

MIZORAM PUBLIC SERVICE COMMISSION

COMPETITIVE EXAMINATIONS FOR JUNIOR GRADE OF M.E.S. (AE/SDO (CIVIL)) UNDER PUBLIC HEALTH ENGINEERING DEPARTMENT, MARCH, 2017.

GENERAL STUDIES

Time Allowed : 3 hours

FM : 100

Attempt all questions.

All questions carry equal marks of 1 each.

1. Which day is observed as World No Tobacco Day ?
 - (a) 15th July
 - (b) 31st December
 - (c) 1st January
 - (d) 31st May
2. Exposure to sunlight helps a person improve his health because
 - (a) the infrared light kills bacteria in the body
 - (b) resistance power increases
 - (c) the pigment cells in the skin get stimulated and produce a healthy tan
 - (d) the ultraviolet rays convert skin oil into Vitamin D
3. First China War was fought between
 - (a) China and Britain
 - (b) China and France
 - (c) China and Egypt
 - (d) China and Greek
4. Golden handshake refers to:
 - (a) Handshake by giving gold
 - (b) Voluntary retirement scheme
 - (c) Agreement on gold export
 - (d) Celebration of golden jubilee
5. Who is regarded as the father of Green Revolution ?
 - (a) C.H.Hanumantha Rao
 - (b) G.S.Bhalla
 - (c) Vijay Kelkar
 - (d) M.S.Swaminathan
6. The first Mizoram Assembly election was held in:
 - (a) April, 1972
 - (b) May 1987
 - (c) November 1986
 - (d) November 1966
7. FRS stands for
 - (a) Fellow Research System
 - (b) Federation of Regulation Society
 - (c) Fellow of the Royal Society
 - (d) None of these
8. Escape velocity of a rocket fired from the earth towards the moon is a velocity to get rid of the
 - (a) Earth's gravitational pull
 - (b) Moon's gravitational pull
 - (c) Centripetal force due to the earth's rotation
 - (d) Pressure of the atmosphere
9. For safety, the fuse wire used in the mains for household supply of electricity must be made of metal having
 - (a) low melting point
 - (b) high resistance
 - (c) high melting point
 - (d) low specific heat

Directions (For questions 10 to 21): Each of the following sentences has a blank space and four words are given after the sentence. Select whichever word you consider most appropriate for the blank space and indicate your choice on the answer sheet.

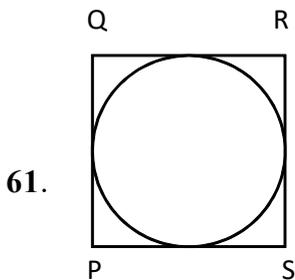
10. His _____ directions misled us, we did not know which road to take.
(a) complex (b) obscure
(c) mingled (d) vague
11. He was very friendly with the press and it really _____ him even for what he did not achieve.
(a) praised (b) lionized
(c) appreciated (d) highlighted
12. I refused to _____ his rudeness any longer.
(a) put up (b) put up with
(c) put out (d) put out with
13. Durand Cup is associated with the game of
(a) Cricket (b) Football
(c) Hockey (d) Volleyball
14. Headquarters of UNO are situated at
(a) New York, USA (b) Hague (Netherlands)
(c) Geneva (d) Paris
15. For seeing objects at the surface of water from a submarine under water, the instrument used is
(a) kaleidoscope (b) periscope
(c) spectroscope (d) telescope
16. G-15 is an economic grouping of
(a) First World Nations (b) Second World Nations
(c) Third World Nations (d) Fourth World Nations
17. Fathometer is used to measure
(a) Earthquakes (b) Rainfall
(c) Ocean depth (d) Sound intensity
18. For galvanizing iron which of the following metals is used?
(a) Aluminium (b) Copper
(c) Lead (d) Zinc
19. For purifying drinking water alum is used
(a) for coagulation of mud particles (b) to kill bacteria
(c) to remove salts (d) to remove gases
20. Himalayan Mountaineering Institute is at
(a) Darjeeling (b) Dehradun
(c) Marmago (d) Dispur
21. Free surface of a liquid behaves like a sheet and tends to contract to the smallest possible area due to the
(a) force of adhesion (b) force of friction
(c) centrifugal force (d) force of cohesion

22. Fa-Hien was
- (a) the first Buddhist pilgrim of China to visit India during the reign of Chandragupta Vikramaditya
 - (b) the discoverer of Puerto Rico and Jamaica
 - (c) the first Buddhist pilgrim of India to visit China
 - (d) none of these
23. Brass gets discoloured in air because of the presence of which of the following gases in air?
- (a) Oxygen
 - (b) Hydrogen sulphide
 - (c) Carbon dioxide
 - (d) Nitrogen
24. Which of the following is used in pencils?
- (a) Graphite
 - (b) Silicon
 - (c) Charcoal
 - (d) Phosphorous
25. Which of the following metals forms an amalgam with other metals?
- (a) Tin
 - (b) Mercury
 - (c) Lead
 - (d) Zinc
26. Chemical formula for water is
- (a) NaAlO_2
 - (b) H_2O
 - (c) Al_2O_3
 - (d) CaSiO_3
27. The gas usually filled in the electric bulb is
- (a) nitrogen
 - (b) hydrogen
 - (c) carbon dioxide
 - (d) oxygen
28. Washing soda is the common name for
- (a) Sodium carbonate
 - (b) Calcium bicarbonate
 - (c) Sodium bicarbonate
 - (d) Calcium carbonate
29. The hardest substance available on earth is
- (a) Gold
 - (b) Iron
 - (c) Diamond
 - (d) Platinum
30. Which of the following is used as a lubricant?
- (a) Graphite
 - (b) Silica
 - (c) Iron Oxide
 - (d) Diamond
31. The average salinity of sea water is
- (a) 3%
 - (b) 3.5%
 - (c) 2.5%
 - (d) 2%
32. When an iron nail gets rusted, iron oxide is formed
- (a) without any change in the weight of the nail
 - (b) with decrease in the weight of the nail
 - (c) with increase in the weight of the nail
 - (d) without any change in colour or weight of the nail
33. Non stick cooking utensils are coated with
- (a) Teflon
 - (b) PVC
 - (c) Black paint
 - (d) Polystyrene

34. Most soluble in water is
- (a) camphor (b) sulphur
(c) common salt (d) sugar
35. Permanent hardness of water can be removed by adding
- (a) chlorine (b) washing soda
(c) potassium permanganate (d) bleaching powder
36. Which metal pollute the air of a big city?
- (a) Copper (b) Chromium
(c) Lead (d) Cadmium
37. What is the unit for measuring the amplitude of a sound?
- (a) Decibel (b) Coulomb
(c) Hum (d) Cycles
38. Electric current is measure by
- (a) commutator (b) anemometer
(c) ammeter (d) voltmeter
39. Examine the following statements:
1. Rama scored more than Rani.
 2. Rani scored less than Ratna.
 3. Ratna scored more than Rama.
 - 4 Padma scored more than Rama but less than Ratna
- Who scored the highest?
- (a) Rama (b) Padma
(c) Rami (d) Ratna
40. Examine the following statements:
1. None but students are members of the club.
 2. Some members of the club are married persons.
 3. All married persons are invited for dance.
- Which one of the following conclusions can be drawn from the above statements?
- (a) All students are invited for dance.
(b) All married students of the club are invited for dance.
(c) All members of the club are married persons.
(d) None of the above conclusions can be drawn
41. Consider the following statement:
- The Third World War, if it ever starts, will end very quickly with the possible end of civilization. It is only the misuse of nuclear power which will trigger it.
- Based on the above statement, which one of the following inferences is correct?
- (a) Nuclear power will be used in the Third World War.
(b) There will be no civilization left after the Third World War.
(c) The growth of nuclear power will destroy civilization in the long run.
(d) The Third World War will not take place.

42. Which of the following numbers is greater than $-3/2$?
- (a) -3 (b) $-4/3$
(c) -2 (d) $-5/3$
43. Normally, the temperature decreases with the increase in height from the Earth's surface because
1. The atmosphere can be heated upwards only from the Earth's surface
 2. There is more moisture in the upper atmosphere
 3. The air is less dense in the upper atmosphere
- Select the correct answer using the codes given below:
- (a) 1 only (b) 2 and 3 only
(c) 1 and 3 only (d) 1,2 and 3
44. Knot is a unit of speed of which of the following?
- (a) Aeroplane (b) Light waves
(c) Ship (d) Sound waves
45. Under National e-Governance Plan, SWAN stands for;
- (a) State Wide Area Network (b) State Wise Area Network
(c) System Wise Area Network (d) System Wide Area Network
46. The members of Lok Sabha hold office for a term of
- (a) 4 years (b) 5 years
(c) 6 years (d) 3 years
47. The minimum age to qualify for election to the Lok Sabha is
- (a) 25 years (b) 21 years
(c) 18 years (d) 35 years
48. The members of the Rajya Sabha are
- (a) directly elected by the people on the basis of universal adult franchise
(b) elected by the members of the state legislative assemblies
(c) elected by the members of the state legislative councils
(d) elected by the members of the state legislative councils and state legislative assemblies
49. The oath of office is administered to the members of state council of ministers by
- (a) the governor (b) the chief minister
(c) chief justice of the state high court (d) speaker of legislative assembly
50. The oath of office is administered to the Governor by the
- (a) chief justice of India (b) president
(c) chief justice of high court (d) speaker of legislative assembly
51. The minimum age required to become a member of Rajya Sabha is
- (a) 21 years (b) 25 years
(c) 30 years (d) 35 years
52. In which article of Indian Constitution the National Emergency can be declared ?
- (a) Article 356 (b) Article 352
(c) Article 360 (d) Article 320
53. The members of the State Public Service Commission are appointed by the
- (a) chief minister (b) chief justice
(c) governor (d) vice-president

54. The humidity of the air depends upon
(a) temperature (b) location
(c) weather (d) All of these
55. The highest average salinity amongst the following seas is reported from
(a) Dead Sea (b) Red Sea
(c) Black Sea (d) Mediterranean Sea
56. The island state of Australia is
(a) Victoria (b) Queensland
(c) Tasmania (d) New South Wales
57. The island of Sri Lanka is formerly known as
(a) Madagascar (b) Tasmania
(c) Ceylon (d) None of these
58. The imaginary axis at which the earth rotates remains inclined at an angle of ____ to the plane of earth's orbit.
(a) $44\frac{1}{2}^\circ$ (b) $55\frac{1}{2}^\circ$
(c) $66\frac{1}{2}^\circ$ (d) 0°
59. Which scientist discovered the radioactive element radium?
(a) Isaac Newton (b) Albert Einstein
(c) Benjamin Franklin (d) Marie Curie
60. Which one of the following was invented by James Watt?
(a) Diving bell (b) Steam boat
(c) Hot air balloon (d) Rotary steam engine



- In the figure above, the circle inscribed in PQRS has radius 3. What is the perimeter of the square ?
(a) 9 (b) 24
(c) 36 (d) 54
62. A person stood alone in a desert on a dark night and wanted to reach his village which was situated 5 km east of the point where he was standing. He had no instruments to find the direction but he located a polestar. The most convenient way now to reach his village is to walk in the
(a) direction facing the polestar
(b) direction opposite to the polestar
(c) direction keeping the polestar to his left
(d) direction keeping the polestar to his right
63. Who invented Gramophone?
(a) Michael Faraday (b) Fahrenheit
(c) Sir Alexander Graham Bell (d) Thomas Alva Edison

64. Who invented the battery?
- (a) John Wilkinson (b) Alessandro Volta
(c) James Hargreaves (d) Thomas Edison
65. The initials JCB on earth-moving equipment are those of the founder of the company that makes it. What is his name?
- (a) John Christopher Ballantyne (b) Joseph Cyril Bamford
(c) John Christopher Baxter (d) Jack Croxford Baker
66. Who invented Fountain Pen?
- (a) John J. Loud (b) Sir Frank Whittle
(c) Lewis E. Waterman (d) Kirkpatrick Macmillan

Directions (Answer questions 67 to 70 from the following passage):

PASSAGE

Have you ever heard someone sing, “Happy birthday to you . . . happy birthday to you . . .”? If so, you are hardly alone—millions of people sing that song every year, and the tune is one of the most familiar of any song in North America.

Ironically, it is not known who wrote it! The tune was written by two sisters, Patty and Mildred Hill, who were school teachers in the late 19th century. But their song had different words; instead of “happy birthday to you,” the song ran “good morning to all.” The two sisters would sing this ditty to their students each morning as school began.

In 1924, the tune was published in a song book, which added the “happy birthday” lyrics as verse two. Today, the second verse of that song has become one of the best known tunes in the world—and nobody knows who wrote the words!

67. According to the passage, who wrote the tune to “Happy Birthday”?
- (a) two priests (b) Irving Berlin
(c) Patty and Mildred Hill (d) It is not known.
68. Why is it ironic that the author of the words to “Happy Birthday” is not known?
- (a) because almost everyone knows the song
(b) because it shows how unjust life can be
(c) because of modern copyright laws
(d) because it was published in 1924
69. The under lined word *ditty*, as used in the passage, most nearly means
- (a) silly (b) shoe
(c) flower (d) short song
70. A good title for this passage would be
- (a) A History of “Happy Birthday”
(b) Famous song in North America
(c) Unknown Author
(d) Song Book – 1924

71. The five permanent members of UN security council are
- (a) Japan, West Germany, Russia, UK and USA
 - (b) Canada, China, France, Russia and USA
 - (c) Germany, China, Russia, UK and USA
 - (d) China, France, Russia, UK and USA
72. Which of the following is the headquarters of World Trade Organisation (WTO)?
- (a) New York
 - (b) Geneva
 - (c) Madrid
 - (d) Paris
73. The nucleus of an atom consists of
- (a) electrons and neutrons
 - (b) electrons and protons
 - (c) protons and neutrons
 - (d) all of these
74. The inherited traits of an organism are controlled by
- (a) RNA molecules
 - (b) nucleotides
 - (c) DNA molecules
 - (d) enzymes
75. The major constituent of air is
- (a) nitrogen
 - (b) carbon dioxide
 - (c) oxygen
 - (d) hydrogen
76. The most important ore of aluminium is
- (a) bauxite
 - (b) magnetite
 - (c) haematite
 - (d) monazite
77. The ratio of width of our National flag to its length is
- (a) 3:5
 - (b) 2:3
 - (c) 2:4
 - (d) 3:4
78. Metals are good conductors of electricity because
- (a) they contain free electrons
 - (b) the atoms are lightly packed
 - (c) they have high melting point
 - (d) All of these
79. RADAR is used for
- (a) locating submerged submarines
 - (b) receiving a signals in a radio receiver
 - (c) locating geostationary satellites
 - (d) detecting and locating the position of objects such as aeroplanes
80. Inside an aeroplane, flying at a high altitude,
- (a) the pressure is the same as that outside
 - (b) normal atmospheric pressure is maintained by the use of air pumps
 - (c) the pressure inside is less than the pressure outside
 - (d) normal humidity and partial vacuum are maintained
81. Superconductors are substances which
- (a) conduct electricity at low temperature
 - (b) offer high resistance to the flow of current
 - (c) offer no resistance to the flow of electricity
 - (d) conduct electricity at high temperatures
82. Optical fibre works on the
- (a) principle of refraction
 - (b) total internal reflection
 - (c) scattering
 - (d) interference

- 83.** Light from the nearest star to the earth Alpha Centauri reaches the earth in
(a) 4.2 seconds (b) 42 seconds
(c) 4.2 years (d) 42 years
- 84.** Supersonic plane fly with the speed
(a) less than the speed of sound (b) of sound
(c) greater than the speed of sound (d) of light
- 85.** Solar eclipse will take place when
(a) the sun is between the moon and the earth
(b) the earth is between the moon and the sun
(c) the moon is between the sun and the earth
(d) the moon does not lie on the line joining the sun and the earth
- 86.** Planets are
(a) luminous heavenly bodies revolving around a star
(b) non-luminous heavenly bodies
(c) luminous heavenly bodies that twinkle
(d) luminous heavenly bodies that do not twinkle
- 87.** Rain is falling vertically downwards. To a man running east-wards, the rain will appear to be coming from
(a) east (b) west
(c) northeast (d) southeast
- 88.** The central banking functions in India are performed by the
(a) Central Bank of India (b) Reserve Bank of India
(c) State Bank of India (d) Punjab National Bank
- 89.** Plants receive their nutrients mainly from
(a) chlorophyll (b) atmosphere
(c) light (d) soil
- 90.** Photosynthesis generally takes place in which parts of the plant?
(a) leaf (b) stem
(c) roots (d) bark
- 91.** Plants absorb most part of water needed by them through their
(a) leaf (b) stem
(c) roots (d) bark
- 92.** Most highly intelligent mammals are
(a) whales (b) dolphins
(c) elephants (d) kangaroos
- 93.** Myopia is connected with
(a) ears (b) eyes
(c) lungs (d) none of these
- 94.** The book India 2020 : Vision for the New Millenium has been written by _____
(a) Shiv Khera (b) M. R. Srinivasan
(c) Vikram Seth (d) Dr A.P.J. Abdul Kalam

95. 'Ashoka Chakra' is awarded for _____
- (a) outstanding contribution to literature
 - (b) act of gallantry by children
 - (c) act of gallantry in the presence of the enemy
 - (d) the most conspicuous bravery or self-sacrifice on land, air or sea but not in the presence of the enemy.
96. Who was the main leader of the 'Quit India Movement'?
- (a) Jawaharlal Nehru
 - (b) Subash Chandra Bose
 - (c) Mahatma Gandhi
 - (d) Lala Lajpat Rai
97. The study of 'Oncology' deals with _____
- (a) Cancer
 - (b) Tissues
 - (c) Birds
 - (d) Mammals
98. Night blindness is caused by lack of which vitamin?
- (a) Vitamin A
 - (b) Vitamin B
 - (c) Vitamin C
 - (d) Vitamin D
99. Oxygen in our blood is transported by a protein named
- (a) haemoglobin
 - (b) keratin
 - (c) collagen
 - (d) myoglobin
100. Pollen grains in plants are produced in
- (a) roots
 - (b) leaves
 - (c) flower
 - (d) stem

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