralized hand-off protocol and distributes the hand-off decision process ?
 A) Network controlled hand off B) Mobile assisted hand off
 C) Soft hand off D) Mobile controlled hand off
55. The output of the vertical amplifier applied to the yoke in a TV receiver consists of
 A) Direct current B) Amplified vertical sync pulse
 C) A saw tooth voltage D) A saw tooth current

56. Which among the following optical devices allows light to pass through them in only one direction ?
A) Optical circulator
B) Optical splitter
C) Optical isolator
D) Optical couplers
57. In voltage source inverters, the amplitude of the output voltage is
A) Independent of the load
B) Dependent on the load
C) Dependent only on loads
D) None of the above
58. What is the measured unit of UPS output rating ?
A) Voltage
B) Ampere
C) Volt ampere
D) Farad
59. Which among the following is the application of ICT for delivering government services to citizens with quality and transparency ?
A) E-Business
B) E-Administration
C) E-Governance
D) E-Marketing
60. Name the authority competent to issue license to possess wireless telegraphy apparatus in India.
A) Telegraph authority constituted under Indian Telegraph Act, 1885
B) Telegraph authority constituted under Indian Telegraph Act, 1934
C) Telegraph authority constituted under Indian Telegraph Act, 1972
D) None of the above
61. If two lamps of 100 w and 40 w are connected in parallel across a 220 volt ac supply
A) 100 w lamp will give less light
B) 40 w lamp will give less light
C) 100 w lamp gives more light
D) 40 w lamp gives more light
62. During continuity test, a dead short in an installation indicated in a meggar by _____ reading.
A) zero reading
B) 1 megaohm
C) infinity megaohm
D) 10 megaohm

63. How many free electrons will move through a conductor for one ampere current in one second ?
A) 6.64×10^{16} B) 6.64×10^{18}
C) 6.24×10^{18} D) 6.34×10^{18}
64. The power dissipation in a pure inductor is
A) zero B) unity
C) infinity D) none of these
65. If a choke is not connected to an a.c. tube circuit then the tube is
A) will continue to glow
B) will get fused
C) will not glow
D) will glow intermittently
66. At very high frequencies, the parallel RL circuit behaves as
1. a pure capacitive circuit
2. a pure resistive circuit
3. a pure RL circuit
4. a pure inductive circuit
A) both 1 and 2 B) both 2 and 4
C) 4 only D) 2 only
67. In delta connected load, if one resistor is removed the power will become
A) one-third B) one-fourth
C) three-fourth D) two-third
68. The form factor is the ratio of
A) peak value to r.m.s. value
B) r.m.s. value to peak value
C) r.m.s. value to average value
D) peak value to average value
69. Low retentivity materials are suitable for making
A) weak magnet
B) strong magnet
C) permanent magnet
D) temporary magnet

089/22

70. The relative permeability of a magnetic material depends on the
1. flux
 2. type of material
 3. type of magnetizing force
 4. retentivity.
- A) 2 only
B) 1 and 2 only
C) 4 and 1 only
D) 3 only
71. A material slightly repelled by a magnet are called
- A) ferromagnetic material
B) insulating material
C) paramagnetic material
D) diamagnetic material
72. The process of magnetizing steel is difficult because
- A) it corrodes easily
B) it has low permeability
C) it has low specific gravity
D) it has high conductivity
73. The transformer oil used in a transformer provides
1. cooling and insulation
 2. insulation and conduction
 3. cooling and lubrication
 4. insulation and cooling
- A) both 1 and 3
B) both 1 and 4
C) both 3 and 2
D) both 1 and 2
74. Which of the following is incorrect ?
1. Meggar – for checking insulation resistance
 2. Lux meter – measure the amount of amplitude in a work space
 3. Clamp meter – resistance
 4. Tachometer – revolution per minute
- A) both 1 and 2
B) both 4 and 1
C) both 3 and 4
D) both 2 and 3
75. Lead sheath wiring should not be installed near alkaline natured places
- A) statement is correct
B) statement is incorrect
C) statement is correct or not correct
D) none of these

76. The winding used for neutralizing the cross magnetising effect in dc generator is
 A) lap winding B) wave winding
 C) compensating winding D) basket winding
77. The pole flux of a dc generator reduced due to
 A) magnetizing effect of armature reaction
 B) cross magnetising effect of armature reaction
 C) demagnetizing effect of armature reaction
 D) residual magnetism of pole shoe
78. The power factor of a squirrel cage induction motor is
 A) low at heavy load only B) low at light load only
 C) high at low load only D) high at high load only
79. For the measurement of slip in 3 phase induction motor by stroboscopic method the no. of white and black segment is
 A) both are equal
 B) white segment is more than black segment
 C) black segment is more than white segment
 D) no important for black segments
80. The causes for producing sparking at the brushes in a d.c. machine is
 1. open coil in the armature
 2. defective pole shoe
 3. incorrect brush spring pressure
 4. defective interpoles.
 A) 1, 2, 3 are correct B) 1, 3, 4 are correct
 C) 2, 3, 4 are correct D) 4, 2, 1 are correct
81. Second generation computers are made of
 A) VLSI B) Vacuum tubes
 C) Transistors D) Microprocessors
82. Choose the odd one out.
 A) Super computer B) Digital computer
 C) Mainframe computer D) Micro computer

089/22

83. A register that keeps track of next instruction to be executed
A) Accumulator
B) Instruction register
C) Data register
D) Program counter
84. Which of the following is used to scan the document containing text ?
A) Optical character recognition
B) Bar code reader
C) Joysticks
D) Magnetic-ink character recognition
85. An Enhanced Graphics Adapter display has a resolution of _____ pixels.
A) 320×320
B) 640×350
C) 824×680
D) 1024×768
86. LCD stands for
A) Liquid Colour Display
B) Lithium Crystal Display
C) Light Colour Display
D) Liquid Crystal Display
87. Printer which follow CMYK colour process
A) Ink-jet printer
B) Laser printer
C) Thermal printer
D) Dot-matrix printer
88. Fastest memory in computer system
A) Hard disk
B) Cache
C) ROM
D) RAM
89. Which of the following is a type of optical storage ?
A) Floppy disk
B) Hard disk
C) Pen drive
D) DVD
90. Latest intel core processor
A) Core i15
B) Core i9
C) Core i7
D) Core i3
91. Core of Linux operating system is
A) Kernel
B) Shell
C) Command
D) Application program
92. Which of these is not an operating system ?
A) Windows
B) Linux
C) Pascal
D) Unix

A

93. Which of the following is not an application in MS-Office ?
A) Access B) Word
C) PowerPoint D) DOS
94. Combine name and address with standard document is called
A) Mail merge B) DBMS
C) Document formatting D) Form letters
95. Shortcut key to select entire document
A) Ctrl + N B) Ctrl + S
C) Ctrl + A D) Ctrl + C
96. DHCP Server provides _____ to the client.
A) MAC address B) IP address
C) DNS D) url
97. Which of the protocol used in Transport layer of TCP/IP model ?
A) HTTP B) SMTP
C) UDP D) IP
98. Hardware address is known as
A) Physical address B) Logical address
C) IP address D) Address Resolution Protocol
99. Which of the following allows user to view a webpage ?
A) Compiler B) Operating System
C) Interpreter D) Internet Browser
100. Domain name converted into IP address with the help of
A) URL B) UDP
C) DNS D) HTTP
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089/22

Space for Rough Work



FINAL ANSWER KEY
Question Paper Code: 089/2022

POLICE CONSTABLE (Telecommunication) - KERALA POLICE SERVICE

Medium of Question: ENGLISH

Date of Test: 20.09.2022

Q No.	QUESTION BOOKLET			
	A	B	C	D
1	A	A	X	C
2	B	A	D	A
3	D	C	C	A
4	C	D	B	C
5	A	B	A	D
6	C	X	A	A
7	A	D	B	A
8	A	C	D	C
9	C	B	C	D
10	D	A	A	B
11	X	C	A	A
12	D	A	A	B
13	C	A	C	D
14	B	C	D	C
15	A	D	B	A
16	A	A	C	X
17	A	B	A	D
18	C	D	A	C
19	D	C	C	B
20	B	A	D	A
21	C	A	D	B
22	C	B	B	C
23	A	C	C	B
24	A	B	B	D
25	D	A	A	B
26	D	C	B	A
27	B	C	C	B
28	C	A	B	C
29	B	A	D	B
30	A	D	B	A
31	A	B	C	D
32	B	C	C	B
33	C	B	A	C
34	B	D	A	B
35	A	B	D	A
36	B	D	A	C
37	C	B	B	C
38	B	C	C	A
39	D	B	B	A
40	B	A	A	D
41	A	B	X	A
42	C	B	A	C
43	B	C	C	C
44	C	B	C	B
45	D	B	A	D
46	B	X	A	A
47	B	A	C	C
48	C	C	C	B
49	B	C	B	C
50	B	A	D	D

Q No.	QUESTION BOOKLET			
	A	B	C	D
51	A	A	B	X
52	C	C	B	A
53	C	B	C	C
54	B	C	B	C
55	D	D	B	A
56	X	A	A	B
57	A	C	C	B
58	C	C	B	C
59	C	B	C	B
60	A	D	D	B
61	X	D	C	D
62	A	B	C	D
63	C	B	X	C
64	A	D	A	D
65	B	A	B	A
66	D	X	D	C
67	D	A	B	C
68	C	C	B	X
69	D	A	D	A
70	A	B	A	B
71	D	C	D	X
72	B	C	D	A
73	B	X	C	C
74	D	A	D	A
75	A	B	A	B
76	C	D	X	D
77	C	D	A	B
78	X	C	C	B
79	A	D	A	D
80	B	A	B	A
81	C	D	B	A
82	B	A	C	C
83	D	B	A	D
84	A	D	D	A
85	B	B	C	C
86	D	B	A	C
87	A	C	C	B
88	B	A	D	D
89	D	D	A	A
90	B	C	C	B
91	A	C	D	B
92	C	B	A	C
93	D	D	B	A
94	A	A	D	D
95	C	B	B	C
96	B	A	C	D
97	C	C	B	A
98	A	D	D	B
99	D	A	A	D
100	C	C	B	B

'X' DENOTES DELETION