

## PROVISIONAL ANSWER KEY

Question 77/2025/OL

Paper Code:

Category 748/2024  
Code:

Exam: Assistant Sub Inspector Trainee (Telecommunication)

Date of Test 16-07-2025

Department Kerala Police Service

Question1:-What is the objective of the SHE COHOROT 3.0 launched by the Punjab government?

A:-Provide cash incentive to pregnant and lactating mother

B:-Empower Women-Led startups

C:-Empower rural women through community participation

D:-To ensure safe motherhood by providing access to antenatal and postnatal care

Correct Answer:- Option-B

Question2:-Which one of the following was the theme of the World environment Day 2024?

A:-Ending global plastic pollution

B:-Solution to plastic pollution

C:-Land Restoration, Desertification and Drought Resilience

D:-Only one Earth

Correct Answer:- Option-C

Question3:-Who was recently appointed as the brand ambassador of FICCI FRAMES?

A:-Sachin Tendulkar

B:-Ayushmann Khurrana

C:-Virat Kohli

D:-Akshay Kumar

Correct Answer:- Option-B

Question4:-Which one of the following is a comprehensive scheme for prevention of trafficking and rescue, rehabilitation and reintegration of victims?

A:-Beti Bachao Beti Padhao

B:-Swadhar Greh

C:-Kishori Shakti Yojana

D:-Ujjwala

Correct Answer:- Option-D

Question5:-Which of the following Christian Missionary started first western

education schools in Malabar?

A:-The Basel Evangelical Mission

B:-London Mission Society

C:-Church Mission Society

D:-Franciscan Missionary

Correct Answer:- Option-A

Question6:-Which of the following is not a social reform movement in Kerala?

A:-Samatva Samajam

B:-Sadhu Jana Paripalana Sangam

C:-Self Respect Movement

D:-Atmavidya Sangam

Correct Answer:- Option-C

Question7:-Prathyaksha Raksha Daiva Sabha was a religious protest movement founded in 1909 by :

A:-Ayyan Kali

B:-Chattampi Swamikal

C:-Pandit K.P. Karuppan

D:-Poikayil Yohannan

Correct Answer:- Option-D

Question8:-What is the correct order in which the following terms are enshrined in the Preamble to the Constitution of India?

(i) Liberty

(ii) Equality

(iii) Fraternity

(iv) Justice

Select the correct answer from the codes :

A:- (iv), (i), (ii) and (iii)

B:- (i), (iii), (ii) and (iv)

C:- (iv), (iii), (ii) and (i)

D:- (iv), (i), (iii) and (ii)

Correct Answer:- Option-A

Question9:-The famous Malayalam drama "Ebrayakutti" was written by :

A:-Kunhikuttan Thampuran

B:-Kochunni Thampuran

C:-Kandathil Varghese Mappila

D:-K. Damodaran

Correct Answer:- Option-C

Question10:-Who among the following was the editor of Mitavadi?

A:-K. Ayyappan

B:-Dr. Palpu

C:-K. Ramakrishna Pillai

D:-C. Krishnan

Correct Answer:- Option-D

Question11:-Which publication is attributed to Mar Kuriakose Elias Chavara among the following options :

A:-Akhila thiruttu

B:-Adibhasha

C:-Atmanutapam

D:-Atmavidya Kahalam

Correct Answer:- Option-C

Question12:-A proclamation which was described by Gandhiji as a "Miracle of Modern Times":

A:-Temple Entry Proclamation

B:-Malayali Memorial

C:-Kundara Proclamation

D:-Queen's Proclamation

Correct Answer:- Option-A

Question13:-The movement to boycott marakkuda (cadjan umbrella) was led by :

A:-Lalithambika Antharajanam

B:-Parvathi Nenmenimangalam

C:-Lalitha Prabhu

D:-Devaki Nilayangode

Correct Answer:- Option-B

Question14:-Which country recently developed the world's first deep-sea radar that can detect high-flying aircraft?

A:-Japan

B:-United States of America

C:-Russia

D:-China

Correct Answer:- Option-D

Question15:-Article 78 of the Constitution deals with :

A:-President's power to get information from the Council of Ministers

B:-Emergency powers of the President

C:-Prime Minister's duty regarding keeping the President informed about the government's decisions and policies

D:-President power to send advisory messages to the Parliament

Correct Answer:- Option-C

Question16:-(i) Pampadi John Joseph founded the Cheramar Mahajan Saba  
(ii) He initiated the Sadhujan Dootan Magazine in 1919  
(iii) He advocated for equal rights and opportunities for Dalits  
(iv) He organised Kallumala agitation

Which of the above statements are not related to Pampadi John Joseph?

A:-Only (i) and (ii)

B:-Only (iv)

C:-Only (ii) and (iii)

D:-Only (i), (ii) and (iii)

Correct Answer:- Option-B

Question17:-India's first solar-powered village, Modhera, is situated in which state?

A:-Gujarat

B:-Rajasthan

C:-Karnataka

D:-Andhra Pradesh

Correct Answer:- Option-A

Question18:-Under which Article the Supreme Court of India exercises advisory jurisdiction?

A:-Article 32

B:-Article 143

C:-Article 132

D:-Article 131

Correct Answer:- Option-B

Question19:-Who among the following presides over a joint sitting of the two Houses of Parliament?

A:-Chairman of Rajya Sabha

B:-President

C:-Prime Minister

D:-Speaker of Lokh Sabha

Correct Answer:- Option-D

Question20:-Who is the chairperson of the Economic Intelligence Council (EIC) of India?

A:-Finance Minister

B:-Prime Minister

C:-RBI Governor

D:-Finance Secretary

Correct Answer:- Option-A

Question21:-If a superheterodyne receiver is tuned to 700 kHz and the local oscillator is set to 1200 kHz, then the image frequency is

- A:-455 kHz
- B:-1900 kHz
- C:-1700 kHz
- D:-1200 kHz

Correct Answer:- Option-C

Question22:-The modulation index ( $\beta$ ) in FM is defined as the ratio of

- A:-Modulating frequency to frequency deviation
- B:-Maximum frequency deviation to modulating frequency
- C:-Maximum frequency deviation to carrier frequency
- D:-Carrier frequency to maximum frequency deviation

Correct Answer:- Option-B

Question23:-Ground-wave (surface-wave) propagation is predominantly :

- A:-Horizontally polarized
- B:-Circularly polarized
- C:-Unpolarized
- D:-Vertically polarized

Correct Answer:- Option-D

Question24:-An AM transmitter radiates 200 W of carrier power and is modulated with a sine wave at a modulation index of 0.5. What is the total side band power?

- A:-25 W
- B:-50 W
- C:-75 W
- D:-100 W

Correct Answer:- Option-A

Question25:-Which block in an FM receiver performs frequency-to-voltage conversion?

- A:-Limiter
- B:-Discriminator
- C:-Mixer
- D:-IF amplifier

Correct Answer:- Option-B

Question26:-A communication system uses FM with a peak deviation of 5 kHz. If the modulating signal is a 3 kHz sine wave, what should be the minimum bandwidth allocated for the channel?

A:-10 kHz

B:-15 kHz

C:-20 kHz

D:-16 kHz

Correct Answer:- Option-D

Question27:-Which of the following is not used for FM demodulation?

A:-Envelope detector

B:-Foster-Seeley detector

C:-Phase discriminator

D:-Ratio detector

Correct Answer:- Option-A

Question28:-At night, AM radio stations operating in the medium frequency band (300 kHz - 3 MHz) can be received at distances far beyond their usual daytime range. Which phenomenon makes this possible?

A:-Reduced ground attenuation

B:-Enhanced space wave transmission

C:-Sky wave reflection from the ionosphere

D:-Tropospheric ducting

Correct Answer:- Option-C

Question29:-What is the standard intermediate frequency (IF) used in FM radio receivers?

A:-455 kHz

B:-10.7 MHz

C:-1.7 MHz

D:-5 MHz

Correct Answer:- Option-B

Question30:-The ability of a superheterodyne receiver to differentiate between closely spaced stations on the frequency spectrum is mainly due to :

A:-High-gain antenna

B:-Tuned RF stage

C:-Precise LO frequency

D:-Sharp IF filtering

Correct Answer:- Option-D

Question31:-In a TV system, what does the term Y in the equation,  $Y = 0.3R + 0.59G + 0.11B$  represent?

A:-Luminance

B:-Chrominance

C:-Saturation

D:-Phase angle

Correct Answer:- Option-A

Question32:-Which signal is added in a color TV transmission to help synchronize the color decoder?

A:-Sync pulse

B:-Burst signal

C:-Pilot tone

D:-Carrier pulse

Correct Answer:- Option-B

Question33:-In satellite communication, a transponder primarily :

A:-Encodes signal

B:-Tracks earth stations

C:-Amplifiers and shifts frequency

D:-Decrypts the signal

Correct Answer:- Option-C

Question34:-In an interlaced scanning video system transmitting 60 fields per second, how many complete frames are displayed each second?

A:-60 Hz

B:-15 Hz

C:-25 Hz

D:-30 Hz

Correct Answer:- Option-D

Question35:-In a half-wave dipole antenna, the current distribution along the length is :

A:-Uniform

B:-Maximum at ends, zero at center

C:-Maximum at the centre, zero at ends

D:-Maximum at 1/4 and 3/4 points

Correct Answer:- Option-C

Question36:-The characteristic impedance of a Coaxial cable of length 1m is 50Ω. What is the characteristic impedance of the same cable of length 100 m?

A:-50 Ω

B:-100 Ω

C:-25 Ω

D:-0.1 Ω

Correct Answer:- Option-A

Question37:-Which of the following is not true about VHF propagation?

- A:-VHF signals can penetrate building walls
- B:-VHF waves are primarily propagated via line-of-sight
- C:-VHF signals are efficiently reflected by the ionosphere
- D:-VHF signals are less affected by atmospheric noise

Correct Answer:- Option-C

Question38:-An equalizing pulse train occurs at what interval?

- A:-End of each horizontal line
- B:-At the start of each frame only
- C:-During active video transmission
- D:-During vertical blanking interval

Correct Answer:- Option-D

Question39:-Which one is a block coding technique used in digital communications?

- A:-ASK
- B:-PSK
- C:-Hamming Code
- D:-NRZ

Correct Answer:- Option-C

Question40:-How is video information modulated in a negative modulation system used in analog TV?

- A:-White level lowers the carrier amplitude
- B:-White level boosts the carrier amplitude
- C:-Sync pulses are suppressed
- D:-Color phase information is inverted

Correct Answer:- Option-A

Question41:-Space wave propagation occurs in which of the following regions?

- A:-Ionosphere
- B:-Troposphere
- C:-Ground
- D:-All of these

Correct Answer:- Option-B

Question42:-Fluctuation in the received signal strength at the receiver or a random variation in the received signal is known as

- A:-Reflection
- B:-Refraction
- C:-Attenuation



D:-Fading

Correct Answer:- Option-D

Question43:-Which law is used to calculate the Maximum Usable Frequency (MUF) for sky wave propagation between two distant points on Earth?

A:-Friis Equation

B:-Inverse Square Law

C:-Secant Law

D:-Snell's Law

Correct Answer:- Option-C

Question44:-Assertion (A) : Modulation is essential for transmitting low-frequency signals over long distances.

Reason (R) : Low-frequency signals can travel longer distances without attenuation or interference.

Select the correct answer code.

A:-Both (A) and (R) are true, and (R) is the correct explanation of (A)

B:-Both (A) and (R) are true, but (R) is not the correct explanation of (A)

C:- (A) is true, but (R) is false

D:- (A) is false, but (R) is true

Correct Answer:- Option-C

Question45:-The type of modulation in which a voltage proportional to the modulating signal is added to the carrier amplitude is

A:-Amplitude Modulation

B:-Frequency Modulation

C:-Phase Modulation

D:-All of these

Correct Answer:- Option-A

Question46:-A Frequency Modulated (FM) signal has a maximum frequency deviation of 75 kHz and the highest modulating signal frequency is 15 kHz. What is the approximate bandwidth of the FM signal according to Carson's rule?

A:-90 KHz

B:-180 KHz

C:-5 KHz

D:-60 KHz

Correct Answer:- Option-B

Question47:-The maximum directive gain of an antenna is called

A:-Beamwidth

B:-Efficiency

C:-Directivity

D:-Radiation Resistance

Correct Answer:- Option-C

Question48:-Which type of antenna is commonly used for television reception?

A:-Dipole Antenna

B:-Parabolic Dish Antenna

C:-Loop Antenna

D:-Yagi-Uda Antenna

Correct Answer:- Option-D

Question49:-Why can an antenna be called a transducer?

A:-Because it increases signal frequency

B:-Because it converts electrical energy into mechanical energy

C:-Because it converts electrical signals into electromagnetic waves and vice versa

D:-Because it stores electromagnetic energy

Correct Answer:- Option-C

Question50:-Quantization error in an Analog-to-Digital Converter (ADC) is :

A:-The difference between the actual analog input and the quantized digital output

B:-Caused by thermal noise in the circuit

C:-The result of signal attenuation during conversion

D:-Completely eliminated by using a high sampling rate

Correct Answer:- Option-A

Question51:-What is the main purpose of multiplexing in communication systems?

A:-To increase the power of transmitted signals

B:-To reduce the size of the transmitter

C:-To allow multiple signals to share a single communication channel

D:-To convert analog signals into digital form

Correct Answer:- Option-C

Question52:-In Pulse Width Modulation (PWM), the information is encoded in:

A:-The amplitude of the pulse

B:-The duration of the pulse

C:-The frequency of the pulse

D:-The number of pulses per second

Correct Answer:- Option-B

Question53:-Given below are the two statements :

Statement 1 : A cell corresponds to the covering area of one transmitter or a small collection of transmitters.

Statement 2 : In a cellular system, the covering area of an operator is divided into cells

In the light of the above statements choose the correct answer from the option given below

A:-Both statement 1 and statement 2 are True

B:-Both statement 1 and statement 2 are False

C:-Statement 1 is True but statement 2 is False

D:-Statement 1 is False but statement 2 is True

Correct Answer:- Option-A

Question54:-In a GSM system Radio Link management is performed by

A:-Base Station Controller

B:-Mobile Switching Centre

C:-Base Transceiver Station

D:-Mobile Station

Correct Answer:- Option-C

Question55:-FM radio broadcasting typically operates in which frequency range?

A:-88 MHz - 108 MHz

B:-300 kHz - 3 MHz

C:-3 MHz - 30 MHz

D:-540 kHz-1600 kHz

Correct Answer:- Option-A

Question56:-Identify the optical test equipment that sends laser pulses through a fiber and analyses the reflected signals to determine the location and nature of faults such as bends, breaks, and splicing losses

A:-Optional Power Meter

B:-Visual Fault Locator

C:-Optical Time Domain Reflectometer

D:-Fusion Splicer

Correct Answer:- Option-C

Question57:-SMPS stands for :

A:-Standard Mode Power Supply

B:-Switched Mode Power Supply

C:-Synchronous Mode Power Supply

D:-Static Mode Power System

Correct Answer:- Option-B

Question58:-The power supply failure due to voltage drop that is beyond the regulating capacity of UPS is known as

A:-Brown-out

B:-Black-out

C:-Both (1) and (2)

D:-Neither (1) nor (2)

Correct Answer:- Option-A

Question59:-The E-Governance project approved by Union Government of India which comprising of 27 Mission Mode Projects (MMPs) that marks the origin of E-Governance in India is

A:-Digital India

B:-National e-Governance Plan

C:-Ayushman Bharat Digital Mission

D:-Open Network for Digital Commerce

Correct Answer:- Option-B

Question60:-Which one of the following statements are/is true with reference to Indian Wireless Telegraphy Act, 1933?

(i) The telegraphy authority constituted under the Indian Telegraph Act, 1885, shall be the authority competent to issue licences to possess wireless telegraphy apparatus under this Act.

(ii) Any person in India can possess wireless telegraphy apparatus without a license issued under this Act.

A:-Only (i)

B:-Both (i) and (ii)

C:-Only (ii)

D:-None of these statement are True

Correct Answer:- Option-A

Question61:-An ideal voltage source has \_\_\_\_\_ internal resistance

A:-Zero

B:-High

C:-Infinity

D:-Large

Correct Answer:- Option-A

Question62:-Which of the following is a best conductor of electricity?

A:-Zinc

B:-Iron

C:-Copper

D:-Arsenic

Correct Answer:- Option-C

Question63:-The voltage drop per ampere-meter of an aluminum conductor is higher as compared to a copper conductor of the same size due to its higher

A:-Insulation resistance

B:-Resistivity

C:-Current density

D:-Conductivity

Correct Answer:- Option-B

Question64:-Which of the following materials possess least resistivity?

A:-Manganin

B:-Eureka

C:-Tungsten

D:-Silver

Correct Answer:- Option-D

Question65:-Air gap in the iron core of an inductor prevents

A:-Core saturation

B:-Hysteresis loss

C:-Flux leakage

D:-Transformer action

Correct Answer:- Option-B

Question66:-Sparking occurs when a load is switched off because the circuit has

A:-Resistance

B:-Capacitance

C:-Inductance

D:-Conductance

Correct Answer:- Option-C

Question67:-The voltage induced in a loop of wire rotating in a strong and steady magnetic field is

A:-DC

B:-Rectified DC

C:-Rectified AC

D:-AC

Correct Answer:- Option-D

Question68:-The power factor of a purely resistive circuit is

A:-Unity

B:-Zero

C:-Infinity

D:-Lagging

Correct Answer:- Option-A

Question69:-The input of an ac circuit having p.f. of 0.8 lagging is 30 KVA. The power drawn by the circuit is \_\_\_\_\_ KW.

A:-24 KW

B:-30 KW

C:-20 KW

D:-15 KW

Correct Answer:- Option-A

Question70:-Slipring induction motor is preferred over sq. cage induction motor where

A:-High speed is required

B:-High starting torque is required

C:-High power factor is required

D:-Medium torque is required

Correct Answer:- Option-B

Question71:-The ratio of active power to apparent power is known as

A:-Form factor

B:-Crest factor

C:-Peak factor

D:-Power factor

Correct Answer:- Option-D

Question72:-Metallic casing of electrical apparatus always earthed

A:-To ensure installation safety

B:-To ensure safety of earth pit

C:-To ensure operators safety

D:-To ensure the safety of RCCB

Correct Answer:- Option-C

Question73:-Supply point to a consumer is taken at

A:-The output side of energy meter

B:-The output side of distribution box

C:-The input side of energy meter

D:-The output side of supplier fuse

Correct Answer:- Option-D

Question74:-For an ideal transformer, input VA=output VA, hence current are

A:-Equal ratio of transformation ratio

B:-Negative ratio of transformation ratio

C:-Inverse ratio of voltage transformation ratio

D:-Positive ratio of current ratio

Correct Answer:- Option-C

Question75:-Which type of core is used for high frequency transformer?

A:-Vacuum core

B:-Oil core

C:-Air core

D:-Solid core

Correct Answer:- Option-C

Question76:-Which of the lamp has more resistance?

A:-1000 W, 250 V lamp

B:-25 W, 250 V lamp

C:-40 W, 250 V lamp

D:-60 W, 250 V lamp

Correct Answer:- Option-B

Question77:-Two lamps each rated 60 W 230 V when connected in parallel across 230 V supply will consume

A:-30 W

B:-90 W

C:-120 W

D:-60 W

Correct Answer:- Option-C

Question78:-What is the voltage regulation of an ideal d.c. generator?

A:-Positive

B:-Negative

C:-High

D:-Zero

Correct Answer:- Option-D

Question79:-Ward-Leonard system of speed control is most suited for

A:-Low speed range operation

B:-Constant speed operation

C:-Medium speed range operation

D:-High range speed operation

Correct Answer:- Option-B

Question80:-Reverse current braking commonly used in

A:-Elevators

B:-Rectifiers

C:-Fan

D:-Rice Mill

Correct Answer:- Option-A

Question81:-Which of the following computer is used for bulk data processing?

A:-Super computer

B:-Mainframe computer

C:-Mini computer

D:-Micro computer

Correct Answer:- Option-B

Question82:-Which among the following was used in the first generation of computers?

A:-Integrated circuit

B:-Transistor

C:-Vacuum tube

D:-Microprocessor

Correct Answer:- Option-C

Question83:-Which of the following CPU register contains the address of next instruction to be processed?

A:-Accumulator

B:-Program counter

C:-Memory Address Register

D:-Instruction register

Correct Answer:- Option-B

Question84:-Which of the following technology is used in a Drum Scanner?

A:-Photo Multiplier Tube

B:-Charge Coupled Device

C:-Contact Image Sensor

D:-Flat Bed Method

Correct Answer:- Option-A

Question85:-Which of the following peripheral device can be connected to computer using ps/2 port?

A:-Printer

B:-Motherboard

C:-Modem

D:-Mouse

Correct Answer:- Option-D

Question86:-Which of the following Monitor uses an electron gun to form images?



A:-LCD

B:-LED

C:-Plasma

D:-CRT

Correct Answer:- Option-D

Question87:-Which of the following is an impact printer?

A:-Laser Printer

B:-Dot Matrix Printer

C:-Ink Jet printer

D:-Thermal Printer

Correct Answer:- Option-B

Question88:-What is the function of SATA port in motherboard?

A:-To connect Ram and Motherboard

B:-To connect Processor and Motherboard

C:-To connect Hard disk and Motherboard

D:-To connect Network cable to Motherboard

Correct Answer:- Option-C

Question89:-Arrange the following computer memory in increasing order of data access time (from fastest to slowest)

(i) Cache memory

(ii) RAM

(iii) Registers

(iv) Hard Disk

A:-(iii), (i), (ii), (iv)

B:-(i), (iii), (ii), (iv)

C:-(iv), (ii), (i), (iii)

D:-(iv), (i), (ii), (iii)

Correct Answer:- Option-A

Question90:-Which of the following processor is designed for servers and workstations?

A:-Celeron

B:-Pentium

C:-Xeon

D:-Core 2 Duo

Correct Answer:- Option-C

Question91:-What is the shortcut key to open Task Manager in Windows?

A:-Ctrl+Shift+Esc

B:-Ctrl+Shift+Tab

C:-Ctrl+Alt+Esc

D:-Ctrl+Alt+Tab

Correct Answer:- Option-A

Question92:-What is the use of "Safe Mode" in Windows?

A:-To reorganize fragmented files on data drives

B:-To delete files in windows Registry

C:-To start Windows with bare essential services and drivers

D:-None of the above

Correct Answer:- Option-C

Question93:-What is the use of Mail merge feature in MS Word?

A:-Compare two documents to see the differences between them

B:-To create personalized letters to multiple recipients

C:-Combine two documents

D:-To keep track of changes made to a document

Correct Answer:- Option-B

Question94:-What is the shortcut key to Align text/image to Center in MS Word?

A:-Ctrl+C

B:-Ctrl+D

C:-Ctrl+E

D:-Ctrl+F

Correct Answer:- Option-C

Question95:-Which Tab of MS word has "Protect Document" option?

A:-File

B:-Review

C:-References

D:-Layout

Correct Answer:- Option-A

Question96:-Which of the following is not true about subnetting in computer network?

A:-It is applied for a single network

B:-It is used to improve security

C:-Bits are borrowed from network portion

D:-Bits are borrowed from Host portion

Correct Answer:- Option-C

Question97:-What is the purpose of DHCP server?

A:-To provide storage for email

B:-To translate URLs to IP addresses

C:-To translate IPV4 address to MAC address

D:-To provide IP configuration

Correct Answer:- Option-D

Question98:-Which device is used to connect multiple computers in a Local Area Network and forward data packets based on MAC address?

A:-Modem

B:-Hub

C:-Switch

D:-Firewall

Correct Answer:- Option-C

Question99:-What is the full form of DNS?

A:-Dual name system

B:-Domain name system

C:-Duplicate name system

D:-Distributor name system

Correct Answer:- Option-B

Question100:-Which of the following is the first step in the operation of a search engine?

A:-Web crawling

B:-Indexing

C:-Ranking

D:-Searching

Correct Answer:- Option-A