_

| | | SEAL | | GIREEN SET | | | | |
|----|---|-------------------------------------|----------|-----------------------------|--|--|--|--|
| 1. | Hiral | kud dam has been built on the river | | | | | | |
| | (A) | Cauvery | (B) | Mahanadi | | | | |
| | (C) | Krishna | (D) | Yamuna | | | | |
| | | | | | | | | |
| 2. | Who received the first Nobel prize in Physics in India? | | | | | | | |
| | (A) | Dr. C.V. Raman | (B) | Dr. Hargobind Khurana | | | | |
| | (C) | Prof. C.N.R. Rao | (D) | Prof. Narlikar | | | | |
| 3. | Whie | h of the following books was banned | by all M | Iuslim countries and India? | | | | |
| | (A) | The Shame Within | (B) | Discovery of India | | | | |
| | (C) | Satanic Verses | (D) | Beyond Expanse | | | | |
| | | | | | | | | |
| 4. | IGM | DP, in Indian context, is a | | | | | | |
| | (A) | Management Development Progra | mme | | | | | |
| | (B) | Monetary Policy | | | | | | |
| | (C) | Missile Programme | | | | | | |
| | (D) | Marketing Policy in Management | Studies | | | | | |
| 5. | Who | is the Secretary General of United | Nations? | | | | | |
| | (A) | David Cameron | (B) | Stephen Harper | | | | |
| | (C) | Jung Hong-Won | (D) | Ban Ki-Moon | | | | |
| | | | | 1 NV 8 1 1 1 1 1 2 | | | | |
| 6. | With | h reference to water pollution, BOD | means | | | | | |
| | (A) | Biochemical Oxygen Dilution | (B) | Biochemical Oxygen Deman | | | | |

- (C) Bio Organic Dissolutes (D) Basic Organic Dissolutes

,

| 7. | Appro | x. percentage of | foxygen | in Earth's | atmosphe | ere is | | | |
|-----|--------|------------------|-----------|------------|----------|-----------|------------|-------------|--------|
| | (A) | 17% | (B) 2 | 1% | (C) | 25% | (D) | 33% | |
| 8. | In the | context of gene | tics, DN | A stands f | or | | | | |
| | (A) | Di-Neuro Acid | | | (B) | Daily New | s Analysis | | |
| | (C) | Detoxic Neuro | Acid | | (D) | Deoxyribo | Nucleic A | cid | |
| | | le la sa | | | | | | | |
| 9. | In the | context of Info | rmation | Technolog | y, OCR m | eans | | | |
| | (A) | Optical Charac | cter Reco | gnition | (B) | Octagonal | Cyclic Re | charge | |
| | (C) | Octadecimal C | yclic Reg | generation | (D) | Optical C | haracter R | egeneration | |
| TSD | 01114 | | | | 14 | | | | |
| 1 | | | | | | | | | |
| | | 1 | | | | | | | 10.7 9 |
| | | | | | | | | | |

| 52 | | |
|------|-----|---|
| | 10. | If Arun is Chetna's son, Chetna and Kavita are sisters, Jyoti is Kavita's mother, Parth is the son of Jyoti, then |
| | | (A) Parth and Arun are cousins (B) Parth is maternal uncle of Arun |
| Sea. | | (C) Kavita is Arun's grandmother (D) Parth is maternal uncle of Kavita |
| | | |
| | 11. | Find the next number in the series : |
| | | 10, 100, 200, 310, |
| | | (A) 430 (B) 510 (C) 400 (D) 420 |
| | | |

| Hatched A | Answei | r Key i | s the correct | option | | | | | |
|-----------|--------|---------|-----------------------------------|----------|----------------|---------|-----------------|----------------------------|-----------------------------------|
| | 12. | | an is facing N takes a right t | | | | | complete | s 3/4 th of the circle |
| | | (A) | East | (B) | West | (C) | | (D) | South |
| - | | | | | | | | | |
| | 13. | In a | certain code N | IONKEY | is coded as X | DJMNL | . How would | the TIGE | R be coded? |
| | | (A) | SDFHS | (B) | UJHFS | (C) | QDFHS | (D) | SHFDQ |
| | 14. | Find | the number t | hat will | replace the | - · · · | | | |
| | | | 3, 5, 8, 13, | | | | | | |
| | | (A) | 20 | (B) | 21 | (C) | 22 | (D) | 23 |
| | | | 1.1 | | | | | 6 19 | |
| | 15. | How | many cubes a | re there | in the figure? | a parti | T. N. T. | | A South State |
| | | | | | | A | | | |
| | | | | 1.44 | ŕ | Ś | 1 | <u>t0</u> | |
| | | | | in the | G | XX | ð | in teh Thaisiye Tina | |
| | | (A) | 6 | (B) | 8 | (C) | 9 | (D) | 10 |
| | 16. | | esh goes 4 kn South, How f | | | | | , then 8 l | cm East and then |
| | | (A) | 2 km | (B) | 1 km | (C) | 0 km | · (D) | 8 km |
| | | 10. | | | | - | | | |
| | 17. | | ne' is related t | | | | | | D |
| | | (A) | Doctor | (B) | Hospital | (C) | Medicine | (D) | Punishment |
| | 18. | | tangents are r. What is the | | | | | ngents ar | e parallel to each |
| | | (A) | 10 cm | (B) | 20 cm | | $10\sqrt{2}$ cm | (D) | $10\sqrt{3}$ cm |

15

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(D)

19. Number of points on x - axis which are 2 units away from the point (4, 1) are (A) 0 (B) 1 (C) 2 (D) infinite 20. If the ratio of height of tower to its shadow is $1:\sqrt{3}$ the angle of elevation of sun is (A) 30° (B) 45° (C) 60° (D) 87¹/₂° The value of (1+0.1+0.11+0.111) is 21. (A) 1.321 (B) 1.211 (C) 1.111 (D) 1.331 22. When a number is divided by 5, it gives remainder 3. What is the remainder when square of that number is divided by 5? (A) 9 (B) 3 (D) 1 (C) 4 23.Find the value of $67^2 - 33^2$. (A) 3200 (B) 3400 (C) 3146 (D) 3143 If two sides of a triangle are given and an angle not included by the two sides is also 24. given, how many triangles can be drawn at the most? (A) 0 (B) 1 (C) 2 (D) 3 4 men can complete a piece of work in 5 days. How many men are required to complete 25. 3 times the work in 4 days? (A) 5 (B) 15 (C) 80 (D) 20 Given that $\log 2 = 0.3$ approx., one billion would be approx. 26. 29 210 (A) (B) 220 (C) 230

| | 27. | In how many different ways can 3 identical white balls and 2 identical red balls be arranged besides each other, in a straight line? | | | | | | | | | | |
|---|-----|--|----------------------|-------------------|---------------|----|-----|----|---|-----|---------------|--|
| | | (A) 6 | | (B) | 10 | | (C) | 12 | | (D) | 120 | |
| | 28. | The value of | sin ² 30° | +sin ² | 60° is | | | | | | | |
| | - | (A) 1 | en [] | (B) | $\frac{3}{2}$ | | (C) | 2 | | (D) | $\frac{3}{4}$ | |
| | TSD | 001114 | • | | | 16 | | | • | | | |
| | | | | | ÷ | | | | | | | |
| | | , | | | | | | | | | | |
| | | 1 and | | | | | | | | | * | |
| 1 | 29. | Match the fol | lowing : | | - ale | | | | | | in mei | |

| - | | I. | Cell wall | (a) Animal cell(b) Plant cell | | | | | |
|---|-----|-----|-----------|--|-----|----------------------------|-----|--------------|--|
| | | 2. | ATP | (a) Mitochondria(b) Genes | | 1. 4 m. 1 | | | |
| | | | | | | | | | |
| | | (A) | 1-(a), 2- | a) (B) 1–(a), 2–(b) | (C) | 1-(b), 2-(a) | (D) | 1-(b), 2-(b) | |
| | | | | | | 1-(b), 2-(a) | (D) | 1-(b), 2-(b) | |
| | 30. | | | a) (B) 1-(a), 2-(b) endrites are associated with | | 1–(b), 2–(a) | (D) | 1-(b), 2-(b) | |
| | 30. | | | | | 1–(b), 2–(a) epithelium | (D) | 1-(b), 2-(b) | |

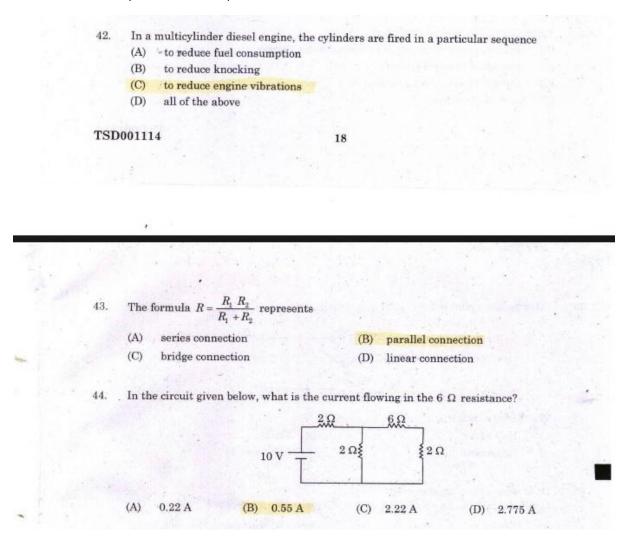
| | (A) | Tendon (B) Fibre | (C) | Axon | (D) Femu |
|-----|--------|---------------------------------------|-------------|----------------|----------------|
| | 44 | Tenuon (D) Thore | (0) | AXOII | (D) Femu |
| 32. | The | human population of globe is appr | oximately | | |
| | (A) | 500 million | (B) | 600 million | |
| | (C) | 6 billion | (D) | 7 billion | and I. |
| 33. | Hem | atology is the study related to | | | |
| | (A) | Plant reproduction system | (B) | Blood | |
| | (C) | Food habits of animals | (D) | Bones | |
| | tr. Is | | (-) | | |
| 34. | Whie | ch of the following is not a food bor | ne disease | ? | - |
| | (A) | Amoebiasis | (B) | Cholera | |
| | (C) | Influenza | (D) | Hepatitis A | |
| | | | | | |
| 35. | Had | rons and Baryons are | | 1.1.1 | |
| | (A) | Industrial chemicals | (B) | Types of subat | omic particles |
| | (C) | Alkalies . | (D) | Cyclotrons | |
| 36. | A ph | eromone secreted by an animal | | | |
| | (A) | influences the behaviour of anim | als of same | e species | |
| | (B) | protects it from predators | | | |
| | (C) | attracts the victims for its food | | | |
| | | | | | |

17

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1.

| | 37. As the speed of charged particle incre | |
|------|--|--|
| | and per an and be particle mere | eases in a cyclotron, (choose True (T) or False (F)) |
| | (a) the particle moves to a larger of | |
| | (b) there is relativistic change in t | |
| Apr. | (c) frequency of the cyclotron has | to be adjusted |
| | (A) F, F, F (B) T, T, T | (C) T, F, T (D) T, T, F |
| | In a thermodynamic system, a pro- process. | cess in which volume remains constant is called |
| | (A) isobaric | (B) isometric |
| | (C) adiabatic | (D) isentropic |
| | | |
| | 39. Coefficient of performance of a commo | ercially used refrigerator would be close to |
| - | (A) 40% (B) 85% | (C) 1.5 (D) 3.5 |
| | and the second | |
| | 40. 1- +1- | |
| | In a thermodynamic system, thermal | equilibrium is achieved when two bodies reach |
| | (A) same thermal energy | (B) same entropy |
| 10 | (C) same temperature | (D) same molecular energy |
| | | |
| | 41. A hot body follows Newton's law of co | oling. Typical temperature-time graph of the cooling |
| | body would be | |
| | Î – | |
| | . (A) the set | (B) E |
| | E G | He L |
| | | |
| | Time | Time |
| | | |
| | • 1 × 1 | 1 , |
| | (C) Herm | (D) Jemb. |
| | | E C |
| | | |
| | Time | Time |



| 45. | 45. A transformer core is made of laminations | |
|-----|--|------------------------|
| | (A) to increase the electrical conductivity of the core | |
| | (B) to increase the permeability of the core | |
| | (C) to reduce eddy currents | |
| | (D) to increase eddy currents and improve efficiency | |
| 46. | Domestic supply of electricity in India is 220 V AC. 220 V refers the voltage. | to the of |
| | (A) rms value (B) peak value | |
| | (C) mean value (D) minimum value | |
| 47. | 47. In a given AC circuit there is a phase difference of $\pi/2$ betwee When the current is at its mark when the interval $\pi/2$ is the second s | n current and voltage. |
| | When the current is at its peak voltage is zero. The circuit is | |
| | (A) resistive (B) inductive | |
| | (C) capacitive (D) can't say | and see all |
| | | |
| 48. | 48. An unknown DC voltage is to be measured. Which measuring ra will you select first? | inge in the multimeter |
| | (A) 500 V (B) 50 V (C) 5 V | (D) 0.5 V |
| | | |
| 49. | 49. The earth conductor provides a path to ground for | |
| | (A) circuit current (B) leakage current | |
| | (C) over current (D) high voltage | |
| | | |

| | 50. | | ider the circuit below : | | and a set of the set o |
|---------|-----|---------------|--|--------|--|
| | | titi v | R• | 7 | Q |
| | | | X | | |
| | | | s.D | - | •Q |
| | 0.3 | This | circuit is called a | | |
| | | (A) | Half adder | (B) | Latch |
| | | (C) | Bit counter | (D) | PIPO device |
| and the | | | | -115 | |
| | 51. | De M | forgan's theorem states that , | | |
| | 100 | (A) | (X+Y)'=Y'+X' | (B) | $(X \cdot Y)' = X' + Y' \cdot$ |
| | | (C) | $(X \cdot Y)' = Y' \cdot X'$ | (D) | (X+Y)' = X' + Y' |
| | 52. | In B | oolean algebra $(\overline{1+1}) \cdot (\overline{0+0}) = ?$ | | |
| | | (A) | 0 (B) 1 | (C) | 2 (D) -1 |
| | | | | | |
| | 53. | | ch of the following is not an I/O device o | | |
| | | (A) | Keyboard | (B) | Joy stick |
| | | (C) | ALU | (D) | Printer |
| | 54. | A bo calle | | d stre | tchers are placed in alternate layers is |
| | | (A) | Header bond | (B) | English bond |
| | | (C) | Flemish bond | (D) | Herring bone bond |
| | 1 | | State of the second second | | Concerns to a subject of participants |
| | 55, | Exce | ess silica in cement | | |
| | | (A) | increases the setting time | (B) | decreases the setting time |
| | | (C) | weakens the strength of the cement | (D) | does not affect the setting time |

,

| | (A) | cambium layer (B) | pitch | (C) | bark | (D) sap | |
|-----|-------|-------------------------|----------------|------|------------|------------------|------|
| 57. | Whic | h lime is most suitable | for white wash | ing? | | | |
| | (A) | quick lime | | (B) | stone lime | A REAL PROPERTY. | |
| | (C) | kankar lime | | (D) | shell lime | | |
| | | | | | | | |
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| | | | + | | | | |

| 58. | from the taller building on a lin | a is 100 m. A surveyor is standing at a distance of 40 m e joining them. If the angle of elevation measured by him es the angle of elevation of the smaller building, what is | | | | | | |
|-----|---|---|--|--|--|--|--|--|
| | (A) 45.3 m | (B) 45.67 m | | | | | | |
| | (C) 46.22 m | (D) Data insufficient | | | | | | |
| | | | | | | | | |
| 59, | A galvanometer is converted to a voltmeter by | | | | | | | |
| | (A) adding a high resistance | n series with the galvanometer | | | | | | |
| | (B) adding a low resistance in | parallel with the galvanometer | | | | | | |
| | (C) increasing the number of | windings of galvanometer coil | | | | | | |
| | (D) decreasing the number of | windings of the galvanometer coil | | | | | | |
| | | | | | | | | |

60.

- A dynamometer is an equipment used to measure
 - (A) current and voltage of generator
 - (B) dynamic loads over cyclic times
 - (C) fatigue propagation due to dynamic loads
 - (D) torque and power of an engine

61. Interferometers are used for measurement of

- (A) changes in life cycle processes due to radiation
- (B) effect of interference of wearing of one mechanical component, on the whole machine
- (C) measurement of very small displacements and surface irregularities
- (D) chemical analysis of compounds
- 62. Sclerometer is used by
 - (A) Astronomers
 - (C) Doctors

- (B) Civil Engineering Surveyors
- (D) Metallurgists
- 63. The word 'Brinell' is associated with
 - (A) soil testing(C) hardness testing
- (B) tensile testing
- (D) testing of seasoning of wood
- 64. What is carbon footprint?
 - (A) measure of radioactivity from a fossil
 - (B) environmental impact because of used cells and batteries
 - (C) total sets of green house gas emissions by organization, individual etc.
 - (D) amount of carbon content in the organic compounds

65. What is floating point with reference to computers?

- (A) It is a software subroutine around which other subroutines are built
- (B) It is a representation of real numbers to facilitate computing
- (C) It is the main algebraic formula of the software
- (D) It is the voltage point given to various operating units of the computer
- 66. A system of digital rules for exchange and processing of data between various devices is called

| (A) | software programme | (B) | algorithm |
|-----|--------------------|-----|------------------------|
| (C) | protocol | (D) | information processing |
| | | | |

A theoretical computer with infinite type and memory, used in analysis of problems of computation, is called
 (A) Topic coloulater

| (A) | Tape calculator | (B) | Babbage machine |
|-----|-----------------|-----|---------------------|
| (C) | Turing machine | (D) | Theoretical machine |

- 68. ASCII coding allocated binary codes to English alphabets and symbols for computer use. More recently a new standard has been adopted which allocates code to almost all the languages of the world and also to symbols covering more than a lakh characters. The new standard is called
 - (A) CCS (B) Unicode
 - (C) Standard CCS code (D) Universal CCS code

69. For using passwords on the Internet a software is used so that the password is not intercepted easily. It is called

(A) Coding

(C)

- (B) Malware
- Virus
- (D) Encryption

1

| 70 | A sof use a called | tware, coding of which is av and improvement and whic d | ailable freely on ch is generally o | Internet and is open for user developed in a collaborative | rs for further e manner is |
|-----|--------------------------|---|--|---|-------------------------------|
| | (A) | open source software | (B) | unlicensed software | |
| | (C) | free software | (D) | community software | |
| 71. | . Whic | h of the following are machi | ne level language | 28? | |
| | (A) | C++ | (B) | Java | |
| | (C) | Python | (D) | None of these | |
| TS | D001114 | 1 | 22 . | | |
| | | | 4* | | |
| | | | | | |

| 72. | Ashoka in the 13 th year of his coronation, the land, kept land records and carried or | | | ho sur | veyed |
|-----|--|-----|---------------------------------|--------|-------|
| | (A) Amatyas | (B) | Samahartas | | |
| | (C) Rajukas . | (D) | Chalukyas | | |
| | and the second second second second | | martin and the second states of | | |
| 73. | Who built the Jagannatha temple of Puri | ? | | | |
| | (A) Anantavarmana Chodaganga | (B) | Narsimahavarmana | | |
| | (C) Aadiyavarmana | (D) | Parmeshwaravarmana | | 10 |

| | hous (A) | 3 months | (B) | 6 months |
|-----|---------------------------|--|-------------------|--|
| | (C) | one year | (D) | 2 years |
| | and . | | 1.4 | and the second second second second |
| 75. | The | term 'Republic' used in the preamble | of the C | onstitution of India implies |
| 75. | (A) | That the head of the state is hered | | onsultation of mana implies |
| | (B) | That the head of the state is hered That the head of the state is a con | | al ruler |
| | (C) | That the head of the state is a ele | | |
| 100 | (D) | None of the above | | and the second second second second |
| | () | | | THE REAL PROPERTY OF |
| 76. | The | Hindustan Shipyard Limited is locat | tod at | and the second second |
| 76. | (A) | Goa | (B) | Cochin |
| | (A) (C) | Mumbai | (D) | Visakhapatnam |
| | (0) | Mullioal | (12) | · isakinapatinani |
| - | 1 | | | |
| 77. | | idia, what is the minimum permissil | | |
| | (A) | 14 years (B) 16 years | (C) | 18 years (D) 21 year |
| | | | | |
| 78. | Luna | ar Eclipse occurs only on a | | Service and States and |
| | (A) | First quarter day | (B) | New moon day |
| | 1 | | () | |
| | (C) | Full moon day | (D) | Last quarter day |
| | | | | Last quarter day |
| 79. | (C) | | | Last quarter day |
| | (C) | Full moon day | | Last quarter day forests |
| | (C) Mira | Full moon day | (D) | the second s |
| | (C) Mira (A) | Full moon day ages generally occur in mountains | (D) (B) | forests |
| 79. | (C) Mira (A) (C) | Full moon day ages generally occur in mountains deserts | (D) (B) (D) | forests sea |
| | (C) Mira (A) (C) | Full moon day ages generally occur in mountains | (D) (B) (D) | forests sea |

Section 66 A has been in media controversy recently. The section pertains to 81. Communal Harmony (B) Sexual Aggression (A) Information Technology (D) Company's Act (C) IPC stands for 82. Indian Peace Code (B) (A) International Peace Code (D) International Punishment Code Indian Penal Code (C) Who among the following can accept the deposits of money from the public, as a business 83. in financial transactions? (B) Firms (A) Individuals (D) None of the above Unincorporated Associations (C) NEFT and RTGS are the means for 84. Fiscal control policy Money transfer (B) (A) (D) Implementing GST Monitoring tax collection (C) In Sept. 2014 ISRO achieved success in which project? 85. Launched Heavy payload vehicle (A) Launched geo-stationery satellite (B) Launched rocket to mars (C) Mars Orbiter successfully entered mars orbit (D) In October 2014 a cyclone hit Vishakapatnam. The name of the cyclone was 86. (D) Helen (B) Hudhud (C) Laila (A) Katrina SAARC countries are from which part of the world? 87. (B) South Asia South America (A) (D) None of the above South Africa (C)

| 88. | How many pairs between them in th | of letter ne word a | s are as the | there in the word C ere are between them is | RAB which I n the English | has alph | as many nabet? | letters |
|-----|--------------------------------------|------------------------|-----------------|--|------------------------------|-------------|-------------------|---------|
| | (A) ** 3 ** , ** | (B) | 2 | (C) 1 | () | D) | 0 | |

89. Which month is different from other months in the group? (A) April (B) June (C) July (D) November

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|------------|----|---|-----|----|----|
|------------|----|---|-----|----|----|

24

| 90. | If circumference of a circle is increased by 10%, the area of the circle will increase by |
|-----|--|
| | (A) 5% (B) 10% (C) 20% (D) 21% |
| | The second and the second seco |
| 91. | A cylindrical shaped metal piece is converted into a wire. Out of the following, which parameter can be assumed to remain the same? |
| | (A) volume (B) cross-section area |
| | (C) length (D) diameter |
| | and the second second as a second second and a second second second second second second second second second s |
| 92, | What is the probability of getting 3 aces if three cards are drawn from a set of 52 playing cards? |
| | (A) 52^3 (B) $\frac{1}{52^3}$ (C) $\frac{1}{52!}$ (D) $\frac{4 \times 3 \times 2}{52 \times 51 \times 50}$ |

| | | | | 5 are sports per | | | | |
|--------------------|--------------------------|------------------------------|-----------------|---------------------------|----------------|-----------------------------|-----------------|-------------------|
| pro | babilit | ly that the r | nomito | r of the class is | both a | sports person a | ind a m | athematicia |
| (A) | $\frac{1}{40}$ | 12.0 18 | (B) | $\frac{1}{25}$ | (C) | 1 | (D) | 1 |
| | 40 | | | 25 . | 100 | 4 | | 50 |
| | | 1 | | | | | | |
| Su | m of tw | vo numbers | is 15 a | and sum of their | recipr | cocals is $\frac{15}{56}$. | The two | numbers an |
| (A) | 4, 1 | 11 | (B) | 5, 10 | (C) | 6, 9 | (D) | 7,8 |
| | | 32.13 | | | | | | |
| TE | ~ 0 ~ | the nexts | ofour | ductic constion | .2 | 1 = 0 then | 1 1 | |
| n e | x, p ar | re the roots | or qua | dratic equation | x + x | +1 = 0, then | $\alpha \beta$ | 8 |
| (A) | -1 | | | | (B) | 1 | | |
| (C) | 0 | | | · · · · · · · · · · · · · | (D) | None of these | | |
| | | | | | | | | |
| | | $\sqrt{6+\sqrt{6}+\sqrt{6}}$ | - | | | as all marks | | |
| | lue of 1 | 10+10+10 | | | | 87. 180 | | |
| | | | | | | | | |
| | | | (B) | -2 | (0) | 3 | (D) | 4 |
| | | | (B) | -2 | (C) | 3 | (D) | 4 |
| | | | (B) | -2 | (C) | 3 | (D) | 4 |
| (A) | $\frac{5}{2}$ | SI-SI | | | | this are in t | | 4 |
| (A) If a | 5 <u>2</u> a, b, c, c | d, e and f a | are in a | arithmetic progr | ression | then $e-c$ is ϵ | equal to | ing and ing wi |
| (A) If a | 5 <u>2</u> a, b, c, c | SI-SI | are in a | arithmetic progr | ression | this are in t | equal to | ing and ing wi |
| (A) If a | 5 <u>2</u> a, b, c, c | d, e and f a | are in a | arithmetic progr | ression | then $e-c$ is ϵ | equal to | ing and ing wi |
| (A) If ((A) | $\frac{5}{2}$ | d, e and f = a | are in : (B) | arithmetic progr | ression (C) | then $e-c$ is e^{-c} | equal to (D) | ing and ing wi |

http://ajourneywithtime.weebly.com/

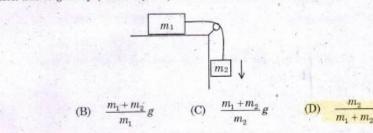
| | | | | | | | | 417.3 | | | |
|-----|--------------|------------------------------|---|---|--------------------------------------|---------------------------|-------------------------------|--|---------------------------|--------------------------------|-----------------|
| | 99. | Find | the median | n of the fol | lowing nu | umbers : | | 1 | | | |
| | | | 3, 20, 12, 1 | | | | | 10000 | | | 1 |
| | | (A) | 15 | | 20 | (| C) | 17 | (D) | 14 | |
| | | (A) | 10 | - | | | | | | | |
| | | | | | and the second | | | | webue of t | an A tend | sto |
| | 100. | tan 9 | 90° is unde | efined. As | θ is incre | eased from 8 | 59° ta | warus 50 | | an o tena | |
| | | (A) | 0 | (B) | +00 | (| C) | 1 | (D) | undefine | 1 |
| | | | | | | | +0 | | | | |
| | | | 11. 1.1. | - | at the ear | me price. Ir | one | car he ma | kes a prof | t of 10%.] | n other |
| | 101. | A ma | n sells his | over the | cost price | e. His total | gain | or loss per | cent is | | |
| | | | | a orer me | | | B) | 1% gain | | ÷., | |
| | | (A) | 1% loss | | 1 | | S. S | No loss no | gain | | |
| | | (C) | 2% loss | | | | - | | | | |
| | | | S. S. S. | | | | | 1. 1. 1. | | | |
| | 102. | 50 | 9 1699 10 | W (rouge | That is th | e approx. v | alue | of $\frac{1}{2}$? | | | |
| 1. | | 10: | = 3.1023, (8 | approx.). | filde to en | a approxim | | √10 | | | |
| | | | 0.000 | m | 0.010 | 0 | 100 | | (T)) | 0 9497 | |
| | | (A) | 0.333 | B |) 0.316 | 2 | (C) | 0.3221 | (D) | 0.3437 | |
| 100 | | (A) | 0.333 | (B |) 0.316 | 2 | (C) · | 0.3221 | (D) | 0.3437 | |
| | | | | | | | - | | | | numbe |
| | 103. | | | 1.1.4 | multiply | a number b | w 12 | By mista | ke he mult | iplied the | numbe swer? |
| | 103. | A st by 2 | udent was 1 and got t | asked to he answer | multiply 63 more | a number b than the co | y 12 rrect | By mista | ke he mult | iplied the | numbe swer? |
| | 103. | | | 1.1.4 | multiply 63 more | a number b than the co | w 12 | By mista | ke he mult Vhat is the | iplied the correct an | numbe swer? |
| | 103. | A st by 2 | udent was 1 and got t | asked to he answer | multiply 63 more | a number b than the co | y 12 rrect | By mista | ke he mult Vhat is the | iplied the correct an | numbe swer? |
| | ••• | A st by 2 (A) | udent was 1 and got t 9 | asked to he answer (E | multiply 63 more) 8 | a number b than the co | y 12 rrect | By mista | ke he mult Vhat is the | iplied the correct an | numbe: swer? |
| | 103. 104. | A st by 2 (A) | udent was 1 and got t | asked to he answer (E | multiply 63 more) 8 | a number b than the co | y 12 rrect | By mista | ke he mult Vhat is the | iplied the correct an | numbe: swer? |
| | ••• | A st by 2 (A) | udent was 1 and got t 9 | asked to he answer (E | multiply 63 more) 8 aph : | a number b than the co | y 12 rrect | By mista | ke he mult Vhat is the | iplied the correct an | numbe: swer? |
| | ••• | A st by 2 (A) | udent was 1 and got t 9 | asked to he answer (E | multiply 63 more) 8 aph : | a number b than the co | y 12 rrect | . By mista answer. V 7 | ke he mult Vhat is the | iplied the correct an | numbe: swer? |
| | ••• | A st by 2 (A) | udent was 1 and got t 9 | asked to he answer (E | multiply 63 more) 8 aph : | a number b than the co | y 12 rrect | . By mista answer. V 7 | ke he mult Vhat is the | iplied the correct an | numbe: swer? |
| | ••• | A st by 2 (A) | udent was 1 and got t 9 | asked to he answer (E | multiply 63 more) 8 aph : | a number b than the co | y 12 irrect (C) | . By mista answer. V 7 D | ke he mult Vhat is the | iplied the correct an | numbe: swer? |
| | ••• | A st by 2 (A) | udent was 1 and got t 9 | asked to he answer (E | multiply 63 more) 8 aph : | a number b than the co | y 12 irrect (C) | . By mista answer. V 7 D | ke he mult Vhat is the | iplied the correct an | numbe: swer? |
| | ••• | A sti by 2 (A) Con: | udent was 1 and got t 9 sider the fa | asked to the answer (E | multiply 63 more) 8 raph : | a number b than the co | y 12 irrect (C) C | . By mista answer. V 7 D → | ke he mult Vhat is the | iplied the correct an | numbe: swer? |
| | ••• | A sti by 2 (A) Con: | udent was 1 and got t 9 sider the fa | asked to the answer (F ollowing gr | multiply 63 more) 8 raph : | a number b than the co | y 12 prrect (C) heat | . By mista answer. V 7 D → | ke he mult Vhat is the | iplied the correct an 84 | numbe: swer? |

| | 105. | Whic | h of the following does not subli | imate? | |
|-------------------|------|---|--|--|--|
| | | (A) | Ice | (B) | Ammonium chloride |
| | | (C) | Naphthalene | (D) | Camphor |
| | | | - 6 m | | |
| | 106. | Whic | h of the following is a heterogen | neous mixtur | e? |
| | 100. | (A) | Brass | (B) | Sugar solution in water |
| | | (C) | Air | . (D) | Milk |
| 1 | | (0) | | | |
| | TED | 00111 | | 26 | |
| | 150 | 00111 | ·* | | |
| | | | | | |
| | | | | | |
| 2. J | 1 | | | | |
| à _a ll | 107. | A cla | ss of compounds which are used | d as fragrance | es when molecular weight is low and are |
| | 107. | natu | rally occurring fats when molecu | ular weight is | s high in the series, is called |
| i si | 107. | natur (A) | rally occurring fats when molect amino acids | ular weight is (B) | s high in the series, is called aromatic compounds |
| | 107. | natu | rally occurring fats when molecu | ular weight is | s high in the series, is called |
| | 107. | natur (A) (C) | rally occurring fats when molect amino acids esters | ular weight is (B) (D) | s high in the series, is called aromatic compounds organic acids |
| | 107. | natur (A) (C) If the | rally occurring fats when molect amino acids esters e mass of sun, earth and distan | ular weight is (B) (D) nce between | s high in the series, is called aromatic compounds organic acids them is respectively <i>M</i> , <i>m</i> and <i>r</i> ; work |
| | | natur (A) (C) If the | rally occurring fats when molect amino acids esters e mass of sun, earth and distan by the sun's gravity on earth fo | ular weight is (B) (D) nce between or one revolut | s high in the series, is called aromatic compounds organic acids them is respectively <i>M</i> , <i>m</i> and <i>r</i> ; work ion round the sun is |
| | | natur (A) (C) If the done | rally occurring fats when molect amino acids esters e mass of sun, earth and distan by the sun's gravity on earth fo | ular weight is (B) (D) nce between or one revolut | s high in the series, is called aromatic compounds organic acids them is respectively <i>M</i> , <i>m</i> and <i>r</i> ; work ion round the sun is |
| | | natur (A) (C) If the | rally occurring fats when molect amino acids esters e mass of sun, earth and distan by the sun's gravity on earth fo | ular weight is (B) (D) nce between or one revolut | s high in the series, is called aromatic compounds organic acids them is respectively <i>M</i> , <i>m</i> and <i>r</i> ; work |
| | | natur (A) (C) If the done | rally occurring fats when molect amino acids esters e mass of sun, earth and distan by the sun's gravity on earth fo | ular weight is (B) (D) nce between or one revolut | s high in the series, is called aromatic compounds organic acids them is respectively <i>M</i> , <i>m</i> and <i>r</i> ; work ion round the sun is |
| | 108. | natur (A) (C) If the done (A) | rally occurring fats when molect amino acids esters e mass of sun, earth and distan by the sun's gravity on earth fo | ular weight is (B) (D) nce between or one revolut (C) | The series is called aromatic compounds organic acids them is respectively M, m and r ; work ion round the sun is $\frac{GM.m}{r} \cdot 2\pi \qquad \text{(D)} \frac{GMm}{r^2} \cdot 2\pi$ |
| | 108. | natur (A) (C) If the done (A) | rally occurring fats when molect amino acids esters e mass of sun, earth and distan by the sun's gravity on earth fo zero (B) $\frac{GMm}{r^2}$ | ular weight is (B) (D) nce between or one revolut (C) | The series is called aromatic compounds organic acids them is respectively M, m and r ; work ion round the sun is $\frac{GM.m}{r} \cdot 2\pi \qquad \text{(D)} \frac{GMm}{r^2} \cdot 2\pi$ |
| | 108. | natur (A) (C) If the done (A) The o | rally occurring fats when molect amino acids esters e mass of sun, earth and distant by the sun's gravity on earth for zero (B) $\frac{GMm}{r^2}$ choke of a tube light works on the | ular weight is (B) (D) nce between or one revolut (C) he principle o | The series is called aromatic compounds organic acids them is respectively M, m and r ; work ion round the sun is $\frac{GM.m}{r} \cdot 2\pi \qquad (D) \frac{GMm}{r^2} \cdot 2\pi$ |

(A)

2

110. In the figure below, what is the acceleration of body with mass m_2 , given g is the acceleration due to gravity (assume pulley and surfaces are smooth)



111. Which of the following statements is correct?

(A) Speed of light in vacuum is 3×10^8 m/s

(B) Speed of light is different for different colours

(C) Speed of light is different in different media

(D) All of the above

112. In Heisenberg's Uncertainity principle, the uncertainity of momentum and position of a particle can be

- (A) reduced using smaller wavelength of probing light
- (B) reduced using larger wavelength of probing light
- (C) reduced using high energy probe particles accelerated by cyclotron
- (D) can't be reduced as it is fundamentally inherent

| | 113. | In a | scooter, in whi | ch part is t | he petrol ato | mized and | d mixed in co | rect prop | ortion with air? |
|-----|-------|------------|---------------------|---|----------------|-------------|--------------------|-----------|------------------|
| | | (A) | Carburetton | | | (B) | Cylinder | | |
| | | (C) | Inlet port | | | (D) | Fuel pump | | CHE MAINT |
| | | | | | | | | | |
| 11 | 114. | Whie | ch alloy steel | would be u | sed for maki | ng leaf a | nd coil sprin | gs? | e e |
| | | (A) | Nickel-Chro | me | | (B) | Vanadium | | |
| | | (C) | Silicon-Man | ganese | | (D) | Chrome-mo | lybdenur | n |
| | - 4.9 | | | | | | | | |
| | 115. | Inal | uminium cast | ing bubble | es of argon or | nitroger | are passed | through t | the molten metal |
| | | (A) | | 100 C | ish of the cas | | . are passed | | |
| | | (A) (B) | to remove h | | | sting | | | |
| | | and the | | CONTRACTOR OF THE OWNER. | | | 1. | 15 | |
| | | (C) | to precipita | | | | | + | |
| | | (D) | to mix the a | lloy eleme | nts | | | | |
| | 116. | Clea | rance between | the matin | ng parts is m | easured | using | | |
| | | (À) | Dial gauge | | | (B) | Go-gauge | | |
| | | (C) | No-go gauge | | | (D) | Feeler gaug | e | |
| | | | | - | | | | | |
| | 117. | In a cutte | | ess, for m | illing mild s | teel, wh | at will be a | typical r | ake angle for th |
| 1 | | (A) | 12° | (B) | 20° | (C) | 28° | (D) | -12° |
| | | | | | | | | | |
| | 118. | Chat | e True (T) or H | Coloo (F) a | ana atimalar i | | 1. | | 1 |
| | 110. | | Land Control of the | and the state of the | Same and Sec. | | | | |
| | | 1. | | | | | Cart of the second | | ed component |
| | | 2. | Quenching | of hot iron | component i | n water i | mproves its | malleabil | ity |
| 1.2 | | (A) | T, T | | F, F | in mutter i | T. F | | F. T |

| | 119. | | ufactured from blooms using the p | | a fabricating a shed structure frame, a | |
|-------|-------|----------------------------------|--|------------------------------------|---|--|
| | | (A) | casting | (B) | drawing | |
| | | (C) | swaging | (D) | rolling | |
| | 120. | Outp | out of a welding transformer, comp | ared with | ts input is | |
| | | (A) | high voltage high current | (B) | high voltage low current | |
| | | (C) | low voltage high current | (D) | low voltage low current | |
| | | | | | | |
| | TSD | 00111 | 4 | 28 | and the second second | |
| | | | | | | |
| | | | | | | ÷ |
| | 1.4 | , | | 24.7.1 | | |
| 1 | de la | , | | | | |
| de la | 121. | , A fus | se should be connected in — | in th | e ——— conductor. | and the second s |
| 1 | 121. | A fus (A) | se should be connected in ——— series, neutral | , in th (B) | e ———— conductor. series, live | |
| 1 | 121. | | | | | |
| 1 | 121. | (A) | series, neutral | (B) | series, live | |
| 1 | 121. | (A) (C) | series, neutral | (B) (D) | series, live | |
| | | (A) (C) | series, neutral parallel, neutral | (B) (D) | series, live | |
| 1 | | (A) (C) Equi | series, neutral parallel, neutral pment earthing gives protection a | (B) (D) gainst | series, live parallel, live | |
| | | (A) (C) Equi (A) | series, neutral parallel, neutral pment earthing gives protection a voltage fluctuation | (B) (D) gainst (B) | series, live parallel, live overloading | |
| | | (A) (C) Equi (A) (C) | series, neutral parallel, neutral pment earthing gives protection a voltage fluctuation | (B) (D) gainst (B) (D) | series, live parallel, live overloading high temperature of conductors | |

| | (A) | Polygthylene Card Board | (B) | Printed Circuit Board |
|------|-----------------------------------|---|-------------------|--|
| | | 77 | | |
| | (C) | Printed Card Board | (D) | Polythene Circuit Board |
| | | | | |
| 125. | Colo | r bands for 1.5 ohms resistor will be | | |
| | (A) | Brown, Green, Brown | (B) | Brown, Green, Golden |
| | (C) | Brown, Golden, Green | (D) | Brown, Golden, Golden |
| | | | | The store was a store was a store of the |
| 126. | A fre | quency tuning electronic circuit wou | ld consis | st of |
| | (A) | an inductor and a capacitor | (B) | an inductor and a resistor |
| | (C) | two inductors | (D) | two capacitors |
| | | | | all a mainte inder soldtande si |
| | | | | |
| 127. | Main | element of a filter circuit that reduc | ces the A | .C. component of the output is |
| 127. | Main (A) | n element of a filter circuit that reduc resistor | ces the A (B) | .C. component of the output is inductor |
| 127. | | | | and the second |
| 127. | (A) | resistor | (B) | inductor |
| 127. | (A) (C) | resistor | (B) | inductor |
| | (A) (C) | resistor transformer | (B) | inductor |
| | (A) (C) For a | resistor transformer stabilizing the gain of an amplifier | (B) (D) | inductor capacitor |
| | (A) (C) For a (A) | resistor transformer stabilizing the gain of an amplifier positive feedback is used | (B) (D) (B) | inductor capacitor no feedback is used |
| | (A) (C) For a (A) (C) | resistor transformer stabilizing the gain of an amplifier positive feedback is used | (B) (D) (B) | inductor capacitor no feedback is used |
| 128. | (A) (C) For a (A) (C) | resistor transformer stabilizing the gain of an amplifier positive feedback is used negative feedback is used | (B) (D) (B) | inductor capacitor no feedback is used |

| | | 130. | For | plastering wall | s, cemer | nt mortar wo | uld be typ | ically used in | which ratio | ? |
|---|---|------|--|-----------------------------|-----------|---------------|--------------|----------------|---------------|----------------|
| | | | (A) | 1:2 | (B) | 1:4 | (C) | 1:6 | (D) 1 | : 8 |
| - | | 131. | The | grade M25 of c | oncrete | would appro | x. refer to | the mix | | |
| | | | (A) | 1:3:6 · | (B) | 1:2:4 | (C) | 1:1:2 | (D) 1 | :4:8 |
| | | 132. | Bras | s is an alloy of | | | | | | 9*.). (. 1 |
| | | | (A) | copper and z | inc | | (B) | copper and | tin | |
| | | | (C) | copper and a | luminiu | m | (D) | aluminium | and tin | |
| | | 133. | A pi | gment generall | y used t | o impart wh | ite colour i | n a paint is | | |
| | | | (A) | graphite | 1 | | (B) | lead | | |
| | | | (C) | copper sulph | ate | | (D) | zinc | | |
| | | 134. | The | main purpose (| of provid | ling foundat | ion to a bu | ilding is | | |
| | | | (A) to provide a level base over which masonry may be laid | | | | | | | |
| | | | (B) | to fix the su | oer struc | ture to the g | ground | | 2. | |
| | | | (C) | to distribute substratum | e the w | eight of th | e structur | e on a suff | iciently larg | ge area of the |
| | 5 | | (D) | to prevent u | neven di | stribution of | f load of be | ams on the s | ubstratum | |
| | | 135. | The field | | veying i | n which on | y linear n | neasurement | s are direct | ly made in the |
| | | | (A) | land surveyi | ng | | (B) | chain surve | ying | |
| | | | (C) | engineering | survey | | (D) | topographic | al survey | |

,

1000

| | (A) | distances | | (B) | strength of materials | |
|------|-------|----------------------------------|----------|------|-----------------------|-----|
| | (C) | surface hardness | | (D) | angles | |
| 137. | Cont | our lines drawn on a map, are th | ne lines | whic | h pass through | 100 |
| | (A) · | hills and depressions | | (B) | same elevation | |
| | (C) | same latitude | | (D) | none of the above | |
| | | | | | | |

| 1 and | |
|-------|--|
| 138. | Which of the following statements is incorrect? |
| 1 | (A) Microsoft windows is GUI |
| | (B) Linux is GUI |
| | (C) More than 5000 kB data can be stored in a DVD |
| | (D) A 1 TB flash drive can store 2 million files each of size 1 MB |
| | |
| 139. | How many lines can be said to exist or be drawn in a three dimensional space, which are mutually perpendicular to each other? |
| | (A) 2 (B) 3 |
| | (C) 4 (D) 8 |
| | |

| | | 140. | A third angle orthographic projection | on of an object i | s given below. What is this object? |
|---|-----|--------|--|----------------------|--|
| | | 1.1.1. | | |] |
| | 1.3 | | San Marson P | | and the second |
| | | | (A) Triangle | (B), | Trapezium |
| | | | (C) Cone | (D) | Frustrum of a cone |
| | | 141. | In an engineering drawing it is correspond to? (A) 1:100 | written scale (B) | 1 cm = 100 m. Which ratio does it 1:1000 |
| | | | (C) 1:10,000 | (D) | 1:1,00,000 |
| * | | 142. | In machine drawing, a 'sectional vi | ew' cut portion | is shown by |
| | | | (A) diagonal hatching | (B) | dots |
| | | | (C) cross marks | (D) | red colour |
| | | 143. | For complete description of a con how many orthographic projections | | hine drawing would require minimum |
| | | | (A) 1 | (B) | 2 |
| | 140 | | (C) 3 | (D) | 4 |

| 144. | | rmochemical decomposition of or tygen is called | ganic materi | als at high temperatures, in the absence |
|-------------|-------|--|----------------|--|
| | (A) | Pyrolysis | (B) | Thermolysis |
| | (C) | Caramelization | (D) | Catagenesis |
| | | | | a second second second second |
| 145. | Acid | rain is caused by presence of wh | ich of the fol | lowing gases in the atmosphere |
| | (A) | Nitrogen and oxygen | | |
| | (B) | Sulfur dioxide and Nitrogen ox | ide | Contraction of the second second second second |
| | (C) | Carbon dioxide and Carbon-mo | no-oxide | |
| | (D) | Ozone and argon | | |
| 146. | One | of the main reason for depletion of | of ozone lave | r in the Earth's atmosphere is |
| | (A) | Green house gases | or obolic hije | in the Bartino atmosphere is |
| | (B) | Colloidal impurities | . S. 14. 14 | |
| | (C) | CFC and halons | 1.1.1 | |
| | (D) | Rockets and satellite launching | vehicles | |
| | | | , remerce | |
| 147. | What | t is the value of total hardness as | contable in r | ootable water as per Indian Standards? |
| | (A) | 0.3 (B) 3 | (C) | 30 (D) 300 |
| | (11) | | (0) | 30 (L) 300 |
| 148. | Preve | enting rain water to run-off and i d | its accumula | tion and deposition for re-use on site is |
| | (A) | rain water collection | (B) | micro-dams |
| | (C) | micro-accumulation | (D) | rain water harvesting |
| L. Contract | | | | |
| 149. | | terms ALU, CPU, I/O devices pe | rtain to | |
| | (A) | computers | | |
| | (B) | environmental engineering | | the state of the second state of the |
| | (C) | diesel engine | | and the second second second |
| | (D) | engineering drawing and ortho | ogonal projec | tions |
| ÷ 1 | 12 | | | |
| 150. | In a | computing device 'MHz' is menti | oned in the s | specifications. It refers to |
| | (A) | size of memory | (B) | speed of computation |
| | (C) | clock speed | (D) | none of the above |