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Total No. of Pages : 14

**Shivaji University, Kolhapur**  
**Yashwantrao Chavan School of Rural Development**  
**M.Tech. (Rural Technology) Entrance Test 2023**  
**Sub. Code : 71140**

Day and Date : Tuesday, 08-08-2023

Total Marks : 100

Time : 3.30 p.m. to 05.00 p.m.

Note - Each Question carries one mark

- 1. Made from a variety of materials, such as carbon, which inhibits the flow of current?**
  - a. Choke
  - b. Inductor
  - c. Resistor
  - d. Capacitor
- 2. What frequency range is the High Frequency band?**
  - a. 100 kHz
  - b. 1 GHz
  - c. 30 to 300 MHz
  - d. 3 to 30 MHz
- 3. One hectare is equal to**
  - a. 5 acres
  - b. 2.471 acres
  - c. 10 acres.
  - d. None of these.
- 4. Which of the following serves as a cooling and ventilation of engine lubricating oil?**
  - a. Piston
  - b. cam shaft
  - c. oil sump
  - d. crank case
- 5. What is the unit for measuring the amplitude of a sound?**
  - a. Cycles
  - b. Coulomb
  - c. Hum
  - d. Decibel

**6. The function of compressor**

- a. Is to increase pressure of air
- b. Is to decrease pressure of air
- c. Is to increase speed of air
- d. None of these..

**7. Water contains**

- a. One hydrogen atom and one oxygen atom
- b. Two hydrogen atoms and one oxygen atom
- c. one hydrogen atom and two oxygen atoms
- d. three hydrogen atoms and two oxygen atoms

**8. Ozone hole refers to**

- a. Hole in ozone layer
- b. decrease in the ozone layer in troposphere
- c. decrease in thickness of ozone layer in stratosphere
- d. increase in the thickness of ozone layer in troposphere

**9. Which of the following are Milk Processing Operations?**

- a. Clarification
- b. Pasteurization
- c. Homogenization
- d. All of the mentioned

**10. Malaria is caused by**

- a. Bacteria
- b. Mosquito
- c. Protozoa
- d. Virus

**11. Full form of COD is;**

- a. Catalytic Oxygen Demand
- b. Chemical Oxygen Demand
- c. Colloidal Oxide Demand
- d. None of these.

**12. What is mean by FSI?**

- a. Floor Space Index
- b. Free Site Inspection
- c. Free Site Index
- d. Flat Square Index

**13. 'Global warming' leads to**

- a. Low level of oxygen
- b. High level of oxygen
- c. Floods and droughts
- d. Rain forests

**14. The ratio of work done per cycle to the stroke volume of the compressor is known as**

- a. compressor capacity
- b. compression ratio
- c. compressor efficiency
- d. mean effective pressure

**15. Cast iron is manufactured in**

- a. blast furnace
- b. cupola
- c. open hearth furnace
- d. bessemer converter

**16. Which of the following is not an explosive?**

- a. TNT
- b. CMC
- c. RDX
- d. Lead azide

**17. Which of the following parameter is not necessary for the description of an automobile?**

- a. Model
- b. Type
- c. Capacity
- d. Colour

**18. The lowest part of a structure which transmits the load to the soil is known as**

- a. Super structure
- b. Plinth
- c. Foundation
- d. Basement

**19. With respect to the definition of an allied industry, which is an allied industry with the food industry?**

- a. Explosives Industry
- b. Packaging Industry
- c. Jute Industry
- d. Leather Industry

**20. Hydroelectric power plant converts**

- a. Mechanical energy to chemical energy
- b. Hydraulic to mechanical to electrical energy
- c. Chemical energy to mechanical energy
- d. None of above

**21. Radar is used for**

- a. Locating Submerged submarines
- b. Receiving the signals in the radio receiver
- c. Locating geostationary satellites
- d. Detecting and locating position of objects such as acroplanes

**22. Which country is known as land of windmills?**

- a. Netherland
- b. Scotland
- c. Finland
- d. Bangladesh

**23. Persons working in cement plants and limestone quarries are more prone to disease like**

- a. cancer
- b. asthama
- c. silicosis
- d. fluorosis (bone disease)

**24. World water day is on;**

- a. 21<sup>st</sup> march.
- b. 21<sup>st</sup> April.
- c. 22<sup>nd</sup> march.
- d. 22<sup>nd</sup> April.

**25. Viscosity is defined as**

- a. Resistance of the body
- b. Resistance to flow
- c. Acceptance to flow
- d. None of above

**26. Pi is equal to**

- a. 3
- b. 2
- c. 1
- d. 3.142

**27. Pick up the correct statement from the following:**

- a. pH value indicates acidity and alkalinity of sewage
- b. In acidic sewage, the pH value is less than 7
- c. In alkaline sewage, pH value is more than 7
- d. All of above

**28. Intensity of Heat is expressed in**

- a. Volts
- b. Kg
- c. Joule
- d. Ampere

**29. PDF extension usually refers to**

- a. Post dispatch findings
- b. Portable document format
- c. Portable dispatch format
- d. All of above

**30. Pick out the scalar quantity**

- a. Force
- b. Velocity
- c. Pressure
- d. Acceleration

**31. SI unit for the density, is**

- a.  $\text{kg/m}^4$
- b.  $\text{kg/m}^2$
- c.  $\text{kg/m}$
- d.  $\text{Kg/m}^3$

**32. Normal temperature of human body is-**

- a. 98.6 Degree Farenheight.
- b. 95.6 Degree Farenheight.
- c. 95.3 Degree Farenheight.
- d. None of these

**33. Speed of sound does not depend on-**

- a. Temperature
- b. Humidity
- c. Pressure
- d. None of these

**34. Disease caused due to less production of insulin is-**

- a. Diabetes
- b. Jaundice.
- c. Encephalitis
- d. None of these.

**35. Night blindness is deficiency disease of vitamin-**

- a. Vitamin D
- b. Vitamin A
- c. Vitamin K.
- d. Vitamin C

**36. Fog is an example of colloidal system of**

- a. solid dispersed in gas
- b. solid dispersed in liquid
- c. liquid dispersed in gas
- d. gas dispersed in liquid

**37. A solar cell converts the sunlight directly into ..... energy.**

- a. thermal
- b. electrical
- c. mechanical
- d. chemical

**38. Cellulose is the main constituent of most ..... fibres**

- a. acrylic
- b. spandex
- c. synthetic
- d. natural

**39. An ideal vertical curve to join two gradients, is**

- a. circular
- b. parabolic
- c. Elliptical
- d. Hyperbolic

**40. The foundations are placed below ground level, to increase**

- a. strength
- b. workability
- c. stability of structure
- d. all of above

**41. Chemical formula for water is**

- a.  $\text{NaAlO}_2$
- b.  $\text{H}_2\text{O}$
- c.  $\text{Al}_2\text{O}_3$
- d.  $\text{CaSiO}_3$

**42. The state having a largest area of forest cover in India is**

- a. Arunachal Pradesh
- b. Haryana
- c. Madhya Pradesh
- d. Assam

**43. Which of the following is renewable energy source**

- a. petrol
- b. Solar Energy.
- c. diesel
- d. None of these

**44. The nucleus of an atom consists of**

- a. Electron and neutron
- b. Electron and proton
- c. proton and neutron
- d. All of above

**45. Washing soda is the common name for**

- a. Sodium carbonate
- b. Calcium bicarbonate
- c. Sodium bicarbonate
- d. Calcium carbonate

**46. Layer of atmosphere in which Ozone layer lies is**

- a. Exosphere
- b. Mesosphere
- c. Troposphere
- d. Stratosphere

**47. Exchange of outgoing and incoming radiations that keeps Earth warm is known as**

- a. greenhouse effect
- b. radiation effect
- c. infrared effect
- d. ozone layer depletion

**48. The minimum age to qualify for election to the Lok Sabha is**

- a. 25 years
- b. 21 years
- c. 18 years
- d. 35 years

**49. 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

**50. The World Environment Day is celebrated on**

- a. 7 April
- b. 5 June
- c. 6 August
- d. 16 June

**51. Entomology is the science that studies**

- a. Behaviour of human beings
- b. Insects
- c. The origin and history of technical and scientific terms
- d. Formation of rocks

**52. The birthday of which of the leader in India is observed as Children's day?**

- a. Mahatma Gandhi
- b. S. Radhkrishnan
- c. Rajiv Gandhi
- d. Jawaharlal Nehru

**53. What is mean FSI**

- a. Floor Space Index
- b. Free Site Inspection
- c. Free Site Index
- d. Flat Square Index

**54. Which of the gas is not known as green house gas?**

- a. Methane
- b. Nitrous oxide
- c. Carbon dioxide
- d. Hydrogen

**55. The element common to all acids is**

- a. Hydrogen
- b. Carbon
- c. Sulphur
- d. Oxygen

**56. Of the various non-conventional energy sources that are being tapped, which has the largest potential?**

- a. Solar power
- b. Wind power
- c. Geothermal power
- d. None of these

**57. Wood is the main raw material for the manufacture of**

- a. paper
- b. paint
- c. ink
- d. gun powder

**58. Insulation is used to-**

- a. decrease heat transfer rate
- b. increase heat transfer rate
- c. none of above
- d. All the above



**59. Water functions in the body to**

- a. serve as a medium for chemical reactions
- b. dissolve oxygen
- c. induce glycogen
- d. moderate metabolism

**60. Ecology deals with**

- a. Birds
- b. Cell formation
- c. Relation between organism and their environment
- d. Tissues

**61. 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

**62. 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

**63. What is the end product of anaerobic treatment?**

- a. oxygen
- b. methane
- c. Nitrogen
- d. hydrogen

**64. The force per unit length is the unit of**

- a. Surface tension
- b. Compressibility
- c. Capillarity
- d. Viscosity

**65. Nuclear reactors are used**

- a. to produce heat for thermoelectric power
- b. to produce fissionable material
- c. to propel ships, submarines, aircraft
- d. all of the above

**66. The main job of a CPU is to**

- a. carry out program instructions
- b. store data/ information for future use
- c. process data and information
- d. both a and b

**67. The primary goal of a computer is to turn data into -**

- a. ideas
- b. suggestions
- c. information
- d. reports

**68. Central co-operative banks are in direct touch with**

- a. Farmers
- b. State co-operative banks
- c. Land development banks
- d. Central government

**69. ICICI is the name of a**

- a. Chemical industry
- b. Corporation
- c. Bureau
- d. Financial institution

**70. Rain in which acids are combined is classified as**

- a. acid rain
- b. allotropic rain
- c. fossil rain
- d. deoxygenated rain

**71. The solid waste which is easily degradable that is called as**

- a. Plastic waste
- b. Inorganic waste
- c. Organic waste
- d. All of above

**72. What is the full form of GST**

- a. Goods and Services Tax
- b. Goods and Sales Tax
- c. Gross Service Tax
- d. Goods and Stability Tax

**73. Which of the following is used to measure the discharge?**

- a. current meter
- b. venturi meter
- c. pitot tube
- d. hotwire anemometer

**74. Ground water is accessed by .....**

- a. Drilling wells
- b. Drip irrigation
- c. Check bunds
- d. Constructing canals

**75. The function of water pump is to .....**

- a. transfer air from lower height to higher height
- b. transfer air from higher height to lower height
- c. transfer water from higher height to lower height
- d. transfer water from lower height to higher height

**76. A person of good understanding knowledge and reasoning power**

- a. Expert
- b. Intellectual
- c. Snob
- d. Literate

**77. The application letter is:**

- a. a statement of your job objective
- b. a description of your core strengths and suitability for the job
- c. a summary of your qualifications and experience
- d. a foreword

**78. Select the pair which has the same relationship.**

**GRAIN: SALT**

- a. shard: pottery
- b. shred: wood
- c. blades; grass
- d. chip: glass

**79. Choose the correct alternative for underlined word which improve the sentence.**

**Taxpayers are to be conscious of their privileges.**

- a. have to
- b. need
- c. ought to
- d. No improvement

**80. Find the correctly spelt word**

- a. Benefitted
- b. Benifited
- c. Benefited
- d. Benefeted

**81. Find the correctly spelt word**

- a. Humorous
- b. Ganerous
- c. Pupolous
- d. Maretorious

**82. Find out the proper sequence: When he**

P: did not know

Q: he was nervous and

R: heard the hue and cry at midnight

S: What to do

The Proper sequence should be:

- a. RQPS
- b. QSPR
- c. SQPR
- d. PQRS

**83. Choose the synonym for Brief**

- a. Limited
- b. Small
- c. Little
- d. Short

**84. Types of interview include**

- a. Job interview
- b. delegation
- c. appraisal
- d. all of above

**85. The skills of enquiry are mainly**

- a. speaking skills
- b. listening skills
- c. creating and sharing ideas
- d. all of above

**86. Find the odd one out**

- a. Circle: Arc
- b. Chair: Leg
- c. Flower: Petal
- d. Cover: Page

**87. Fill up to blanks picking out from the choices.**

We are .....to have him .....here to make this function a great success.

- a. pleased, over
- b. sure, come
- c. wonderful, again
- d. happy, arrive

**88. Give the antonym for the word Elevation**

- a. Depreciation
- b. Depreciation
- c. Deflation
- d. Depression

**89. refers to the time of action.**

- a. Tense
- b. Transitive
- c. Intransitive
- d. Main

**90. Fill in the blank with proper word. The rain comes ..... the clouds.**

- a. in
- b. near
- c. from
- d. under

**91. Effective paraphrasing avoids the risk of**

- a. Changing
- b. Noting
- c. Copying
- d. Plagiarism

**92. The language of the report should be**

- a. Formality
- b. Formal
- c. Casual
- d. Official

**93. Any word that adds more meaning to the noun is called an**

- a. Adverb
- b. Verb
- c. Adjective
- d. Noun

**94. Before, the meeting is concluded, there must be a**

- a. Summary
- b. Question
- c. Discussion
- d. Agenda

**95. Which of these must be avoided in meeting?**

- a. Patience
- b. Tact
- c. Leadership
- d. Criticism

**96. A group of words that gives the complete meaning is called as**

- a. clause
- b. sentence
- c. phrase
- d. principal clause

**97. Controlling the audience include**

- a. eye contact
- b. your face
- c. gestures
- d. all of above

**98. Speaking to a group of people in an official gathering is called as**

- a. Oral presentation
- b. Meeting
- c. Visual presentation
- d. Audio presentation

**99. The skills of enquiry are mainly**

- a. speaking skills
- b. listening skills
- c. creating and sharing ideas
- d. all of above

**100. Reading comprehension means understanding a ..... text.**

- a. Oral
- b. Written
- c. Usual
- d. Audio