

MIZORAM PUBLIC SERVICE COMMISSION
COMPETITIVE EXAMINATIONS FOR RECRUITMENT TO THE POST OF
GEOLOGIST JUNIOR UNDER COMMERCE & INDUSTRIES DEPARTMENT,
GOVERNMENT OF MIZORAM, NOVEMBER, 2020

GEOLOGY PAPER - III

Time Allowed : 2 hours

Full Marks : 200

All questions carry equal mark of 2 each.
Attempt all questions.

1. 97% of total chromite deposits in India occurred at Sukinda valley. Which of the following nature is related to this mineral deposit?
 - (a) Origin of magmatic cycle, chromite Supergroup and stratiform in nature
 - (b) Origin of magmatic cycle, Iron- ore Supergroup and stratiform in nature
 - (c) Origin of magmatic cycle, Iron-ore Supergroup and podiform in nature
 - (d) Skarn deposits, Iron- ore Supergroup and podiform in nature
2. Green color mica is related to which of the following belt (s)?
 - (a) Mica Belt of Andhra Pradesh
 - (b) Mica Belt of Bihar
 - (c) Mica Belt of Rajasthan
 - (d) All of these
3. Which of the following type of iron-ores deposits is important for India economy?
 - (a) Contact Metasomatic Deposits
 - (b) Magmatic Deposits
 - (c) Replacement Deposits
 - (d) Residual Deposits
4. The Ghattihosahalli schist belt in India comprising an important deposit of which mineral?
 - (a) Apatite
 - (b) Asbestos
 - (c) Barytes
 - (d) Beryl
5. Which of the following natural glass has structurally similar to Lichtenberg figures?
 - (a) Edeowie glass
 - (b) Fulgurite
 - (c) Moldavite
 - (d) Obsidian
6. Two minerals fluorapatite and hydroxyapatite is related with which of the following fertilizer?
 - (a) Compound fertilizer
 - (b) Nitrogen fertilizer
 - (c) Phosphate fertilizer
 - (d) Potassium fertilizer
7. Portland cement made from the following properties with content (%) in ascending order of:
 - (a) $\text{CaO} > \text{SiO}_2 > \text{Al}_2\text{O}_3 > \text{Fe}_2\text{O}_3 > \text{MgO} > \text{SO}_3$
 - (b) $\text{CaO} > \text{SiO}_2 > \text{Fe}_2\text{O}_3 > \text{Al}_2\text{O}_3 > \text{SO}_3 > \text{MgO}$
 - (c) $\text{SiO}_2 > \text{CaO} > \text{Al}_2\text{O}_3 > \text{Fe}_2\text{O}_3 > \text{MgO} > \text{SO}_3$
 - (d) $\text{SiO}_2 > \text{CaO} > \text{Al}_2\text{O}_3 > \text{Fe}_2\text{O}_3 > \text{SO}_3 > \text{MgO}$
8. A theory of nature of mineral deposit process that separation of ore minerals by frictional crystallization and related processes during magmatic differentiation is:
 - (a) Hydrothermal
 - (b) Lateral secretion
 - (c) Magmatic crystallization
 - (d) Magmatic segregation

9. Match the following and choose the correct answer regarding India's status in mineral production in the world:-
- | | |
|--------------|----------------------|
| a) Coal | i) 1 st |
| b) Copper | ii) 3 rd |
| c) Manganese | iii) 4 th |
| d) Zinc | iv) 5 th |
| | v) 10 th |
- (a) a-ii; b- i; c- iv; d- iii
(b) a-iii; b- i; c- v; d- i
(c) a-ii; b- v; c- iv; d- iii
(d) a-i; b- iii; c- ii; d- v
10. Which of the following statement is false about UNFC classification?
- (a) UNFC is a three digit code based system- Economic viability axis, feasibility axis and geologic axis.
(b) Geological axis represented by four codes- Detailed exploration, general exploration, prospecting and reconnaissance.
(c) Feasibility axis have three codes- Feasibility study, Pre- feasibility study and geochemical study.
(d) Economic axis have three codes- Economic, potentially economic and intrinsically economic.
11. Which of the following statement is false about National Mineral Policy 2019 (NMP 2019)?
- (a) NMP 2019 seeks to develop a sustainable framework for optimum utilisation of the country's natural mineral resources for industrial growth in the country along with the backward and tribal regions of the country.
(b) NMP 2019 introduce Right of First Refusal for reconnaissance permit and prospecting license (RP/ PL) holders.
(c) NMP 2019 encouraging the private sector to take up exploration.
(d) Transfer of mining leases and creation of dedicated mineral corridors to boost private sector mining areas.
12. Fluid inclusions which are trapped during formation of the host minerals are:
- (a) Primary fluid inclusions
(b) Secondary fluid inclusions
(c) Pseudosecondary fluid inclusions
(d) Tertiary fluid inclusions
13. Which of the following skarn tectonic setting is related with oceanic island arcs?
- (a) Copper skarn deposit
(b) Iron skarn deposit
(c) Tungsten skarn deposit
(d) Tulc and graphite skarn deposit
14. Which of the following geochemical parameter is not defined kimberlites?
- (a) Ultramafic, MgO >12% and generally >15%
(b) Ultrapotassic, molar $K_2O/Al_2O_3 < 3$
(c) Near-primitive Ni (>400 ppm), Cr (>1000 ppm), Co (>150 ppm)
(d) High H_2O and CO_2
15. Which of the following is known as 'The mineral heart land of India'?
- (a) Chota Nagpur plateau
(b) North- Western Belt
(c) Sukinda valley
(d) Southern Belt
16. Geometry of the array is the basic principle of:
- (a) Electrical resistivity
(b) Gravity
(c) Magnetic
(d) Seismic

17. Which of the following is not active geophysical method?
- (a) Electrical resistivity (b) Gravity
(c) Ground Penetrating Radar (d) Seismic
18. Which method apply for base metal exploration to detect massive ore bodies?
- (a) Electrical resistivity (b) Gravity
(c) Self Potential (d) Seismic
19. Which of the following material is lowest metal factor?
- (a) Clay (b) Gravel
(c) Limestone (d) Sandstone
20. Which of the following is possible to log works only in water based mud?
- (a) Acoustic log (b) Density log
(c) Gamma ray log (d) Spontaneous potential log
21. Which of the following statement is false about resistivity method?
- (a) The small inter- electrode distances provide a very detailed image of near- surface inhomogeneities.
(b) An apparent resistivity map for a given electrode spacing indicates the general lateral variation in electrical properties in the area.
(c) If the data of Wenner sounding, the measured resistivity is plotted on the x-axis and the electrode separation on the y- axis.
(d) The data of Schlumberger sounding are plotted with electrode separation along the x-axis. This data should be drawn on a double logarithmic paper.
22. P-THEM Time Domain EM system, high sensitivity cesium magnetometer, GT-1A Gravimeter, hyper radio- spectrometer and multi-channel gamma ray spectrometer are the composition of:
- (a) GSI's Twin Otter Airborne Survey System
(b) GSI's Heliborne Geophysical Survey System
(c) GSI's Samudra Ratnakar
(d) GSI's Samudra Manthan
23. Which of the following statement is correct in Gravity survey?
- (a) Permissible error is 3m for station location and 1cm in station elevation as per GSI Standard Operating Procedure
(b) Permissible error is 5m for station location and 2cm in station elevation as per GSI Standard Operating Procedure
(c) Permissible error is 5m for station location and 3cm in station elevation as per GSI Standard Operating Procedure
(d) Permissible error is 10m for station location and 5cm in station elevation as per GSI Standard Operating Procedure
24. Field data is corrected for diurnal variation, but no corrections for location, elevation and topography in which survey?
- (a) Gravity (b) Magnetic
(c) Electrical Resistivity (d) Seismic

25. Which of the statement is false in preparation of basic anomaly map?
- (a) 'High pass' and 'Upward continuation' filtering techniques are used to enhance local features.
 - (b) 'Low pass' and 'Upward continuation' filtering techniques are used for enhancement due to regional features.
 - (c) 'Horizontal derivative' and 'Analytical Signal' are used to sharpen the effects of contacts or edges of the anomalous features.
 - (d) 'Reduction to pole' filter is applied to magnetic anomalies to precisely locate the anomalous features of magnetic character.
26. A sonar technique that uses the backscattering principle of incident acoustic beam to detect the shape of the object is:
- (a) Active sonar system
 - (b) Acoustic positioning system
 - (c) Passive sonar system
 - (d) Side scan sonar
27. Which of the following geophysical method is best suited for sedimentary basin mapping?
- (a) Electrical Resistivity
 - (b) Gravity
 - (c) Magnetic
 - (d) Self Potential
28. A method used to map the subsurface distribution of stratigraphy and its structure in hydrocarbon exploration is-
- (a) Electrical Resistivity
 - (b) Gravity
 - (c) Magnetic
 - (d) Seismic
29. Which geophysical survey is used to detect dense bodies of rocks within host formations of less dense wall rocks?
- (a) Electrical Resistivity
 - (b) Gravity
 - (c) Magnetic
 - (d) Seismic
30. Which of the following log tool is only for water based borehole environment?
- (a) Density log
 - (b) Gamma Ray log
 - (c) Neutron log
 - (d) Self Potential log
31. Which of the following is the correct sequence in prospect exploration stages?
- (a) Research: conceptual studies- Target generation- Target drilling- Resource Evaluation- Resource definition- Feasibility study- Mine
 - (b) Research: conceptual studies- Target generation- Target drilling- Resource definition- Resource Evaluation- Feasibility study- Mine
 - (c) Research: conceptual studies- Target generation- Resource Evaluation- Target drilling- Resource definition- Feasibility study- Mine
 - (d) Research: conceptual studies- Target generation- Resource definition-Target drilling- Feasibility study- Resource Evaluation- Mine
32. Which of the following exploration drill type is used for ore targeting and proving to 1000m and geological/ structural understanding?
- (a) Air core
 - (b) Diamond
 - (c) Reverse circulation (RC)
 - (d) Rotary air blast (RAB)

33. How to drill a hole the epigenetic mineralization, which is associated with normal fault, to predict the likely attitude of high grade ore shoots within or adjacent to it after initial discovery of ore?
- (a) By drilling a hole to along strike from the discovery hole to intersect the target at the same depth.
 - (b) By drilling a hole to the same depth as the discovery hole and along strike from it.
 - (c) By drilling a deeper hole on the same cross-section.
 - (d) By drilling a hole along the dip direction from the discovery hole.
34. Which of the following is not associated with hydrothermal deposits?
- (a) Chromite ores
 - (b) Porphyry copper
 - (c) Skarn- magnetite
 - (d) Vein gold
35. Which of the following method is used for refractory elements in exploration geochemistry?
- (a) AAS
 - (b) ICP-ES
 - (c) ICP-MS
 - (d) XRF
36. A type of sampling obtained by collecting already broken of mineralized rock is:
- (a) Channel sampling
 - (b) Chip sampling
 - (c) Grab sampling
 - (d) Stratified sampling
37. A process of digging completed at right angles to the general strike to test and sample over long lengths across a mineralized zone is:
- (a) Aditting
 - (b) Augering
 - (c) Pitting
 - (d) Trenching
38. A type of drilling method to collect rock chippings and is little contamination is:
- (a) Auger drilling
 - (b) Percussion drilling
 - (c) Rotary drilling
 - (d) Reverse circulation drilling
39. The final quality of ore coming out of the mine or mine head is:
- (a) Average Grade
 - (b) Minable Grade
 - (c) Run of Mine Grade
 - (d) Mill Feed and Tailing Grade
40. In USGS/ USBM reserve classification scheme, a resources which are undiscovered theoretical mineral bodies in nature that may logically be expected to exist in known mining district or region under favorable geological conditions is:
- (a) Hypothetical
 - (b) Paramarginal
 - (c) Speculative
 - (d) Submarginal
41. Which of the following is not the characteristic of probable reserve based on BIS 1989?
- (a) Estimates made on the basis of measurements from widely spaced sampling points and exploratory openings with reasonable extrapolation on geological grounds.
 - (b) The shape, thickness variation, likely persistence, geological structure are broadly known. Some information on mineralogy, petrography of the host rock and wall rocks, ore dressing characteristics.
 - (c) The error of estimation of tonnage should be in the range of 30 to 50%.
 - (d) This category implies a clearly lower status to the ore reserve in terms of degree of assurance, in spite of being still within the direction of economic considerations.

42. Integration of data like hydrology, elevation, gossan zone, geology and geochemistry into digital single and unified mineral deposit database can be processed in:
- (a) Aerial Photograph
 - (b) Remote Sensing
 - (c) Geographic Information System
 - (d) Global Positioning System
43. Bryophyte moss has been a good indicator of which mineralization in Himachal Pradesh, India?
- (a) Lead- zinc- silver
 - (b) Nickel
 - (c) Uranium
 - (d) Zinc
44. Molybdenum (Mo) is a pathfinder element for the deposit of:
- (a) Barium- Silver deposits
 - (b) Platinum- Palladium in mafic- ultramafic rocks
 - (c) Sulfide deposits
 - (d) Wolframite- tin deposits
45. Which of the following reserve estimation method is suitable for flat and low-dipping disseminated deposits with variable thickness and grade?
- (a) Isograde
 - (b) Polygons
 - (c) Square and Rectangle
 - (d) Triangular
46. Gross Caloric Value (GVC) of non- coking coal exceeding 6700 K. Cal/Kg and not exceeding 7000 K. Cal/Kg is:
- (a) Grade 1 (G-1)
 - (b) Grade 2 (G-2)
 - (c) Grade 3 (G-3)
 - (d) Grade 4 (G-4)
47. Which of the following coalfield is the finest coking coal in India?
- (a) Bokaro coalfield
 - (b) Jharia coalfield
 - (c) Girdih coalfield
 - (d) Talcher coalfield
48. Pick the odd one from the coalfield in India:
- (a) Birampur coalfield
 - (b) Chirmiri coalfield
 - (c) Sonhat coalfield
 - (d) Talcher coalfield
49. A type of maceral having very fine- grained material, fine particles of small size (2 microns and high reflectance is:
- (a) Fusinite
 - (b) Funginite
 - (c) Micrinite
 - (d) Secretinite
50. The macroscopically recognizable bands in humic coals and are the result of plant growth having band thickness between 3mm and 10mm are:
- (a) Lithotypes
 - (b) Microlithotypes
 - (c) Macerals
 - (d) Kerogen
51. Which of the following test method is correct for the determination of mineral ash in coal?
- (a) By heating an accurately weighed sample of the coal in an adequately ventilated muffle furnace at temperatures in the range 700 to 750°C.
 - (b) By heating an 1g of coal in ventilated muffle furnace at temperatures in the range 500 to 600°C.
 - (c) By heating an 1g of coal in a platinum crucible at 500 to 600°C for 7 minutes.
 - (d) By heating 1g of coal weighed in a platinum crucible with a close- fitting cover at 950±20°C for exactly 7 minutes, the resultant loss (excluding losses due to water) in weight is mineral ash.

52. Which of the following block is not related with ONGC Coal-bed methane (CBM) gas blocks?
- (a) Bokaro (b) Cambay
(c) Jharia (d) Karanpura
53. A natural gas discovered by ONGC at Meidum exploring site in 2011. Which of the following statement is correct regarding this achievement?
- (a) Lower Bhuban Formation, 3318-3325m, maximum flame height 10ft.
(b) Middle Bhuban Formation, 3318-3325m, maximum flame height 8ft.
(c) Upper Bhuban Formation, 3318-3325m, maximum flame height 10ft.
(d) Ranighanj Formation, 3318-3325m, maximum flame height 10ft.
54. An ideal temperature range for transformation of kerogen to hydrocarbon at a depth of 3-4km with a normal geothermal gradient is:
- (a) 80- 90°C (b) 80- 150°C
(c) 100- 150°C (d) 150- 180°C
55. Which of the following analysis is a standard routine analysis of source rocks to establish how much of the kerogen transformed into petroleum and how much can be transformed at a higher temperature?
- (a) Geochemical analysis (b) Hydro- chemical survey
(c) Rock- Aval (d) Sniffer survey
56. Which of the following is the characteristic of primary migration of petroleum?
- (a) The flow of petroleum from source rock to reservoir rocks.
(b) Expulsion of petroleum from fine- grained source rock.
(c) Petroleum moves through a coarse carrier bed.
(d) Petroleum moves from one trap to another or to a seep.
57. Which of the following (drilling) well is aimed to confirm the presence of the petroleum accumulation?
- (a) Coring (b) Exploration well
(c) Well logging (d) Well testing
58. Which of the following is not the characteristic of Mumbai offshore Basin?
- (a) The age of Mumbai offshore basin ranges from late Cretaceous to Holocene with thick sedimentary fill ranging from 1100-5000m.
(b) Mumbai offshore is a peri-cratonic rift basin situated on western continental margin of India, Paleocene- Lower Eocene source rocks, seals are Middle to Upper Miocene shales.
(c) Mumbai offshore is an intra-cratonic, structural and stratigraphic traps, Paleocene- Eocene source rocks, cap rocks are Middle to Upper Miocene shales
(d) Structural trap, source rocks are clastic sediments of Paleocene- Eocene (Panna Formation), reservoir rocks are Sandstone, Limestone and Siltstone and cap rocks are Middle to Upper Miocene shales.
59. What type of uranium mineralisation occur in the Domiasiat- Wahkyn area, Meghalaya?
- (a) Hydrothermal (Vein and Disseminated) type
(b) Sandstone type
(c) Stratabound, Carbonate- hosted type
(d) Unconformity- proximal type

60. Which of the following statement is false about nuclear (radioactive) waste disposal?
- (a) Radioactive wastes has very little space requirement for its storage and reduction of intensity of its harmful effects with time.
 - (b) Low and intermediate level radioactive wastes are usually disposed of by shallow land burial and emplacement in suitable abandoned mines.
 - (c) The long- lived radioactive wastes in a monitored place for ~10 years.
 - (d) Storage of radioactive wastes in a geological formation is the best mode of disposal available, granitic and basaltic terrains in India.
61. Which of the following parameter is important for construction of residential building?
- (a) Bearing capacity
 - (b) Cone penetration
 - (c) Factor of safety
 - (d) Point load
62. A sample of wet soil has a volume of 0.0192m^3 and a mass of 32kg. When the sample is dried out in an oven, its mass reduces to 28.5kg. The water content of soil is:
- (a) 1.71%
 - (b) 12.28%
 - (c) 17.1%
 - (d) 18.23%
63. The coefficient of curvature (C_c) after particle size distribution curve is given by the formula of:
- (a) $C_c = \frac{D_{60}}{D_{10}}$
 - (b) $C_c = \frac{D_{10}}{D_{60}}$
 - (c) $C_c = \frac{(D_{30})^2}{D_{60} \times D_{10}}$
 - (d) $C_c = \frac{(D_{10})^2}{D_{60} \times D_{30}}$
64. The unit weight of the soil in a uniform deposit of loose sand ($K_o = 0.50$) is 16.5kN/m^3 . The geostatic stresses at a depth of 2m is:
- (a) 8.25kN/m^2 & 1.0kN/m^2
 - (b) 16.5kN/m^2 & 8.25kN/m^2
 - (c) 33.0kN/m^2 & 1.0kN/m^2
 - (d) 33.0kN/m^2 & 16.5kN/m^2
65. The fundament formula for civil engineering projects, a shear strength (s) given by Mohr- Colomb is:
- (a) $s = c \pm s \tan w$
 - (b) $s = c + s \tan w$
 - (c) $s = s + c \tan w$
 - (d) $s = c s + \tan w$
66. Which type of boring is extensively used for subsurface investigations of highways, railways and air fields?
- (a) Auger boring
 - (b) Core boring
 - (c) Percussion drilling
 - (d) Rotary drilling
67. Which of the following sampler is used for getting undisturbed soil samples from soft and sensitive clays?
- (a) Denison sampler
 - (b) Hand- carved samples
 - (c) Piston sampler
 - (d) Shelby tubes and thin- walled sampler
68. What is a temporary structure built to enclose an area for excavation of foundation?
- (a) Braced cut
 - (b) Bulkhead
 - (c) Cofferdam
 - (d) Conduit
69. The permissible settlement is the maximum in the case of:
- (a) Isolated footing on clay
 - (b) Isolated footing on sand
 - (c) Raft on clay
 - (d) Raft on sand

70. Which of the following parameter is not important for Rock Mass Rating (RMR) classification?
- (a) Dip and dip direction (b) Joint spacing
(c) Rock quality designation (d) Strength of rock
71. A type of landslide, slip surface is circular for homogeneous soil conditions and non- circular in non-homogeneous condition, main scarp nearly vertical and material bulge upward is:
- (a) Debris spread (b) Mud flow
(c) Rotational slide (d) Translational slide
72. According to IS: 1893- 2002, the value of the horizontal seismic coefficient for any structure with natural period of vibration in second ($T \leq 0.1$) cannot be less than $Z/2$ ($Z =$ Zone factor of the seismic zone). The horizon seismic coefficient for seismic zone V is:
- (a) 0.8 (b) 0.12
(c) 0.18 (d) 0.24
73. The type of foundation generally suitable for buildings on liquefiable soils deposit is:
- (a) Pile foundation (b) Raft foundation
(c) Spread footing (d) Well foundation
74. Which of the following geological structure is not much influence seismicity of Tripura- Mizoram region?
- (a) Churachandpur- Mao fault (b) Kaladan fault
(c) Gumti fault (d) Sagaing fault
75. Based on earthquake resistant provisions in masonry buildings, the mortar mix is:
- (a) 1:3:6 (Cement-lime- sand) (b) 1:2:9 (Cement-lime- sand)
(c) 1:1:6 (Cement-lime- sand) (d) 1:1:4 (Cement-lime- sand)

Directions (Questions 76-83): What number should come next in the following series?

76. 2, 4, 7, 9, 12, 14, ...
- (a) 15 (b) 16
(c) 17 (d) 18
77. 5, 11, 17, 23, 29, 35, ...
- (a) 42 (b) 41
(c) 40 (d) 39
78. 1.3, 2.1, 2.9, 3.7, 4.5, ...
- (a) 4.9 (b) 5.1
(c) 5.3 (d) 5.5
79. 131, 129, 124, 122, 117, ...
- (a) 115 (b) 114
(c) 113 (d) 112
80. 6, 27, 10, 23, 14, 19, 18, ...
- (a) 12 (b) 13
(c) 14 (d) 15
81. 429, 87, 23, 9, 6, ...
- (a) 7 (b) 3
(c) 5 (d) 8

82. 89, 178, 170, 340, 332, ...

- (a) 324 (b) 664
(c) 996 (d) 348

83. 42 44 46 49 51 53 56, ...

- (a) 57 (b) 58
(c) 59 (d) 60

84. Arrange the words given below in a meaningful sequence.

1. Police 2. Punishment
3. Crime 4. Judge
5. Judgement

- (a) 3, 1, 4, 5, 2 (b) 3, 1, 2, 4, 5
(c) 1, 2, 4, 3, 5 (d) 5, 4, 3, 2, 1

85. Arrange the words given below in a meaningful sequence.

1. Leaf 2. Fruit
3. Stem 4. Root
5. Flower

- (a) 3, 4, 5, 1, 2 (b) 4, 1, 3, 5, 2
(c) 4, 3, 1, 5, 2 (d) 4, 3, 1, 2, 5

86. Which word does NOT belong with the others?

- (a) wheel (b) steering bar
(c) pedal (d) bicycle

87. Which word does NOT belong with the others?

- (a) guitar (b) flute
(c) violin (d) cello

88. Choose the conclusions which logically follow from the given statements.

Statements: Some dogs are bats. Some bats are cats.

Conclusions: 1. Some dogs are cats. 2. Some cats are dogs.

- (a) Only (1) conclusion follows (b) Only (2) conclusion follows
(c) Both (1) and (2) follow (d) Neither (1) nor (2) follows

89. Choose the conclusions which logically follow from the given statements.

Statements: No door is dog. All the dogs are cats.

Conclusions: 1. No door is cat. 2. No cat is door. 3. Some cats are dogs.
4. All the cats are dogs.

- (a) Only (3) (b) Only (1) and (3)
(c) Only (3) and (4) (d) Only (2) and (4)

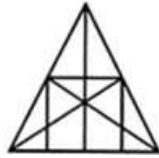
90. Choose the conclusions which logically follow from the given statements.

Statements: All the phones are scales. All the scales are calculators.

Conclusions: 1. All the calculators are scales. 2. All the phones are calculators
3. All the scales are phones. 4. Some calculators are phones.

- (a) Only (1) and (4) (b) Only (3) and (4)
(c) Only (2) and (4) (d) Only (1) and (2)

91. What is the number of triangles in the given figure.



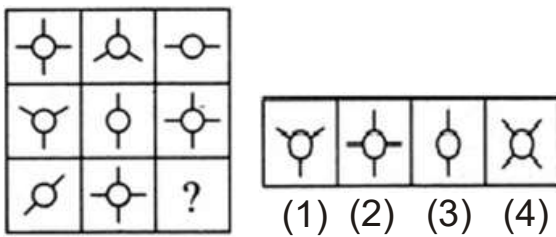
- (a) 32 triangles (b) 34 triangles
(c) 36 triangles (d) 38 triangles

92. What is the minimum number of different colours required to paint the given figure such that no two adjacent regions have the same colour?



- (a) 2 (b) 3
(c) 4 (d) 5

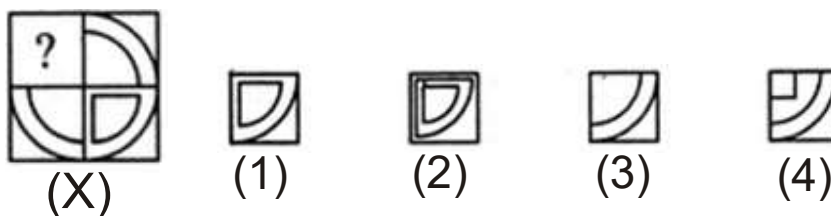
93. Select a suitable figure from the four alternatives that would complete the figure matrix.



(X)

- (a) 1 (b) 2
(c) 3 (d) 4

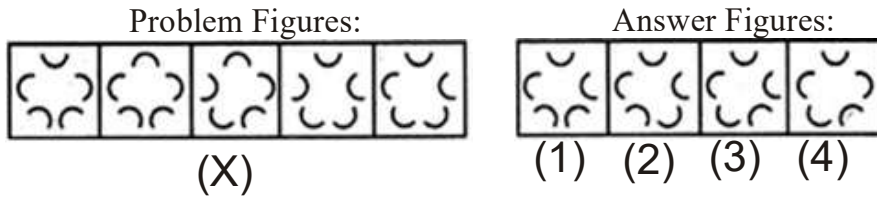
94. Identify the figure that completes the pattern.



(X)

- (a) 4 (b) 3
(c) 2 (d) 1

95. Select a figure from amongst the Answer Figures which will continue the same series as established by the five Problem Figures.



- (a) 1 (b) 2
(c) 3 (d) 4

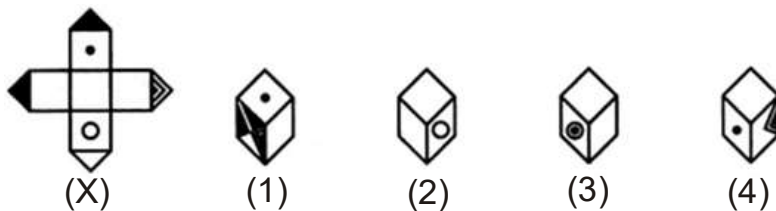
96. If $P \$ Q$ means P is the brother of Q; $P \# Q$ means P is the mother of Q; $P * Q$ means P is the daughter of Q in $A \# B \$ C * D$, who is the father?

- (a) D (b) B
(c) C (d) Data is inadequate

97. If North-East becomes West, South-East becomes North, and so on. What will West become?

- (a) North-East (b) North-West
(c) South-East (d) South-West

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



- (a) 1 and 2 only (b) 1, 2 and 3 only
(c) 1 and 3 only (d) 1, 2, 3 and 4

99. Assuming the statement to be true and on the basis of the information given in the statement, decide which of the suggested courses of action logically follow(s):

Statement: A large number of people in Ward X of the city are found to be Covid-19 positive.

Courses of Action:

- I. The city municipal authority should take immediate steps to carry out extensive contact tracing in Ward X.
II. The people in the area should be advised to take necessary precautions.

- (a) Only I follows (b) Only II follows
(c) Both I and II follow (d) Neither I nor II follows

100. Assuming the statement to be true and on the basis of the information given in the statement, decide which of the suggested courses of action logically follow(s):

Statement: Severe earthquake is reported to have set in several parts of the state.

Courses of Action:

- I. Government should immediately make arrangement for providing financial assistance to those affected.
II. Proper psychological interventions are necessary to restore the mental health of the people in the affected area.

- (a) Only I follows (b) Only II follows
(c) Either I or II follows (d) Neither I nor II follows