## Computer Based Examination System

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| Title *       | Question Paper Answer Key  |
| OES Exam *    | GPSC01202107 Mechanical Cultivation Officer Completed 2021-04-11 |

| 1 | Question Description | Which gear is used in a hand chaff cutter or cream separator? |
|---|----------------------|---|
|   | Α                    | Bevel   |
|   | В                    | Spiral  |
|   | С                    | Worm  |
|   | D                    | Spur  |
|   | Correct Answer       | C   |
|   | Marks                | 1   |

| 2 | Question Description | In which nozzle narrow elliptical spray pattern is formed? |
|---|----------------------|--|
|   | Α                    | Hollow cone nozzle   |
|   | В                    | Fan type nozzle  |
|   | С                    | Solid cone nozzle  |
|   | D                    | Nozzle boss  |
|   | Correct Answer       | В  |
|   | Marks                | 1  |
|   |                      |  |
| 3 | Question Description | Input HP of a pump =                                       |
|   | Α                    | Brake Horsepower/motor efficiency                          |
|   | В                    | Shaft horsepower/pump efficiency                           |
|   | С                    | Water horsepower/motor efficiency                          |
|   | D                    | Discharge/drive efficiency                                 |
|   | Correct Answer       | A  |
|   | Marks                | 1  |
|   |                      |  |

| 4 | Question Description | The penetration of a Disc harrow will <b>Not</b> be adequate if-                           |
|---|----------------------|--|
|   | Α                    | The disc gangs set with the forward edges of the discs parallel to the direction of motion |
|   | В                    | The disc gangs are set perpendicular to the line of draft                                  |
|   | С                    | The hitch point is lowered   |
|   | D                    | None of the above  |
|   | Correct Answer       | В  |
|   | Marks                | 1  |
|   |                      |  |
| 5 | Question Description | The adjustment in MB plough for increasing the depth of operation                          |
|   | A                    | Gang angle   |
|   | В                    | Horizontal suction   |
|   | С                    | Vertical suction   |
|   | D                    | Disc angle   |
|   | Correct Answer       | C  |
|   | Marks                | 1  |
|   |                      |  |

| 6 | Question Description | Following which is <b>Not</b> the type of nozzles of injector.  |
|---|----------------------|---|
|   | Α                    | Pintle type   |
|   | В                    | Solid type  |
|   | С                    | Throttle type   |
|   | D                    | Hole type   |
|   | Correct Answer       | В   |
|   | Marks                | 1   |
|   |                      |   |
| 7 | Question Description | Per hour depreciation of a 35 HP diesel tractor costing Rs 4,75,000/- with working life 10 years, rate of interest 10% and working hours per year 1000 is - |
|   | Α                    | Rs 42.75  |
|   | В                    | Rs 47.25  |
|   | С                    | Rs 45.25  |
|   | D                    | None of the above   |
|   | Correct Answer       | В   |
|   | Marks                | 1   |
|   |                      |   |

| 8 | Question Description | In a tractor engine the operator is relieved from the constant regulating of the throttle leaver to suit different load condition by using |
|---|----------------------|--|
|   | A                    | Accelerator  |
|   | В                    | Throttle   |
|   | С                    | Governor   |
|   | D                    | None of the above  |
|   | Correct Answer       | С  |
|   | Marks                | 1  |
|   |                      |  |
| 9 | Question Description | Calorific value of Biogas is   |
|   | Α                    | $5400 \text{ kcal/ m}^3$   |
|   | В                    | 4500 kcal/ kg  |
|   | С                    | $4500 \text{ kcal/ m}^3$   |
|   | D                    | 5400 kcal/ kg  |
|   | Correct Answer       | C  |
|   | Marks                | 1  |
|   |                      |  |

| 10 | Question Description | Worm gear is used, when two shafts are at                       |
|----|----------------------|---|
|    | Α                    | Right angle to each other                                       |
|    | В                    | Some distance apart   |
|    | С                    | Radial direction  |
|    | D                    | 45 cm apart   |
|    | Correct Answer       | A   |
|    | Marks                | 1   |
|    |                      |   |
| 11 | Question Description | Which type of duster to be required for spraying to tall crops? |
|    | A                    | Plunger type  |
|    | В                    | Knapsack type   |
|    | С                    | Rotary type   |
|    | D                    | None of the above   |
|    | Correct Answer       | C   |
|    | Marks                | 1   |
|    | Warks                |   |

| 12 | Question Description | Power tillers operate most satisfactory with  |
|----|----------------------|---|
|    | Α                    | Rotary tillage  |
|    | В                    | Plough  |
|    | С                    | Transport carts   |
|    | D                    | Reapers   |
|    | Correct Answer       | A   |
|    | Marks                | 1   |
|    |                      |   |
| 13 | Question Description | Which of the following statement is <b>Correct</b> ?                                      |
|    | A                    | The primary tillage performed to open up any cultivable land for preparation of seed bed. |
|    | В                    | Secondary tillage performed for proper soil tilth.  |
|    | С                    | Both A&B  |
|    | D                    | None of the above   |
|    |                      |   |
|    | Correct Answer       | C   |
|    | Correct Answer Marks | C 1   |

| 14 | Question Description | Which of the following is <b>Not</b> an implement for Primary Tillage operations?   |
|----|----------------------|---|
|    | Α                    | Mouldboard plough   |
|    | В                    | Disc plough   |
|    | С                    | Chisel plough   |
|    | D                    | Disc harrow   |
|    | Correct Answer       | D   |
|    | Marks                | 1   |
|    |                      |   |
| 15 | Question Description | If the sum of diameter of two pulleys connected by a belt is 90 cm revolves 50 and 20 revolutions per minute respectively without any slippage, the diameter of the pulleys is- |
|    | Α                    | 64.3 cm and 25.7 cm   |
|    | В                    | 65.1 cm and 24.9 cm   |
|    | С                    | 68.9 cm and 21.1 cm   |
|    | D                    | 60.7 cm and 29.3 cm   |
|    | Correct Answer       | A   |
|    | Marks                | 1   |

| Raise, hold, or lower the mounted or semi mounted equipment.   Raise, hold, or lower the mounted or semi mounted equipment.   Raise, hold, or lower the mounted or semi mounted equipment.   Raise, hold, or lower the mounted or semi mounted equipment.   Raise, hold, or lower the mounted or semi mounted equipment.   Domain three point hitch of the tractor |    |                      |  |
|--|----|----------------------|--|
| B Operating three point hitch of the tractor  C Both A&B  D None of the above  Correct Answer C Marks 1  17 Question Description Which of the following implements can be used for seedbed preparation?  A Disc Cultivator  B Sub soiler  C Both A & B  D None of the above  Correct Answer A  | 16 | Question Description | Hydraulic Control system in a tractor helps to                         |
| C Both A&B  D None of the above  Correct Answer C Marks 1  17 Question Description Which of the following implements can be used for seedbed preparation?  A Disc Cultivator  B Sub soiler  C Both A & B  D None of the above  Correct Answer A  |    | Α                    | Raise, hold, or lower the mounted or semi mounted equipment.           |
| D None of the above  Correct Answer C Marks 1  17 Question Description Which of the following implements can be used for seedbed preparation?  A Disc Cultivator  B Sub soiler  C Both A & B  D None of the above  Correct Answer A  |    | В                    | Operating three point hitch of the tractor                             |
| Correct Answer  Marks  1  Question Description  Which of the following implements can be used for seedbed preparation?  A Disc Cultivator  B Sub soiler  C Both A & B  D None of the above  Correct Answer  A  |    | С                    | Both A&B   |
| Marks  1  Question Description  Which of the following implements can be used for seedbed preparation?  A Disc Cultivator  B Sub soiler  C Both A & B  D None of the above  Correct Answer  A  |    | D                    | None of the above  |
| 17 Question Description  Which of the following implements can be used for seedbed preparation?  A Disc Cultivator  B Sub soiler  C Both A & B  D None of the above  Correct Answer A  |    | Correct Answer       | C  |
| Which of the following implements can be used for seedbed preparation?  B Disc Cultivator  C Both A & B  D None of the above  Correct Answer A   |    | Marks                | 1  |
| Which of the following implements can be used for seedbed preparation?  B Sub soiler  C Both A & B  None of the above  Correct Answer A  |    |                      |  |
| B Sub soiler  C Both A & B  D None of the above  A   | 17 | Question Description | Which of the following implements can be used for seedbed preparation? |
| C Both A & B  None of the above  Correct Answer A  |    | Α                    | Disc Cultivator  |
| D None of the above  Correct Answer A  |    | В                    | Sub soiler   |
| Correct Answer A   |    | С                    | Both A & B   |
|  |    | D                    | None of the above  |
| Marks 1  |    | Correct Answer       | A  |
|  |    | Marks                | 1  |

| 18 | Question Description | Following which is define the <b>Dead Furrow</b>   |
|----|----------------------|--|
|    | Α                    | The mass of soil cut, lifted, and thrown to one side   |
|    | В                    | A raised ridge left at the center of the strip of land when ploughing is started from center to side   |
|    | С                    | An open trench left in between two adjacent strips of land after finishing the ploughing   |
|    | D                    | While ploughing with a tractor a strip of un ploughed land left at each end of the land.   |
|    | Correct Answer       | С  |
|    | Marks                | 1  |
|    |                      |  |
| 19 | Question Description | BHP of a 2-cylinder 4 stroke cycle internal combustion engine 12 X 15 cm with mean effective pressure 7 kg/ cm² and speed of crankshaft is 1200 revolutions per minute with mechanical efficiency 75% is - |
|    | Α                    | 27.35  |
|    | В                    | 23.75  |
|    | С                    | 25.37  |
|    | D                    | 72.35  |
|    | Correct Answer       | В  |
|    | Marks                | 1  |
|    |                      |  |

| 20 | Question Description | Which of the following implements generally be used for churning the soil in standing water?           |
|----|----------------------|--|
|    | Α                    | Trampler   |
|    | В                    | Puddler  |
|    | С                    | Ditcher  |
|    | D                    | Hydrodozer   |
|    | Correct Answer       | В  |
|    | Marks                | 1  |
|    |                      |  |
| 21 | Question Description | Find the <b>True</b> statement   |
|    | Α                    | Final drive is a gear reduction unit in the power trains between the differential and the drive wheels |
|    | В                    | Final drive transmits the power finally to the rear axle and the wheels                                |
|    | С                    | Both A&B   |
|    | D                    | None of the above  |
|    | Correct Answer       | C  |
|    | Marks                | 1  |
|    |                      |  |
|    |                      |  |
|    |                      |  |

| 22 | Question Description   | The process of placing the seeds in holes made in seed bed and covering them is called-                     |
|----|------------------------|---|
|    | Α                      | Broadcasting  |
|    | В                      | Drilling  |
|    | С                      | Dibbling  |
|    | D                      | Dropping  |
|    | Correct Answer         | C   |
|    | Marks                  | 1   |
|    |                        |   |
|    |                        |   |
| 23 | Question Description   | In spark ignition engine Thermal efficiency is <b>NOT</b> dependent on which following factor               |
| 23 | Question Description A | In spark ignition engine Thermal efficiency is <b>NOT</b> dependent on which following factor  Air constant |
| 23 |                        |   |
| 23 | Α                      | Air constant  |
| 23 | В                      | Air constant  Total cylinder volume   |
| 23 | A<br>B<br>C            | Air constant  Total cylinder volume  Cut off ratio  |
| 23 | A B C                  | Air constant  Total cylinder volume  Cut off ratio  Specific heat at constant volume                        |

| 24 | Question Description | The horsepower to be required to pull a four bottom 30 cm plough, working to depth of 15 cm at an operating speed of 6 Km per hour with soil resistance 0.7 kg/ cm <sup>2</sup> is |
|----|----------------------|--|
|    | Α                    | 25 HP  |
|    | В                    | 26 HP  |
|    | С                    | 28 HP  |
|    | D                    | 35 HP  |
|    | Correct Answer       | C  |
|    | Marks                | 1  |
|    |                      |  |
| 25 | Question Description | Hydraulic system in tractor is mainly used for   |
|    | Α                    | Operating three-point hitch  |
|    | В                    | PTO drive  |
|    | С                    | Both A&B   |
|    | D                    | None of the above  |
|    | Correct Answer       | A  |
|    | Marks                | 1  |
|    |                      |  |

| Question Description | If speed of an engine at no load is $1600 \text{ rev/min}$ and speed at load is $1500 \text{ rev/min}$ then the percentage regulation in a governor will be $-$ |
|----------------------|---|
| Α                    | 6.2%  |
| В                    | 6.4%  |
| С                    | 62%   |
| D                    | 64%   |
| Correct Answer       | В   |
| Marks                | 1   |
|                      |   |
| Question Description | Co-efficient of performance of a windmill is dependent on which following factor  |
| A                    | Density of air  |
| В                    | Swept area  |
| С                    | Both A & B  |
| D                    | None of these   |
| Correct Answer       | C   |
| Marks                | 1   |
|                      | B C D Correct Answer Marks  Question Description A B C D Correct Answer   |

| 28 | Question Description | Work done at the rate of 4500 kg.m/ minute or 75 kg m/ second is called- |
|----|----------------------|--|
|    | Α                    | Horse Power (HP)   |
|    | В                    | Indicated Horse Power (IHP)  |
|    | С                    | Brake Horse Power (BHP   |
|    | D                    | Power Take-off Horse Power (PTO HP)                                      |
|    | Correct Answer       | A  |
|    | Marks                | 1  |
|    |                      |  |
| 29 | Question Description | True point of hitch of a tractor is called                               |
|    | Α                    | Center of resistance   |
|    | В                    | Center of power  |
|    | С                    | Line of pull   |
|    | D                    | Vertical Clevis  |
|    | Correct Answer       | В  |
|    | Marks                | 1  |
|    |                      |  |

| 30 | Question Description | Which following statement is <b>NOT</b> correct for a Four Stroke Engine |
|----|----------------------|--|
|    | Α                    | Both side of the piston compress the charge.                             |
|    | В                    | Engine can be operated in one direction only.                            |
|    | С                    | Fuel is fully consumed.  |
|    | D                    | Thermal efficiency is high   |
|    | Correct Answer       | A  |
|    | Marks                | 1  |

| 31 | Comprehension        | Read the following passage and answer the questions given below:  |
|----|----------------------|---|
|    |                      | Science can certainly contribute its bit towards the development of a culture or towards shaping of subjective reality. In the past, only the poets, the artists and the philosophers, particularly the poets, did this. Their languages have been metaphoric and symbolic. They demand interpretation and re-interpretation to get to the underlying meaning. In future too this would continue to be the dominant pattern of further development. Science may explode the myths about the moon, but poets will continue to create new myths and legends, and, the society its new images, new rituals and new taboos. In his book, Myths to Live By (1973), Joseph Campbell has argued this theme in detail. Playwright Ibsen and Psychologist Jung were of the opinion that human beings will always need life-supporting myths. |
|    | Question Description | Myths and legends are significant because   |
|    | Α                    | speak through metaphors and symbols   |
|    | В                    | they are essential for human life   |
|    | С                    | give rise to new images, rituals and taboos   |
|    | D                    | science can explode them  |
|    | Correct Answer       | В   |
|    | Marks                | 1   |
|    |                      |   |

| 32 | Comprehension        | Read the following passage and answer the questions given below:  |
|----|----------------------|---|
|    |                      | Science can certainly contribute its bit towards the development of a culture or towards shaping of subjective reality. In the past, only the poets, the artists and the philosophers, particularly the poets, did this. Their languages have been metaphoric and symbolic. They demand interpretation and re-interpretation to get to the underlying meaning. In future too this would continue to be the dominant pattern of further development. Science may explode the myths about the moon, but poets will continue to create new myths and legends, and, the society its new images, new rituals and new taboos. In his book, Myths to Live By (1973), Joseph Campbell has argued this theme in detail. Playwright Ibsen and Psychologist Jung were of the opinion that human beings will always need life-supporting myths. |
|    | Question Description | As per the passage myths are important to human life because  |
|    | Α                    | poets, artists and philosophers create them   |
|    | В                    | they make use of metaphoric and symbolic language   |
|    | С                    | they constitute the dominant pattern of developing subjective reality   |
|    | D                    | they demand interpretation and re-interpretation  |
|    | Correct Answer       | C   |
|    | Marks                | 1   |
|    |                      |   |

| 33 | Comprehension        | Read the following passage and answer the questions given below:  |
|----|----------------------|---|
|    |                      | Science can certainly contribute its bit towards the development of a culture or towards shaping of subjective reality. In the past, only the poets, the artists and the philosophers, particularly the poets, did this. Their languages have been metaphoric and symbolic. They demand interpretation and re-interpretation to get to the underlying meaning. In future too this would continue to be the dominant pattern of further development. Science may explode the myths about the moon, but poets will continue to create new myths and legends, and, the society its new images, new rituals and new taboos. In his book, Myths to Live By (1973), Joseph Campbell has argued this theme in detail. Playwright Ibsen and Psychologist Jung were of the opinion that human beings will always need life-supporting myths. |
|    | Question Description | The term used in the passage to imply "any restrictive religious practice or a prohibitive custom" is called a  |
|    | Α                    | taboo   |
|    | В                    | ritual  |
|    | С                    | myth  |
|    | D                    | legend  |
|    | Correct Answer       | A   |
|    | Marks                | 1   |
|    |                      |   |

| 4                    |  |
|----------------------|--|
| 4 Comprehension      | Read the following passage and answer the questions given below:   |
|                      | Science can certainly contribute its bit towards the development of a culture or towards shaping of subjective reality. In   |
|                      | the past, only the poets, the artists and the philosophers, particularly the poets, did this. Their languages have been  |
|                      | metaphoric and symbolic. They demand interpretation and re-interpretation to get to the underlying meaning. In future  |
|                      | too this would continue to be the dominant pattern of further development. Science may explode the myths about the moon, but poets will continue to create new myths and legends, and, the society its new images, new rituals and new |
|                      | taboos. In his book, Myths to Live By (1973), Joseph Campbell has argued this theme in detail. Playwright Ibsen and  |
|                      | Psychologist Jung were of the opinion that human beings will always need life-supporting myths.  |
| Question Description | Identify the word in the passage that is near synonymous with "an unauthenticated, historical story'   |
| Α                    | myth   |
| В                    | image  |
| С                    | legend   |
| D                    | none of the above  |
| Correct Answer       | C  |
| Marks                | 1  |
|                      |  |
|                      |  |
|                      |  |
|                      |  |
|                      |  |

| 35 | Comprehension        | Read the following passage and answer the questions given below:  |
|----|----------------------|---|
|    |                      | Science can certainly contribute its bit towards the development of a culture or towards shaping of subjective reality. In the past, only the poets, the artists and the philosophers, particularly the poets, did this. Their languages have been metaphoric and symbolic. They demand interpretation and re-interpretation to get to the underlying meaning. In future too this would continue to be the dominant pattern of further development. Science may explode the myths about the moon, but poets will continue to create new myths and legends, and, the society its new images, new rituals and new taboos. In his book, Myths to Live By (1973), Joseph Campbell has argued this theme in detail. Playwright Ibsen and Psychologist Jung were of the opinion that human beings will always need life-supporting myths. |
|    | Question Description | The passage seems to suggest that science has been at an arm's length from the subjective reality due to  |
|    | Α                    | its tendency to explode myths   |
|    | В                    | its distance from poetry, art and philosophy  |
|    | С                    | absence of metaphoric and symbolic content  |
|    | D                    | due to its empirical and objective approach,  |
|    | Correct Answer       | D   |
|    | Marks                | 1   |
|    |                      |   |

| 36 | Comprehension        | Read the following passage and answer the questions given below:   |
|----|----------------------|--|
|    |                      | The distinction between medicines and sensual drugs is simple. Sensual drugs are those that the body has no need for, but that give the user a strong sense of pleasure. Sensual drugs activate the brain's pleasure centres directly or activate them through chemical mimicryThe brain governs sensations, moods, thoughts and actions, not by a magical process but by an incredibly complex series of chemically regulated controls. These are easily upset by sensual drugs. This disturbance is apparent in the effects of the sensual drugs on the mechanism that controls pleasure and satisfaction. A drug user's craving for the brain's pleasure reflexes seems to be weakened by artificial stimulation Information from the senses still reaches the brain, but the brain is unable to evaluate and interpret it as pleasure. In contrast, naturally attained pleasures enlarge the sense of satisfaction and can be repeated indefinitely. |
|    | Question Description | As compared to medicinal drugs, the sensual drugs are undesirable because first and foremost   |
|    | A                    | they activate brain's pleasure centres   |
|    | В                    | they upset the brain's control system  |
|    | С                    | they are not needed by the body  |
|    | D                    | they artificially stimulate the brain  |
|    | Correct Answer       | С  |
|    | Marks                | 1  |
|    |                      |  |

| 37 | Comprehension        | Read the following passage and answer the questions given below:   |
|----|----------------------|--|
|    |                      | The distinction between medicines and sensual drugs is simple. Sensual drugs are those that the body has no need for, but that give the user a strong sense of pleasure. Sensual drugs activate the brain's pleasure centres directly or activate them through chemical mimicryThe brain governs sensations, moods, thoughts and actions, not by a magical process but by an incredibly complex series of chemically regulated controls. These are easily upset by sensual drugs. This disturbance is apparent in the effects of the sensual drugs on the mechanism that controls pleasure and satisfaction. A drug user's craving for the brain's pleasure reflexes seems to be weakened by artificial stimulation Information from the senses still reaches the brain, but the brain is unable to evaluate and interpret it as pleasure. In contrast, naturally attained pleasures enlarge the sense of satisfaction and can be repeated indefinitely. |
|    | Question Description | Identify from the options provided below, the phrase that does not aptly relate to the functioning of sensual drugs  |
|    | Α                    | chemical mimicry   |
|    | В                    | providing sense of pleasure  |
|    | С                    | unnatural stimulation  |
|    | D                    | magical process  |
|    | Correct Answer       | D  |
|    | Marks                | 1  |
|    |                      |  |

| 38 Compre | hension       | Read the following passage and answer the questions given below:   |
|-----------|---------------|--|
|           |               | The distinction between medicines and sensual drugs is simple. Sensual drugs are those that the body has no need for, but that give the user a strong sense of pleasure. Sensual drugs activate the brain's pleasure centres directly or activate them through chemical mimicryThe brain governs sensations, moods, thoughts and actions, not by a magical process but by an incredibly complex series of chemically regulated controls. These are easily upset by sensual drugs. This disturbance is apparent in the effects of the sensual drugs on the mechanism that controls pleasure and satisfaction. A drug user's craving for the brain's pleasure reflexes seems to be weakened by artificial stimulation Information from the senses still reaches the brain, but the brain is unable to evaluate and interpret it as pleasure. In contrast, naturally attained pleasures enlarge the sense of satisfaction and can be repeated indefinitely. |
| Questio   | n Description | A drug user's craving for pleasure reflexes is undermined due to   |
| Α         |               | its artificial stimulation   |
| В         |               | weakening of the reflexes  |
| С         |               | failure of the brain to process sensations   |
| D         |               | all these  |
| Correct   | Answer        | D  |
| Marks     |               | 1  |
|           |               |  |

| Comprehension        | Read the following passage and answer the questions given below:   |
|----------------------|--|
|                      | The distinction between medicines and sensual drugs is simple. Sensual drugs are those that the body has no need for, but that give the user a strong sense of pleasure. Sensual drugs activate the brain's pleasure centres directly or activate them through chemical mimicryThe brain governs sensations, moods, thoughts and actions, not by a magical process but by an incredibly complex series of chemically regulated controls. These are easily upset by sensual drugs. This disturbance is apparent in the effects of the sensual drugs on the mechanism that controls pleasure and satisfaction. A drug user's craving for the brain's pleasure reflexes seems to be weakened by artificial stimulation Information from the senses still reaches the brain, but the brain is unable to evaluate and interpret it as pleasure. In contrast, naturally attained pleasures enlarge the sense of satisfaction and can be repeated indefinitely. |
| Question Description | As against the pleasures from sensual drugs, the natural pleasures Complete the above statement by choosing an appropriate option from those provided below:   |
| Α                    | are artificially stimulated  |
| В                    | debilitate the pleasure reflexes   |
| С                    | disturb mental processes   |
| D                    | amplify the sense of satisfaction  |
| Correct Answer       | D  |
| Marks                | 1  |

| but that give the user a strong sense of pleasure. Sensual drugs activate the brain's pleasure centres directly or a them through chemical mimicryThe brain governs sensations, moods, thoughts and actions, not by a magical probut by an incredibly complex series of chemically regulated controls. These are easily upset by sensual drugs. This disturbance is apparent in the effects of the sensual drugs on the mechanism that controls pleasure and satisfaction drug user's craving for the brain's pleasure reflexes seems to be weakened by artificial stimulation Information for the brain's pleasure reflexes seems to be weakened by artificial stimulation | but that give the user a strong sense of pleasure. Sensual drugs activate the brain's pleasure centres directly or activate them through chemical mimicryThe brain governs sensations, moods, thoughts and actions, not by a magical process but by an incredibly complex series of chemically regulated controls. These are easily upset by sensual drugs. This disturbance is apparent in the effects of the sensual drugs on the mechanism that controls pleasure and satisfaction. A drug user's craving for the brain's pleasure reflexes seems to be weakened by artificial stimulation Information from the senses still reaches the brain, but the brain is unable to evaluate and interpret it as pleasure. In contrast, naturally attained pleasures enlarge the sense of satisfaction and can be repeated indefinitely.  Question Description  Identify the nearest antonym for 'artificial stimulation', in the sense used in the passage  A natural tranquilizer  B manmade de-energiser  C unnatural sedative  D natural excitement | Comprehension        | Read the following passage and answer the questions given below:   |
|---|---|----------------------|--|
| A natural tranquilizer  B manmade de-energiser  C unnatural sedative  D natural excitement  | A natural tranquilizer  B manmade de-energiser  C unnatural sedative  D natural excitement  Correct Answer A  |                      | disturbance is apparent in the effects of the sensual drugs on the mechanism that controls pleasure and satisfaction. A drug user's craving for the brain's pleasure reflexes seems to be weakened by artificial stimulation Information from the senses still reaches the brain, but the brain is unable to evaluate and interpret it as pleasure. In contrast, naturally |
| B manmade de-energiser  C unnatural sedative  D natural excitement  | B manmade de-energiser  C unnatural sedative  D natural excitement  Correct Answer A  | Question Description | Identify the nearest antonym for 'artificial stimulation', in the sense used in the passage  |
| C unnatural sedative  D natural excitement  | C unnatural sedative  D natural excitement  Correct Answer A  | Α                    | natural tranquilizer   |
| D natural excitement  | D natural excitement  Correct Answer A  | В                    | manmade de-energiser   |
|   | Correct Answer A  | С                    | unnatural sedative   |
| Correct Answer A  |   | D                    | natural excitement   |
|   | Marks 1   | Correct Answer       | A A  |
| Marks 1   |   | Marks                | 1  |

| 41 | Question Description | Marble is the metamorphosed form of                                    |
|----|----------------------|--|
|    | A                    | Shale  |
|    | В                    | Basalt   |
|    | С                    | Limestone  |
|    | D                    | Sandstone  |
|    | Correct Answer       | С  |
|    | Marks                | 1  |
|    |                      |  |
| 42 | Question Description | What was the theme of national science day of India for the year 2021? |
|    | Α                    | Women in Science   |
|    | В                    | Future of STI: Impact on Education Skills and Work                     |
|    | С                    | Science and Technology for Specially Abled Persons                     |
|    | D                    | Information Technology for Science Education                           |
|    | Correct Answer       | В  |
|    | Marks                | 1  |
|    |                      |  |
|    |                      |  |

| 43 | Question Description | Who invented the BALLPOINT PEN? |
|----|----------------------|---------------------------------|
|    | Α                    | Biro Brothers                   |
|    | В                    | Waterman Brothers               |
|    | С                    | Bicc Brothers                   |
|    | D                    | Write Brothers                  |
|    | Correct Answer       | A                               |
|    | Marks                | 1                               |
|    |                      |                                 |
| 44 | Question Description | R. K. Laxman is a renowned      |
|    | Α                    | Dance master                    |
|    | _                    |                                 |
|    | В                    | Writer                          |
|    | С                    | Writer Cartoonist               |
|    |                      |                                 |
|    | С                    | Cartoonist                      |
|    | C<br>D               | Cartoonist  Journalis           |

| 45 | Question Description | Ryder Cup is associated with which sport                     |
|----|----------------------|--|
|    | A                    | Horse Race   |
|    | В                    | Football   |
|    | С                    | Cycling  |
|    | D                    | Golf   |
|    | Correct Answer       | D  |
|    | Marks                | 1  |
|    |                      |  |
| 46 | Question Description | Jude Felix is a famous Indian player in which of the fields? |
|    | A                    | Volleyball   |
|    | В                    | Tennis   |
|    | С                    | Football   |
|    | D                    | Hockey   |
|    | Correct Answer       | D  |
|    | Marks                | 1  |
|    |                      |  |
|    |                      |  |

| 47 | Question Description | The super computer 'PARAM' was developed by              |
|----|----------------------|--|
|    | Α                    | TATA   |
|    | В                    | IIT-Kharagpur  |
|    | С                    | IIT-Kanpur   |
|    | D                    | C-DAC  |
|    | Correct Answer       | D  |
|    | Marks                | 1  |
|    |                      |  |
| 48 | Question Description | Where is the Sawai Jai Singh Stadium famous for cricket? |
|    | A                    | Ajmer  |
|    | В                    | Bharatpur  |
|    | С                    | Jodhpur  |
|    | D                    | Jaipur   |
|    | Correct Answer       | D  |
|    | Marks                | 1  |
|    |                      |  |

| 49 | Question Description   | In which of the following states Rawatbhata Nuclear Plant is situated? |
|----|------------------------|--|
|    | Α                      | Rajasthan  |
|    | В                      | Gujarat  |
|    | С                      | Madhya Pradesh   |
|    | D                      | Tamil Nadu   |
|    | Correct Answer         | A  |
|    | Marks                  | 1  |
|    |                        |  |
| 50 |                        |  |
|    | Question Description   | What is the number of players in each volleyball team?                 |
|    | A Question Description | What is the number of players in each volleyball team?  6              |
|    |                        |  |
|    | A                      | 6  |
|    | В                      | 6       8  |
|    | A<br>B<br>C            | 6<br>8<br>10   |
|    | A B C                  | 6<br>8<br>10   |

| 51 | Question Description | Complete the series 6, 11, 31, 121, 601, ?   |
|----|----------------------|--|
|    | Α                    | 3369   |
|    | В                    | 3660   |
|    | С                    | 3601   |
|    | D                    | 6788   |
|    | Correct Answer       | С  |
|    | Marks                | 1  |
|    |                      |  |
| 52 | Question Description | Read the passages given below and answer the questions that follow.  Efficiency is all right in its place, in the shop, the factory, the store. The trouble with efficiency is that it wants to rule our play as well as our work; it won't be content to reign in the shop, it follows us home.  It can be inferred from the above passage that |
|    | Α                    | Efficiency can become all pervading.   |
|    | В                    | Efficiency does not always pay.  |
|    | С                    | Efficiency can be more of a torture than a blessing.   |
|    | D                    | None of these  |
|    | Correct Answer       | A  |
|    | Marks                | 1  |
|    |                      |  |

| 53 | Question Description | For the series 0.5, 1.5,, 13.5, 40.5, what number should fill the blank?   |
|----|----------------------|--|
|    | Α                    | 4.2  |
|    | В                    | 4.5  |
|    | С                    | 5.5  |
|    | D                    | 5.2  |
|    | Correct Answer       | В  |
|    | Marks                | 1  |
|    |                      |  |
| 54 | Question Description | Peter walks 2 km towards the south and then walks 1 km to his left. Finally, he turns to his right and walks 2 km. In which direction is he from the starting point? |
|    |                      | is he from the starting point:   |
|    | Α                    | West   |
|    | В                    |  |
|    |                      | West   |
|    | В                    | West South   |
|    | В                    | West South South-West  |
|    | B<br>C<br>D          | West South South-West South-East   |

| 55 | Question Description | Critical reading is a demanding process. To read critically, you must slow down your reading and, with pencil in hand, perform specific operations on the text. Mark up the text with your reactions, conclusions, and questions. When you read, become an active participant.  This paragraph best supports the statement that |
|----|----------------------|---|
|    | А                    | critical reading is a slow, dull, but essential process.  |
|    | В                    | the best critical reading happens at critical times in a person's life.   |
|    | С                    | readers should get in the habit of questioning the truth of what they read.   |
|    | D                    | critical reading requires thoughtful and careful attention.   |
|    | Correct Answer       | D   |
|    | Marks                | 1   |

| Questio |          | John has to pay Rs. 5000 out of Rs. 6000 he earns each week towards his apartment rent. If John gets to keep Rs. 10000 this week, How much did he earn in total this week? |
|---------|----------|--|
| Α       |          | Rs 30000   |
| В       |          | Rs 60000   |
| С       |          | Rs 50000   |
| D       |          | None of these  |
| Correct | t Answer | В  |
| Marks   |          | 1  |

| 57 | Question Description | Find out the missing number in the given grid                              |
|----|----------------------|--|
|    |                      | 1     5     5       3     2     6       2     ?     10       7     1     7 |
|    | Α                    | 4  |
|    | В                    | 5  |
|    | С                    | 6  |
|    | D                    | 2  |
|    | Correct Answer       | В  |
|    | Marks                | 1  |
|    |                      |  |

| 58 | Question Description | Which word does not belong to others  |
|----|----------------------|---|
|    | A                    | Brake   |
|    | В                    | Clutch  |
|    | С                    | Truck   |
|    | D                    | Buspension  |
|    | Correct Answer       | C   |
|    | Marks                | 1   |
|    |                      |   |
| 59 | Question Description | In a memory test, a number is flashed on a screen for 3 seconds and four participants try to remember the number. Each of them recollects and writes a different number as given in the options below. Which of the number is most likely the flashed number? |
|    | A                    | 1800-9266   |
|    | В                    | 1800-9336   |
|    | С                    | 1800-9268   |
|    | D                    | 1800-8266   |
|    |                      |   |
|    | Correct Answer       | A   |
|    | Correct Answer Marks | A<br>1  |

| 60 | Question Description | Cases of food poisoning have been reported from village 'X'. After a dinner party arranged for 100 people, 68 have been admitted to the hospital, 36 cases are reported to be out of danger. The food, which was cooked and stored in open space for almost 12 hours earlier was served after reheating it. Investigation is going on - A news report.  Which of the following <b>can be hypothesized</b> from the above information? |
|----|----------------------|---|
|    | A                    | Late night dinner parties for large number of people result into food poisoning   |
|    | В                    | State food is likely to be the cause of food poisoning  |
|    | С                    | Cases of food poisoning need to be handled carefully  |
|    | D                    | Cases of food poisoning are not reported in urban dinner parties  |
|    | Correct Answer       | В   |
|    | Marks                | 1   |
|    |                      |   |
| 61 | Question Description | Which of the following will come in place of the question mark (?) in the following sequence?  PRODUCTIVITY, RODUCTIVIT, ODUCTIVI,?   |
|    | A                    | DUCTIV  |
|    | В                    | DUCTLY  |
|    | С                    | UCTIV   |
|    | D                    | DUCTI   |
|    | Correct Answer       | A   |
|    | Marks                | 1   |
|    |                      |   |

| Question Description | In each of the question below are given four statements followed by four conclusions numbered I, II III and IV You have to take the given statements to be true even if they seem to be at variance from commonly known facts Read all the conclusions and then decide which of the given conclusions logically follows from the given statement disregarding commonly known facts.  Statements:  Some pencils are kites Some kites are desks All desks are jungles All jungles are mountains  Conclusions:  I. Some mountains are pencils III. Some mountains are desks IV. Some jungles are kites |
|----------------------|---|
| Α                    | Only I and III follow   |
| В                    | Only I II and III follows   |
| С                    | Only III and IV follow  |
| D                    | Only II III and IV follow   |
| Correct Answer       | C   |
| Marks                | 1   |

| 63 | Question Description | In a certain code, COMPATIBLE is written as BQNPDDKAHS. How is STABILISED written in that code? |
|----|----------------------|---|
|    | A                    | JCBUTEDTHM  |
|    | В                    | JCBUTCDRHK  |
|    | С                    | JCBUTEFTJM  |
|    | D                    | TUBCJCDRHK  |
|    | Correct Answer       | В   |
|    | Marks                | 1   |

| 64 Question | Each question consists of five statements followed by options consisting of three statements put together in a specific order. Choose the option, which indicates a valid argument, that is, where the third statement is a conclusion drawn from the preceding two statements.  A. All software companies employ knowledge workers.  B. Tara Tech employs knowledge workers.  C. Tara Tech is a software company.  D. Some software companies employ knowledge workers.  E. Tara Tech employs only knowledge workers. |
|-------------|--|
| Α           | ABC  |
| В           | ACB  |
| С           | CDB  |
| D           | ACE  |
| Correct A   | er B   |
| Marks       | 1  |

| 65 Questio  | on Description | If you want hassle-free holiday package for city 'M' then join, only our tour, hurry up, only few seats available. An advertisement of 'XYZ' Tourist Company. If the above statement is true then which of the following <b>has been assumed</b> while making the statement? |
|-------------|----------------|--|
| Α           |                | Travel packages offered by other tour operators are neither cheap nor comfortable  |
| В           |                | Nowadays people have lot of money to spend for their comforts  |
| С           |                | No seats may be available with other tour operators for city 'M'   |
| D           |                | Many people desire convenience and comfort while going for a holiday   |
| Correct     | et Answer      | D  |
| Marks       |                | 1  |
| 66 Questio  | on Description | The perimeter of a rectangular field is 21 m and the length and the breadth are in the ratio 4:3. If poles are to be fixed along the boundary of this field by maintaining 1.5 m distance between adjacent poles, how many poles would be required?                          |
| Α           |                | 16   |
| В           |                | 15   |
| С           |                | 14   |
| D           |                | 20   |
| Correct     | t Answer       | C  |
| Marks       |                | 1  |
| B<br>C<br>D | et Answer      | 16 15 14 20 C  |

| 67 | Question Description | Statement I: The government has imported large quantities of onion from neighboring countries Statement II: The price of onion has reduced sharply in the domestic market in recent months |
|----|----------------------|--|
|    | Α                    | Statement II is the cause and statement I is its effect  |
|    | В                    | Statement I is the cause and statement II is its effect  |
|    | С                    | Both the statements are effects of independent causes  |
|    | D                    | Both the statements are independent causes   |
|    | Correct Answer       | В  |
|    | Marks                | 1  |

| Question Description | In making decisions about important questions, it is desirable to be able to distinguish between 'strong' arguments and 'weak' arguments 'Weak' arguments are those which are of minor importance and also may not be directly related to the question or may be related to a trivial aspect of the question. Each question below is followed by three arguments numbered (A) (B) and (C) You have to decide which of the arguments is a 'strong' argument and which is a 'weak' argument.  Statement:  Should there be complete ban on setting up of thermal power plants in India?  Arguments:  A. Yes, this is the only way to arrest further addition to environmental pollution.  B. No, there is a huge shortage of electricity in most parts of the country and hence generation of electricity needs to be augmented.  C. No many developed countries continue to set up thermal power plants in their countries. |
|----------------------|---|
| A                    | None is strong  |
| В                    | Only (A) is strong  |
| С                    | Only (B) is strong  |
| D                    | Only (C) is strong  |
| Correct Answer       | С   |
| Marks                | 1   |
|                      |   |

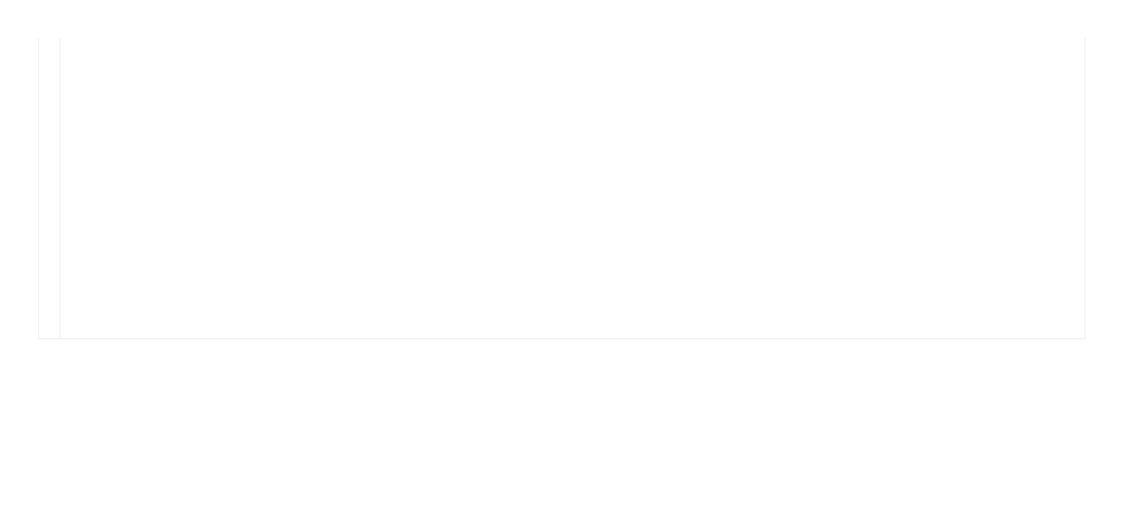
| 69 | Question Description | Needle is to tailor as pen is to |
|----|----------------------|----------------------------------|
|    | Α                    | write                            |
|    | В                    | draw                             |
|    | С                    | ink                              |
|    | D                    | poet                             |
|    | Correct Answer       | D                                |
|    | Marks                | 1                                |

| Comprehension        | Answer the questions on the basis of the information given below.  Five women decided to go shopping to M.G. Road, Bangalore. They arrived at the designated meeting place in the following order: 1. Archana, 2. Chellamma, 3. Dhenuka, 4. Helen, and 5. Shahnaz. Each woman spent at least Rs. 1000. Below are some additional facts about how much they spent during their shopping spree.  i. The woman who spent Rs. 2234 arrived before the lady who spent Rs. 1193.  ii. One woman spent Rs. 1340 and she was not Dhenuka.  iii. One woman spent Rs. 1378 more than Chellamma. |
|----------------------|---|
|                      | <ul><li>iv. One woman spent Rs. 2517 and she was not Archana.</li><li>v. Helen spent more than Dhenuka.</li><li>vi. Shahnaz spent the largest amount and Chellamma the smallest.</li></ul>  |
| Question Description | What was the amount spent by Helen?   |
| Α                    | Rs. 1193  |
| В                    | Rs. 1340  |
| С                    | Rs. 2234  |
| D                    | Rs. 2517  |
| Correct Answer       | В   |
| Marks                | 1   |

| 71 Comprehension     | Answer the questions on the basis of the information given below.  Five women decided to go shopping to M.G. Road, Bangalore. They arrived at the designated meeting place in the following order: 1. Archana, 2. Chellamma, 3. Dhenuka, 4. Helen, and 5. Shahnaz. Each woman spent at least Rs. 1000. Below are some additional facts about how much they spent during their shopping spree.  i. The woman who spent Rs. 2234 arrived before the lady who spent Rs. 1193.  ii. One woman spent Rs. 1340 and she was not Dhenuka.  iii. One woman spent Rs. 1378 more than Chellamma. |
|----------------------|---|
|                      | <ul><li>iv. One woman spent Rs. 2517 and she was not Archana.</li><li>v. Helen spent more than Dhenuka.</li><li>vi. Shahnaz spent the largest amount and Chellamma the smallest.</li></ul>  |
| Question Description | Which of the following amounts was spent by one of them?  |
| Α                    | Rs. 1139  |
| В                    | Rs. 1378  |
| С                    | Rs. 2571  |
| D                    | Rs. 2718  |
| Correct Answer       | A   |
| Marks                | 1   |
|                      |   |

| 70                   |   |
|----------------------|---|
| 72 Comprehension     | Answer the questions on the basis of the information given below.   |
|                      | Five women decided to go shopping to M.G. Road, Bangalore. They arrived at the designated meeting place in the following  |
|                      | order: 1. Archana, 2. Chellamma, 3. Dhenuka, 4. Helen, and 5. Shahnaz. Each woman spent at least Rs. 1000. Below are some |
|                      | additional facts about how much they spent during their shopping spree.   |
|                      | i. The woman who spent Rs. 2234 arrived before the lady who spent Rs. 1193.   |
|                      | ii. One woman spent Rs. 1340 and she was not Dhenuka.   |
|                      | iii. One woman spent Rs. 1378 more than Chellamma.  |
|                      | iv. One woman spent Rs. 2517 and she was not Archana.   |
|                      | v. Helen spent more than Dhenuka.   |
|                      | vi. Shahnaz spent the largest amount and Chellamma the smallest.  |
|                      |   |
|                      |   |
| Question Description | The woman who spent Rs. 1193 is   |
| Α                    | Archana   |
| В                    | Chellamma   |
| С                    | Dhenuka   |
| D                    | Helen   |
| Correct Answer       | С   |
| Marks                | 1   |
|                      |   |

| Comprehension        | Answer the questions based on the information given below.  |
|----------------------|---|
|                      | A country has the following types of traffic signals.   |
|                      | 3 red lights = stop   |
|                      | 2 red lights = turn left  |
|                      | 1 red light = turn right  |
|                      | 3 green lights = go at 100 km/hr speed  |
|                      | 2 green lights = go at 40 km/hr speed   |
|                      | 1 green light = go at 20 km/hr speed  |
|                      | A motorist starts at a point on a road and follows all traffic signals. His car is heading towards the north.                 |
|                      | He encounters the following signals (the time mentioned in each case below is applicable after crossing the previous signal). |
|                      | Starting point - 1 green light  |
|                      | After half an hour, 1st signal - 2 red and 2 green lights   |
|                      | After 15 min, 2nd signal - 1 red light  |
|                      | After half an hour, 3rd signal - 1 red and 3 green lights   |
|                      | After 24 min, 4th signal - 2 red and 2 green lights   |
|                      | After 15 min, 5th signal - 3 red lights   |
|                      |   |
| Question Description | The total distance travelled by the motorist from the starting point till the last signal is                                  |
| Α                    | 90 km   |
| В                    | 100 km  |
| С                    | 120 km  |
| D                    | None of these   |
| Correct Answer       | A   |
| OUT COL ALISWEI      |   |



| Comprehension        | Answer the questions based on the information given below.  |
|----------------------|---|
|                      | A country has the following types of traffic signals.   |
|                      | 3 red lights = stop   |
|                      | 2 red lights = turn left  |
|                      | 1 red light = turn right  |
|                      | 3 green lights = go at 100 km/hr speed  |
|                      | 2 green lights = go at 40 km/hr speed   |
|                      | 1 green light = go at 20 km/hr speed  |
|                      | A motorist starts at a point on a road and follows all traffic signals. His car is heading towards the north.                 |
|                      | He encounters the following signals (the time mentioned in each case below is applicable after crossing the previous signal). |
|                      | Starting point - 1 green light  |
|                      | After half an hour, 1st signal - 2 red and 2 green lights   |
|                      | After 15 min, 2nd signal - 1 red light  |
|                      | After half an hour, 3rd signal - 1 red and 3 green lights   |
|                      | After 24 min, 4th signal - 2 red and 2 green lights   |
|                      | After 15 min, 5th signal - 3 red lights   |
| Question Description | What is the position (radial distance) of the most motorist when he reaches the last signal?                                  |
| A                    | 45 km directly north of the starting point  |
| В                    | 30 km directly to the east of the starting point  |
| С                    | 50 km away to the north-east of the starting point  |
| D                    | 45 km away to the north-west of the starting point  |
| Correct Answer       | C   |
|                      |   |

| Comprehension        | Answer the questions based on the information given below.  |
|----------------------|---|
|                      | A country has the following types of traffic signals.   |
|                      | 3 red lights = stop   |
|                      | 2 red lights = turn left  |
|                      | 1 red light = turn right  |
|                      | 3 green lights = go at 100 km/hr speed  |
|                      | 2 green lights = go at 40 km/hr speed   |
|                      | 1 green light = go at 20 km/hr speed  |
|                      | A motorist starts at a point on a road and follows all traffic signals. His car is heading towards the north.               |
|                      | He encounters the following signals (the time mentioned in each case below is applicable after crossing the previous signal |
|                      | Starting point - 1 green light  |
|                      | After half an hour, 1st signal - 2 red and 2 green lights   |
|                      | After 15 min, 2nd signal - 1 red light  |
|                      | After half an hour, 3rd signal - 1 red and 3 green lights   |
|                      | After 24 min, 4th signal - 2 red and 2 green lights   |
|                      | After 15 min, 5th signal - 3 red lights   |
| Question Description | After the starting point if the 1st signal were 1 red and 2 green lights, hat would be the final position of the motorist?  |
| A                    | 30 km to the west and 20 km to the south  |
| В                    | 30 km to the west and 40 km to the north  |
| С                    | 50 km to the east and 40 km to the north  |
| D                    | Directly 30 km to the east  |

**Correct Answer** 

Marks

С

1

