

(To be filled up by the candidate by blue/black ball-point pen)

Roll No.

--	--	--	--	--	--	--	--

Roll No.

(Write the digits in words)

Serial No. of OMR Answer Sheet

Day and Date

(Signature of Invigilator)

INSTRUCTIONS TO CANDIDATES

(Use only **blue/black ball-point pen** in the space above and on both sides of the Answer Sheet)

1. Within 10 minutes of the issue of the Question Booklet, check the Question Booklet to ensure that it contains all the pages in correct sequence and that no page/question is missing. In case of faulty Question Booklet bring it to the notice of the Superintendent/Invigilators immediately to obtain a fresh Question Booklet.
2. Do not bring any loose paper, written or blank, inside the Examination Hall *except the Admit Card without its envelope*.
3. A separate Answer Sheet is given. *It should not be folded or mutilated. A second Answer Sheet shall not be provided. Only the Answer Sheet will be evaluated.*
4. Write your *Roll Number and Serial Number of the Answer Sheet by pen* in the space provided above.
5. **On the front page of the Answer Sheet, write by pen your Roll Number in the space provided at the top, and by darkening the circles at the bottom. Also, wherever applicable, write the Question Booklet Number and the Set Number in appropriate places.**
6. No overwriting is allowed in the entries of Roll No., Question Booklet No. and Set No. (if any) on OMR sheet and also Roll No. and OMR Sheet No. on the Question Booklet.
7. Any change in the aforesaid entries is to be verified by the invigilator, otherwise it will be taken as unfair means.
8. Each question in this Booklet is followed by four alternative answers. *For each question, you are to record the correct option on the Answer Sheet by darkening the appropriate circle* in the corresponding row of the Answer Sheet, by ball-point pen as mentioned in the guidelines given on the first page of the Answer Sheet.
9. For each question, darken only one circle on the Answer Sheet. If you darken more than one circle or darken a circle partially, the answer will be treated as incorrect.
10. *Note that the answer once filled in ink cannot be changed.* If you *do not wish to attempt* a question, leave all the circles in the corresponding row blank (such question will be awarded zero mark).
11. For rough work, use the inner back page of the title cover and the blank page at the end of this Booklet.
12. Deposit *both the Question Booklet and the Answer Sheet* at the end of the Test.
13. You are not permitted to leave the Examination Hall until the end of the Test.
14. If a candidate attempts to use any form of unfair means, he/she shall be liable to such punishment as the University may determine and impose on him/her.

No. of Questions/प्रश्नों की संख्या : 150

Time/समय : 2 Hours/घण्टे

Full Marks/पूर्णांक : 450

Note/नोट : (1) Attempt as many questions as you can. Each question carries **3** marks. **One** mark will be deducted for each incorrect answer. Zero mark will be awarded for each unattempted question.

अधिकाधिक प्रश्नों को हल करने का प्रयत्न करें। प्रत्येक प्रश्न **3** अंक का है। प्रत्येक गलत उत्तर के लिए एक अंक काटा जाएगा। प्रत्येक अनुत्तरित प्रश्न का प्राप्तांक शून्य होगा।

(2) If more than one alternative answers seem to be approximate to the correct answer, choose the closest one.

यदि एकाधिक वैकल्पिक उत्तर सही उत्तर के निकट प्रतीत हों, तो निकटतम सही उत्तर दें।

1. Fibrous form is characteristic for which mineral?

- (1) Chrysotile (2) Hornblende (3) Actinolite (4) Tremolite

2. The streak of a mineral is

- (1) the colour of its powder (2) the cleavage in monochromatic light
(3) the breaking due to pressure (4) hardness in different directions

3. In which mineral there is no cleavage?

- (1) Garnet (2) Spinel (3) Quartz (4) All of these

4. Aquamarine is a variety of
(1) Corundum (2) Microcline (3) Tourmaline (4) Beryl
5. Cyclic twinning is commonly seen in
(1) Aragonite (2) Staurolite (3) Plagioclase (4) Gypsum
6. Staurolite is characteristic of which rock type?
(1) Igneous (2) Sedimentary (3) Metamorphic (4) None of these
7. Which mineral has no silicate structure?
(1) Quartz (2) Calcite (3) Augite (4) Muscovite
8. Which one of the following is an orthopyroxene?
(1) Enstatite (2) Aegirine (3) Tremolite (4) Diopside
9. Of the following, the first mineral to form, according to Bowen's reaction series :
(1) Hornblende (2) Albite (3) Quartz (4) Olivine
10. Which one of the following contains manganese?
(1) Spessartite (2) Almandine (3) Andradite (4) Grossularite
11. Which of the following is an incongruently melting compound?
(1) Orthoclase (2) Olivine (3) Albite (4) Tourmaline
12. Which of the following is not a variety of gypsum?
(1) Alabaster (2) Selenite (3) Satin spar (4) Iceland spar

13. Which one of the following is a high temperature potassium feldspar?
(1) Orthoclase (2) Albite (3) Sanidine (4) Anorthite
14. Orthoclase shows which type of twinning?
(1) Carlsbad (2) Baveno (3) Manebach (4) All of these
15. The mineral fuchsite belongs to which group?
(1) Mica (2) Amphibole (3) Pyroxene (4) Garnet
16. Which of the following feldspars does not contain potassium?
(1) Oligoclase (2) Sandine (3) Orthoclase (4) Amazonstone
17. Calcium is not present in which one of the following minerals?
(1) Apatite (2) Anorthite (3) Acmite (4) Actinolite
18. Which one of the following is radioactive?
(1) Microcline (2) Talc (3) Monazite (4) Asbestos
19. Which one of the following is the softest mineral?
(1) Chlorapatite (2) Satin spar (3) Bort (4) Iceland spar
20. The mineral wollastonite crystallises in which crystal system?
(1) Orthorhombic (2) Monoclinic (3) Triclinic (4) Hexagonal
21. Which of the following is used in crystallography?
(1) Weiss symbol (2) Hermann Maugin notation
(3) Miller indices (4) All of the above

22. Except for a centre of symmetry the other axial elements are absent in
(1) Tourmaline (2) Microcline (3) Gypsum (4) Orthoclase
23. What will be the Miller symbol of a face whose intercepts on the axes are $\infty a : 5b : 4c$?
(1) $\infty 45$ (2) 045 (3) 054 (4) 154
24. The general symbol for a pyritohedron is
(1) $(h00)$ (2) $(hk0)$ (3) (hkl) (4) (001)
25. A five-fold axis of symmetry is present in
(1) Quartz (2) Riebeckite (3) Tourmaline (4) None of these
26. Of the feldspars, Orthoclase, Microcline, Anorthoclase, Albite, Andesine, Bytownite, Anorthite, Hyalophane and Celsian, how many are monoclinic?
(1) Two (2) Three (3) Four (4) Five
27. In how many crystal systems the c -axis makes an angle with the b -axis?
(1) One (2) Two (3) Three (4) Four
28. The angle between the a -axis and c -axis is called
(1) α (2) β (3) γ (4) δ
29. For which crystal system the Miller symbol for the basal pinacoid is not 001?
(1) Tetragonal (2) Hexagonal (3) Monoclinic (4) Triclinic
30. Of the thirty-two classes of symmetry, which of the following system has three classes?
(1) Tetragonal (2) Hexagonal (3) Monoclinic (4) Triclinic

31. Amount of dip is maximum
(1) in the direction of strike (2) at 90° to the strike direction
(3) at 45° to the strike direction (4) at 0° to the strike direction
32. In a recumbent fold the axial plane is nearly
(1) horizontal (2) vertical (3) inclined at 45° (4) inclined at 30°
33. The average density of the earth is
(1) 4.5 gm/cm^3 (2) 5.5 gm/cm^3 (3) 6.5 gm/cm^3 (4) 7.5 gm/cm^3
34. Volcanic activity is usually absent along
(1) divergent plate boundaries (2) convergent plate boundaries
(3) transform faults (4) All of the above
35. A strike line with a given value is called
(1) horizontal equivalent (2) contour interval
(3) stratum contour (4) contour line
36. Columnar joints are seen in
(1) Basalts (2) Sandstones (3) Gneissic rocks (4) Pegmatites
37. Boudins are formed in
(1) extensional regimes (2) compressional regimes
(3) zero stress regimes (4) fault regimes

- 38.** Pitch is another term for
(1) Hade (2) Rake (3) Plunge (4) Axial angle
- 39.** An imaginary line which joins points of equal elevation is called
(1) Contour line (2) Isothermal line
(3) Isoseismal line (4) Isograde line
- 40.** Folds with inter-limb angle $> 70^\circ$ are called
(1) open folds (2) closed folds (3) tight folds (4) isoclinal folds
- 41.** Gouge is associated with
(1) joints (2) folds (3) unconformities (4) faults
- 42.** Folds having parallel limbs are
(1) parallel folds (2) similar folds (3) isoclinal folds (4) infinite folds
- 43.** The term caldera is associated with
(1) River (2) Volcano (3) Glacier (4) Wind
- 44.** A V-shaped valley is characteristic of
(1) Glacier (2) Ocean (3) River (4) Lake
- 45.** Which one of the following is not a glacial feature?
(1) Yardang (2) Bergschrund (3) Arête (4) Crevasse
- 46.** Seifs are found in which environment?
(1) Glacial (2) Fluvial (3) Lacustrine (4) Desert

47. Rejuvenation in an area is suggested by which of the following?
(1) Waterfalls (2) Paired river terraces
(3) V-shaped valley (4) All of the above
48. Thermohaline circulation results due to difference in
(1) density (2) temperature (3) salinity (4) All of these
49. Which of the following marks the farthest advance of a glacier?
(1) Terminal moraine (2) Lateral moraine
(3) Medial moraine (4) Ground moraine
50. Which one of the following is a type of volcanic eruption?
(1) Caledonian (2) Strombolian (3) Venatian (4) Bombolian
51. Ventifacts are found in
(1) deep Oceans (2) Glaciers
(3) Volcanic eruptions (4) Deserts
52. A lagoonal circular coral reef is called
(1) blue lagoon (2) atoll
(3) barrier type coral reef (4) marginal reef
53. What can be expected at a depth of about 35 km inside the earth?
(1) Inner mantle (2) Inner core
(3) Mohorovičić discontinuity (4) Gutenberg discontinuity

- 54.** The Richter scale measures
- (1) magnitude of earthquake (2) distance of location of earthquake
(3) intensity of earthquake (4) depth of epicentre of earthquake
- 55.** Tsunami is a
- (1) Typhoon (2) Seismic sea wave
(3) Cyclone (4) None of the above
- 56.** The term 'piracy' is associated with which of the following?
- (1) Ocean (2) Wind (3) River (4) Lake
- 57.** Sediment transport in which particles are moved forward in a series of short leaps and bounces is called
- (1) traction (2) suspension (3) saltation (4) None of these
- 58.** The number of crystallographic axes in uniaxial minerals is
- (1) three (2) three or four (3) four (4) one
- 59.** $2V$ is the angle between the
- (1) a and c crystallographic axes (2) biaxial optic axes
(3) fastest and slowest direction (4) None of the above
- 60.** A mineral 'X' is invisible in Canada Balsam. The refractive index of 'X' is
- (1) 1.54 (2) 1.44 (3) 1.64 (4) 1.00
- 61.** The highest relief will be shown by which one of the following minerals?
- (1) 'A', RI = 1.42 (2) 'B' RI = 1.44 (3) 'C' RI = 1.59 (4) 'D' RI = 1.62

62. A mineral is in extinction position when its vibration plane is parallel to
(1) vibration direction of polariser (2) vibration direction of analyser
(3) both (1) and (2) (4) None of the above
63. A mineral has three values for its refractive indices. The mineral crystallises in
(1) cubic system (2) tetragonal system
(3) hexagonal system (4) orthorhombic system
64. In uniaxial minerals, there is no double refraction along which crystallographic axis?
(1) a -axis (2) b -axis (3) c -axis (4) All of these
65. The optic axes in biaxial minerals always lie in
(1) X - Y plane (2) X - Z plane
(3) Y - Z plane (4) Any of the above combinations
66. Which mineral shows one set of cleavage in thin sections?
(1) Muscovite (2) Calcite (3) Wollastonite (4) Microcline
67. Which mineral commonly shows euhedral shape?
(1) Quartz (2) Zircon (3) Microcline (4) Muscovite
68. Inclined extinctions are shown by which of the following mineral sets?
(1) Andesine, Hornblende, Kyanite (2) Augite, Muscovite, Beryl
(3) Biotite, Tourmaline, Quartz (4) Garnet, Microcline, Hypersthene

- 69.** Which mineral is isotropic under the microscope?
(1) Almandine (2) Biotite (3) Tourmaline (4) All of these
- 70.** Isochromatic lines are seen as a part of the interference figure in
(1) tetragonal minerals (2) hexagonal minerals
(3) monoclinic minerals (4) All of the above
- 71.** Calcite is
(1) uniaxial positive (2) uniaxial negative
(3) biaxial positive (4) biaxial negative
- 72.** Inclined extinction is shown by
(1) calcite (2) basal section of augite
(3) basal section of hornblende (4) None of the above
- 73.** Spinifex texture is found in which rock?
(1) Lamprophyre (2) Komatiite (3) Tholeiite (4) Rhyolite
- 74.** Dolerite shows which texture?
(1) Ophitic (2) Panidiomorphic
(3) Allotriomorphic (4) Seriate
- 75.** Eutectic crystallisation of quartz and K-feldspar give rise to
(1) hypidiomorphic texture (2) porphyritic texture
(3) graphic texture (4) All of the above

- 76.** In the IUGS classification, the field of diorite falls near which end of the triangle?
- (1) Quartz (Q) (2) Alkali feldspar (A)
 (3) Plagioclase (P) (4) None of the above
- 77.** The periclase-silica phase diagram exhibits
- (1) eutectic points (2) peritectic point
 (3) liquid immiscibility (4) All of the above
- 78.** As per the Bowen's reaction series the correct order of crystallisation is shown by
- (1) Albite—Anorthite—Labradorite (2) Anorthite—Bytownite—Labradorite
 (3) Albite—Oligoclase—Andesine (4) Anorthite—Labradorite—Bytownite
- 79.** Which one is a type of meteorite?
- (1) Anthracite (2) Anticilite (3) Aubrite (4) Adulite
- 80.** Sideromelane is a synonym for
- (1) Tachylyte (2) Basinite (3) Boninite (4) Trachyte
- 81.** A komatiite should contain
- (1) $\text{CaO} > 16\%$ (2) $\text{Na}_2\text{O} + \text{K}_2\text{O} > 22\%$
 (3) $\text{SiO}_2 > 54\%$ (4) $\text{MgO} > 18\%$
- 82.** Filter pressing is associated with
- (1) magmatic differentiation (2) texture
 (3) volatiles (4) viscosity

- 83.** Pillow structure is shown by
(1) Granites (2) Rhyolites (3) Lamprophyres (4) Basaltic lava
- 84.** Ankarinite and picrite are types of
(1) Basalts (2) Granite (3) Fossils (4) Lamprophyres
- 85.** The condensed phase rule is given by the formula
(1) $P + C = F - 1$ (2) $1 - P = F - C$ (3) $F + C = P - 2$ (4) $P + F = C + 2$
- 86.** Viscosity of a magma increases with
(1) increase in Mg (2) increase in Al
(3) increase in H_2O (4) All of the above
- 87.** A magmatic association with felsic and mafic members predominating is termed as
(1) binomial (2) bimagmatic (3) bimodal (4) bi-petrotectonic
- 88.** Of the following which one is not a meteorite?
(1) Chondrite (2) Impactite (3) Achondrite (4) Siderolite
- 89.** Dacite is the volcanic equivalent of
(1) Granite (2) Syenite (3) Diorite (4) Granodiorite
- 90.** In a phase diagram, the phase rule at an invariant point is defined by
(1) $F = 0$ (2) $F = 1$ (3) $F = 2$ (4) $F = 3$
- 91.** Which of the following are lithophile elements?
(1) Ag, Zn, Pb (2) Li, Zr, V (3) Ru, Os, Au (4) S, Se, Te

92. Elements of B-subgroups (in periodic table) with 18 electrons in outermost shell are

- (1) atmophile (2) lithophile (3) chalcophile (4) siderophile

93. Rubidium Strontium Dating is useful for

- (1) relatively young sediments
(2) relatively old geological material
(3) a hundred to thousand year old rocks
(4) non-geological material

94. Element of which atomic number is absent in the earth?

- (1) 41 (2) 42 (3) 43 (4) 44

95. The weight percent oxygen in the earth crust is about

- (1) 42 (2) 46. (3) 49 (4) 53

96. Which sedimentary structures can be used to decipher top and bottom of beds?

- (1) Graded bedding (2) Current ripples
(3) Deformational structures (4) All of the above

97. The composition of an arkose would be

- (1) Quartz + Lithics + (Matrix > 15%)
(2) Quartz + Feldspars + (Matrix > 15%)
(3) Quartz + Feldspars + (Matrix < 15%)
(4) Quartz + Lithics + (Matrix < 15%)

98. An authigenic growth forms during

- (1) sedimentation (2) diagenesis (3) palingenesis (4) anatexis

- 99.** A turbidite deposit may show
- (1) ripple marks and good sorting
 - (2) current lamination and ripple marks
 - (3) rain prints and flute marks
 - (4) graded bedding and poor sorting
- 100.** As per Wentworth's scale, clay size is defined as
- (1) less than $1/256$ mm
 - (2) 1 mm to $1/256$ mm
 - (3) more than 256 mm
 - (4) 0.5 mm to 1.5 mm
- 101.** Micrite is
- (1) a fine grained carbonate
 - (2) a type of stalactite
 - (3) similar to myrmekite
 - (4) a hexagonal iron carbonate
- 102.** Rudite is a rock comprising
- (1) clay
 - (2) silt
 - (3) sand
 - (4) pebbles
- 103.** A rock composed mainly of quartz with matrix less than 15% is
- (1) Quartz arenite
 - (2) Greywacke
 - (3) Litharenite
 - (4) Mudstone
- 104.** Sabkha is a
- (1) superatidal deposit
 - (2) desert deposit
 - (3) deep sea deposit
 - (4) river terrace deposit
- 105.** A sedimentary rock may form by weathering and deposition of which rock type?
- (1) Igneous/Sedimentary/Metamorphic
 - (2) Only Sedimentary/Metamorphic
 - (3) Only Igneous/Metamorphic
 - (4) Only Igneous/Sedimentary

- 106.** Omphacite, characteristically found in eclogite is a
- (1) sodic hornblende (2) sodic pyroxene
(3) sodic garnet (4) sodic plagioclase
- 107.** Texture formed by parallel arrangement of acicular minerals in a metamorphic rock is called
- (1) crystalloblastic (2) nematoblastic (3) lepidoplastic (4) porphyroblastic
- 108.** Saccharoidal texture is seen in which rock?
- (1) Syenite (2) Hornfels (3) Marble (4) Biotite schist
- 109.** An AFM diagram depicts the metamorphic mineral assemblage of
- (1) pelitic rocks (2) charnockites (3) hornfels (4) greenstones
- 110.** The beginning of metamorphism is indicated by the first appearance of
- (1) Staurolite (2) Lawsonite (3) Quartz (4) Kyanite
- 111.** Laumontite is stable at water pressure of
- (1) >7 kb (2) 7 to 5 kb (3) 5 to 3 kb (4) <3 kb
- 112.** Vesuvianite is formed in
- (1) metamorphosed arenites (2) metamorphosed pelites
(3) metamorphosed marls (4) metamorphosed carbonates
- 113.** Texture of charnockite is
- (1) granoblastic (2) porphyritic (3) hypidiomorphic (4) lepidoblastic

114. With increasing metamorphism, sequence of index minerals will be

- (1) Biotite—Chlorite—Kyanite (2) Kyanite—Sillimanite—Almandine
(3) Almandine—Staurolite—Kyanite (4) Biotite—Sillimanite—Kyanite

115. Muscovite + Quartz = K-feldspar + Al_2SiO_5 + H_2O (water pressure < 3.5 kb) defines

- (1) beginning of very low grade metamorphism
(2) beginning of low grade metamorphism
(3) beginning of medium grade metamorphism
(4) beginning of high grade metamorphism

116. In India, the iron ore deposits are mainly of which type?

- (1) Magnetite (2) Hematite (3) Limonite (4) Siderite

117. 'Blue Dust' is a type of

- (1) iron deposit in Goa
(2) copper deposit in Khetri
(3) manganese deposit in Madhya Pradesh
(4) cobalt deposit

118. Sphalerite is generally associated with

- (1) braunite (2) magnetite (3) cuprite (4) galena

119. Lead and zinc is mainly mined from

- (1) Rajasthan (2) Kerala
(3) Madhya Pradesh (4) Uttar Pradesh

- 120.** Jaduguda is famous for
(1) uranium (2) copper (3) manganese (4) tungsten
- 121.** Kimberlites are important because
(1) they contain crustal xenoliths (2) they exhibit fenitisation
(3) they host diamonds (4) All of the above
- 122.** Which of the following is(are) used in the steel industry?
(1) Coal (2) Manganese ore
(3) Limestone, dolomite, quartz (4) All of the above
- 123.** The largest iron ore deposits of igneous origin are found in
(1) India (2) Denmark (3) Sweden (4) Australia
- 124.** Hydrothermal ore deposits of mesothermal type are formed at which temperatures?
(1) 0 to 100 °C (2) 100 to 200 °C (3) 200 to 300 °C (4) 300 to 500 °C
- 125.** The chromite deposits of Orissa are found in
(1) Sukinda (2) Sitampundi (3) Ratnagiri (4) Byrapur Area
- 126.** The bauxite deposits of Ranchi have a composition of about
(1) 20 to 30% Al_2O_3 (2) 40 to 50% Al_2O_3
(3) 50 to 60% Al_2O_3 (4) 10 to 20% Al_2O_3
- 127.** Which mineral is used for the separation of aluminium metal by electrolysis?
(1) Chrysolite (2) Chrysotile (3) Cryolite (4) Chiastolite

- 128.** Which one of the following can be used to recover gold by amalgamation?
(1) Zinc (2) Mercury (3) Copper (4) Magnesite
- 129.** Which one of the following is a Neutral Refractory Mineral?
(1) Chromite (2) Kyanite (3) Sillimanite (4) Magnesite
- 130.** Which one of the following is used in the cement industry?
(1) Zinc (2) Pyrite (3) Gypsum (4) Kyanite
- 131.** Dinosaur egg shells have been found in the Lameta Formation in
(1) Kerala (2) Madhya Pradesh
(3) Tamil Nadu (4) Punjab
- 132.** Trilobites became extinct at the end of
(1) Cambrian (2) Devonian (3) Permian (4) Cretaceous
- 133.** Graptolites reached their maximum development in
(1) Cambrian (2) Ordovician (3) Silurian (4) Carboniferous
- 134.** Ammonoids became extinct at the end of
(1) Tertiary (2) Triassic (3) Cretaceous (4) Carboniferous
- 135.** Iron-ore group is known from
(1) Uttar Pradesh (2) Maharashtra
(3) Arunachal (4) Jharkhand-Orissa

136. Foramen is found in which one of the following?
 (1) Trilobites (2) Pelecypods (3) Graptolites (4) Brachiopods
137. Which one of the following is a coral?
 (1) *Motlivaltia* (2) *Globigerina* (3) *Cardita* (4) *Calymene*
138. Which one is a plant fossil?
 (1) *Schizoneura* (2) *Favosites* (3) *Productus* (4) *Syringothyris*
139. Ichnofossil is
 (1) an index fossil (2) a trace fossil (3) a living fossil (4) None of these
140. The Fawn Limestone contains which one of the following?
 (1) *Collenia columnaris* (2) *Conophyton cylindricus*
 (3) *Collenia* sp. (4) All of the above
141. The Jodhpur Sandstone is unconformably underlain by
 (1) Malani Volcanics (2) Aravalli Group
 (3) Banded Gneissic Complex (4) Jhiri Shales
142. Which of the following represents the correct chronostratigraphic sequence?
 (1) Zone—Stage—Series—System—Erathem
 (2) Series—Zone—Stage—System—Erathem
 (3) Series—System—Erathem—Zone—Stage
 (4) Zone—Stage—System—Series—Erathem
143. The boundary between Mesozoic and Cenozoic is approximately at
 (1) 55 Ma (2) 65 Ma (3) 75 Ma (4) 125 Ma

- 144.** Diamondiferous conglomerate occurs in which one of the following?
(1) Rewa Group (2) Semri Group (3) Bhandar Group (4) Kaimur Group
- 145.** The Salkhala Group is overlain by
(1) Talchir formation (2) Dogra slates
(3) Mandhali formation (4) Gneissic rocks
- 146.** In Kashmir, the Muth Quartzite is conformably overlain by
(1) *Fenestella* Shales (2) Zewan formation
(3) *Syringothyris* limestone (4) None of the above
- 147.** Which one is an Upper Gondwana Flora?
(1) *Gangamopteris* (2) *Ptilophyllum* (3) *Vertebraria* (4) *Glossopteris*
- 148.** *Stegodon* is a characteristic fossil of which formation?
(1) Kamalial formation (2) Pinjor formation
(3) Nagri formation (4) Dhokpathan formation
- 149.** When did the first plants appear on land?
(1) Cambrian (2) Ordovician (3) Silurian (4) Devonian
- 150.** The Sargur Schist Complex is
(1) older than Dharwar Group (2) younger than Dharwar Group
(3) equivalent to Closepet Granite (4) younger than Papaghani Group

अभ्यर्थियों के लिए निर्देश

(इस पुस्तिका के प्रथम आवरण-पृष्ठ पर तथा उत्तर-पत्र के दोनों पृष्ठों पर केवल नीली या काली बाल-प्वाइंट पेन से ही लिखें)

1. प्रश्न पुस्तिका मिलने के 10 मिनट के अन्दर ही देख लें कि प्रश्नपत्र में सभी पृष्ठ मौजूद हैं और कोई प्रश्न छूटा नहीं है। पुस्तिका दोषयुक्त पाये जाने पर इसकी सूचना तत्काल कक्ष-निरीक्षक को देकर सम्पूर्ण प्रश्नपत्र की दूसरी पुस्तिका प्राप्त कर लें।
2. परीक्षा भवन में लिफाफा रहित प्रवेश-पत्र के अतिरिक्त, लिखा या सादा कोई भी खुला कागज साथ में न लायें।
3. उत्तर-पत्र अलग से दिया गया है। इसे न तो मोड़ें और न ही विकृत करें। दूसरा उत्तर-पत्र नहीं दिया जायेगा, केवल उत्तर-पत्र का ही मूल्यांकन किया जायेगा।
4. अपना अनुक्रमांक तथा उत्तर-पत्र का क्रमांक प्रथम आवरण-पृष्ठ पर पेन से निर्धारित स्थान पर लिखें।
5. उत्तर-पत्र के प्रथम पृष्ठ पर पेन से अपना अनुक्रमांक निर्धारित स्थान पर लिखें तथा नीचे दिये वृत्तों को गाढ़ा कर दें। जहाँ-जहाँ आवश्यक हो वहाँ प्रश्न-पुस्तिका का क्रमांक तथा सेट का नम्बर उचित स्थानों पर लिखें।
6. ओ० एम० आर० पत्र पर अनुक्रमांक संख्या, प्रश्न-पुस्तिका संख्या व सेट संख्या (यदि कोई हो) तथा प्रश्न-पुस्तिका पर अनुक्रमांक सं० और ओ० एम० आर० पत्र सं० की प्रविष्टियों में उपरिलेखन की अनुमति नहीं है।
7. उपर्युक्त प्रविष्टियों में कोई भी परिवर्तन कक्ष निरीक्षक द्वारा प्रमाणित होना चाहिये अन्यथा यह एक अनुचित साधन का प्रयोग माना जायेगा।
8. प्रश्न-पुस्तिका में प्रत्येक प्रश्न के चार वैकल्पिक उत्तर दिये गये हैं। प्रत्येक प्रश्न के वैकल्पिक उत्तर के लिये आपको उत्तर-पत्र की सम्बन्धित पंक्ति के सामने दिये गये वृत्त को उत्तर-पत्र के प्रथम पृष्ठ पर दिये गये निर्देशों के अनुसार पेन से गाढ़ा करना है।
9. प्रत्येक प्रश्न के उत्तर के लिये केवल एक ही वृत्त को गाढ़ा करें। एक से अधिक वृत्तों को गाढ़ा करने पर अथवा एक वृत्त को अपूर्ण भरने पर वह उत्तर गलत माना जायेगा।
10. ध्यान दें कि एक बार स्याही द्वारा अंकित उत्तर बदला नहीं जा सकता है। यदि आप किसी प्रश्न का उत्तर नहीं देना चाहते हैं, तो सम्बन्धित पंक्ति के सामने दिये गये सभी वृत्तों को खाली छोड़ दें। ऐसे प्रश्नों पर शून्य अंक दिये जायेंगे।
11. रफ़ कार्य के लिये प्रश्न-पुस्तिका के मुखपृष्ठ के अन्दर वाले पृष्ठ तथा अंतिम पृष्ठ का प्रयोग करें।
12. परीक्षा के उपरान्त प्रश्न-पुस्तिका एवं उत्तर-पत्र परीक्षा भवन में जमा कर दें।
13. परीक्षा समाप्त होने से पहले परीक्षा भवन से बाहर जाने की अनुमति नहीं होगी।
14. यदि कोई अभ्यर्थी परीक्षा में अनुचित साधनों का प्रयोग करता है, तो वह विश्वविद्यालय द्वारा निर्धारित दंड का/की, भागी होगा/होगी।

KEY OF UET/PET-2010

1- 03 (Three) marks to be awarded for each correct answer.

2- 01 (one) mark to be deducted for each incorrect answer.

3- 00 (zero) mark to be awarded for each unattempted question.

M.Sc. (Tech.) in Geology/
M.Sc. Petroleum Geo Science
(483)

Q.	A.	Q.	A.	Q.	A.	Q.	A.	Q.	A.	Q.	A.	Q.	A.	Q.	A.	Q.	A.	
1	1	21	4	41	4	61	1	81	4	101	1	121	3	141	1	161		181
2	1	22	2	42	3	62	3	82	1	102	4	122	4	142	1	162		182
3	4	23	2	43	2	63	4	83	4	103	1	123	3	143	2	163		183
4	4	24	2	44	3	64	3	84	1	104	1	124	3	144	1	164		184
5	1	25	4	45	1	65	2	85	2	105	1	125	1	145	2	165		185
6	3	26	2	46	4	66	1	86	2	106	2	126	3	146	3	166		186
7	2	27	1	47	2	67	2	87	3	107	2	127	3	147	2	167		187
8	1	28	2	48	4	68	1	88	2	108	3	128	2	148	4	168		188
9	4	29	2	49	1	69	1	89	4	109	1	129	1	149	3	169		189
10	1	30	3	50	2	70	4	90	1	110	2	130	3	150	1	170		190
11	1	31	2	51	4	71	2	91	2	111	4	131	2	151		171		191
12	4	32	1	52	2	72	4	92	3	112	3	132	3	152		172		192
13	3	33	2	53	3	73	2	93	2	113	1	133	2	153		173		193
14	4	34	3	54	1	74	1	94	3	114	3	134	4	154		174		194
15	1	35	3	55	2	75	3	95	2	115	4	135	4	155		175		195
16	1	36	1	56	3	76	3	96	1	116	2	136	4	156		176		196
17	3	37	1	57	3	77	4	97	3	117	1	137	1	157		177		197
18	3	38	2	58	2	78	2	98	2	118	4	138	1	158		178		198
19	2	39	1	59	2	79	3	99	4	119	1	139	2	159		179		199
20	3	40	1	60	1	80	1	100	1	120	1	140	4	160		180		200

[Handwritten Signature]