

Computer Based Examination System

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| Exported On * | 2022/11/21 15:08:21   |
| Title *       | Question Paper Answer Key   |
| OES Exam *    | GPSC08202203 / Scientific Assistant in Forensic Science Laboratory in Toxicology, Chemistry and Narcotics/ Completed / 2022-11-19 |

|   |                             |   |
|---|-----------------------------|---|
| 1 | <b>Question Description</b> | Diacetyl Morphine is also named as .... |
|   | <b>A</b>                    | Amphetamine,                            |
|   | <b>B</b>                    | phencyclidine,                          |
|   | <b>C</b>                    | Heroin                                  |
|   | <b>D</b>                    | LSD                                     |
|   | <b>E</b>                    | None of the above                       |
|   | <b>Correct Answer</b>       | C                                       |
|   | <b>Marks</b>                | 1                                       |

2

|                             |  |
|-----------------------------|--|
| <b>Question Description</b> | Defence wound on palm and finger is indicative of... |
| <b>A</b>                    | Suicide  |
| <b>B</b>                    | Accident   |
| <b>C</b>                    | Homicide   |
| <b>D</b>                    | Facilitated  |
| <b>E</b>                    | None of the above                                    |
| <b>Correct Answer</b>       | C  |
| <b>Marks</b>                | 1  |

3

|                             |  |
|-----------------------------|--|
| <b>Question Description</b> | Monochromator in any instrument is used to convert light in to |
| <b>A</b>                    | Directional light  |
| <b>B</b>                    | High frequency light   |
| <b>C</b>                    | Low frequency light  |
| <b>D</b>                    | Single wave length light                                       |
| <b>E</b>                    | None of the above  |
| <b>Correct Answer</b>       | D  |
| <b>Marks</b>                | 1  |

|   |                             |   |
|---|-----------------------------|---|
| 4 | <b>Question Description</b> | Club drug that is used in drug facilitated sexual assaults and legally by veterinary as an animal tranquilizer is called... |
|   | <b>A</b>                    | Cocaine   |
|   | <b>B</b>                    | Ketamine  |
|   | <b>C</b>                    | Atropine  |
|   | <b>D</b>                    | Marijuana   |
|   | <b>E</b>                    | None of the above   |
|   | <b>Correct Answer</b>       | B   |
|   | <b>Marks</b>                | 1   |

|   |                             |                                      |
|---|-----------------------------|--------------------------------------|
| 5 | <b>Question Description</b> | Composition of snake venoms include- |
|   | <b>A</b>                    | Digestive Enzymes                    |
|   | <b>B</b>                    | Proteinases                          |
|   | <b>C</b>                    | Peptides                             |
|   | <b>D</b>                    | All of the above                     |
|   | <b>E</b>                    | None of the above                    |
|   | <b>Correct Answer</b>       | D                                    |
|   | <b>Marks</b>                | 1                                    |

|   |                             |  |
|---|-----------------------------|--|
| 6 | <b>Question Description</b> | Compound used as a reference for estimation of chemical shift in NMR studies is... |
|   | <b>A</b>                    | PMS  |
|   | <b>B</b>                    | FMS  |
|   | <b>C</b>                    | TMS  |
|   | <b>D</b>                    | SMS  |
|   | <b>E</b>                    | None of the above  |
|   | <b>Correct Answer</b>       | C  |
|   | <b>Marks</b>                | 1  |

|   |                             |                                       |
|---|-----------------------------|---------------------------------------|
| 7 | <b>Question Description</b> | A group of Nitrogenous organic bases- |
|   | <b>A</b>                    | Tranquillizer                         |
|   | <b>B</b>                    | Stimulant                             |
|   | <b>C</b>                    | Sedative                              |
|   | <b>D</b>                    | Alkaloid                              |
|   | <b>E</b>                    | None of the above                     |
|   | <b>Correct Answer</b>       | D                                     |
|   | <b>Marks</b>                | 1                                     |

|   |                             |   |
|---|-----------------------------|---|
| 8 | <b>Question Description</b> | What is the pH of $10^{-8}$ M HCl acid? |
|   | <b>A</b>                    | 8.0                                     |
|   | <b>B</b>                    | 7.9                                     |
|   | <b>C</b>                    | 6.9                                     |
|   | <b>D</b>                    | Can't say                               |
|   | <b>E</b>                    | None of the above                       |
|   | <b>Correct Answer</b>       | C                                       |
|   | <b>Marks</b>                | 1                                       |

|   |                             |   |
|---|-----------------------------|---|
| 9 | <b>Question Description</b> | In recent years, dynamite has been replaced commercially by.... |
|   | <b>A</b>                    | Nitroglycerine  |
|   | <b>B</b>                    | RDX   |
|   | <b>C</b>                    | Ammonium nitrate explosive                                      |
|   | <b>D</b>                    | TATP  |
|   | <b>E</b>                    | None of the above   |
|   | <b>Correct Answer</b>       | C   |
|   | <b>Marks</b>                | 1   |

|    |                             |   |
|----|-----------------------------|---|
| 10 | <b>Question Description</b> | IR spectra normally recorded in the range from..... to..... |
|    | <b>A</b>                    | 4000 to 100cm <sup>-1</sup>                                 |
|    | <b>B</b>                    | 4000 to 400 cm <sup>-1</sup>                                |
|    | <b>C</b>                    | 4000 to 200 cm <sup>-1</sup>                                |
|    | <b>D</b>                    | 3000 to 400 cm <sup>-1</sup>                                |
|    | <b>E</b>                    | None of the above   |
|    | <b>Correct Answer</b>       | B   |
|    | <b>Marks</b>                | 1   |

|    |                             |   |
|----|-----------------------------|---|
| 11 | <b>Question Description</b> | A drug which eliminates pain is called. |
|    | <b>A</b>                    | Sedative                                |
|    | <b>B</b>                    | Depressant                              |
|    | <b>C</b>                    | Stimulants                              |
|    | <b>D</b>                    | Analgesic                               |
|    | <b>E</b>                    | None of the above                       |
|    | <b>Correct Answer</b>       | D                                       |
|    | <b>Marks</b>                | 1                                       |

|    |                             |                           |
|----|-----------------------------|---------------------------|
| 12 | <b>Question Description</b> | Ionic product of water is |
|    | <b>A</b>                    | $1 \times 10^{-14}$       |
|    | <b>B</b>                    | $1 \times 10^{14}$        |
|    | <b>C</b>                    | $1 \times 10^7$           |
|    | <b>D</b>                    | $1 \times 10^{-7}$        |
|    | <b>E</b>                    | None of the above         |
|    | <b>Correct Answer</b>       | A                         |
|    | <b>Marks</b>                | 1                         |

|    |                             |  |
|----|-----------------------------|--|
| 13 | <b>Question Description</b> | The Scott color test is a screening test for which drug? |
|    | <b>A</b>                    | Codeine  |
|    | <b>B</b>                    | Barbiturates   |
|    | <b>C</b>                    | Cocaine  |
|    | <b>D</b>                    | Marijuana  |
|    | <b>E</b>                    | None of the above  |
|    | <b>Correct Answer</b>       | C  |
|    | <b>Marks</b>                | 1  |

|    |                             |                                  |
|----|-----------------------------|----------------------------------|
| 14 | <b>Question Description</b> | Fluorescence is ..... Transition |
|    | <b>A</b>                    | Single to singlet                |
|    | <b>B</b>                    | Triple to singlet                |
|    | <b>C</b>                    | Triple to triplet                |
|    | <b>D</b>                    | Single to triplet                |
|    | <b>E</b>                    | None of the above                |
|    | <b>Correct Answer</b>       | A                                |
|    | <b>Marks</b>                | 1                                |

|    |                             |  |
|----|-----------------------------|--|
| 15 | <b>Question Description</b> | The Argemone oil is adulterated in mustard oil, which causes the disease Epidemic dropsy. What is the toxic constituent of the argemone oil? |
|    | <b>A</b>                    | Morphine   |
|    | <b>B</b>                    | Tetra hydro cannabinol (THC)   |
|    | <b>C</b>                    | Ricinine   |
|    | <b>D</b>                    | Sanguinarine   |
|    | <b>E</b>                    | None of the above  |
|    | <b>Correct Answer</b>       | D  |
|    | <b>Marks</b>                | 1  |

|    |                             |  |
|----|-----------------------------|--|
| 16 | <b>Question Description</b> | The common poison encountered in Farming community - |
|    | <b>A</b>                    | Sodium Cyanide                                       |
|    | <b>B</b>                    | Copper sulphate                                      |
|    | <b>C</b>                    | Aluminium Phosphide                                  |
|    | <b>D</b>                    | Phenobarbital  |
|    | <b>E</b>                    | None of the above                                    |
|    | <b>Correct Answer</b>       | C  |
|    | <b>Marks</b>                | 1  |

|    |                             |  |
|----|-----------------------------|--|
| 17 | <b>Question Description</b> | Pyrolysis Gas Chromatography is usually associated with the examination of which of the following? |
|    | <b>A</b>                    | Blood Alcohol Estimation   |
|    | <b>B</b>                    | Serum Protein Estimation   |
|    | <b>C</b>                    | Paint Analysis   |
|    | <b>D</b>                    | All of the above   |
|    | <b>E</b>                    | None of the above  |
|    | <b>Correct Answer</b>       | C  |
|    | <b>Marks</b>                | 1  |

|    |                             |                                   |
|----|-----------------------------|-----------------------------------|
| 18 | <b>Question Description</b> | “Sindur” used by ladies contains: |
|    | <b>A</b>                    | Lead acetate                      |
|    | <b>B</b>                    | Lead chromate                     |
|    | <b>C</b>                    | Lead tetraoxide                   |
|    | <b>D</b>                    | Lead carbonate                    |
|    | <b>E</b>                    | None of the above                 |
|    | <b>Correct Answer</b>       | C                                 |
|    | <b>Marks</b>                | 1                                 |

|    |                             |  |
|----|-----------------------------|--|
| 19 | <b>Question Description</b> | Supersonic explosions created by high explosives are known as... |
|    | <b>A</b>                    | Detonation   |
|    | <b>B</b>                    | Brisance   |
|    | <b>C</b>                    | Sonic explosion  |
|    | <b>D</b>                    | Deflagaration  |
|    | <b>E</b>                    | None of the above  |
|    | <b>Correct Answer</b>       | A  |
|    | <b>Marks</b>                | 1  |

|    |                             |   |
|----|-----------------------------|---|
| 20 | <b>Question Description</b> | Epidemic dropsy is caused by consuming: |
|    | <b>A</b>                    | Nux vomica                              |
|    | <b>B</b>                    | Mustard oil                             |
|    | <b>C</b>                    | Argemone Mexicana oil                   |
|    | <b>D</b>                    | Lathyrussativus                         |
|    | <b>E</b>                    | None of the above                       |
|    | <b>Correct Answer</b>       | C                                       |
|    | <b>Marks</b>                | 1                                       |

|    |                             |  |
|----|-----------------------------|--|
| 21 | <b>Question Description</b> | Magnetic field applied in N.M.R Spectrophotometer is |
|    | <b>A</b>                    | 2 T  |
|    | <b>B</b>                    | 1.4 T  |
|    | <b>C</b>                    | 2.4T   |
|    | <b>D</b>                    | 3.0 N  |
|    | <b>E</b>                    | None of the above                                    |
|    | <b>Correct Answer</b>       | B  |
|    | <b>Marks</b>                | 1  |

|    |                             |  |
|----|-----------------------------|--|
| 22 | <b>Question Description</b> | Abbreviation of HPLC is                |
|    | <b>A</b>                    | High Pitched liquid Chromatography     |
|    | <b>B</b>                    | High Pressure liquid Chromatography    |
|    | <b>C</b>                    | Heavy Pitched liquid Chromatography    |
|    | <b>D</b>                    | High Performance Liquid Chromatography |
|    | <b>E</b>                    | None of the above                      |
|    | <b>Correct Answer</b>       | D                                      |
|    | <b>Marks</b>                | 1                                      |

|    |                             |  |
|----|-----------------------------|--|
| 23 | <b>Question Description</b> | Which of the following leave yellow spot on explosion? |
|    | <b>A</b>                    | RDX  |
|    | <b>B</b>                    | TNT  |
|    | <b>C</b>                    | Picric acid  |
|    | <b>D</b>                    | HMX  |
|    | <b>E</b>                    | None of the above                                      |
|    | <b>Correct Answer</b>       | C  |
|    | <b>Marks</b>                | 1  |

|    |                             |  |
|----|-----------------------------|--|
| 24 | <b>Question Description</b> | The normality of 1.96 gm of sulphuric acid is dissolved in 100 ml of water. The normality of the solution will be... |
|    | <b>A</b>                    | 0.1  |
|    | <b>B</b>                    | 0.2  |
|    | <b>C</b>                    | 0.3  |
|    | <b>D</b>                    | 0.4  |
|    | <b>E</b>                    | None of the above  |
|    | <b>Correct Answer</b>       | D  |
|    | <b>Marks</b>                | 1  |

|    |                             |   |
|----|-----------------------------|---|
| 25 | <b>Question Description</b> | Correct mathematical statement for Bragg's Law is ..... |
|    | <b>A</b>                    | $d\lambda = 2n\sin\theta$                               |
|    | <b>B</b>                    | $d\lambda = 2d\sin\theta$                               |
|    | <b>C</b>                    | $nd\lambda = 2\sin\theta$                               |
|    | <b>D</b>                    | $n\lambda = 2d\sin\theta$                               |
|    | <b>E</b>                    | None of the above                                       |
|    | <b>Correct Answer</b>       | D   |
|    | <b>Marks</b>                | 1   |

|    |                             |  |
|----|-----------------------------|--|
| 26 | <b>Question Description</b> | Which of the following is a source of naturally occurring hallucinogens psilocin and psilocybin? |
|    | <b>A</b>                    | Poppy plant  |
|    | <b>B</b>                    | Marijuana leaves   |
|    | <b>C</b>                    | Coca leaves  |
|    | <b>D</b>                    | A type of mushroom   |
|    | <b>E</b>                    | None of the above  |
|    | <b>Correct Answer</b>       | D  |
|    | <b>Marks</b>                | 1  |

|    |                             |   |
|----|-----------------------------|---|
| 27 | <b>Question Description</b> | Electrophoresis of positively charged particles (cations) is called.....while electrophoresis of negatively charged particles (anions) is called..... |
|    | <b>A</b>                    | Cataphoresis, Anaphoresis.  |
|    | <b>B</b>                    | Reverse migration, Migration.   |
|    | <b>C</b>                    | Anaphoresis, Cataphoresis.  |
|    | <b>D</b>                    | Migration, reverse migration.   |
|    | <b>E</b>                    | None of the above   |
|    | <b>Correct Answer</b>       | A   |
|    | <b>Marks</b>                | 1   |



|    |                             |   |
|----|-----------------------------|---|
| 28 | <b>Question Description</b> | According to Huckel molecular orbital theory aromatic compounds should have ..... $\pi$ electrons |
|    | <b>A</b>                    | $2n+4$  |
|    | <b>B</b>                    | $4n+2$  |
|    | <b>C</b>                    | $3n+1$  |
|    | <b>D</b>                    | $2n+3$  |
|    | <b>E</b>                    | None of the above   |
|    | <b>Correct Answer</b>       | B   |
|    | <b>Marks</b>                | 1   |

|    |                             |  |
|----|-----------------------------|--|
| 29 | <b>Question Description</b> | Fluorescence Detector, Refractive index detector, UV visible detector, are widely used detectors in- |
|    | <b>A</b>                    | GC   |
|    | <b>B</b>                    | FTIR   |
|    | <b>C</b>                    | HPTLC  |
|    | <b>D</b>                    | HPLC   |
|    | <b>E</b>                    | None of the above  |
|    | <b>Correct Answer</b>       | D  |
|    | <b>Marks</b>                | 1  |

|    |                             |  |
|----|-----------------------------|--|
| 30 | <b>Question Description</b> | For the low boiling point volatiles, best technique for identification is- |
|    | <b>A</b>                    | GC-HS-MS   |
|    | <b>B</b>                    | FTIR   |
|    | <b>C</b>                    | UPLC   |
|    | <b>D</b>                    | HPTLC  |
|    | <b>E</b>                    | None of the above  |
|    | <b>Correct Answer</b>       | A  |
|    | <b>Marks</b>                | 1  |

|    |                      |  |
|----|----------------------|--|
| 31 | <b>Comprehension</b> | <p>To teach is to create a space in which obedience to truth is practised. Space may sound like a vague, poetic metaphor until we realise that it describes experiences of everyday life. We know what it means to be in a green and open field. We know what it means on a crowded rush hour bus. These experiences of physical space have parallels in our relationships with others. On our job we know what it is to be pressed and crowded, our working space diminished by the urgency of deadlines and competitiveness of colleagues. But there are times when deadlines disappear and colleagues co-operate, when everyone has space to move, invent, produce with energy and enthusiasm. With family and friends, we know how it feels to have unreasonable demands placed on us, to be boxed in by the expectations of those nearest to us. But then, there are times when we feel accepted as who we are (or forgiven for who we are not), what at times a spouse or a child or a friend gives us the space both to be and to become.</p> |
|----|----------------------|--|

|                             |   |
|-----------------------------|---|
| <b>Question Description</b> | <p>With the help of the options provided, match the following phrases so as to convey the sense they represent in the passage as closely as possible</p> <p>(i) space as a vague, poetic metaphor      (a) represent constraining working space<br/> (ii) a green and open field                      (b) is akin to space both to be and to become<br/> (iii) too many deadlines and competitions    (c) can capture everyday experiences<br/> (iv) emotion of acceptance and enthusiasm    (d) show the absence of feeling of space<br/> (e) indicates soothing and expansive space</p> |
| <b>A</b>                    | (i)-(c);(ii)-(e);(iii)-(a);(iv)-(b)   |
| <b>B</b>                    | (i)-(d);(ii)-(e);(iii)-(a);(iv)-(b)   |
| <b>C</b>                    | (i)-(c);(ii)-(b);(iii)-(d);(iv)-(e)   |
| <b>D</b>                    | (i)-(c);(ii)-(b);(iii)-(d);(iv)-(e)   |
| <b>E</b>                    | None of the above   |
| <b>Correct Answer</b>       | A   |
| <b>Marks</b>                | 1   |

**Comprehension**

To teach is to create a space in which obedience to truth is practised. Space may sound like a vague, poetic metaphor until we realise that it describes experiences of everyday life. We know what it means to be in a green and open field. We know what it means on a crowded rush hour bus. These experiences of physical space have parallels in our relationships with others. On our job we know what it is to be pressed and crowded, our working space diminished by the urgency of deadlines and competitiveness of colleagues. But there are times when deadlines disappear and colleagues co-operate, when everyone has space to move, invent, produce with energy and enthusiasm. With family and friends, we know how it feels to have unreasonable demands placed on us, to be boxed in by the expectations of those nearest to us. But then, there are times when we feel accepted as who we are (or forgiven for who we are not), what at times a spouse or a child or a friend gives us the space both to be and to become.

**Question Description**

In the passage, "space" is precisely defined as -----

**A**

a vague, poetic metaphor

**B**

a vague sounding metaphor for life

**C**

descriptive of everyday experiences

**D**

physical, mental and emotional states

**E**

None of the above

**Correct Answer**

C

**Marks**

1

33

**Comprehension**

To teach is to create a space in which obedience to truth is practised. Space may sound like a vague, poetic metaphor until we realise that it describes experiences of everyday life. We know what it means to be in a green and open field. We know what it means on a crowded rush hour bus. These experiences of physical space have parallels in our relationships with others. On our job we know what it is to be pressed and crowded, our working space diminished by the urgency of deadlines and competitiveness of colleagues. But there are times when deadlines disappear and colleagues co-operate, when everyone has space to move, invent, produce with energy and enthusiasm. With family and friends, we know how it feels to have unreasonable demands placed on us, to be boxed in by the expectations of those nearest to us. But then, there are times when we feel accepted as who we are (or forgiven for who we are not), what at times a spouse or a child or a friend gives us the space both to be and to become.

**Question Description**

By using the metaphors of “crowded, rush hour bus” as indicating physical space, the passage tries to throw up a parallel with

**A**

constrictive office space

**B**

demanding emotional space

**C**

diminishing working space

**D**

being boxed in by expectations

**E**

None of the above

**Correct Answer**

C

**Marks**

1

34

**Comprehension**

To teach is to create a space in which obedience to truth is practised. Space may sound like a vague, poetic metaphor until we realise that it describes experiences of everyday life. We know what it means to be in a green and open field. We know what it means on a crowded rush hour bus. These experiences of physical space have parallels in our relationships with others. On our job we know what it is to be pressed and crowded, our working space diminished by the urgency of deadlines and competitiveness of colleagues. But there are times when deadlines disappear and colleagues co-operate, when everyone has space to move, invent, produce with energy and enthusiasm. With family and friends, we know how it feels to have unreasonable demands placed on us, to be boxed in by the expectations of those nearest to us. But then, there are times when we feel accepted as who we are (or forgiven for who we are not), what at times a spouse or a child or a friend gives us the space both to be and to become.

**Question Description**

The use of phrases like, “unreasonable demands” or “boxed in by expectations”, or “being accepted” or “forgiven for being what we are”, in the passage mainly try to describe

**A**

favourable and unfavourable relationships

**B**

the emotional space of an individual

**C**

mental turmoil followed by peace

**D**

the struggle to find calmness after strife

**E**

None of the above

**Correct Answer**

B

**Marks**

1

35

**Comprehension**

To teach is to create a space in which obedience to truth is practised. Space may sound like a vague, poetic metaphor until we realise that it describes experiences of everyday life. We know what it means to be in a green and open field. We know what it means on a crowded rush hour bus. These experiences of physical space have parallels in our relationships with others. On our job we know what it is to be pressed and crowded, our working space diminished by the urgency of deadlines and competitiveness of colleagues. But there are times when deadlines disappear and colleagues co-operate, when everyone has space to move, invent, produce with energy and enthusiasm. With family and friends, we know how it feels to have unreasonable demands placed on us, to be boxed in by the expectations of those nearest to us. But then, there are times when we feel accepted as who we are (or forgiven for who we are not), what at times a spouse or a child or a friend gives us the space both to be and to become.

**Question Description**

“To teach is to create a space in which obedience to truth is practised”.  
Select from the options given, the one that is closest to the sense of the above statement.

**A**

Teaching is the physical, mental and emotional preparation for everyday experiences

**B**

Teaching gives rise to a physical and emotional readiness to face the truth of life.

**C**

Teaching makes one aware of the physical and emotional dimensions of everyday life.

**D**

Teaching is the practical preparation to face the reality of everyday experiences of life.

**E**

None of the above

**Correct Answer**

D

**Marks**

1

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**Comprehension**

Until recently, Japanese corporates have not been interested in using either local or foreign business schools for the development of their future executives. Their in-company programmes have sought the socialisation of the newcomers, the younger the better. The training is highly specific and those who receive it, have neither the capacity nor the incentive to quit. The prevailing belief says Imai, is that management should be born out of experiences and many years of efforts and not learnt from educational institutions. A 1960s survey of Japanese senior executives confirmed that a majority (54%) believed that management capabilities can be attained only on the job and not in universities. However, this view seems to be changing: the same survey revealed that even as early as 1960, 37% of senior executives felt that the universities should teach integrated professional management.

**Question Description**

From the options provided below, select the one which indicates the shortcomings of the in-company

**A** it is too specific to capacitate or incentivise to move to other avenues

**B** it is obtained on the job, not in the educational institutions/universities

**C** it seeks socialization of the preferably young newcomers

**D** it is obtained after years of experience /effort

**E** None of the above

**Correct Answer** A

**Marks** 1

37

|                             |   |
|-----------------------------|---|
| <b>Comprehension</b>        | <p>Until recently, Japanese corporates have not been interested in using either local or foreign business schools for the development of their future executives. Their in-company programmes have sought the socialisation of the newcomers, the younger the better. The training is highly specific and those who receive it, have neither the capacity nor the incentive to quit. The prevailing belief says Imai, is that management should be born out of experiences and many years of efforts and not learnt from educational institutions. A 1960s survey of Japanese senior executives confirmed that a majority (54%) believed that management capabilities can be attained only on the job and not in universities. However, this view seems to be changing: the same survey revealed that even as early as 1960, 37% of senior executives felt that the universities should teach integrated professional management.</p> |
| <b>Question Description</b> | <p>Arrange the following statements in their logical order so as to read like an integral argument:</p> <ol style="list-style-type: none"> <li>i. The socialization of the newcomers entails hand-on experiences and long effort</li> <li>ii. Japanese Corporates trust their own in-company training for their business executives</li> <li>iii. It is widely believed that managerial capabilities can be built only on the job and not in the business schools.</li> <li>iv. A shortcoming of this process is that the training is often too precise for wider application and greener pastures.</li> </ol>  |
| <b>A</b>                    | (i); (ii); (iii); and (iv)  |
| <b>B</b>                    | (iii); (ii); (i); and (iv)  |
| <b>C</b>                    | (ii); (iii); (i); and (iv)  |
| <b>D</b>                    | (ii); (iii); (iv); and (i)  |
| <b>E</b>                    | None of the above   |
| <b>Correct Answer</b>       | C   |
| <b>Marks</b>                | 1   |

38

**Comprehension**

Until recently, Japanese corporates have not been interested in using either local or foreign business schools for the development of their future executives. Their in-company programmes have sought the socialisation of the newcomers, the younger the better. The training is highly specific and those who receive it, have neither the capacity nor the incentive to quit. The prevailing belief says Imai, is that management should be born out of experiences and many years of efforts and not learnt from educational institutions. A 1960s survey of Japanese senior executives confirmed that a majority (54%) believed that management capabilities can be attained only on the job and not in universities. However, this view seems to be changing: the same survey revealed that even as early as 1960, 37% of senior executives felt that the universities should teach integrated professional management.

**Question Description**

Read the following statements carefully and state whether they are true or false:

- i. Japanese corporates had preferred their own in-company programmes over business schools for the development of their future executives.
- ii. However, there are signs that this has slowly begun to change

**A**

Statement (i) is true but statement (ii) is false

**B**

Statement (i) is false but statement (ii) is true

**C**

Statements (i) and (ii) are both true

**D**

Statements (i) and (ii) are both false

**E**

None of the above

**Correct Answer**

C

**Marks**

1

39

**Comprehension**

Until recently, Japanese corporates have not been interested in using either local or foreign business schools for the development of their future executives. Their in-company programmes have sought the socialisation of the newcomers, the younger the better. The training is highly specific and those who receive it, have neither the capacity nor the incentive to quit. The prevailing belief says Imai, is that management should be born out of experiences and many years of efforts and not learnt from educational institutions. A 1960s survey of Japanese senior executives confirmed that a majority (54%) believed that management capabilities can be attained only on the job and not in universities. However, this view seems to be changing: the same survey revealed that even as early as 1960, 37% of senior executives felt that the universities should teach integrated professional management.

**Question Description**

“Until recently, Japanese corporates have not been interested in using either local or foreign business schools for the development of their future executives”.

The above statement implies that the Japanese Corporates are

**A**

inclined towards some local or foreign business schools

**B**

hardly interested in the development of their future executives

**C**

not interested in trained business executives

**D**

gradually revising their view of business schools

**E**

None of the above

**Correct Answer**

D

**Marks**

1

40

**Comprehension**

Until recently, Japanese corporates have not been interested in using either local or foreign business schools for the development of their future executives. Their in-company programmes have sought the socialisation of the newcomers, the younger the better. The training is highly specific and those who receive it, have neither the capacity nor the incentive to quit. The prevailing belief says Imai, is that management should be born out of experiences and many years of efforts and not learnt from educational institutions. A 1960s survey of Japanese senior executives confirmed that a majority (54%) believed that management capabilities can be attained only on the job and not in universities. However, this view seems to be changing: the same survey revealed that even as early as 1960, 37% of senior executives felt that the universities should teach integrated professional management.

**Question Description**

From the options provided below, identify the one that is farthest in meaning to the term “incentive” as it is used in the passage

**A**

demotion

**B**

discouragement

**C**

deterrent

**D**

inducement

**E**

None of the above

**Correct Answer**

C

**Marks**

1

|    |                             |  |
|----|-----------------------------|--|
| 41 | <b>Question Description</b> | Which Shipbuilding Company will build India's first Hydrogen Fuel Cell catamaran Vessel? |
|    | <b>A</b>                    | Cochin Shipyard  |
|    | <b>B</b>                    | Mazagon Dock Shipbuilders  |
|    | <b>C</b>                    | Hindustan Shipyard   |
|    | <b>D</b>                    | Garden Reach Shipbuilders  |
|    | <b>E</b>                    | None of the above  |
|    | <b>Correct Answer</b>       | A  |
|    | <b>Marks</b>                | 1  |

|    |                             |   |
|----|-----------------------------|---|
| 42 | <b>Question Description</b> | What is the theme of the 7th India Water Week?        |
|    | <b>A</b>                    | Water Security for Sustainable Development and Equity |
|    | <b>B</b>                    | Sustainable Development and Equity                    |
|    | <b>C</b>                    | Water Security and Sustainable Development            |
|    | <b>D</b>                    | Water Conservation for Sustainable Development        |
|    | <b>E</b>                    | None of the above                                     |
|    | <b>Correct Answer</b>       | A   |
|    | <b>Marks</b>                | 1   |

43

|                             |   |
|-----------------------------|---|
| <b>Question Description</b> | NASA's OSIRIS-REx spacecraft has begun its 2-year journey back to Earth after collecting samples from which asteroid? |
| <b>A</b>                    | Bennu   |
| <b>B</b>                    | Ceres   |
| <b>C</b>                    | Vesta   |
| <b>D</b>                    | Juno  |
| <b>E</b>                    | None of the above   |
| <b>Correct Answer</b>       | A   |
| <b>Marks</b>                | 1   |

|    |                             |   |
|----|-----------------------------|---|
| 44 | <b>Question Description</b> | Shri Shaktikanta Das, launched a new SupTech initiative named DAKSH for which of the following purpose for RBI? |
|    | <b>A</b>                    | Supervisory Purpose   |
|    | <b>B</b>                    | Automation process for controlling credit flow  |
|    | <b>C</b>                    | Check issuance of Bank notes and Coins  |
|    | <b>D</b>                    | Manage foreign reserves   |
|    | <b>E</b>                    | None of the above   |
|    | <b>Correct Answer</b>       | A   |
|    | <b>Marks</b>                | 1   |
| 45 | <b>Question Description</b> | The National Ayurveda day is celebrated on which date?  |
|    | <b>A</b>                    | October 22  |
|    | <b>B</b>                    | October 23  |
|    | <b>C</b>                    | October 24  |
|    | <b>D</b>                    | October 25  |
|    | <b>E</b>                    | None of the above   |
|    | <b>Correct Answer</b>       | B   |
|    | <b>Marks</b>                | 1   |

|    |                             |   |
|----|-----------------------------|---|
| 46 | <b>Question Description</b> | Which substance's abundance on the moon has been mapped for the first time by the Chandrayaan-2 spectrometer of ISRO? |
|    | <b>A</b>                    | Sodium  |
|    | <b>B</b>                    | Iron  |
|    | <b>C</b>                    | Nitrogen  |
|    | <b>D</b>                    | Calcium   |
|    | <b>E</b>                    | None of the above   |
|    | <b>Correct Answer</b>       | A   |
|    | <b>Marks</b>                | 1   |

|    |                             |   |
|----|-----------------------------|---|
| 47 | <b>Question Description</b> | What is the theme of Global Handwashing Day 2022?   |
|    | <b>A</b>                    | Our Future is at Hand - Let's Move Forward Together |
|    | <b>B</b>                    | SAVE LIVES: Clean your hands                        |
|    | <b>C</b>                    | Clean Hands for All                                 |
|    | <b>D</b>                    | Unite for Universal Hand Hygiene                    |
|    | <b>E</b>                    | None of the above                                   |
|    | <b>Correct Answer</b>       | D   |
|    | <b>Marks</b>                | 1   |

|    |                             |  |
|----|-----------------------------|--|
| 48 | <b>Question Description</b> | Which two Indian Beaches entered the list of blue beaches? |
|    | <b>A</b>                    | Kadmat Beach & Thundi Beach                                |
|    | <b>B</b>                    | Elephant Beach & Bangaram beach                            |
|    | <b>C</b>                    | Elephant Beach & Kala Patthar Beach                        |
|    | <b>D</b>                    | Bangaram beach & Kala Patthar Beach                        |
|    | <b>E</b>                    | None of the above  |
|    | <b>Correct Answer</b>       | A  |
|    | <b>Marks</b>                | 1  |

|    |                             |   |
|----|-----------------------------|---|
| 49 | <b>Question Description</b> | India's first Aqua Park will be established in which state? |
|    | <b>A</b>                    | Maharashtra   |
|    | <b>B</b>                    | Kerala  |
|    | <b>C</b>                    | Arunachal Pradesh   |
|    | <b>D</b>                    | Goa   |
|    | <b>E</b>                    | None of the above   |
|    | <b>Correct Answer</b>       | C   |
|    | <b>Marks</b>                | 1   |

|    |                             |   |
|----|-----------------------------|---|
| 50 | <b>Question Description</b> | Who won FIFA U-17 Women's World Cup 2022? |
|    | <b>A</b>                    | Colombia                                  |
|    | <b>B</b>                    | Nigeria                                   |
|    | <b>C</b>                    | Germany                                   |
|    | <b>D</b>                    | Spain                                     |
|    | <b>E</b>                    | None of the above                         |
|    | <b>Correct Answer</b>       | D   |
|    | <b>Marks</b>                | 1   |

|    |                             |  |
|----|-----------------------------|--|
| 51 | <b>Question Description</b> | <p><b>Study the following information carefully and answer the questions given beside:</b></p> <p>In a certain code language,</p> <p>'There is Park' is written as 'nup yex ace'</p> <p>'People in Schools' is written as 'ybx cvu vcl'</p> <p>'Several Schools Are Present There' is written as 'cal del vuc ybx yex'</p> <p>'Park is Dark' is written as 'nup cig ace'</p> <p>'Dark People in Several Park' is written as 'vcl cal nup cig cvu'</p> <p><b>What could be the code 'cig ybx gkl vcl' stand for in the given code language?</b></p> |
|----|-----------------------------|--|

|                       |                            |
|-----------------------|----------------------------|
| <b>A</b>              | Dark In People There Park  |
| <b>B</b>              | Near People Dark Schools   |
| <b>C</b>              | Schools Present There Park |
| <b>D</b>              | People Set Park Schools    |
| <b>E</b>              | None of the above          |
| <b>Correct Answer</b> | B                          |
| <b>Marks</b>          | 1                          |

**Question Description**

**Study the following information carefully and answer the questions given beside:**

In a certain code language,

'There is Park' is written as 'nup yex ace'

'People in Schools' is written as 'ybx cvu vcl'

'Several Schools Are Present There' is written as 'cal del vuc ybx yex'

'Park is Dark' is written as 'nup cig ace'

'Dark People in Several Park' is written as 'vcl cal nup cig cvu'

**Which of the following could be the code for 'all present park there'?**

**A** del yex clu nup

**B** cuv aec pun exy

**C** clu exy gic pun

**D** uvc pun exy led

**E** None of the above

**Correct Answer** A

**Marks** 1

|                             |  |
|-----------------------------|--|
| <b>Question Description</b> | <p>If + stands for division; × stands for addition; – stands for multiplication; ÷ stands for subtraction, which of the following is correct?</p> <p>1. <math>15 \div 5 \times 2 - 6 + 3 = 28</math></p> <p>2. <math>15 \times 5 + 2 - 6 \div 3 = 56.5</math></p> <p>3. <math>15 + 5 - 2 \div 6 \times 3 = 3</math></p> <p>4. <math>15 - 5 + 2 \times 6 \div 3 = 41</math></p> |
| <b>A</b>                    | 3  |
| <b>B</b>                    | 1  |
| <b>C</b>                    | 2  |
| <b>D</b>                    | 4  |
| <b>E</b>                    | None of the above  |
| <b>Correct Answer</b>       | A  |
| <b>Marks</b>                | 1  |

54

|                             |   |
|-----------------------------|---|
| <b>Question Description</b> | What will be the last letter of the meaningful 4-letter English word formed using 1st and 5th letter of “Barber” along with 2nd and 6th letter of “Parking” such that each letter to be used once? If more than one such word can be formed then mark ‘X’ as your answer, if no such word can be formed then mark “Y’ as your answer. |
| <b>A</b>                    | N   |
| <b>B</b>                    | A   |
| <b>C</b>                    | X   |
| <b>D</b>                    | Y   |
| <b>E</b>                    | None of the above   |
| <b>Correct Answer</b>       | C   |
| <b>Marks</b>                | 1   |

**Question Description**

**Directions: Read the following information carefully and answer the questions given beside.**

Certain number of persons sit around a square table such that nobody sits at the corner and not more than 4 persons sit around each of the sides. Information about few persons is given and all the persons face towards the centre. Only 4 persons sit between P and T, who is on the immediate left of Q. S is sixth to the right of U. R is at a gap of two persons from U, who is adjacent to T. Only one person sits between R and V, who is third to the right of S.

**What is the position of R with respect to Q?**

**A** Immediate right

**B** Fifth to the right

**C** Fifth to the left

**D** Immediate left

**E** None of the above

**Correct Answer** C

**Marks** 1

56

**Question Description**

select the related word/letters/number from the given alternatives.

225 : 12 : 435 : ?

**A**

12

**B**

20

**C**

25

**D**

19

**E**

None of the above

**Correct Answer**

D

**Marks**

1

57

**Question Description**

In each of the following questions, the relationship between different elements is shown in the statements followed by two conclusions. Find the conclusion which logically follows.

**1) Statements:**

$$X < W \leq F = Q \geq P = T \geq O \geq S = R$$

**Conclusions:**

**I)Q > R**

**II)Q = R**

**A**

If only conclusion I is true.

**B**

If only conclusion II is true.

**C**

If either conclusion I or II is true.

**D**

If neither conclusion I nor II is true.

**E**

None of the above

**Correct Answer****C****Marks****1**

58

**Question Description**

If a meaningful English word has to be formed using second, fifth, sixth and ninth letters of the word PREMATURE then which is the third letter of the new word. If no such word can be formed then mark 'X' as your answer and if more than one word can be formed then mark 'Y' as your answer.

A

A

B

R

C

X

D

Y

E

None of the above

**Correct Answer**

D

**Marks**

1

59

**Question Description**

**Directions: Select the missing number from the given alternatives:**

|    |   |   |    |
|----|---|---|----|
| 15 | 5 | 7 | 10 |
| 64 | 4 | 5 | ?  |
| 91 | ? | 9 | 22 |

A

21,7

|                       |                   |
|-----------------------|-------------------|
| <b>B</b>              | 12,4              |
| <b>C</b>              | 24,8              |
| <b>D</b>              | 35,5              |
| <b>E</b>              | None of the above |
| <b>Correct Answer</b> | A                 |
| <b>Marks</b>          | 1                 |

60

|                             |  |
|-----------------------------|--|
| <b>Question Description</b> | January 1, 2007 was Monday. What day of the week lies on Jan. 1, 2008? |
| <b>A</b>                    | Monday   |
| <b>B</b>                    | Tuesday  |
| <b>C</b>                    | Wednesday  |
| <b>D</b>                    | Sunday   |
| <b>E</b>                    | None of the above  |
| <b>Correct Answer</b>       | B  |
| <b>Marks</b>                | 1  |

61

**Question Description****Directions: Study the following information carefully and answer the questions given beside:**

In a certain code language,

'Worker hard stay humble' is written as '3E\$ 4D@ 3Z\$ 4S@'

'Faith can move zombie' is written as ' 2O% 3D@ 3I# 2D\$'

'Think outside box only' is written as ' 3D&amp; 3Z\$ 2Y% 4L#'

'Too nothing little always' is written as ' 4D@ 5H&amp; 1N% 4T@'

**Which of the following codes is for 'Winners never quit'?****A**

Q4@ 4#G 5T&amp;

**B**

S4\$ N3# Q4@

**C**

3S# 2U\$ 5T&amp;

**D**

3%R 4#G 7T&amp;

**E**

None of the above

**Correct Answer**

C

**Marks**

1

62

|                             |  |
|-----------------------------|--|
| <b>Question Description</b> | If first and third digits of each number are interchanged and then numbers are arranged in ascending order then which of the following will be the second number from right end? |
| <b>A</b>                    | 2764   |
| <b>B</b>                    | 9862   |
| <b>C</b>                    | 7983   |
| <b>D</b>                    | 5493   |
| <b>E</b>                    | None of the above  |
| <b>Correct Answer</b>       | C  |
| <b>Marks</b>                | 1  |

63

**Question Description**

Directions: In each question three statements followed by two conclusions numbered I and II have been given. You have to take the given statement to be true even if they seem to be at variance with commonly known facts and then decide which of the given conclusions logically follows from the given Statements

Statements:

0% frocks are pants.

All shorts are frocks.

A few jackets are pants.

Conclusions:

I. Not a single pant is short.

II. A good number of jackets are not frocks.

**A**

If only conclusion I follows.

**B**

If only conclusion II follows.

**C**

If neither conclusion I nor II follows.

**D**

If both conclusion I and II follows.

**E**

None of the above

**Correct Answer**

D

**Marks**

1

64

**Question Description**

At 3:40, the hour hand and the minute hand of a clock form an angle of:

**A**

120°

**B**

125°

**C**

130°

**D**

135°

**E**

None of the above

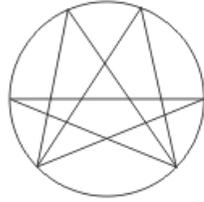
**Correct Answer**

C

**Marks**

1

65

**Question Description****Find the number of triangles in the given figure?****A**

24

**B**

22

**C**

28

**D**

26

**E**

None of the above

**Correct Answer**

C

**Marks**

1

66

**Question Description**

Study the following statements and assumptions carefully and choose the right answer:

Statement : “If you are a mechanical engineer, we want you as our supervisor.” - an advertisement by company X.

Assumptions: I. Mechanical engineers are expected to be better performers by company X.

II. The company X needs supervisors.

**A**

if only assumption I is implicit

**B**

if only assumption II is implicit

**C**

if either I or II is implicit

**D**

if neither I nor II is implicit

**E**

None of the above

**Correct Answer**

B

**Marks**

1

67

**Question Description**

In each of the questions below consists of a question and two statements numbered I and II given below it. You have to decide whether the data provided in the statements are sufficient to answer the question.

If the code for 'pain' is 20 then find the code for "loss pain no gain"?

**Statement I :** "loss money gain nothing" is coded as 25 78 41 63 and "nothing loss no profit" is coded as 58 41 36 25.

**Statement II :** "gain weight no health" is coded as 21 78 36 14 and "no exercise health loss" is coded as 57 36 14 25.

**A**

If the data in statement I alone is sufficient to answer the question

**B**

If the data in statement II alone is sufficient to answer the question

**C**

If the data in statements I and II is necessary to answer the question

**D**

If the data in statements I and II is not sufficient to answer the question

**E**

None of the above

**Correct Answer****C****Marks****1**

68

|                             |   |
|-----------------------------|---|
| <b>Question Description</b> | Find out the wrong number in the given sequence of numbers.<br>46080, 3840, 384, 48, 24, 2, 1 |
| <b>A</b>                    | 1   |
| <b>B</b>                    | 2   |
| <b>C</b>                    | 24  |
| <b>D</b>                    | 384   |
| <b>E</b>                    | None of the above   |
| <b>Correct Answer</b>       | C   |
| <b>Marks</b>                | 1   |

69

Question Description

**Directions: Select the missing numbers from the given alternatives:**

|           |           |           |           |
|-----------|-----------|-----------|-----------|
| <b>38</b> | <b>54</b> | <b>61</b> | <b>79</b> |
| <b>21</b> | <b>?</b>  | <b>12</b> | <b>24</b> |
| <b>19</b> | <b>09</b> | <b>14</b> | <b>?</b>  |

A

18, 46

B

28, 51

C

42, 62

D

18, 44

E

None of the above

**Correct Answer**

D

**Marks**

1

70

**Question Description**

In a family of 8 members, there are only two married couples and only married couples can have child. Shikha is the elder sister of Sahu, who is married to Siya. Salvi is the only daughter of Sumi, who is the nephew of Shikha. Sahil is the brother-in-law of Shri, who does not belong to the first generation. It is to be assumed that wife is younger than his husband. Siya is the grandmother of Sara.

How is Sahil related to Shikha?

**A** Uncle

**B** Nephew

**C** Son

**D** No direct relation

**E** None of the above

**Correct Answer** B

**Marks** 1

71

**Question Description**

Two trains of equal length are running on parallel lines in the same direction at 46 km/hr and 36 km/hr. The faster train passes the slower train in 36 seconds. The length of each train is:

**A**

50m

**B**

72m

**C**

80m

**D**

82m

**E**

None of the above

**Correct Answer**

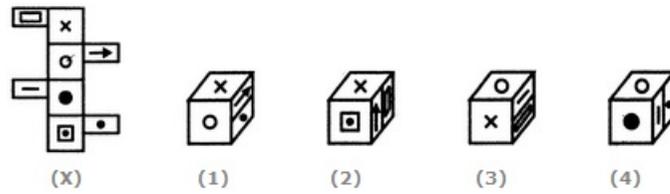
A

**Marks**

1

## Question Description

Choose the box that is similar to the box formed from the given sheet of paper (X).



A

1 and 2 only

B

1 and 3 only

C

3 and 4 only

D

1, 2, 3 and 4

E

None of the above

Correct Answer

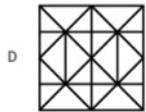
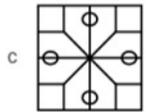
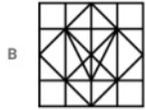
B

Marks

1

|    |                             |  |
|----|-----------------------------|--|
| 73 | <b>Question Description</b> | Garv is the son of Sashi. Heer is the father of Manu. Garv is married to Devi. Garv and Manu are siblings. Prem is the brother of Devi. Sashi has only one son. Riya is the son of Garv. Prem is the father of Kaka. Joshi is the daughter of Manu. Prem has no daughters.<br><br>How is Heer related to Prem? |
|    | <b>A</b>                    | Father   |
|    | <b>B</b>                    | Mother in law  |
|    | <b>C</b>                    | Mother   |
|    | <b>D</b>                    | Aunt   |
|    | <b>E</b>                    | None of the above  |
|    | <b>Correct Answer</b>       | E  |
|    | <b>Marks</b>                | 1  |

|    |                             |   |
|----|-----------------------------|---|
| 74 | <b>Question Description</b> | Select the option figure in which the given figure is embedded (rotation is NOT allowed). |
|----|-----------------------------|---|



A

A

B

B

C

C

D

D

E

None of the above

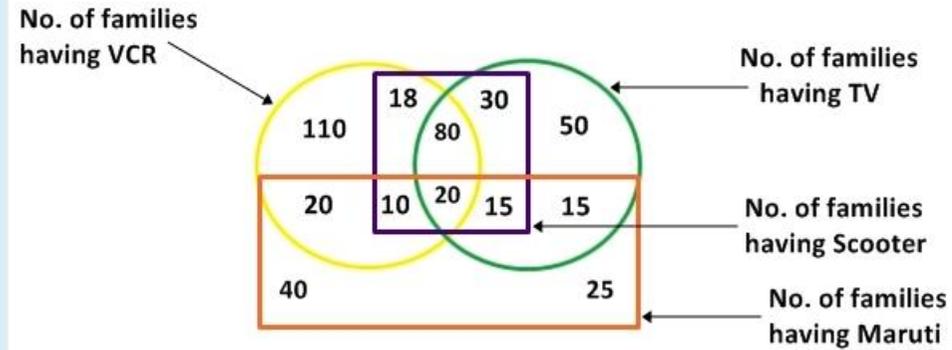
Correct Answer B

Marks 1

75

Question Description

study the diagram given below and answer the questions.



Find out the number of families which have TV and scooter both but have neither VCR nor Maruti.

A 30

B 15

C 50

D 8

E None of the above

Correct Answer A

Marks 1