

65/2014

Maximum : 100 marks

Time : 1 hour and 15 minutes

1. Who was the founder of Samatva Samajam?  
(A) Vaikunta Swamikal (B) Sree Narayana Guru  
(C) Chattampi Swamikal (D) Ayyankali
2. Which of the following statement is not correct about the national flag of India?  
(A) Deep saffron colour signifies courage and sacrifice.  
(B) Designed by Pingali Venkayya  
(C) Green colour signifies truth and peace  
(D) The design of the flag was adopted by the constituent assembly on July 22, 1947
3. Who is known as the 'Father of Kerala Renaissance'?  
(A) K. Kelappan  
(B) Sree Narayana Guru  
(C) Chattampi Swamikal  
(D) Swadeshbhimani Ramakrishna Pillai
4. Bharatanatyam is a classical dance form of :  
(A) Kerala (B) Karnataka  
(C) Andhra Pradesh (D) Tamil Nadu
5. National Ship Design and Research Centre is situated in :  
(A) Mumbai (B) Kandla  
(C) Vishakapatnam (D) Kochi
6. Who is the first sportsman to win India's highest civilian honour – 'Bharat Ratna'?  
(A) Milkha Singh (B) Jimmy George  
(C) Abhinav Bindra (D) Sachin Tendulkar
7. Which of the following is not correct about Chattampi Swamikal?  
(A) He was a Nair reformist (B) He founded the Vidhyaposhini Sabha  
(C) His real name was Kanjan Pillai (D) He attained Samadhi at Panmana

8. Whose autobiography is Ente Nadukadathal?  
(A) Swadeshabhimani Ramakrishna Pillai  
(B) Sahodaran Ayyappan  
(C) Ayyankali  
(D) V.T. Bhattathiripad
9. Who was known as 'Arivinte Thampuram'?  
(A) M.N. Govindan Nair  
(B) Poomulli Neelakandan Nambootiripad  
(C) G. Madhavan Nair  
(D) O.N.V. Kurup
10. Temple Entry Proclamation was issued on November 12, 1936 by :  
(A) Chithirai Thirunal Balarama Varma (B) Marthanda Varma  
(C) Rani Gauri Lakshmi Bai (D) Swathi Thirunal
11. Golden quadrilateral project is :  
(A) a bridge project across the river Ganga  
(B) a ship channel project between India and Sri Lanka  
(C) a highway project linking four metro cities of India  
(D) none of these
12. Misoram won the Santhosh Trophy Football Tournament 2014. Misoram defeated \_\_\_\_\_ in final.  
(A) Tamil Nadu (B) Services  
(C) West Bengal (D) Railways
13. The Chief Election Commission of Kerala is :  
(A) N. Gopalaswami (B) Navin B. Chawla  
(C) Nalini Netto (D) M.S. Swaminathan
14. Which of the Travancore ruler abolished slave trade among their subjects?  
(A) Marthandavarma (B) Rani Gauri Lakshmi Bai  
(C) Dharma Raja (D) Swathi Thirunal

15. 'Devadasi system' in the temples of South Travancore is abolished by :
- (A) Sethu Lakshmi Bai (B) Srimulam Thirunal  
(C) Ayilam Thirunal (D) Umayamma Rani
16. Three language formula (Mother tongue, Hindi and English) for education was recommended by :
- (A) Radha Krishnan Commission (B) Hunter Commission  
(C) Kothari Commission (D) None of these
17. Which of the following was a secret journal published from Malabar during the period of Quit India movement?
- (A) Swathanthra Bharatham (B) Navakeralam  
(C) Malayali (D) Sahodaran
18. World Women's Day is celebrating on :
- (A) March 15 (B) May 12  
(C) June 20 (D) March 8
19. Which of the following is not correct about Vaikom Sathyagraha?
- (A) Started on March 30, 1924  
(B) Gandhiji visited Kerala related to the Vaikom Sathyagraha  
(C) T.K. Madhavan and K.P. Kesavamenon were the major leaders  
(D) A Savarna Jatha (March of upper castes) was led by Mannath Padmanabhan from Vaikom to Thiruvananthapuram against Vaikom Sathyagraha
20. Koodankulam Atomic Power Plant is being built with the help of :
- (A) England (B) Russia  
(C) U.S.A. (D) France
21. Substance used for making powerful magnet :
- (A) Cobalt (B) Magnetite  
(C) Steel (D) Soft iron
22. Catalyst used for increasing the speed of decomposition of  $H_2O_2$  :
- (A)  $H_3PO_4$  (B)  $MnO_2$   
(C) Fe (D)  $V_2O_5$

23. Which vitamin is chemically called as ascorbic acid?  
(A) Vit. A (B) Vit. D  
(C) Vit. E (D) Vit. C
24. The acid and alkali used for preparing sodium chloride :  
(A) KOH and HCl (B) NaOH and HCl  
(C) NaOH and  $H_2SO_4$  (D) NaOH and  $HNO_3$
25. Write the name of the gas used for welding :  
(A) Carbon dioxide (B) Oxygen  
(C) Acetylene (D) Acetone
26. The element present in chlorophyll :  
(A) Magnesium (B) Manganese  
(C) Molybdenum (D) Mercury
27. The poisonous gas used as an industrial fuel :  
(A) Nitrogen (B) Sulphur dioxide  
(C) Carbon monoxide (D) Chlorine
28. Who is known as "The King of inventions"?  
(A) Einstein (B) Edison  
(C) Newton (D) Faraday
29. Blight disease of paddy caused by :  
(A) Fungus (B) Bacteria  
(C) Virus (D) Protozoa
30. Unit of wavelength :  
(A) meter (B) light year  
(C) angstrom (D) parsec
31. The instrument in which the permanent magnet is used :  
(A) loud speaker (B) electric bell  
(C) electric motor (D) generator

32. February 28 "National Science Day" is related to which Scientist?  
(A) J.C. Bose (B) Sathendra Boss  
(C) C.V. Raman (D) Chandra Sekar
33. The substance with highest specific heat capacity :  
(A) iron (B) glass  
(C) coconut oil (D) water
34. Which is known as "dry ice"?  
(A) Ice (B) Water gas  
(C) Carbon (D) Carbon dioxide
35. Major hydrocarbon present in LPG :  
(A) Ethane (B) Butane  
(C) Methane (D) Phosphene
36. The metal present in hemoglobin is :  
(A) Copper (B) Iron  
(C) Aluminium (D) Calcium
37. Who invent the smallest element hydrogen?  
(A) Joseph Priestly (B) Boyle  
(C) Henry Kaventosh (D) Rutherford
38. Lack of iodine leads to disease :  
(A) Goiter (B) Diabetes  
(C) Nephritis (D) Meningitis
39. The gas used in refrigerator which effect ozone layer :  
(A) CNG (B) CFC  
(C) CO (D) CO<sub>2</sub>
40. The first woman noble prize winner in Science :  
(A) Marie Curie (B) Alen  
(C) Sunitha William (D) Perylene

41. Sound signals are also called :
- (A) Hydraulic (B) Pneumatic  
(C) Acoustic (D) Optical
42. The pressure pad which is used to keep the tape pressed against the capstan is :
- (A) Flywheel (B) Pinch roller  
(C) Pulley (D) None of these
43. The range of audible sound is :
- (A) 20 – 20 kHz (B) 2 – 20 kHz  
(C) 200 – 20 kHz (D) 2 K – 20 kHz
44. Who invented the first multitrack tape recorder?
- (A) Thomas Edison (B) Les Paul  
(C) J.L. Baird (D) Marconi
45. The transducer which is used to convert sound energy to electrical energy is :
- (A) Amplifier (B) Speaker  
(C) Microphone (D) Transformer
46. Which one of the following is not altered by an amplifier?
- (A) Voltage (B) Frequency  
(C) Power (D) Current
47. The speed of sound wave in air is :
- (A) 300 m/s (B) 413 m/s  
(C) 344 m/s (D) none of these
48. A Hi-Fi audio system has signal to noise ratio atleast :
- (A) 50 db (B) 100 db  
(C) 10 db (D) 90 db
49. \_\_\_\_\_ is the term used for distortion due to small variation in speed in tape recorder.
- (A) Flutter (B) Rumble  
(C) Wow (D) Hissing noise

50. The device which is used to strengthen the weak audio signal is :  
(A) Regulator (B) Inverter  
(C) Oscillator (D) Amplifier
51. The ratio of output quantity to the input of an amplifier is called it's :  
(A) Gain (B) Distortion  
(C) Frequency response (D) Bandwidth
52. The amplifier works in \_\_\_\_\_ region.  
(A) Cut-off region (B) Saturation region  
(C) Active region (D) None of these
53. \_\_\_\_\_ microphone is used in mobile communication system.  
(A) Carbon (B) Condenser  
(C) Ribbon (D) Crystal
54. Threshold of hearing equals to an intensity of :  
(A)  $10^{-12}$  watts/m<sup>2</sup> (B)  $10^{-6}$  watts/m<sup>2</sup>  
(C)  $10^{12}$  watts/m<sup>2</sup> (D)  $10^6$  watts/m<sup>2</sup>
55. The increase in loudness is determined by the unit :  
(A) Phon (B) Sone  
(C) Pascal (D) Micro-bar
56. \_\_\_\_\_ feedback is used in amplifiers.  
(A) Positive (B) Negative  
(C) Regenerative (D) None of these
57. The first practical sound recording and reproduction device was invented by :  
(A) Ray Dolby (B) Les Paul  
(C) Thomas Edison (D) J.L. Baird
58. The unit of pitch of sound is :  
(A) Hertz (B) MEL  
(C) N/m<sup>2</sup> (D) Micro-bar

59. \_\_\_\_\_ system gives three dimensional sound effect.
- (A) Stereophonic (B) Monophonic  
(C) Acoustic (D) Reverberation
60. Disadvantage of push pull amplifier is :
- (A) Frequency distortion (B) Crossover distortion  
(C) Phase distortion (D) None of these
61. In digital recording sound signals are stored as :
- (A) Decimal digits (B) Electrical signals  
(C) Analog form (D) Binary digits
62. High audio levels can be recorded without distortion using :
- (A) DC biasing (B) AC biasing  
(C) Forward biasing (D) Reverse biasing
63. Which company produced the first commercially available magnetic tape recorder?
- (A) Bell (B) Dolby  
(C) Wipro (D) Ampex
64. \_\_\_\_\_ is used as voltage amplifier.
- (A) Direct coupled amplifier (B) RC coupled amplifier  
(C) Transformer coupled amplifier (D) Push pull amplifier
65. Dolby A noise reduction system was invented by :
- (A) Thomas Edison (B) Ray Dolby  
(C) J. Bardeen (D) J.L. Baird
66. Digital recording and reproduction converts the analog sound signal picked up by the microphone to the digital form by the process of :
- (A) Sampling (B) Decoding  
(C) Digitization. (D) Encoding
67. Emphasizing low intensity sounds before recording is called :
- (A) Pre-emphasis (B) Equalisation  
(C) De-emphasis (D) Quantisation



68. Unit of sound is :
- (A) Decibel (B) Hertz  
(C) Ampere (D) None of these
69. The frequency which is used for sampling the audio signal is :
- (A) 8 kHz (B) 18 kHz  
(C) 2 kHz (D) 12 kHz
70. Impedance matching is excellent for \_\_\_\_\_ amplifiers.
- (A) RC coupled amplifier (B) Direct coupled  
(C) Transformer coupled (D) Voltage
71. In human beings the two ears provide \_\_\_\_\_ effect.
- (A) Monophonic (B) Stereophonic  
(C) Doppler (D) Quadraphonic
72. What is the beat frequency produced when two sound waves of frequencies 250 Hz and 256 Hz are superimposed?
- (A) 10 Hz (B) 506 Hz  
(C) 6 Hz (D) 3 Hz
73. Which property of the sound is used in Sonography?
- (A) Reverberation (B) Doppler effect  
(C) Reflection (D) Loudness
74. Velocity of sound is maximum in :
- (A) Dry air (B) Moist air  
(C) Vacuum (D) Water
75. In public address system, a mixer is also called :
- (A) Tuner (B) Fader  
(C) Converter (D) Amplifier

76. During the collision of celestial bodies in outer space we can see the light, but can't hear the sound. Why?
- (A) Sound is not produced
  - (B) Sound needs a medium to travel
  - (C) Sound does not need a medium
  - (D) Sound is a wave motion
77. \_\_\_\_\_ is not a property of sound.
- (A) Amplitude
  - (B) Velocity
  - (C) Wavelength
  - (D) Polarisation
78. A high frequency loud speaker is called :
- (A) Tweeter
  - (B) Woofer
  - (C) Squawker
  - (D) Cone type
79. The part on which the sound waves hits in a microphone is called :
- (A) Pole pieces
  - (B) Coil
  - (C) Diaphragm
  - (D) Magnet
80. \_\_\_\_\_ is a better recording medium.
- (A) Chromium dioxide
  - (B) Ferric oxide
  - (C) Ferrous oxide
  - (D) Barium oxide
81. Sound waves can be emitted with the process of sound amplification based on stimulated emission of :
- (A) Photons
  - (B) Radiation
  - (C) Electrons
  - (D) Phonons
82. \_\_\_\_\_ recording uses four-track tape to play four different tracks at the same time.
- (A) Quadraphonic
  - (B) Monophonic
  - (C) Stereophonic
  - (D) None of these
83. Sound is produced from the vocal chord due to the vibration of :
- (A) Throat
  - (B) Pharynx
  - (C) Larynx
  - (D) Tongue

84. Digital recording stores the audio as a series of binary numbers representing the samples of the \_\_\_\_\_ of the audio signal:
- (A) Amplitude (B) Time period  
(C) Frequency (D) Phase
85. \_\_\_\_\_ amplifier is the final amplification stage.
- (A) Voltage amplifier (B) Current  
(C) Power (D) Feedback
86. The audio voltage amplifier is always \_\_\_\_\_ type.
- (A) Class A (B) Class B  
(C) Class C (D) Class AB
87. \_\_\_\_\_ is used for impedance matching in push pull amplifier.
- (A) Transistor (B) Capacitor  
(C) Resistor (D) Transformer
88. \_\_\_\_\_ amplifier is used as pre-amplifiers.
- (A) Voltage (B) Power  
(C) Feedback (D) Current
89. \_\_\_\_\_ boosts high frequencies in audio amplifiers.
- (A) Volume control (B) Gain control  
(C) Bass control (D) Treble control
90. Velocity higher than the velocity of sound is called :
- (A) Ultrasonic (B) Infrasonic  
(C) Supersonic (D) None of these
91. The resistance of a loud speaker is usually :
- (A) a few mega-ohms (B) a few kilo-ohms  
(C) a few ohms (D) a few hundred-ohms
92. In push-pull amplifier each transistor conducts for :
- (A)  $90^\circ$  (B)  $45^\circ$   
(C)  $360^\circ$  (D)  $180^\circ$

93. The gradual fading of continuing echo is called :
- (A) Reflection (B) Absorption  
(C) Diffraction (D) Reverberation
94. Optical recording of sound on compact discs is done with the help of :
- (A) Electron beam (B) Magnetic effect  
(C) Laser beam (D) None of these
95. The most commonly used transistor amplifier circuit is :
- (A) Common base (B) Common collector  
(C) Common base or common collector (D) Common emitter
96. The distance between two successive regions of compression or rarefaction of a sound wave is known as :
- (A) Amplitude (B) Frequency  
(C) Velocity (D) Wavelength
97. What is the intensity of sound for normal conversation?
- (A) 80 dB (B) 120 dB  
(C)  $10^{-10} \text{ w/m}^2$  (D) 50 dB
98. PA systems use \_\_\_\_\_ type loudspeaker.
- (A) Horn type (B) Cone type  
(C) Electro dynamic (D) None of these
99. \_\_\_\_\_ is the power amplifier used in audio system.
- (A) RC coupled amplifier (B) Direct coupled amplifier  
(C) Voltage amplifier (D) Push-pull amplifier
100. Any unwanted sound produced in an audio system is called :
- (A) Distortion (B) Deflection  
(C) Frequency distortion (D) Noise