

READ INSTRUCTIONS BEFORE FILLING ANY DETAILS OR ATTEMPTING TO ANSWER THE QUESTIONS.

Booklet Sr. No. _____



Question
Booklet Set

A

Candidate's Name _____

Father's Name _____

Date of Birth :
D D M M Y Y Y Y

OMR Response Sheet No. _____ Roll No. _____

Candidate's Signature :

(Please sign in the box)

[Total Questions : 120]

[Time Allowed : 2 Hours]

INSTRUCTIONS

1. The candidate shall NOT open this booklet till the time they are told to do so by the Invigilation Staff. However, in the meantime, the candidate can read these instructions carefully and subsequently fill the appropriate columns given above in CAPITAL letters. The candidate may also fill the relevant boxes 1 to 9 of the Optical Mark Reader (OMR) response sheet, supplied separately.
2. Use only blue or black **ball point pen** to fill the relevant columns on this page as well as in OMR sheet. Use of Ink pen or any other pen is not allowed.
3. Other than filling credentials/information in specific space allotted above, do not write anything else on the Test Booklet. Space for rough work is provided at the end. The candidate shall be liable for any adverse effect if the information given above is wrong or illegible or incomplete.
4. Each candidate is required to attempt 120 questions in 120 minutes, except for orthopedically/visually impaired candidates, who would be given 40 extra minutes, for marking correct responses on the OMR sheet.
5. The question paper booklet has **28** pages.
6. The candidates, when allowed to open the question paper booklet, must first check the entire booklet to confirm that the booklet has complete number of pages, the pages are printed correctly and there are no blank or torn pages. In case there is any such error in the question paper booklet then the candidate should IMMEDIATELY bring this fact to the notice of the Invigilation Staff and obtain a new booklet of the same series as given earlier.
7. The serial number of the new Question booklet, if issued for some reason, should be entered in the relevant column of the OMR. The Invigilation Staff must make necessary corrections in their record regarding the change in the serial no. of Question booklet.
8. The paper consists of total 480 Marks. Each question shall carry 4 marks. There are four options for each question and the candidate has to mark the MOST APPROPRIATE answer on the OMR response sheet.
9. There is **negative marking** (1 mark for each question) for questions wrongly answered by the candidate.
10. If a candidate gives more than one answer, it will be treated as a wrong answer even if one of the given answers is correct. There will be same penalty, as above, to that question.
11. If Question is left blank, i.e. question remains unattempted, there will be no penalty for that question.
12. Use of Electronic/Manual Calculator is prohibited.
13. The candidate **MUST READ INSTRUCTIONS BEHIND THE OMR SHEET** before answering the questions and check that two carbon copies attached to the OMR sheet are intact.

1. Consider the following statements :

1. 'Painted Bug' causes damage to Mustard
2. Ascochyta blight is a fungal disease of Chickpea
3. Insect 'Fall army worm' generally prefers to attack the Maize crop
4. 'BL-43' and 'BL-42' are the varieties of Barley

Choose the correct statements.

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

2. Fill in the blanks in List I from List II (Choose the most appropriate option)

List I	List II
1. The optimum seed rate for sowing one hectare of pearl millet is : <u>X</u>	P. 70-80 Kg
2. The optimum seed rate for timely sown fieldpea crop (for 1 hectare) is : <u>Y</u>	Q. 7-8 Kg
	R. 40-50 Kg
	S. 4-5 Kg

X and Y are respectively :

Code :

- | | X | Y |
|-----|----------|----------|
| (a) | P | R |
| (b) | Q | S |
| (c) | R | Q |
| (d) | S | P |

3. A number of electro-chemical changes happen in the paddy soils due to the continuous submergence or flooding. Which one of the following statements is incorrect about the electro-chemical changes in the submerged paddy soils ?

- (a) Increase in pH of the acid soil
- (b) Decrease in pH of the sodic soil
- (c) Increase in redox potential of the soil
- (d) Decrease in redox potential of the soil

11. Which one of the following groups of essential plant nutrients falls in the 'non-mineral nutrients' category ?
- Primary nutrients
 - Secondary nutrients
 - Micronutrients
 - C, H and O
12. Consider the following statements :
- Chemically, quick lime is CaO
 - 'Zinc sulphate heptahydrate' contains approximately 42% Zinc
 - Fertilizer 'single super phosphate' contains approximately 42% Sulphur
- Choose the correct statement(s) :
- 1 only
 - 1 and 2 only
 - 1 and 3 only
 - 2 and 3 only
13. Choose the correct statement(s) :
- When greengram are allowed to sprout, Vitamin C is synthesized.
 - BPH is a pest of rice that causes 'hopper burn' symptoms.
 - Both (a) and (b)
 - Neither (a) nor (b)
14. For Punjab, 'Rice (short duration) – Vegetable Pea – Wheat – Mungbean' rotation is an example of :
- One-year rotation
 - One and half-year rotation
 - Half-year rotation
 - Two-year rotation
15. Find out the quantity of atrazine herbicide WP containing 50% active ingredient (a.i.) to be applied at the rate of 1.5 kg a.i./ha.
- 1.0 kg/ha
 - 2.0 kg/ha
 - 3.0 kg/ha
 - 0.75 kg/ha

16. Which one of the following nitrogenous fertilizers is not included in the Fertilizer Control Order (FCO) of India ?
- (a) Ammonium sulphate
 - (b) Calcium Ammonium Nitrate
 - (c) Ammonium nitrate
 - (d) All of the above
17. Based upon morphological features, weeds have been classified into grassy, sedges and broadleaf groups. The sedges belong to the plant family :
- (a) Poaceae
 - (b) Asteraceae
 - (c) Graminae
 - (d) Cyperaceae
18. Rice weeds *Echinochloa crus-galli* and *Echinochloa colona* belong to the following group of plants :
- (a) CAM plants
 - (b) C_4 plants
 - (c) C_3 plants
 - (d) Dicot plants
19. If on a 20-acre farm, crops are raised on 15 acres in kharif (rainy season), 15 acres in rabi (winter season) and 20 acres in zaid (summer) during one year, what would be the cropping intensity of the farm ?
- (a) 150%
 - (b) 250%
 - (c) 350%
 - (d) 500%
20. “Weirs” and “Flumes” are primarily used to :
- (a) Measure refractive index of water
 - (b) Measure the viscosity of water in the field
 - (c) Measure the density of water in the channel
 - (d) Measure the water flow in the channel

- 21.** Which one of the following is the correct pair of sulphur containing amino acids ?
- (a) Cysteine and lysine
 - (b) Cysteine and leucine
 - (c) Cysteine and methionine
 - (d) Cysteine and isoleucine
- 22.** The “Bangalore process” of anaerobic composting was developed by :
- (a) Albert Howard
 - (b) C.N. Acharya
 - (c) P.N. Arya
 - (d) Robert Howard
- 23.** Choose the most suitable option :
- (a) Sorghum grain is considered as *Caryopsis*.
 - (b) Ergot or sugary disease of sorghum is primarily caused by *Gleocercospora sorghi*.
 - (c) Both (a) and (b)
 - (d) Neither (a) nor (b)
- 24.** The optimum sowing time of chickpea in the North India under the irrigated condition is :
- (a) First fortnight of October
 - (b) Second fortnight of October
 - (c) First fortnight of December
 - (d) Second fortnight of November
- 25.** “LL 1373” and “LL 931” are the varieties of :
- (a) Kabuli chickpea
 - (b) Desi chickpea
 - (c) Linseed
 - (d) Lentil

26. Consider the following statements about Soybean and choose the correct option :
- (a) It is considered to have originated in Brazil
 - (b) It is considered to have originated in USA
 - (c) It is a short day plant
 - (d) It is a temperate C4 plant
27. The 'sterility mosaic' disease of pigeonpea is caused by X; and, Out of Sand, Peat and Clay, Y has highest Soil bulk density. Identify X and Y (respectively) :
- (a) Virus and clay
 - (b) Bacteria and clay
 - (c) Nematode and peat
 - (d) Virus and sand
28. The state with highest production of green gram (mungbean) in India and country with highest production of pigeonpea in the world are respectively :
- (a) Punjab & India
 - (b) Rajasthan & India
 - (c) Madhya Pradesh & China
 - (d) Uttar Pradesh & China
29. "Canola" refers to the cultivars of Oilseed rape in Canada. The seeds of "Canola" should contain :
- (a) <20% erucic acid
 - (b) >20% erucic acid
 - (c) >2% erucic acid
 - (d) <2% erucic acid
30. Powdery mildew of pea and Dropsy disease in human beings may respectively be caused by :
- (a) *Fusarium pisi* and weed *Pluchea lanceolata*
 - (b) *Erysiphe pisi* and weed *Argemone Mexicana*
 - (c) *Uromyces fabae* and weed *Digera arvensis*
 - (d) *Fusarium pisi* and weed *Convolvulus arvensis*

- 35.** Safflower in India is usually grown during :
- (a) Rabi season
 - (b) Kharif season
 - (c) Zaid season
 - (d) Rabi, kharif and zaid seasons
- 36.** Compared to popular rice varieties, 'DRR Dhan 48' and 'DRR Dhan 49' contain higher levels of :
- (a) Iron
 - (b) Zinc
 - (c) Boron
 - (d) Molybdenum
- 37.** 1. High yielding dwarf varieties of wheat were developed by X
2. The term 'Evergreen Revolution' has been given by Y
Identify X and Y (respectively) :
- (a) Dr. M. S. Swaminathan and Dr. R. S. Paroda
 - (b) Dr. R. S. Paroda and C. T. Patel
 - (c) Dr. N. E. Borlaug and Dr. M. S. Swaminathan
 - (d) Dr. B. P. Pal and Dr. R. S. Paroda
- 38.** The term 'cultivar' is used to designate a new crop type intentionally bred and released for cultivation. Who has been credited with coining of the term 'cultivar' in year 1923 ?
- (a) L.H. Bailey
 - (b) M.S. Swaminathan
 - (c) John Ray
 - (d) A.P. de Candolle
- 39.** "Tungro virus" of rice is usually transmitted by :
- (a) Gundhy bug
 - (b) Gall midge
 - (c) Army worm
 - (d) Green leaf hopper
- 40.** What would be the harvest index of rice if grain yield is 3.5 tonnes/ha and straw yield is 6.5 tonnes/ha ?
- (a) 35%
 - (b) 45%
 - (c) 54%
 - (d) 65%

41. The 'PGS', with respect to the organic certification, stands for :
- (a) Pesticides Governance Scheme (b) Paramparagat Gram Scheme
(c) Participatory Governance Service (d) Participatory Guarantee System
42. The most common colour of the cultivated groundnut flowers is :
- (a) Yellow (b) Pink
(c) Blue (d) Red
43. Particles ranging from 0.01 – 0.03 mm diameter would be considered as
- (a) Sand (b) Silt
(c) Clay (d) Gravel
44. Rice is basically a :
- (a) Short day plant (b) Long day plant
(c) Day-neutral plant (d) Both (b) and (c)
45. The theoretical yield of parent acid from an active ingredient is termed as
- (a) Active equivalent (b) Technical ingredient
(c) Acid equivalent (d) Acid value
46. Which of the following is/are advantages of crop rotation ?
1. To reduce the pest and disease incidence.
 2. To maintain the fertility status of the soils
 3. To keep the weeds under control
- (a) 1 only (b) 2 only
(c) 1 and 3 only (d) 1, 2 and 3
47. The Dapog method of raising rice nursery was introduced in India from
- (a) Burma (b) Japan
(c) USA (d) Philippines
48. Which of the following statement(s) is/are correct ?
1. Phenylmercuric acetate (PMA) is a chemical used in agriculture crops in order to increase transpiration.
 2. Enforced dormancy is associated with deeper placement of seeds.
- (a) 1 only (b) 2 only
(c) Both 1 and 2 (d) Neither 1 nor 2

49. Choose the most suitable option :
- (a) *Commelina benghalensis* is a monocot weed unlike *Crotalaria verrucosa*
 - (b) *Crotalaria verrucosa* is a monocot weed unlike *Commelina benghalensis*
 - (c) Both *Commelina benghalensis* and *Crotalaria verrucosa* are monocot weeds
 - (d) Neither *Commelina benghalensis* nor *Crotalaria verrucosa* are monocot weeds
50. Choose the correct option :
- (a) Hay fever is commonly caused by Ambrosia
 - (b) Weed introduction from some other part of the world is called Antagonism
 - (c) Both (a) and (b)
 - (d) None of the above
51. Golden rice is a rich source of
- (a) Vitamin A
 - (b) Vitamin B
 - (c) Ascorbic acid
 - (d) Vitamin K
52. Consider the following statements and choose the correct option :
1. CH₄ is released from paddy fields.
 2. Pearl millet can be transplanted.
 3. Scientific name of Kodo millet is *Paspalum scrobiculatum*
- (a) 1 only
 - (b) 1 and 2 only
 - (c) 2 and 3 only
 - (d) 1, 2 and 3
53. Sweet corn is :
- (a) *Zea mays indentata*
 - (b) *Zea mays indurata*
 - (c) *Zea mays saccharata*
 - (d) *Zea mays amylacea*
54. The oil content in groundnut seeds is about %
- (a) 45
 - (b) 25
 - (c) 15
 - (d) 05
55. The fruit of rapeseed and mustard is known as
- (a) Pod
 - (b) Caryopsis
 - (c) Siliqua
 - (d) Dutum

- 56.** Nipping in gram means a process of
- (a) Removal of all buds present in the axil of the leaves
 - (b) Removal of leaves
 - (c) Removal of terminal bud
 - (d) Burning of leaves
- 57.** Which of the following soil water is the most useful for plants ?
- (a) Gravitational water
 - (b) Capillary water
 - (c) Hygroscopic water
 - (d) Superfluous water
- 58.** The force of attraction that binds the molecules of the same kind is :
- (a) Adhesion
 - (b) Matric force
 - (c) Cohesion
 - (d) Interface
- 59.** The 'Leaf colour chart' (LCC) is used for judging the amount of nitrogen application to the standing crop(s) of which of the following ?
- (a) Gram and mustard
 - (b) Rice
 - (c) Mustard and sorghum
 - (d) Sorghum and gram
- 60.** Extension is a :
- (a) One way flow of message
 - (b) Two way flow of message
 - (c) Restricted way flow of message
 - (d) None of the above

61. Match the following :

List I

1. Author of the famous book 'Species Plantarum'
2. Proposed the concept of 'plant ideotypes' for the first time
3. Coined the term 'heterosis' for the first time

List II

- P. Carl Linnaeus
- Q. G.H. Shull
- R. C.M. Donald

Code :

- | | 1 | 2 | 3 |
|-----|----------|----------|----------|
| (a) | P | Q | R |
| (b) | R | Q | P |
| (c) | P | R | Q |
| (d) | R | P | Q |

62. Consider the following statements :

1. The wheat grain protein is called 'X'.
2. Initially, the potassium deficiency symptoms in barley appear on 'Y'.

Identify correct pair of X and Y (respectively)

- (a) Zein and Upper leaves
- (b) Gluten and Upper leaves
- (c) Glycinin and Middle leaves
- (d) Gluten and Lower leaves

63. If 30 maize plants are counted in 5 metre of row length and the row spacing is 60 cm, what will be the population density of maize ?

- | | |
|-----------------------------|-----------------------------|
| (a) 50,000 plants/ hectare | (b) 75,000 plants/hectare |
| (c) 1,00,000 plants/hectare | (d) 1,25,000 plants/hectare |

64. Flooding kills the weeds by excluding the _____ from their environment.

- | | |
|---------------|--------------|
| (a) Air | (b) Water |
| (c) Nutrients | (d) Microbes |

65. Loss of horizontal resistance to a plant disease during a breeding cycle is

- (a) Boom and bust cycle
- (b) Vertifolia effect
- (c) Quantitative resistance
- (d) Pathovar

66. Soils with pH < 8.5, EC > 4 dS m⁻¹ and ESP less than 15 are designated as

- (a) Saline soils (b) Alkali soils
(c) Black alkali soils (d) Sodic soils

67. Pick the correct statement :

- (a) One standard atmosphere is equal to 101,325 hPa
(b) One standard atmosphere is equal to 101.325 hPa
(c) Generally, dry adiabatic lapse rate per 100 m ascent is 9.8°C
(d) Generally, dry adiabatic lapse rate per 100 m ascent is 0.98°C

68. Consider the following statements and choose the incorrect ones :

1. Widely spaced isobars represent steep change in pressure
 2. Cumulo-nimbus clouds are associated with heavy rainfall, thunder and lightning.
 3. India receives less than normal rainfall under the influence of La Nina.
- (a) 2 only (b) 3 only
(c) 1 and 2 only (d) 1 and 3 only

69. Match the following entities in list I with corresponding entries in List II :

- | List I | List II |
|--|----------------------|
| 1. Father of modern organic agriculture | P. Sir Albert Howard |
| 2. Father of Indian Plant Pathology | Q. E.J. Butler |
| 3. The father of extension in a global context | R. B.B. Mundkur |
| | S. Paul Leagans |
| | T. Sigmund Freud |

Code :

- | | 1 | 2 | 3 |
|-----|----------|----------|----------|
| (a) | R | Q | P |
| (b) | P | Q | S |
| (c) | Q | R | S |
| (d) | Q | R | T |

70. Yellow vein mosaic of okra is primarily transmitted by

- (a) Aphid (b) White fly
(c) Leaf hopper (d) Nematode

71. Choose the correct match :

- (a) Mancozeb and Thiram : Systemic fungicides
- (b) Glyphosate : Selective contact herbicide
- (c) Carbendazim : Systemic fungicide
- (d) Glyphosate : Nonselective contact herbicide

72. Fernoxone is _____

- (a) 2, 4-D ester salt
- (b) 2, 4-D amine salt
- (c) 2, 4-D sodium salt
- (d) 2, 4-D ester amine salt

73. Crop rotations are effective in controlling

- (a) Crop bound weeds but not crop associated weeds
- (b) Both crop bound weeds and crop associated weeds
- (c) Crop associated weeds but not crop bound weeds
- (d) Neither crop bound weeds nor crop associated weeds

74. The bio-agent useful for managing water hyacinth is

- (a) *Bactra* sp.
- (b) *Cyrtobagous salviniae*
- (c) *Neochetina bruchi*
- (d) *Dactylopius* sp.

75. Choose the correct options :

1. First herbicide-resistant weed in the world: *Amaranthus* sp.
 2. First herbicide-resistant weed in the world: *Senecio vulgaris*
 3. *Zea mays ceratina* is flour corn
 4. *Zea mays ceratina* is waxy corn
- (a) 1 and 3 only
 - (b) 2 and 3 only
 - (c) 1 and 4 only
 - (d) 2 and 4 only

76. Consider the following statements and choose the correct options :

1. Leaf reddening in cotton is due to deficiency of Mg.
 2. Leaf reddening in cotton is due to deficiency of Zn and Ca.
 3. Diamond back moth is a pest of crucifers.
 4. Diamond back moth is a pest of pulses and oil seeds.
- (a) 1 and 3 only
 - (b) 2 and 4 only
 - (c) 1 and 4 only
 - (d) 2 and 3 only

77. The Bhopal Gas Tragedy was due the leakage of _____ gas.
- (a) Hexane (b) Methane
(c) Methyl thiocyanate (d) Methyl isocyanate
78. If two chemicals, A and B have LD_{50} values of 85 mg kg^{-1} and 5010 mg kg^{-1} respectively, which one of the following statement is true ?
- (a) A is less toxic than B (b) B is less toxic than A
(c) Both have equal toxicity (d) Both are safe chemicals
79. Which of the following is the most suitable combination related to the requirements for soil solarisation ?
- (a) Summer season; black polythene; moist soil
(b) Winter season; black polythene; dry soil
(c) Summer season; transparent polythene; moist soil
(d) Summer season; transparent polythene; dry soil
80. Among the following, which group of elements is immobile in plants :
- (a) Ca, Cu, B, Fe (b) Cu, Mn, Mg, B
(c) Ca, N, K, S (d) S, Cu, Mg, B
81. Which among the following is known as the “Queen of Oilseeds” ?
- (a) Groundnut (b) Sesame
(c) Sunflower (d) Mustard
82. Which type of earthworm is useful for vermicomposting ?
- (a) Epigeic (b) Mesogeic
(c) Endogeic (d) Endogeic or Mesogeic
83. 1. Central Soil Salinity Research Institute is located at X.
2. The first KVK in India was established in 1974 at Y.
Identify X and Y.
- (a) Karnal and Puducherry respectively
(b) Bathinda and Ahmedabad respectively
(c) Hyderabad and Delhi respectively
(d) Jaipur and Kolkata respectively

- 84.** Pick the correct statement :
- (a) The largest source of irrigation in India is canals
 - (b) Sunflower is a cross pollinated crop
 - (c) Deep ploughing is recommended twice for every season
 - (d) World Wetlands Day is celebrated on 21st March
- 85.** Among the following, which crop has the highest water requirement in general ?
- (a) Wheat
 - (b) Cotton
 - (c) Sugarcane
 - (d) Rye
- 86.** Author of the book 'The Road Back to Nature : Regaining the Paradise Lost' is
- (a) Rachel Carlson
 - (b) Subhash Palekar
 - (c) Yoshikazu Kawaguchi
 - (d) Masanobu Fukuoka
- 87.** The process of dissolution and removal of sesquioxides from A horizon and their deposition in B horizon is called :
- (a) Podzolisation
 - (b) Laterisation
 - (c) Humification
 - (d) Calcification
- 88.** The phosphorus fixing capacity of clay minerals may be found in order :
- (a) Vermiculite > Illite > Montmorillonite > Muscovite
 - (b) Montmorillonite > Vermiculite > Kaolinite > Muscovite
 - (c) Muscovite > Illite > Montmorillonite > Vermiculite
 - (d) Illite > Montmorillonite > Muscovite > Vermiculite
- 89.** The organic matter content (%) of soil with 1.3 % organic carbon is :
- (a) 2.60
 - (b) 1.95
 - (c) 0.65
 - (d) 2.24
- 90.** Among the following, which crop yields leaf fibre :
- (a) Jute
 - (b) Cotton
 - (c) Agave
 - (d) Mesta

91. Identify the fauna from the following information :

Nature : Scavengers

Common species : White rumped, Slender-Billed, Red-headed

Common threats : Use of diclofenac for veterinary purposes

Impact of decline in population : Increased risk of spread of rabies and ill impact on observance of last rites by Parsis in 'Tower of Silence'.

- (a) Pygmy hog
- (b) Forest Owlet
- (c) Sandpiper
- (d) Vulture

92. With respect to achievements of Indians in the field of Science and Technology, match the following :

List I

List II

- | | | |
|--|----|------------------|
| 1. Inelastic theory of scattering | P. | S. Chandrasekhar |
| 2. Work on stellar evolution and white dwarfs | Q. | C.V. Raman |
| 3. Contribution to quantum mechanics and development of Bose-Einstein Condensate | R. | S.N. Bose |
| 4. Research on Crescograph and Electromagnetic Waves | S. | J.C. Bose |

Code :

- | | 1 | 2 | 3 | 4 |
|-----|----------|----------|----------|----------|
| (a) | P | Q | R | S |
| (b) | Q | P | S | R |
| (c) | Q | P | R | S |
| (d) | P | Q | S | R |

93. 'Naz foundation v. Government of NCT of Delhi', 'National Legal Services Authority v. Union of India', 'Navtej Singh Johar v. Union of India' cases are often heard in news in context of :

- (a) Man-Animal conflict and wildlife conservation
- (b) LGBTQIA + rights
- (c) Simultaneous elections to Lok Sabha and State Legislatures
- (d) Reservation based on caste

- 94.** Beginning with Dwarka, Gujarat, if you travel to Jagannath Temple, Puri along the coast, what's the correct order of cities you might visit ?
1. Mumbai
 2. Mangalore
 3. Panaji
 4. Vishakapatnam
- (a) 1, 2, 3, 4
(b) 3, 1, 2, 4
(c) 1, 3, 2, 4
(d) 4, 1, 2, 3
- 95.** Bibi Bhani, the daughter of Sikh Guru 'X', was married to Sikh Guru 'Y'. 'Z', one of the sons of Guru 'Y', was married to Mata Ganga and became _____ guru of sikhs ?
- (a) Third
(b) Fourth
(c) Fifth
(d) Sixth
- 96.** As per Article 266(1) of Indian Constitution, all revenues received by the Government of India, all loans raised by that government by the issue of treasury bills, loans or ways and means advances and all moneys received by that government in repayment of loan shall form :
- (a) Consolidated Fund of India
(b) Contingency Fund of India
(c) Public Account of India
(d) Current Account of India
- 97.** Which of the following abbreviations, often heard in news in context of Indian Economy, is incorrectly matched ?
- (a) CAG : Comptroller and Auditor General
(b) CGST : Customs, Goods and Service Taxes
(c) EPFO : Employees' Provident Fund Organization
(d) FPI : Foreign Portfolio Investment

- 98.** What term is often seen in news and represents a style of politics where ‘Objective facts are less influential in shaping public opinion than appeals to emotion and personal belief’ ?
- (a) Orwellian Politics (b) Post Truth Politics
(c) Utopian Politics (d) Fabian Politics
- 99.** Arrange chronologically, the following events of modern history of Punjab :
1. Rajiv-Longowal accord
 2. Creation of Ropar division as one of the five divisions of Punjab
 3. Trifurcation of Punjab including constitution of separate state of Haryana
 4. Guru Ka Bagh Morcha
- (a) 4, 2, 1, 3 (b) 4, 3, 1, 2
(c) 3, 4, 1, 2 (d) 3, 4, 2, 1
- 100.** What is the minimum number of districts that you must pass through, to reach birthplace of Udham Singh from Bhagat Singh museum at Khatkar Kalan (including the origin and destination districts) ?
- (a) 4 (b) 5 (c) 6 (d) 7
- 101.** Total 280 candidates are undergoing training at Punjab Police Academy. All these candidates drink either one, two or three drinks out of tea, coffee and juice. It is known that :
- I. Number of candidates who drink tea, coffee and juice are in Arithmetic Progression in that order.
 - II. Number of candidates who drink tea and coffee, tea and juice, and coffee and juice are in Arithmetic Progression in that order.
 - III. Number of candidates who drink only tea, only coffee and only juice are in Arithmetic Progression in that order.
 - IV. Number of candidates who drink only one drink is two times the number of candidates who drink only two drinks.
 - V. Number of candidates who drink only two drinks is nine times the number of candidates who drink all the three drinks.
- How many candidates drink coffee ?
- (a) 130 (b) 110
(c) 60 (d) 70

- 102.** A cuboid has six sides of different colours. The red side is opposite to black. The blue side is adjacent to white. The brown side is adjacent to blue. The red side is face down. Which one of the following would be the opposite to brown ?
- (a) Blue
 - (b) Black
 - (c) White
 - (d) Red
- 103.** A wheat merchant has four varieties of wheat – A, B, C, D with him. He mixed the entire quantity of the wheat of varieties A and B with him. With this mixture, if he mixes the entire quantity of wheat of variety C, which costs ₹ 20 per kg, the mixture so formed would cost ₹ 25 per kg. Instead, if he mixes with it the entire quantity of wheat of variety D, which costs ₹ 36 per kg, the mixture so formed would cost ₹ 31 per kg. If the entire quantity of wheat of variety D is thrice that of wheat of variety C, how much (in ₹) would the mixture of the entire quantity of wheat of all 4 varieties cost
- (a) ₹ 29.5 per kg
 - (b) ₹ 28 per kg
 - (c) ₹ 30.5 per kg
 - (d) ₹ 26.5 per kg
- 104. Statement 1 :** The cost of 2 pens and 3 pencils is \$10.
- Statement 2 :** The cost of 1 pen and 2 pencils is \$5.
- To answer the question, ‘What is the cost of 3 pens and 4 pencils ?’,
- (a) Statement 1 alone is sufficient, but statement 2 alone is not sufficient.
 - (b) Statement 2 alone is sufficient, but statement 1 alone is not sufficient.
 - (c) Both statements together are sufficient, but neither statement alone is sufficient.
 - (d) Each statement alone is sufficient.

105. In terms of population, Chennai is much larger than Bangalore. Since Mumbai has a greater population than Delhi, it follows that Chennai has more inhabitants than Delhi.

All of the following make the argument more logically correct EXCEPT :

- (a) Delhi has fewer inhabitants than Bangalore
- (b) Bangalore has the same number of inhabitants as Delhi
- (c) Chennai has the same number of inhabitants as Mumbai
- (d) Mumbai has more inhabitants than Bangalore

106. Directions (Question Nos. 106) : The following table provides the details about the number of students in 5 different areas of expertise in MBA over the years.

Years	Areas of Expertise in MBA				
	Marketing	Finance	Business Analyst	HR	Operations
2017	71	149	150	133	116
2018	126	61	105	114	154
2019	84	109	121	104	83
2020	65	62	142	155	97
2021	137	57	79	121	87

In which year was the percentage of students participating in 'Business Analyst' area of expertise maximum ?

- (a) 2017
- (b) 2018
- (c) 2019
- (d) 2020

- 107.** Paresh can finish a certain piece of work in 35 days at a stretch. But after few days, he increases his speed by 60% and finishes the work in 26 days. Find after how many days did he increase his speed ?
- (a) 8
 - (b) 9
 - (c) 10
 - (d) 11
- 108.** A coconut tree is taller than a pine tree by 6 meters. A woodcutter starts cutting the coconut tree from 12 m above the ground so that after the coconut tree falls, its top just touches the bottom of the pine tree. Had he cut the pine tree from 8 m above the ground, the top of the pine tree would have fallen in a way that its top would just have touched the bottom of the coconut tree. What is the height of the coconut tree ?
- (a) 33 meters
 - (b) 29 meters
 - (c) 27 meters
 - (d) 21 meters
- 109.** How many two-digit numbers are there such that the product of their digits is a perfect square greater than 1 ?
- (a) 18
 - (b) 16
 - (c) 14
 - (d) 12
- 110.** Five friends Ram, Rakesh, Ramesh, Rohit and Rupesh are sitting on a round table facing the center. Rakesh is sitting to the left of Ram. Rohit is sitting to the right of Ramesh. Ram and Ramesh are sitting next to each other. Where is Rupesh sitting with respect to Rohit ?
- (a) Immediate left
 - (b) Second person to the left
 - (c) Third person to the left
 - (d) Fourth person to the left

111. 'ਨਿੱਕੜੀ ਸੂਈ ਵੱਟਮਾਂ ਧਾਗਾ ਬੈਠ ਕਸੀਦਾ ਕੱਢ ਰਹੀਂ ਆਂ' ਕੀ ਹੈ ?

- (a) ਘੋੜੀ
- (b) ਬੋਲੀ
- (c) ਲੋਰੀ
- (d) ਸੁਹਾਗ

112. ਜੇ ਕਵਿਤਾ ਨੂੰ ਦਿਲ ਦੀ ਬੋਲੀ ਸਮਝਿਆ ਜਾਂਦਾ ਹੈ ਤਾਂ ਵਾਰਤਕ ਨੂੰ ਦਿਮਾਗ ਦੀ ਸਿਰਜਣਾ ਖਿਆਲ ਕੀਤਾ ਜਾਂਦਾ ਹੈ। ਇਸ ਦਾ ਅਰਥ ਇਹ ਹੈ ਕਿ ਕਵਿਤਾ ਵਿਚ ਭਾਵ ਅਤੇ ਵਾਰਤਕ ਵਿਚ ਵਿਚਾਰ ਪਰਧਾਨ ਹੁੰਦੇ ਹਨ। ਵੈਸੇ ਵੀ ਸਾਹਿਤਕ ਇਤਿਹਾਸ ਵਿਚ ਕਵਿਤਾ ਪਹਿਲਾਂ ਹੋਂਦ ਵਿਚ ਆਉਂਦੀ ਹੈ ਅਤੇ ਵਾਰਤਕ ਬਾਅਦ ਵਿਚ ਲਿਖੀ ਜਾਣੀ ਸ਼ੁਰੂ ਹੁੰਦੀ ਹੈ। ਇਸ ਦਾ ਕਾਰਨ ਇਹ ਵੀ ਮੰਨਿਆ ਜਾਂਦਾ ਹੈ ਕਿ ਮਨੁੱਖ ਮੁੱਢਲੇ ਪੜਾਅ ਤੇ ਬੁਨਿਆਦੀ ਪ੍ਰਵਿਰਤੀਆਂ ਦੀ ਪੈਦਾਵਾਰ ਜਜ਼ਬਿਆਂ ਦੇ ਅਧੀਨ ਵਲਵਲਿਆਂ ਵਾਲੀ ਦਿਲ ਦੀ ਬੋਲੀ ਬੋਲਦਾ ਹੈ ਪਰੰਤੂ ਸਭਿਅਤਾ ਦੇ ਵਿਕਾਸ ਨਾਲ ਉਹ ਆਪਣੀਆਂ ਸੱਭਿਆਚਾਰਕ ਸਿਰਜਣਾਵਾਂ ਰਾਹੀਂ ਬੁਨਿਆਦੀ ਪ੍ਰਵਿਰਤੀਆਂ ਨੂੰ ਬੌਧਿਕਤਾ ਦੇ ਅਧੀਨ ਨਿਯੰਤਰਿਤ ਕਰਨਾ ਸ਼ੁਰੂ ਕਰ ਦਿੰਦਾ ਹੈ। ਸੋ ਸਭਿਅਤਾ ਦੇ ਵਿਕਾਸ ਨਾਲ ਦਿਮਾਗ ਦੀ ਵਰਤੋਂ ਵਧੇਰੇ ਹੋਣ ਲੱਗਦੀ ਹੈ, ਭਾਵ ਵਿਚਾਰ ਪ੍ਰਧਾਨ ਹੋਣ ਲੱਗਦੇ ਹਨ। ਇਸ ਤੋਂ ਇਹ ਸਿੱਟਾ ਤਾਂ ਨਹੀਂ ਕੱਢਿਆ ਜਾ ਸਕਦਾ ਕਿ ਕਵਿਤਾ ਕੇਵਲ ਭਾਵ ਪਰਧਾਨ ਅਤੇ ਵਾਰਤਕ ਕੇਵਲ ਵਿਚਾਰ ਪਰਧਾਨ ਹੁੰਦੀ ਹੈ ਪਰ ਇਕ ਗੱਲ ਪੱਕੀ ਹੈ ਕਿ ਅਨੁਪਾਤਕ ਤੌਰ ਤੇ ਕਵਿਤਾ ਵਿਚ ਭਾਵਾਂ ਦੀ ਮਾਤਰਾ ਵਧੇਰੇ ਹੁੰਦੀ ਹੈ ਜਦੋਂ ਕਿ ਵਾਰਤਕ ਵਿਚ ਵਿਚਾਰਾਂ ਦੀ ਪੇਸ਼ਕਾਰੀ ਵਧੇਰੇ ਹੁੰਦੀ ਹੈ। ਮਨੁੱਖ ਆਮ ਬੋਲਚਾਲ ਤਾਂ ਮੁੱਢ ਵਿਚ ਵੀ ਵਾਰਤਕ ਅੰਦਰ ਹੀ ਕਰਦਾ ਹੋਵੇਗਾ ਪਰ ਕਲਾਤਮਿਕ ਸਿਰਜਣਾ ਪਹਿਲਾਂ ਪਹਿਲ ਕਵਿਤਾ ਵਿਚ ਹੀ ਹੋਈ ਹੋਵੇਗੀ।

ਉਪਰੋਕਤ ਪੈਰਾ ਦੇ ਅਧਾਰ ਤੇ ਉੱਤਰ ਦਿਓ:

ਮਨੁੱਖ ਨੇ ਰੋਜ਼ਾਨਾ ਜੀਵਨ ਵਿਚ ਘਰੇਲੂ ਪੱਧਰ 'ਤੇ ਗੱਲਬਾਤ ਲਈ ਸਭ ਤੋਂ ਪਹਿਲਾਂ ਕਿਹੜੇ ਸਾਹਿਤਕ ਰੂਪ ਦੀ ਵਰਤੋਂ ਕੀਤੀ ਹੋਵੇਗੀ ?

- (a) ਕਵਿਤਾ
- (b) ਵਾਰਤਕ
- (c) ਕਵਿਤਾ ਅਤੇ ਵਾਰਤਕ ਦੋਨੋਂ
- (d) ਬੋਲੀਆਂ

113. 'ਛਾਹ ਵੇਲਾ' ਕਿਹੜੇ ਸਮੇਂ ਨੂੰ ਕਿਹਾ ਜਾਂਦਾ ਹੈ ?

- (a) ਸ਼ਾਮ ਦੇ ਸਮੇਂ ਨੂੰ
- (b) ਦੁਪਹਿਰ ਦੇ ਸਮੇਂ ਨੂੰ
- (c) ਰਾਤ ਦੇ ਸਮੇਂ ਨੂੰ
- (d) ਸਵੇਰ ਦੇ ਸਮੇਂ ਨੂੰ

114. ਹੇਠ ਲਿਖੇ ਵਾਕ ਨੂੰ ਪੂਰਾ ਕਰਨ ਲਈ ਸਹੀ ਸ਼ਬਦ ਜੁੱਟ ਚੁਣੋ :

_____ ਦੀ ਵੰਡ ਨੇ ਦੋਵਾਂ ਭਰਾਵਾਂ ਨੂੰ _____ ਪਹੁੰਚਾ ਦਿੱਤਾ।

- (a) ਜੈਦਾਦ, ਕਚਹਿਰੀ
- (b) ਜਾਇਦਾਦ, ਕਚੈਹਰੀ
- (c) ਜੈਦਾਤ, ਕਚਹਰੀ
- (d) ਜਾਇਦਾਦ, ਕਚਹਿਰੀ

115. ਹੇਠ ਲਿਖਿਆਂ ਵਿੱਚੋਂ ਸਹੀ ਵਿਸ਼ਰਾਮ ਚਿੰਨ੍ਹ ਵਾਲਾ ਵਾਕ ਚੁਣੋ :

- (a) ਚੰਗਾ ਹੁਣ ਅਸੀਂ ਚੱਲਦੇ ਹਾਂ।
- (b) ਚੰਗਾ, ਹੁਣ ਅਸੀਂ ਚੱਲਦੇ ਹਾਂ।
- (c) ਚੰਗਾ ! ਹੁਣ ਅਸੀਂ ਚੱਲਦੇ ਹਾਂ।
- (d) ਚੰਗਾ; ਹੁਣ ਅਸੀਂ ਚੱਲਦੇ ਹਾਂ।

116. Chrysanthemum ਫੁੱਲ ਦਾ ਪੰਜਾਬੀ ਵਿੱਚ ਨਾਂ ਕੀ ਹੈ ?

- (a) ਚਮੇਲੀ
- (b) ਨਰਗਸ
- (c) ਗੁਲਦਾਊਦੀ
- (d) ਗੁਲਨਾਰ

117. ਪੱਛਮੀ ਪੰਜਾਬ ਵਿੱਚ ਸਾਂਦਲਬਾਰ ਦੀਆਂ ਔਰਤਾਂ ਦੇ ਨਾਚ ਦਾ ਨਾਂ ਹੈ -

- (a) ਗਿੱਧਾ
- (b) ਸੰਮੀ
- (c) ਮਾਹੀਆ
- (d) ਮਲਵਈ ਗਿੱਧਾ

118. 'ਭੁੱਖੇ ਦੀ ਧੀ ਰੱਜੀ ਉਡਾਉਣ ਲੱਗੀ' ਅਖਾਣ ਵਿੱਚ ਖਾਲੀ ਥਾਂ ਤੇ ਸਹੀ ਸ਼ਬਦ ਭਰੋ।

- (a) ਧਨ
- (b) ਮੌਜ
- (c) ਤੋਤੇ
- (d) ਖੇਹ

119. 'ਆਪ ਅੱਜ-ਕਲ੍ਹ ਕੀ ਕਰਦੇ ਹੋ?' - ਕਿਹੜਾ ਪੁਰਖ ਹੈ ?

- (a) ਪਹਿਲਾ ਪੁਰਖ
- (b) ਦੂਜਾ ਪੁਰਖ
- (c) ਤੀਜਾ ਪੁਰਖ
- (d) ਇਨ੍ਹਾਂ ਵਿਚੋਂ ਕੋਈ ਨਹੀਂ

120. ਸਮਾਨਾਰਥਕ ਸ਼ਬਦਾਂ ਦੀ ਸੂਚੀ ਮਿਲਾਓ :

ਸੂਚੀ I	ਸੂਚੀ II
A. ਤਹਿਜ਼ੀਬ	i. ਦੋਸਤੀ
B. ਗੋਂ	ii. ਜਿਸਮ
C. ਜੁੱਸਾ	iii. ਸੱਭਿਅਤਾ
D. ਸੱਜਣਤਾ	iv. ਮਤਲਬ

ਉਪਰੋਕਤ ਦਾ ਸਹੀ ਮਿਲਾਨ ਕਰੋ :

- (a) A-iii, B-iv, C-i, D-ii
- (b) A-iii, B-iv, C-ii, D-i
- (c) A-iii, B-ii, C-iv, D-i
- (d) A-ii, B-iii, C-iv, D-i

SPACE FOR ROUGH WORK

SPACE FOR ROUGH WORK

READ INSTRUCTIONS BEFORE FILLING ANY DETAILS OR ATTEMPTING TO ANSWER THE QUESTIONS.

Booklet Sr. No.



Question
Booklet Set

B

Candidate's Name _____

Father's Name _____

Date of Birth :
D D M M Y Y Y Y

OMR Response Sheet No. _____ Roll No. _____

Candidate's Signature :

(Please sign in the box)

[Total Questions : 120]

[Time Allowed : 2 Hours]

INSTRUCTIONS

1. The candidate shall NOT open this booklet till the time they are told to do so by the Invigilation Staff. However, in the meantime, the candidate can read these instructions carefully and subsequently fill the appropriate columns given above in CAPITAL letters. The candidate may also fill the relevant boxes 1 to 9 of the Optical Mark Reader (OMR) response sheet, supplied separately.
2. Use only blue or black **ball point pen** to fill the relevant columns on this page as well as in OMR sheet. Use of Ink pen or any other pen is not allowed.
3. Other than filling credentials/information in specific space allotted above, do not write anything else on the Test Booklet. Space for rough work is provided at the end. The candidate shall be liable for any adverse effect if the information given above is wrong or illegible or incomplete.
4. Each candidate is required to attempt 120 questions in 120 minutes, except for orthopedically/visually impaired candidates, who would be given 40 extra minutes, for marking correct responses on the OMR sheet.
5. The question paper booklet has **28** pages.
6. The candidates, when allowed to open the question paper booklet, must first check the entire booklet to confirm that the booklet has complete number of pages, the pages are printed correctly and there are no blank or torn pages. In case there is any such error in the question paper booklet then the candidate should IMMEDIATELY bring this fact to the notice of the Invigilation Staff and obtain a new booklet of the same series as given earlier.
7. The serial number of the new Question booklet, if issued for some reason, should be entered in the relevant column of the OMR. The Invigilation Staff must make necessary corrections in their record regarding the change in the serial no. of Question booklet.
8. The paper consists of total 480 Marks. Each question shall carry 4 marks. There are four options for each question and the candidate has to mark the MOST APPROPRIATE answer on the OMR response sheet.
9. There is **negative marking** (1 mark for each question) for questions wrongly answered by the candidate.
10. If a candidate gives more than one answer, it will be treated as a wrong answer even if one of the given answers is correct. There will be same penalty, as above, to that question.
11. If Question is left blank, i.e. question remains unattempted, there will be no penalty for that question.
12. Use of Electronic/Manual Calculator is prohibited.
13. The candidate **MUST READ INSTRUCTIONS BEHIND THE OMR SHEET** before answering the questions and check that two carbon copies attached to the OMR sheet are intact.

5. Safflower in India is usually grown during :
- (a) Rabi season
 - (b) Kharif season
 - (c) Zaid season
 - (d) Rabi, kharif and zaid seasons
6. Compared to popular rice varieties, 'DRR Dhan 48' and 'DRR Dhan 49' contain higher levels of :
- (a) Iron
 - (b) Zinc
 - (c) Boron
 - (d) Molybdenum
7. 1. High yielding dwarf varieties of wheat were developed by X
2. The term 'Evergreen Revolution' has been given by Y
Identify X and Y (respectively) :
- (a) Dr. M. S. Swaminathan and Dr. R. S. Paroda
 - (b) Dr. R. S. Paroda and C. T. Patel
 - (c) Dr. N. E. Borlaug and Dr. M. S. Swaminathan
 - (d) Dr. B. P. Pal and Dr. R. S. Paroda
8. The term 'cultivar' is used to designate a new crop type intentionally bred and released for cultivation. Who has been credited with coining of the term 'cultivar' in year 1923 ?
- (a) L.H. Bailey
 - (b) M.S. Swaminathan
 - (c) John Ray
 - (d) A.P. de Candolle
9. "Tungro virus" of rice is usually transmitted by :
- (a) Gundhy bug
 - (b) Gall midge
 - (c) Army worm
 - (d) Green leaf hopper
10. What would be the harvest index of rice if grain yield is 3.5 tonnes/ha and straw yield is 6.5 tonnes/ha ?
- (a) 35%
 - (b) 45%
 - (c) 54%
 - (d) 65%

11. The 'PGS', with respect to the organic certification, stands for :
- (a) Pesticides Governance Scheme (b) Paramparagat Gram Scheme
(c) Participatory Governance Service (d) Participatory Guarantee System
12. The most common colour of the cultivated groundnut flowers is :
- (a) Yellow (b) Pink
(c) Blue (d) Red
13. Particles ranging from 0.01 – 0.03 mm diameter would be considered as
- (a) Sand (b) Silt
(c) Clay (d) Gravel
14. Rice is basically a :
- (a) Short day plant (b) Long day plant
(c) Day-neutral plant (d) Both (b) and (c)
15. The theoretical yield of parent acid from an active ingredient is termed as
- (a) Active equivalent (b) Technical ingredient
(c) Acid equivalent (d) Acid value
16. Which of the following is/are advantages of crop rotation ?
1. To reduce the pest and disease incidence.
 2. To maintain the fertility status of the soils
 3. To keep the weeds under control
- (a) 1 only (b) 2 only
(c) 1 and 3 only (d) 1, 2 and 3
17. The Dapog method of raising rice nursery was introduced in India from
- (a) Burma (b) Japan
(c) USA (d) Philippines
18. Which of the following statement(s) is/are correct ?
1. Phenylmercuric acetate (PMA) is a chemical used in agriculture crops in order to increase transpiration.
 2. Enforced dormancy is associated with deeper placement of seeds.
- (a) 1 only (b) 2 only
(c) Both 1 and 2 (d) Neither 1 nor 2

- 19.** Choose the most suitable option :
- (a) *Commelina benghalensis* is a monocot weed unlike *Crotalaria verrucosa*
 - (b) *Crotalaria verrucosa* is a monocot weed unlike *Commelina benghalensis*
 - (c) Both *Commelina benghalensis* and *Crotalaria verrucosa* are monocot weeds
 - (d) Neither *Commelina benghalensis* nor *Crotalaria verrucosa* are monocot weeds
- 20.** Choose the correct option :
- (a) Hay fever is commonly caused by Ambrosia
 - (b) Weed introduction from some other part of the world is called Antagonism
 - (c) Both (a) and (b)
 - (d) None of the above
- 21.** Golden rice is a rich source of
- (a) Vitamin A
 - (b) Vitamin B
 - (c) Ascorbic acid
 - (d) Vitamin K
- 22.** Consider the following statements and choose the correct option :
1. CH₄ is released from paddy fields.
 2. Pearl millet can be transplanted.
 3. Scientific name of Kodo millet is *Paspalum scrobiculatum*
- (a) 1 only
 - (b) 1 and 2 only
 - (c) 2 and 3 only
 - (d) 1, 2 and 3
- 23.** Sweet corn is :
- (a) *Zea mays indentata*
 - (b) *Zea mays indurata*
 - (c) *Zea mays saccharata*
 - (d) *Zea mays amylacea*
- 24.** The oil content in groundnut seeds is about %
- (a) 45
 - (b) 25
 - (c) 15
 - (d) 05
- 25.** The fruit of rapeseed and mustard is known as
- (a) Pod
 - (b) Caryopsis
 - (c) Siliqua
 - (d) Dutum

- 26.** Nipping in gram means a process of
- (a) Removal of all buds present in the axil of the leaves
 - (b) Removal of leaves
 - (c) Removal of terminal bud
 - (d) Burning of leaves
- 27.** Which of the following soil water is the most useful for plants ?
- (a) Gravitational water
 - (b) Capillary water
 - (c) Hygroscopic water
 - (d) Superfluous water
- 28.** The force of attraction that binds the molecules of the same kind is :
- (a) Adhesion
 - (b) Matric force
 - (c) Cohesion
 - (d) Interface
- 29.** The 'Leaf colour chart' (LCC) is used for judging the amount of nitrogen application to the standing crop(s) of which of the following ?
- (a) Gram and mustard
 - (b) Rice
 - (c) Mustard and sorghum
 - (d) Sorghum and gram
- 30.** Extension is a :
- (a) One way flow of message
 - (b) Two way flow of message
 - (c) Restricted way flow of message
 - (d) None of the above

31. Consider the following statements :

1. 'Painted Bug' causes damage to Mustard
2. Ascochyta blight is a fungal disease of Chickpea
3. Insect 'Fall army worm' generally prefers to attack the Maize crop
4. 'BL-43' and 'BL-42' are the varieties of Barley

Choose the correct statements.

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

32. Fill in the blanks in List I from List II (Choose the most appropriate option)

List I	List II
1. The optimum seed rate for sowing one hectare of pearl millet is : <u>X</u>	P. 70-80 Kg
2. The optimum seed rate for timely sown fieldpea crop (for 1 hectare) is : <u>Y</u>	Q. 7-8 Kg
	R. 40-50 Kg
	S. 4-5 Kg

X and Y are respectively :

Code :

- | | X | Y |
|-----|----------|----------|
| (a) | P | R |
| (b) | Q | S |
| (c) | R | Q |
| (d) | S | P |

33. A number of electro-chemical changes happen in the paddy soils due to the continuous submergence or flooding. Which one of the following statements is incorrect about the electro-chemical changes in the submerged paddy soils ?

- (a) Increase in pH of the acid soil
- (b) Decrease in pH of the sodic soil
- (c) Increase in redox potential of the soil
- (d) Decrease in redox potential of the soil

41. Which one of the following groups of essential plant nutrients falls in the 'non-mineral nutrients' category ?
- Primary nutrients
 - Secondary nutrients
 - Micronutrients
 - C, H and O
42. Consider the following statements :
- Chemically, quick lime is CaO
 - 'Zinc sulphate heptahydrate' contains approximately 42% Zinc
 - Fertilizer 'single super phosphate' contains approximately 42% Sulphur
- Choose the correct statement(s) :
- 1 only
 - 1 and 2 only
 - 1 and 3 only
 - 2 and 3 only
43. Choose the correct statement(s) :
- When greengram are allowed to sprout, Vitamin C is synthesized.
 - BPH is a pest of rice that causes 'hopper burn' symptoms.
 - Both (a) and (b)
 - Neither (a) nor (b)
44. For Punjab, 'Rice (short duration) – Vegetable Pea – Wheat – Mungbean' rotation is an example of :
- One-year rotation
 - One and half-year rotation
 - Half-year rotation
 - Two-year rotation
45. Find out the quantity of atrazine herbicide WP containing 50% active ingredient (a.i.) to be applied at the rate of 1.5 kg a.i./ha.
- 1.0 kg/ha
 - 2.0 kg/ha
 - 3.0 kg/ha
 - 0.75 kg/ha

46. Which one of the following nitrogenous fertilizers is not included in the Fertilizer Control Order (FCO) of India ?
- (a) Ammonium sulphate
 - (b) Calcium Ammonium Nitrate
 - (c) Ammonium nitrate
 - (d) All of the above
47. Based upon morphological features, weeds have been classified into grassy, sedges and broadleaf groups. The sedges belong to the plant family :
- (a) Poaceae
 - (b) Asteraceae
 - (c) Graminae
 - (d) Cyperaceae
48. Rice weeds *Echinochloa crus-galli* and *Echinochloa colona* belong to the following group of plants :
- (a) CAM plants
 - (b) C_4 plants
 - (c) C_3 plants
 - (d) Dicot plants
49. If on a 20-acre farm, crops are raised on 15 acres in kharif (rainy season), 15 acres in rabi (winter season) and 20 acres in zaid (summer) during one year, what would be the cropping intensity of the farm ?
- (a) 150%
 - (b) 250%
 - (c) 350%
 - (d) 500%
50. “Weirs” and “Flumes” are primarily used to :
- (a) Measure refractive index of water
 - (b) Measure the viscosity of water in the field
 - (c) Measure the density of water in the channel
 - (d) Measure the water flow in the channel

51. Which one of the following is the correct pair of sulphur containing amino acids ?
- (a) Cysteine and lysine
 - (b) Cysteine and leucine
 - (c) Cysteine and methionine
 - (d) Cysteine and isoleucine
52. The “Bangalore process” of anaerobic composting was developed by :
- (a) Albert Howard
 - (b) C.N. Acharya
 - (c) P.N. Arya
 - (d) Robert Howard
53. Choose the most suitable option :
- (a) Sorghum grain is considered as *Caryopsis*.
 - (b) Ergot or sugary disease of sorghum is primarily caused by *Gleocercospora sorghi*.
 - (c) Both (a) and (b)
 - (d) Neither (a) nor (b)
54. The optimum sowing time of chickpea in the North India under the irrigated condition is :
- (a) First fortnight of October
 - (b) Second fortnight of October
 - (c) First fortnight of December
 - (d) Second fortnight of November
55. “LL 1373” and “LL 931” are the varieties of :
- (a) Kabuli chickpea
 - (b) Desi chickpea
 - (c) Linseed
 - (d) Lentil

56. Consider the following statements about Soybean and choose the correct option :
- (a) It is considered to have originated in Brazil
 - (b) It is considered to have originated in USA
 - (c) It is a short day plant
 - (d) It is a temperate C4 plant
57. The 'sterility mosaic' disease of pigeonpea is caused by X; and, Out of Sand, Peat and Clay, Y has highest Soil bulk density. Identify X and Y (respectively) :
- (a) Virus and clay
 - (b) Bacteria and clay
 - (c) Nematode and peat
 - (d) Virus and sand
58. The state with highest production of green gram (mungbean) in India and country with highest production of pigeonpea in the world are respectively :
- (a) Punjab & India
 - (b) Rajasthan & India
 - (c) Madhya Pradesh & China
 - (d) Uttar Pradesh & China
59. "Canola" refers to the cultivars of Oilseed rape in Canada. The seeds of "Canola" should contain :
- (a) <20% erucic acid
 - (b) >20% erucic acid
 - (c) >2% erucic acid
 - (d) <2% erucic acid
60. Powdery mildew of pea and Dropsy disease in human beings may respectively be caused by :
- (a) *Fusarium pisi* and weed *Pluchea lanceolata*
 - (b) *Erysiphe pisi* and weed *Argemone Mexicana*
 - (c) *Uromyces fabae* and weed *Digera arvensis*
 - (d) *Fusarium pisi* and weed *Convolvulus arvensis*

61. Identify the fauna from the following information :

Nature : Scavengers

Common species : White rumped, Slender-Billed, Red-headed

Common threats : Use of diclofenac for veterinary purposes

Impact of decline in population : Increased risk of spread of rabies and ill impact on observance of last rites by Parsis in 'Tower of Silence'.

- (a) Pygmy hog
- (b) Forest Owlet
- (c) Sandpiper
- (d) Vulture

62. With respect to achievements of Indians in the field of Science and Technology, match the following :

List I

List II

- | | | |
|--|----|------------------|
| 1. Inelastic theory of scattering | P. | S. Chandrasekhar |
| 2. Work on stellar evolution and white dwarfs | Q. | C.V. Raman |
| 3. Contribution to quantum mechanics and development of Bose-Einstein Condensate | R. | S.N. Bose |
| 4. Research on Crescograph and Electromagnetic Waves | S. | J.C. Bose |

Code :

- | | 1 | 2 | 3 | 4 |
|-----|----------|----------|----------|----------|
| (a) | P | Q | R | S |
| (b) | Q | P | S | R |
| (c) | Q | P | R | S |
| (d) | P | Q | S | R |

63. 'Naz foundation v. Government of NCT of Delhi', 'National Legal Services Authority v. Union of India', 'Navtej Singh Johar v. Union of India' cases are often heard in news in context of :

- (a) Man-Animal conflict and wildlife conservation
- (b) LGBTQIA + rights
- (c) Simultaneous elections to Lok Sabha and State Legislatures
- (d) Reservation based on caste

- 64.** Beginning with Dwarka, Gujarat, if you travel to Jagannath Temple, Puri along the coast, what's the correct order of cities you might visit ?
1. Mumbai
 2. Mangalore
 3. Panaji
 4. Vishakapatnam
- (a) 1, 2, 3, 4
(b) 3, 1, 2, 4
(c) 1, 3, 2, 4
(d) 4, 1, 2, 3
- 65.** Bibi Bhani, the daughter of Sikh Guru 'X', was married to Sikh Guru 'Y'. 'Z', one of the sons of Guru 'Y', was married to Mata Ganga and became _____ guru of sikhs ?
- (a) Third
(b) Fourth
(c) Fifth
(d) Sixth
- 66.** As per Article 266(1) of Indian Constitution, all revenues received by the Government of India, all loans raised by that government by the issue of treasury bills, loans or ways and means advances and all moneys received by that government in repayment of loan shall form :
- (a) Consolidated Fund of India
(b) Contingency Fund of India
(c) Public Account of India
(d) Current Account of India
- 67.** Which of the following abbreviations, often heard in news in context of Indian Economy, is incorrectly matched ?
- (a) CAG : Comptroller and Auditor General
(b) CGST : Customs, Goods and Service Taxes
(c) EPFO : Employees' Provident Fund Organization
(d) FPI : Foreign Portfolio Investment

- 68.** What term is often seen in news and represents a style of politics where ‘Objective facts are less influential in shaping public opinion than appeals to emotion and personal belief’ ?
- (a) Orwellian Politics (b) Post Truth Politics
(c) Utopian Politics (d) Fabian Politics
- 69.** Arrange chronologically, the following events of modern history of Punjab :
1. Rajiv-Longowal accord
 2. Creation of Ropar division as one of the five divisions of Punjab
 3. Trifurcation of Punjab including constitution of separate state of Haryana
 4. Guru Ka Bagh Morcha
- (a) 4, 2, 1, 3 (b) 4, 3, 1, 2
(c) 3, 4, 1, 2 (d) 3, 4, 2, 1
- 70.** What is the minimum number of districts that you must pass through, to reach birthplace of Udham Singh from Bhagat Singh museum at Khatkar Kalan (including the origin and destination districts) ?
- (a) 4 (b) 5 (c) 6 (d) 7
- 71.** Total 280 candidates are undergoing training at Punjab Police Academy. All these candidates drink either one, two or three drinks out of tea, coffee and juice. It is known that :
- I. Number of candidates who drink tea, coffee and juice are in Arithmetic Progression in that order.
 - II. Number of candidates who drink tea and coffee, tea and juice, and coffee and juice are in Arithmetic Progression in that order.
 - III. Number of candidates who drink only tea, only coffee and only juice are in Arithmetic Progression in that order.
 - IV. Number of candidates who drink only one drink is two times the number of candidates who drink only two drinks.
 - V. Number of candidates who drink only two drinks is nine times the number of candidates who drink all the three drinks.
- How many candidates drink coffee ?
- (a) 130 (b) 110
(c) 60 (d) 70

72. A cuboid has six sides of different colours. The red side is opposite to black. The blue side is adjacent to white. The brown side is adjacent to blue. The red side is face down. Which one of the following would be the opposite to brown ?
- (a) Blue
 - (b) Black
 - (c) White
 - (d) Red
73. A wheat merchant has four varieties of wheat – A, B, C, D with him. He mixed the entire quantity of the wheat of varieties A and B with him. With this mixture, if he mixes the entire quantity of wheat of variety C, which costs ₹ 20 per kg, the mixture so formed would cost ₹ 25 per kg. Instead, if he mixes with it the entire quantity of wheat of variety D, which costs ₹ 36 per kg, the mixture so formed would cost ₹ 31 per kg. If the entire quantity of wheat of variety D is thrice that of wheat of variety C, how much (in ₹) would the mixture of the entire quantity of wheat of all 4 varieties cost
- (a) ₹ 29.5 per kg
 - (b) ₹ 28 per kg
 - (c) ₹ 30.5 per kg
 - (d) ₹ 26.5 per kg
74. **Statement 1 :** The cost of 2 pens and 3 pencils is \$10.
Statement 2 : The cost of 1 pen and 2 pencils is \$5.
- To answer the question, ‘What is the cost of 3 pens and 4 pencils ?’,
- (a) Statement 1 alone is sufficient, but statement 2 alone is not sufficient.
 - (b) Statement 2 alone is sufficient, but statement 1 alone is not sufficient.
 - (c) Both statements together are sufficient, but neither statement alone is sufficient.
 - (d) Each statement alone is sufficient.

75. In terms of population, Chennai is much larger than Bangalore. Since Mumbai has a greater population than Delhi, it follows that Chennai has more inhabitants than Delhi.

All of the following make the argument more logically correct EXCEPT :

- (a) Delhi has fewer inhabitants than Bangalore
- (b) Bangalore has the same number of inhabitants as Delhi
- (c) Chennai has the same number of inhabitants as Mumbai
- (d) Mumbai has more inhabitants than Bangalore

76. **Directions (Question Nos. 76) :** The following table provides the details about the number of students in 5 different areas of expertise in MBA over the years.

Years	Areas of Expertise in MBA				
	Marketing	Finance	Business Analyst	HR	Operations
2017	71	149	150	133	116
2018	126	61	105	114	154
2019	84	109	121	104	83
2020	65	62	142	155	97
2021	137	57	79	121	87

In which year was the percentage of students participating in 'Business Analyst' area of expertise maximum ?

- (a) 2017
- (b) 2018
- (c) 2019
- (d) 2020

- 77.** Paresh can finish a certain piece of work in 35 days at a stretch. But after few days, he increases his speed by 60% and finishes the work in 26 days. Find after how many days did he increase his speed ?
- (a) 8
 - (b) 9
 - (c) 10
 - (d) 11
- 78.** A coconut tree is taller than a pine tree by 6 meters. A woodcutter starts cutting the coconut tree from 12 m above the ground so that after the coconut tree falls, its top just touches the bottom of the pine tree. Had he cut the pine tree from 8 m above the ground, the top of the pine tree would have fallen in a way that its top would just have touched the bottom of the coconut tree. What is the height of the coconut tree ?
- (a) 33 meters
 - (b) 29 meters
 - (c) 27 meters
 - (d) 21 meters
- 79.** How many two-digit numbers are there such that the product of their digits is a perfect square greater than 1 ?
- (a) 18
 - (b) 16
 - (c) 14
 - (d) 12
- 80.** Five friends Ram, Rakesh, Ramesh, Rohit and Rupesh are sitting on a round table facing the center. Rakesh is sitting to the left of Ram. Rohit is sitting to the right of Ramesh. Ram and Ramesh are sitting next to each other. Where is Rupesh sitting with respect to Rohit ?
- (a) Immediate left
 - (b) Second person to the left
 - (c) Third person to the left
 - (d) Fourth person to the left

81. 'ਨਿੱਕੜੀ ਸੂਈ ਵੱਟਮਾਂ ਧਾਗਾ ਬੈਠ ਕਸੀਦਾ ਕੱਢ ਰਹੀਂ ਆਂ' ਕੀ ਹੈ ?

- (a) ਘੋੜੀ
- (b) ਬੋਲੀ
- (c) ਲੋਰੀ
- (d) ਸੁਹਾਗ

82. ਜੇ ਕਵਿਤਾ ਨੂੰ ਦਿਲ ਦੀ ਬੋਲੀ ਸਮਝਿਆ ਜਾਂਦਾ ਹੈ ਤਾਂ ਵਾਰਤਕ ਨੂੰ ਦਿਮਾਗ ਦੀ ਸਿਰਜਣਾ ਖਿਆਲ ਕੀਤਾ ਜਾਂਦਾ ਹੈ। ਇਸ ਦਾ ਅਰਥ ਇਹ ਹੈ ਕਿ ਕਵਿਤਾ ਵਿਚ ਭਾਵ ਅਤੇ ਵਾਰਤਕ ਵਿਚ ਵਿਚਾਰ ਪਰਧਾਨ ਹੁੰਦੇ ਹਨ। ਵੈਸੇ ਵੀ ਸਾਹਿਤਕ ਇਤਿਹਾਸ ਵਿਚ ਕਵਿਤਾ ਪਹਿਲਾਂ ਹੋਂਦ ਵਿਚ ਆਉਂਦੀ ਹੈ ਅਤੇ ਵਾਰਤਕ ਬਾਅਦ ਵਿਚ ਲਿਖੀ ਜਾਣੀ ਸ਼ੁਰੂ ਹੁੰਦੀ ਹੈ। ਇਸ ਦਾ ਕਾਰਨ ਇਹ ਵੀ ਮੰਨਿਆ ਜਾਂਦਾ ਹੈ ਕਿ ਮਨੁੱਖ ਮੁੱਢਲੇ ਪੜਾਅ ਤੇ ਬੁਨਿਆਦੀ ਪ੍ਰਵਿਰਤੀਆਂ ਦੀ ਪੈਦਾਵਾਰ ਜਜ਼ਬਿਆਂ ਦੇ ਅਧੀਨ ਵਲਵਲਿਆਂ ਵਾਲੀ ਦਿਲ ਦੀ ਬੋਲੀ ਬੋਲਦਾ ਹੈ ਪਰੰਤੂ ਸਭਿਅਤਾ ਦੇ ਵਿਕਾਸ ਨਾਲ ਉਹ ਆਪਣੀਆਂ ਸੱਭਿਆਚਾਰਕ ਸਿਰਜਣਾਵਾਂ ਰਾਹੀਂ ਬੁਨਿਆਦੀ ਪ੍ਰਵਿਰਤੀਆਂ ਨੂੰ ਬੌਧਿਕਤਾ ਦੇ ਅਧੀਨ ਨਿਯੰਤਰਿਤ ਕਰਨਾ ਸ਼ੁਰੂ ਕਰ ਦਿੰਦਾ ਹੈ। ਸੋ ਸਭਿਅਤਾ ਦੇ ਵਿਕਾਸ ਨਾਲ ਦਿਮਾਗ ਦੀ ਵਰਤੋਂ ਵਧੇਰੇ ਹੋਣ ਲੱਗਦੀ ਹੈ, ਭਾਵ ਵਿਚਾਰ ਪ੍ਰਧਾਨ ਹੋਣ ਲੱਗਦੇ ਹਨ। ਇਸ ਤੋਂ ਇਹ ਸਿੱਟਾ ਤਾਂ ਨਹੀਂ ਕੱਢਿਆ ਜਾ ਸਕਦਾ ਕਿ ਕਵਿਤਾ ਕੇਵਲ ਭਾਵ ਪਰਧਾਨ ਅਤੇ ਵਾਰਤਕ ਕੇਵਲ ਵਿਚਾਰ ਪਰਧਾਨ ਹੁੰਦੀ ਹੈ ਪਰ ਇਕ ਗੱਲ ਪੱਕੀ ਹੈ ਕਿ ਅਨੁਪਾਤਕ ਤੌਰ ਤੇ ਕਵਿਤਾ ਵਿਚ ਭਾਵਾਂ ਦੀ ਮਾਤਰਾ ਵਧੇਰੇ ਹੁੰਦੀ ਹੈ ਜਦੋਂ ਕਿ ਵਾਰਤਕ ਵਿਚ ਵਿਚਾਰਾਂ ਦੀ ਪੇਸ਼ਕਾਰੀ ਵਧੇਰੇ ਹੁੰਦੀ ਹੈ। ਮਨੁੱਖ ਆਮ ਬੋਲਚਾਲ ਤਾਂ ਮੁੱਢ ਵਿਚ ਵੀ ਵਾਰਤਕ ਅੰਦਰ ਹੀ ਕਰਦਾ ਹੋਵੇਗਾ ਪਰ ਕਲਾਤਮਿਕ ਸਿਰਜਣਾ ਪਹਿਲਾਂ ਪਹਿਲ ਕਵਿਤਾ ਵਿਚ ਹੀ ਹੋਈ ਹੋਵੇਗੀ।

ਉਪਰੋਕਤ ਪੈਰਾ ਦੇ ਅਧਾਰ ਤੇ ਉੱਤਰ ਦਿਓ:

ਮਨੁੱਖ ਨੇ ਰੋਜ਼ਾਨਾ ਜੀਵਨ ਵਿਚ ਘਰੇਲੂ ਪੱਧਰ 'ਤੇ ਗੱਲਬਾਤ ਲਈ ਸਭ ਤੋਂ ਪਹਿਲਾਂ ਕਿਹੜੇ ਸਾਹਿਤਕ ਰੂਪ ਦੀ ਵਰਤੋਂ ਕੀਤੀ ਹੋਵੇਗੀ ?

- (a) ਕਵਿਤਾ
- (b) ਵਾਰਤਕ
- (c) ਕਵਿਤਾ ਅਤੇ ਵਾਰਤਕ ਦੋਨੋਂ
- (d) ਬੋਲੀਆਂ

83. 'ਛਾਹ ਵੇਲਾ' ਕਿਹੜੇ ਸਮੇਂ ਨੂੰ ਕਿਹਾ ਜਾਂਦਾ ਹੈ ?

- (a) ਸ਼ਾਮ ਦੇ ਸਮੇਂ ਨੂੰ
- (b) ਦੁਪਹਿਰ ਦੇ ਸਮੇਂ ਨੂੰ
- (c) ਰਾਤ ਦੇ ਸਮੇਂ ਨੂੰ
- (d) ਸਵੇਰ ਦੇ ਸਮੇਂ ਨੂੰ

84. ਹੇਠ ਲਿਖੇ ਵਾਕ ਨੂੰ ਪੂਰਾ ਕਰਨ ਲਈ ਸਹੀ ਸ਼ਬਦ ਜੁੱਟ ਚੁਣੋ :

_____ ਦੀ ਵੰਡ ਨੇ ਦੋਵਾਂ ਭਰਾਵਾਂ ਨੂੰ _____ ਪਹੁੰਚਾ ਦਿੱਤਾ।

- (a) ਜੈਦਾਦ, ਕਚਹਿਰੀ
- (b) ਜਾਇਦਾਦ, ਕਚੈਹਰੀ
- (c) ਜੈਦਾਤ, ਕਚਹਰੀ
- (d) ਜਾਇਦਾਦ, ਕਚਹਿਰੀ

85. ਹੇਠ ਲਿਖਿਆਂ ਵਿੱਚੋਂ ਸਹੀ ਵਿਸ਼ਰਾਮ ਚਿੰਨ੍ਹ ਵਾਲਾ ਵਾਕ ਚੁਣੋ :

- (a) ਚੰਗਾ ਹੁਣ ਅਸੀਂ ਚੱਲਦੇ ਹਾਂ।
- (b) ਚੰਗਾ, ਹੁਣ ਅਸੀਂ ਚੱਲਦੇ ਹਾਂ।
- (c) ਚੰਗਾ ! ਹੁਣ ਅਸੀਂ ਚੱਲਦੇ ਹਾਂ।
- (d) ਚੰਗਾ; ਹੁਣ ਅਸੀਂ ਚੱਲਦੇ ਹਾਂ।

86. Chrysanthemum ਫੁੱਲ ਦਾ ਪੰਜਾਬੀ ਵਿੱਚ ਨਾਂ ਕੀ ਹੈ ?

- (a) ਚਮੇਲੀ
- (b) ਨਰਗਸ
- (c) ਗੁਲਦਾਊਦੀ
- (d) ਗੁਲਨਾਰ

87. ਪੱਛਮੀ ਪੰਜਾਬ ਵਿੱਚ ਸਾਂਦਲਬਾਰ ਦੀਆਂ ਔਰਤਾਂ ਦੇ ਨਾਚ ਦਾ ਨਾਂ ਹੈ -

- (a) ਗਿੱਧਾ
- (b) ਸੰਮੀ
- (c) ਮਾਹੀਆ
- (d) ਮਲਵਈ ਗਿੱਧਾ

88. 'ਭੁੱਖੇ ਦੀ ਧੀ ਰੱਜੀ ਉਡਾਉਣ ਲੱਗੀ' ਅਖਾਣ ਵਿੱਚ ਖਾਲੀ ਥਾਂ ਤੇ ਸਹੀ ਸ਼ਬਦ ਭਰੋ।

- (a) ਧਨ
- (b) ਮੌਜ
- (c) ਤੋਤੇ
- (d) ਖੇਹ

89. 'ਆਪ ਅੱਜ-ਕਲ੍ਹ ਕੀ ਕਰਦੇ ਹੋ?' - ਕਿਹੜਾ ਪੁਰਖ ਹੈ ?

- (a) ਪਹਿਲਾ ਪੁਰਖ
- (b) ਦੂਜਾ ਪੁਰਖ
- (c) ਤੀਜਾ ਪੁਰਖ
- (d) ਇਨ੍ਹਾਂ ਵਿਚੋਂ ਕੋਈ ਨਹੀਂ

90. ਸਮਾਨਾਰਥਕ ਸ਼ਬਦਾਂ ਦੀ ਸੂਚੀ ਮਿਲਾਓ :

ਸੂਚੀ I	ਸੂਚੀ II
A. ਤਹਿਜ਼ੀਬ	i. ਦੋਸਤੀ
B. ਗੋਂ	ii. ਜਿਸਮ
C. ਜੁੱਸਾ	iii. ਸੱਭਿਅਤਾ
D. ਸੱਜਣਤਾ	iv. ਮਤਲਬ

ਉਪਰੋਕਤ ਦਾ ਸਹੀ ਮਿਲਾਨ ਕਰੋ :

- (a) A-iii, B-iv, C-i, D-ii
- (b) A-iii, B-iv, C-ii, D-i
- (c) A-iii, B-ii, C-iv, D-i
- (d) A-ii, B-iii, C-iv, D-i

91. Match the following :

List I

1. Author of the famous book 'Species Plantarum'
2. Proposed the concept of 'plant ideotypes' for the first time
3. Coined the term 'heterosis' for the first time

List II

- P. Carl Linnaeus
- Q. G.H. Shull
- R. C.M. Donald

Code :

- | | 1 | 2 | 3 |
|-----|----------|----------|----------|
| (a) | P | Q | R |
| (b) | R | Q | P |
| (c) | P | R | Q |
| (d) | R | P | Q |

92. Consider the following statements :

1. The wheat grain protein is called 'X'.
2. Initially, the potassium deficiency symptoms in barley appear on 'Y'.

Identify correct pair of X and Y (respectively)

- (a) Zein and Upper leaves
- (b) Gluten and Upper leaves
- (c) Glycinin and Middle leaves
- (d) Gluten and Lower leaves

93. If 30 maize plants are counted in 5 metre of row length and the row spacing is 60 cm, what will be the population density of maize ?

- | | |
|-----------------------------|-----------------------------|
| (a) 50,000 plants/ hectare | (b) 75,000 plants/hectare |
| (c) 1,00,000 plants/hectare | (d) 1,25,000 plants/hectare |

94. Flooding kills the weeds by excluding the _____ from their environment.

- | | |
|---------------|--------------|
| (a) Air | (b) Water |
| (c) Nutrients | (d) Microbes |

95. Loss of horizontal resistance to a plant disease during a breeding cycle is

- (a) Boom and bust cycle
- (b) Vertifolia effect
- (c) Quantitative resistance
- (d) Pathovar

96. Soils with pH < 8.5, EC > 4 dS m⁻¹ and ESP less than 15 are designated as

- (a) Saline soils (b) Alkali soils
(c) Black alkali soils (d) Sodic soils

97. Pick the correct statement :

- (a) One standard atmosphere is equal to 101,325 hPa
(b) One standard atmosphere is equal to 101.325 hPa
(c) Generally, dry adiabatic lapse rate per 100 m ascent is 9.8°C
(d) Generally, dry adiabatic lapse rate per 100 m ascent is 0.98°C

98. Consider the following statements and choose the incorrect ones :

1. Widely spaced isobars represent steep change in pressure
 2. Cumulo-nimbus clouds are associated with heavy rainfall, thunder and lightning.
 3. India receives less than normal rainfall under the influence of La Nina.
- (a) 2 only (b) 3 only
(c) 1 and 2 only (d) 1 and 3 only

99. Match the following entities in list I with corresponding entries in List II :

List I

1. Father of modern organic agriculture
2. Father of Indian Plant Pathology
3. The father of extension in a global context

List II

- P. Sir Albert Howard
Q. E.J. Butler
R. B.B. Mundkur
S. Paul Leagans
T. Sigmund Freud

Code :

- | | 1 | 2 | 3 |
|-----|----------|----------|----------|
| (a) | R | Q | P |
| (b) | P | Q | S |
| (c) | Q | R | S |
| (d) | Q | R | T |

100. Yellow vein mosaic of okra is primarily transmitted by

- (a) Aphid (b) White fly
(c) Leaf hopper (d) Nematode

101. Choose the correct match :

- (a) Mancozeb and Thiram : Systemic fungicides
- (b) Glyphosate : Selective contact herbicide
- (c) Carbendazim : Systemic fungicide
- (d) Glyphosate : Nonselective contact herbicide

102. Fernoxone is _____

- (a) 2, 4-D ester salt
- (b) 2, 4-D amine salt
- (c) 2, 4-D sodium salt
- (d) 2, 4-D ester amine salt

103. Crop rotations are effective in controlling

- (a) Crop bound weeds but not crop associated weeds
- (b) Both crop bound weeds and crop associated weeds
- (c) Crop associated weeds but not crop bound weeds
- (d) Neither crop bound weeds nor crop associated weeds

104. The bio-agent useful for managing water hyacinth is

- (a) *Bactra* sp.
- (b) *Cyrtobagous salviniae*
- (c) *Neochetina bruchi*
- (d) *Dactylopius* sp.

105. Choose the correct options :

1. First herbicide-resistant weed in the world: *Amaranthus* sp.
 2. First herbicide-resistant weed in the world: *Senecio vulgaris*
 3. *Zea mays ceratina* is flour corn
 4. *Zea mays ceratina* is waxy corn
- (a) 1 and 3 only
 - (b) 2 and 3 only
 - (c) 1 and 4 only
 - (d) 2 and 4 only

106. Consider the following statements and choose the correct options :

1. Leaf reddening in cotton is due to deficiency of Mg.
 2. Leaf reddening in cotton is due to deficiency of Zn and Ca.
 3. Diamond back moth is a pest of crucifers.
 4. Diamond back moth is a pest of pulses and oil seeds.
- (a) 1 and 3 only
 - (b) 2 and 4 only
 - (c) 1 and 4 only
 - (d) 2 and 3 only

- 107.** The Bhopal Gas Tragedy was due the leakage of _____ gas.
- (a) Hexane (b) Methane
(c) Methyl thiocyanate (d) Methyl isocyanate
- 108.** If two chemicals, A and B have LD_{50} values of 85 mg kg^{-1} and 5010 mg kg^{-1} respectively, which one of the following statement is true ?
- (a) A is less toxic than B (b) B is less toxic than A
(c) Both have equal toxicity (d) Both are safe chemicals
- 109.** Which of the following is the most suitable combination related to the requirements for soil solarisation ?
- (a) Summer season; black polythene; moist soil
(b) Winter season; black polythene; dry soil
(c) Summer season; transparent polythene; moist soil
(d) Summer season; transparent polythene; dry soil
- 110.** Among the following, which group of elements is immobile in plants :
- (a) Ca, Cu, B, Fe (b) Cu, Mn, Mg, B
(c) Ca, N, K, S (d) S, Cu, Mg, B
- 111.** Which among the following is known as the “Queen of Oilseeds” ?
- (a) Groundnut (b) Sesame
(c) Sunflower (d) Mustard
- 112.** Which type of earthworm is useful for vermicomposting ?
- (a) Epigeic (b) Mesogeic
(c) Endogeic (d) Endogeic or Mesogeic
- 113.** 1. Central Soil Salinity Research Institute is located at X.
2. The first KVK in India was established in 1974 at Y.
Identify X and Y.
- (a) Karnal and Puducherry respectively
(b) Bathinda and Ahmedabad respectively
(c) Hyderabad and Delhi respectively
(d) Jaipur and Kolkata respectively

114. Pick the correct statement :

- (a) The largest source of irrigation in India is canals
- (b) Sunflower is a cross pollinated crop
- (c) Deep ploughing is recommended twice for every season
- (d) World Wetlands Day is celebrated on 21st March

115. Among the following, which crop has the highest water requirement in general ?

- (a) Wheat
- (b) Cotton
- (c) Sugarcane
- (d) Rye

116. Author of the book 'The Road Back to Nature : Regaining the Paradise Lost' is

- (a) Rachel Carlson
- (b) Subhash Palekar
- (c) Yoshikazu Kawaguchi
- (d) Masanobu Fukuoka

117. The process of dissolution and removal of sesquioxides from A horizon and their deposition in B horizon is called :

- (a) Podzolisation
- (b) Laterisation
- (c) Humification
- (d) Calcification

118. The phosphorus fixing capacity of clay minerals may be found in order :

- (a) Vermiculite > Illite > Montmorillonite > Muscovite
- (b) Montmorillonite > Vermiculite > Kaolinite > Muscovite
- (c) Muscovite > Illite > Montmorillonite > Vermiculite
- (d) Illite > Montmorillonite > Muscovite > Vermiculite

119. The organic matter content (%) of soil with 1.3 % organic carbon is :

- (a) 2.60
- (b) 1.95
- (c) 0.65
- (d) 2.24

120. Among the following, which crop yields leaf fibre :

- (a) Jute
- (b) Cotton
- (c) Agave
- (d) Mesta

SPACE FOR ROUGH WORK

SPACE FOR ROUGH WORK

READ INSTRUCTIONS BEFORE FILLING ANY DETAILS OR ATTEMPTING TO ANSWER THE QUESTIONS.

Booklet Sr. No. _____



Question
Booklet Set

C

Candidate's Name _____

Father's Name _____

Date of Birth :
D D M M Y Y Y Y

OMR Response Sheet No. _____ Roll No. _____

Candidate's Signature :

(Please sign in the box)

[Total Questions : 120]

[Time Allowed : 2 Hours]

INSTRUCTIONS

1. The candidate shall NOT open this booklet till the time they are told to do so by the Invigilation Staff. However, in the meantime, the candidate can read these instructions carefully and subsequently fill the appropriate columns given above in CAPITAL letters. The candidate may also fill the relevant boxes 1 to 9 of the Optical Mark Reader (OMR) response sheet, supplied separately.
2. Use only blue or black **ball point pen** to fill the relevant columns on this page as well as in OMR sheet. Use of Ink pen or any other pen is not allowed.
3. Other than filling credentials/information in specific space allotted above, do not write anything else on the Test Booklet. Space for rough work is provided at the end. The candidate shall be liable for any adverse effect if the information given above is wrong or illegible or incomplete.
4. Each candidate is required to attempt 120 questions in 120 minutes, except for orthopedically/visually impaired candidates, who would be given 40 extra minutes, for marking correct responses on the OMR sheet.
5. The question paper booklet has **28** pages.
6. The candidates, when allowed to open the question paper booklet, must first check the entire booklet to confirm that the booklet has complete number of pages, the pages are printed correctly and there are no blank or torn pages. In case there is any such error in the question paper booklet then the candidate should IMMEDIATELY bring this fact to the notice of the Invigilation Staff and obtain a new booklet of the same series as given earlier.
7. The serial number of the new Question booklet, if issued for some reason, should be entered in the relevant column of the OMR. The Invigilation Staff must make necessary corrections in their record regarding the change in the serial no. of Question booklet.
8. The paper consists of total 480 Marks. Each question shall carry 4 marks. There are four options for each question and the candidate has to mark the MOST APPROPRIATE answer on the OMR response sheet.
9. There is **negative marking** (1 mark for each question) for questions wrongly answered by the candidate.
10. If a candidate gives more than one answer, it will be treated as a wrong answer even if one of the given answers is correct. There will be same penalty, as above, to that question.
11. If Question is left blank, i.e. question remains unattempted, there will be no penalty for that question.
12. Use of Electronic/Manual Calculator is prohibited.
13. The candidate **MUST READ INSTRUCTIONS BEHIND THE OMR SHEET** before answering the questions and check that two carbon copies attached to the OMR sheet are intact.

1. Match the following :

List I

1. Author of the famous book 'Species Plantarum'
2. Proposed the concept of 'plant ideotypes' for the first time
3. Coined the term 'heterosis' for the first time

List II

- P. Carl Linnaeus
- Q. G.H. Shull
- R. C.M. Donald

Code :

- | | 1 | 2 | 3 |
|-----|----------|----------|----------|
| (a) | P | Q | R |
| (b) | R | Q | P |
| (c) | P | R | Q |
| (d) | R | P | Q |

2. Consider the following statements :

1. The wheat grain protein is called 'X'.
2. Initially, the potassium deficiency symptoms in barley appear on 'Y'.

Identify correct pair of X and Y (respectively)

- (a) Zein and Upper leaves
- (b) Gluten and Upper leaves
- (c) Glycinin and Middle leaves
- (d) Gluten and Lower leaves

3. If 30 maize plants are counted in 5 metre of row length and the row spacing is 60 cm, what will be the population density of maize ?

- | | |
|-----------------------------|-----------------------------|
| (a) 50,000 plants/hectare | (b) 75,000 plants/hectare |
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4. Flooding kills the weeds by excluding the _____ from their environment.

- | | |
|---------------|--------------|
| (a) Air | (b) Water |
| (c) Nutrients | (d) Microbes |

5. Loss of horizontal resistance to a plant disease during a breeding cycle is

- (a) Boom and bust cycle
- (b) Vertifolia effect
- (c) Quantitative resistance
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6. Soils with pH < 8.5, EC > 4 dS m⁻¹ and ESP less than 15 are designated as
- (a) Saline soils (b) Alkali soils
(c) Black alkali soils (d) Sodic soils
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(b) One standard atmosphere is equal to 101.325 hPa
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(d) Generally, dry adiabatic lapse rate per 100 m ascent is 0.98°C
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1. Widely spaced isobars represent steep change in pressure
 2. Cumulo-nimbus clouds are associated with heavy rainfall, thunder and lightning.
 3. India receives less than normal rainfall under the influence of La Nina.
- (a) 2 only (b) 3 only
(c) 1 and 2 only (d) 1 and 3 only
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| 3. The father of extension in a global context | R. B.B. Mundkur |
| | S. Paul Leagans |
| | T. Sigmund Freud |
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- | | 1 | 2 | 3 |
|-----|----------|----------|----------|
| (a) | R | Q | P |
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| (c) | Q | R | S |
| (d) | Q | R | T |
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- (c) *Neochetina bruchi*
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15. Choose the correct options :

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- 2. First herbicide-resistant weed in the world: *Senecio vulgaris*
- 3. *Zea mays ceratina* is flour corn
- 4. *Zea mays ceratina* is waxy corn

- (a) 1 and 3 only
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- (c) 1 and 4 only
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16. Consider the following statements and choose the correct options :

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- 2. Leaf reddening in cotton is due to deficiency of Zn and Ca.
- 3. Diamond back moth is a pest of crucifers.
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17. The Bhopal Gas Tragedy was due the leakage of _____ gas.
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18. If two chemicals, A and B have LD_{50} values of 85 mg kg^{-1} and 5010 mg kg^{-1} respectively, which one of the following statement is true ?
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(b) Winter season; black polythene; dry soil
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- (a) Ca, Cu, B, Fe (b) Cu, Mn, Mg, B
(c) Ca, N, K, S (d) S, Cu, Mg, B
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Identify X and Y.
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(b) Bathinda and Ahmedabad respectively
(c) Hyderabad and Delhi respectively
(d) Jaipur and Kolkata respectively

- 24.** Pick the correct statement :
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 - (b) Sunflower is a cross pollinated crop
 - (c) Deep ploughing is recommended twice for every season
 - (d) World Wetlands Day is celebrated on 21st March
- 25.** Among the following, which crop has the highest water requirement in general ?
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 - (c) Sugarcane
 - (d) Rye
- 26.** Author of the book 'The Road Back to Nature : Regaining the Paradise Lost' is
- (a) Rachel Carlson
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 - (c) Yoshikazu Kawaguchi
 - (d) Masanobu Fukuoka
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 - (b) Laterisation
 - (c) Humification
 - (d) Calcification
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 - (b) Montmorillonite > Vermiculite > Kaolinite > Muscovite
 - (c) Muscovite > Illite > Montmorillonite > Vermiculite
 - (d) Illite > Montmorillonite > Muscovite > Vermiculite
- 29.** The organic matter content (%) of soil with 1.3 % organic carbon is :
- (a) 2.60
 - (b) 1.95
 - (c) 0.65
 - (d) 2.24
- 30.** Among the following, which crop yields leaf fibre :
- (a) Jute
 - (b) Cotton
 - (c) Agave
 - (d) Mesta

- 31.** Which one of the following groups of essential plant nutrients falls in the 'non-mineral nutrients' category ?
- (a) Primary nutrients
 - (b) Secondary nutrients
 - (c) Micronutrients
 - (d) C, H and O
- 32.** Consider the following statements :
1. Chemically, quick lime is CaO
 2. 'Zinc sulphate heptahydrate' contains approximately 42% Zinc
 3. Fertilizer 'single super phosphate' contains approximately 42% Sulphur
- Choose the correct statement(s) :
- (a) 1 only
 - (b) 1 and 2 only
 - (c) 1 and 3 only
 - (d) 2 and 3 only
- 33.** Choose the correct statement(s) :
- (a) When greengram are allowed to sprout, Vitamin C is synthesized.
 - (b) BPH is a pest of rice that causes 'hopper burn' symptoms.
 - (c) Both (a) and (b)
 - (d) Neither (a) nor (b)
- 34.** For Punjab, 'Rice (short duration) – Vegetable Pea – Wheat – Mungbean' rotation is an example of :
- (a) One-year rotation
 - (b) One and half-year rotation
 - (c) Half-year rotation
 - (d) Two-year rotation
- 35.** Find out the quantity of atrazine herbicide WP containing 50% active ingredient (a.i.) to be applied at the rate of 1.5 kg a.i./ha.
- (a) 1.0 kg/ha
 - (b) 2.0 kg/ha
 - (c) 3.0 kg/ha
 - (d) 0.75 kg/ha

- 36.** Which one of the following nitrogenous fertilizers is not included in the Fertilizer Control Order (FCO) of India ?
- (a) Ammonium sulphate
 - (b) Calcium Ammonium Nitrate
 - (c) Ammonium nitrate
 - (d) All of the above
- 37.** Based upon morphological features, weeds have been classified into grassy, sedges and broadleaf groups. The sedges belong to the plant family :
- (a) Poaceae
 - (b) Asteraceae
 - (c) Graminae
 - (d) Cyperaceae
- 38.** Rice weeds *Echinochloa crus-galli* and *Echinochloa colona* belong to the following group of plants :
- (a) CAM plants
 - (b) C₄ plants
 - (c) C₃ plants
 - (d) Dicot plants
- 39.** If on a 20-acre farm, crops are raised on 15 acres in kharif (rainy season), 15 acres in rabi (winter season) and 20 acres in zaid (summer) during one year, what would be the cropping intensity of the farm ?
- (a) 150%
 - (b) 250%
 - (c) 350%
 - (d) 500%
- 40.** “Weirs” and “Flumes” are primarily used to :
- (a) Measure refractive index of water
 - (b) Measure the viscosity of water in the field
 - (c) Measure the density of water in the channel
 - (d) Measure the water flow in the channel

41. Which one of the following is the correct pair of sulphur containing amino acids ?
- (a) Cysteine and lysine
 - (b) Cysteine and leucine
 - (c) Cysteine and methionine
 - (d) Cysteine and isoleucine
42. The “Bangalore process” of anaerobic composting was developed by :
- (a) Albert Howard
 - (b) C.N. Acharya
 - (c) P.N. Arya
 - (d) Robert Howard
43. Choose the most suitable option :
- (a) Sorghum grain is considered as *Caryopsis*.
 - (b) Ergot or sugary disease of sorghum is primarily caused by *Gleocercospora sorghi*.
 - (c) Both (a) and (b)
 - (d) Neither (a) nor (b)
44. The optimum sowing time of chickpea in the North India under the irrigated condition is :
- (a) First fortnight of October
 - (b) Second fortnight of October
 - (c) First fortnight of December
 - (d) Second fortnight of November
45. “LL 1373” and “LL 931” are the varieties of :
- (a) Kabuli chickpea
 - (b) Desi chickpea
 - (c) Linseed
 - (d) Lentil

46. Consider the following statements about Soybean and choose the correct option :
- (a) It is considered to have originated in Brazil
 - (b) It is considered to have originated in USA
 - (c) It is a short day plant
 - (d) It is a temperate C4 plant
47. The 'sterility mosaic' disease of pigeonpea is caused by X; and, Out of Sand, Peat and Clay, Y has highest Soil bulk density. Identify X and Y (respectively) :
- (a) Virus and clay
 - (b) Bacteria and clay
 - (c) Nematode and peat
 - (d) Virus and sand
48. The state with highest production of green gram (mungbean) in India and country with highest production of pigeonpea in the world are respectively :
- (a) Punjab & India
 - (b) Rajasthan & India
 - (c) Madhya Pradesh & China
 - (d) Uttar Pradesh & China
49. "Canola" refers to the cultivars of Oilseed rape in Canada. The seeds of "Canola" should contain :
- (a) <20% erucic acid
 - (b) >20% erucic acid
 - (c) >2% erucic acid
 - (d) <2% erucic acid
50. Powdery mildew of pea and Dropsy disease in human beings may respectively be caused by :
- (a) *Fusarium pisi* and weed *Pluchea lanceolata*
 - (b) *Erysiphe pisi* and weed *Argemone Mexicana*
 - (c) *Uromyces fabae* and weed *Digera arvensis*
 - (d) *Fusarium pisi* and weed *Convolvulus arvensis*

55. Safflower in India is usually grown during :
- (a) Rabi season
 - (b) Kharif season
 - (c) Zaid season
 - (d) Rabi, kharif and zaid seasons
56. Compared to popular rice varieties, 'DRR Dhan 48' and 'DRR Dhan 49' contain higher levels of :
- (a) Iron
 - (b) Zinc
 - (c) Boron
 - (d) Molybdenum
57. 1. High yielding dwarf varieties of wheat were developed by X
2. The term 'Evergreen Revolution' has been given by Y
Identify X and Y (respectively) :
- (a) Dr. M. S. Swaminathan and Dr. R. S. Paroda
 - (b) Dr. R. S. Paroda and C. T. Patel
 - (c) Dr. N. E. Borlaug and Dr. M. S. Swaminathan
 - (d) Dr. B. P. Pal and Dr. R. S. Paroda
58. The term 'cultivar' is used to designate a new crop type intentionally bred and released for cultivation. Who has been credited with coining of the term 'cultivar' in year 1923 ?
- (a) L.H. Bailey
 - (b) M.S. Swaminathan
 - (c) John Ray
 - (d) A.P. de Candolle
59. "Tungro virus" of rice is usually transmitted by :
- (a) Gundhy bug
 - (b) Gall midge
 - (c) Army worm
 - (d) Green leaf hopper
60. What would be the harvest index of rice if grain yield is 3.5 tonnes/ha and straw yield is 6.5 tonnes/ha ?
- (a) 35%
 - (b) 45%
 - (c) 54%
 - (d) 65%

61. Consider the following statements :

1. 'Painted Bug' causes damage to Mustard
2. Ascochyta blight is a fungal disease of Chickpea
3. Insect 'Fall army worm' generally prefers to attack the Maize crop
4. 'BL-43' and 'BL-42' are the varieties of Barley

Choose the correct statements.

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

62. Fill in the blanks in List I from List II (Choose the most appropriate option)

List I	List II
1. The optimum seed rate for sowing one hectare of pearl millet is : <u>X</u>	P. 70-80 Kg
2. The optimum seed rate for timely sown fieldpea crop (for 1 hectare) is : <u>Y</u>	Q. 7-8 Kg
	R. 40-50 Kg
	S. 4-5 Kg

X and Y are respectively :

Code :

- | | X | Y |
|-----|----------|----------|
| (a) | P | R |
| (b) | Q | S |
| (c) | R | Q |
| (d) | S | P |

63. A number of electro-chemical changes happen in the paddy soils due to the continuous submergence or flooding. Which one of the following statements is incorrect about the electro-chemical changes in the submerged paddy soils ?

- (a) Increase in pH of the acid soil
- (b) Decrease in pH of the sodic soil
- (c) Increase in redox potential of the soil
- (d) Decrease in redox potential of the soil

71. Identify the fauna from the following information :

Nature : Scavengers

Common species : White rumped, Slender-Billed, Red-headed

Common threats : Use of diclofenac for veterinary purposes

Impact of decline in population : Increased risk of spread of rabies and ill impact on observance of last rites by Parsis in 'Tower of Silence'.

- (a) Pygmy hog
- (b) Forest Owlet
- (c) Sandpiper
- (d) Vulture

72. With respect to achievements of Indians in the field of Science and Technology, match the following :

List I

List II

- | | | |
|--|----|------------------|
| 1. Inelastic theory of scattering | P. | S. Chandrasekhar |
| 2. Work on stellar evolution and white dwarfs | Q. | C.V. Raman |
| 3. Contribution to quantum mechanics and development of Bose-Einstein Condensate | R. | S.N. Bose |
| 4. Research on Crescograph and Electromagnetic Waves | S. | J.C. Bose |

Code :

- | | 1 | 2 | 3 | 4 |
|-----|----------|----------|----------|----------|
| (a) | P | Q | R | S |
| (b) | Q | P | S | R |
| (c) | Q | P | R | S |
| (d) | P | Q | S | R |

73. 'Naz foundation v. Government of NCT of Delhi', 'National Legal Services Authority v. Union of India', 'Navtej Singh Johar v. Union of India' cases are often heard in news in context of :

- (a) Man-Animal conflict and wildlife conservation
- (b) LGBTQIA + rights
- (c) Simultaneous elections to Lok Sabha and State Legislatures
- (d) Reservation based on caste

- 74.** Beginning with Dwarka, Gujarat, if you travel to Jagannath Temple, Puri along the coast, what's the correct order of cities you might visit ?
1. Mumbai
 2. Mangalore
 3. Panaji
 4. Vishakapatnam
- (a) 1, 2, 3, 4
(b) 3, 1, 2, 4
(c) 1, 3, 2, 4
(d) 4, 1, 2, 3
- 75.** Bibi Bhani, the daughter of Sikh Guru 'X', was married to Sikh Guru 'Y'. 'Z', one of the sons of Guru 'Y', was married to Mata Ganga and became _____ guru of sikhs ?
- (a) Third
(b) Fourth
(c) Fifth
(d) Sixth
- 76.** As per Article 266(1) of Indian Constitution, all revenues received by the Government of India, all loans raised by that government by the issue of treasury bills, loans or ways and means advances and all moneys received by that government in repayment of loan shall form :
- (a) Consolidated Fund of India
(b) Contingency Fund of India
(c) Public Account of India
(d) Current Account of India
- 77.** Which of the following abbreviations, often heard in news in context of Indian Economy, is incorrectly matched ?
- (a) CAG : Comptroller and Auditor General
(b) CGST : Customs, Goods and Service Taxes
(c) EPFO : Employees' Provident Fund Organization
(d) FPI : Foreign Portfolio Investment

- 78.** What term is often seen in news and represents a style of politics where ‘Objective facts are less influential in shaping public opinion than appeals to emotion and personal belief’ ?
- (a) Orwellian Politics (b) Post Truth Politics
(c) Utopian Politics (d) Fabian Politics
- 79.** Arrange chronologically, the following events of modern history of Punjab :
1. Rajiv-Longowal accord
 2. Creation of Ropar division as one of the five divisions of Punjab
 3. Trifurcation of Punjab including constitution of separate state of Haryana
 4. Guru Ka Bagh Morcha
- (a) 4, 2, 1, 3 (b) 4, 3, 1, 2
(c) 3, 4, 1, 2 (d) 3, 4, 2, 1
- 80.** What is the minimum number of districts that you must pass through, to reach birthplace of Udham Singh from Bhagat Singh museum at Khatkar Kalan (including the origin and destination districts) ?
- (a) 4 (b) 5 (c) 6 (d) 7
- 81.** Total 280 candidates are undergoing training at Punjab Police Academy. All these candidates drink either one, two or three drinks out of tea, coffee and juice. It is known that :
- I. Number of candidates who drink tea, coffee and juice are in Arithmetic Progression in that order.
 - II. Number of candidates who drink tea and coffee, tea and juice, and coffee and juice are in Arithmetic Progression in that order.
 - III. Number of candidates who drink only tea, only coffee and only juice are in Arithmetic Progression in that order.
 - IV. Number of candidates who drink only one drink is two times the number of candidates who drink only two drinks.
 - V. Number of candidates who drink only two drinks is nine times the number of candidates who drink all the three drinks.
- How many candidates drink coffee ?
- (a) 130 (b) 110
(c) 60 (d) 70

82. A cuboid has six sides of different colours. The red side is opposite to black. The blue side is adjacent to white. The brown side is adjacent to blue. The red side is face down. Which one of the following would be the opposite to brown ?
- (a) Blue
 - (b) Black
 - (c) White
 - (d) Red
83. A wheat merchant has four varieties of wheat – A, B, C, D with him. He mixed the entire quantity of the wheat of varieties A and B with him. With this mixture, if he mixes the entire quantity of wheat of variety C, which costs ₹ 20 per kg, the mixture so formed would cost ₹ 25 per kg. Instead, if he mixes with it the entire quantity of wheat of variety D, which costs ₹ 36 per kg, the mixture so formed would cost ₹ 31 per kg. If the entire quantity of wheat of variety D is thrice that of wheat of variety C, how much (in ₹) would the mixture of the entire quantity of wheat of all 4 varieties cost
- (a) ₹ 29.5 per kg
 - (b) ₹ 28 per kg
 - (c) ₹ 30.5 per kg
 - (d) ₹ 26.5 per kg
84. **Statement 1 :** The cost of 2 pens and 3 pencils is \$10.
Statement 2 : The cost of 1 pen and 2 pencils is \$5.
- To answer the question, ‘What is the cost of 3 pens and 4 pencils ?’,
- (a) Statement 1 alone is sufficient, but statement 2 alone is not sufficient.
 - (b) Statement 2 alone is sufficient, but statement 1 alone is not sufficient.
 - (c) Both statements together are sufficient, but neither statement alone is sufficient.
 - (d) Each statement alone is sufficient.

85. In terms of population, Chennai is much larger than Bangalore. Since Mumbai has a greater population than Delhi, it follows that Chennai has more inhabitants than Delhi.

All of the following make the argument more logically correct EXCEPT :

- (a) Delhi has fewer inhabitants than Bangalore
- (b) Bangalore has the same number of inhabitants as Delhi
- (c) Chennai has the same number of inhabitants as Mumbai
- (d) Mumbai has more inhabitants than Bangalore

86. **Directions (Question Nos. 86) :** The following table provides the details about the number of students in 5 different areas of expertise in MBA over the years.

Years	Areas of Expertise in MBA				
	Marketing	Finance	Business Analyst	HR	Operations
2017	71	149	150	133	116
2018	126	61	105	114	154
2019	84	109	121	104	83
2020	65	62	142	155	97
2021	137	57	79	121	87

In which year was the percentage of students participating in 'Business Analyst' area of expertise maximum ?

- (a) 2017
- (b) 2018
- (c) 2019
- (d) 2020

87. Paresh can finish a certain piece of work in 35 days at a stretch. But after few days, he increases his speed by 60% and finishes the work in 26 days. Find after how many days did he increase his speed ?
- (a) 8
 - (b) 9
 - (c) 10
 - (d) 11
88. A coconut tree is taller than a pine tree by 6 meters. A woodcutter starts cutting the coconut tree from 12 m above the ground so that after the coconut tree falls, its top just touches the bottom of the pine tree. Had he cut the pine tree from 8 m above the ground, the top of the pine tree would have fallen in a way that its top would just have touched the bottom of the coconut tree. What is the height of the coconut tree ?
- (a) 33 meters
 - (b) 29 meters
 - (c) 27 meters
 - (d) 21 meters
89. How many two-digit numbers are there such that the product of their digits is a perfect square greater than 1 ?
- (a) 18
 - (b) 16
 - (c) 14
 - (d) 12
90. Five friends Ram, Rakesh, Ramesh, Rohit and Rupesh are sitting on a round table facing the center. Rakesh is sitting to the left of Ram. Rohit is sitting to the right of Ramesh. Ram and Ramesh are sitting next to each other. Where is Rupesh sitting with respect to Rohit ?
- (a) Immediate left
 - (b) Second person to the left
 - (c) Third person to the left
 - (d) Fourth person to the left

91. 'ਨਿੱਕੜੀ ਸੂਈ ਵੱਟਮਾਂ ਧਾਗਾ ਬੈਠ ਕਸੀਦਾ ਕੱਢ ਰਹੀਂ ਆਂ' ਕੀ ਹੈ ?

- (a) ਘੋੜੀ
- (b) ਬੋਲੀ
- (c) ਲੋਰੀ
- (d) ਸੁਹਾਗ

92. ਜੇ ਕਵਿਤਾ ਨੂੰ ਦਿਲ ਦੀ ਬੋਲੀ ਸਮਝਿਆ ਜਾਂਦਾ ਹੈ ਤਾਂ ਵਾਰਤਕ ਨੂੰ ਦਿਮਾਗ ਦੀ ਸਿਰਜਣਾ ਖਿਆਲ ਕੀਤਾ ਜਾਂਦਾ ਹੈ। ਇਸ ਦਾ ਅਰਥ ਇਹ ਹੈ ਕਿ ਕਵਿਤਾ ਵਿਚ ਭਾਵ ਅਤੇ ਵਾਰਤਕ ਵਿਚ ਵਿਚਾਰ ਪਰਧਾਨ ਹੁੰਦੇ ਹਨ। ਵੈਸੇ ਵੀ ਸਾਹਿਤਕ ਇਤਿਹਾਸ ਵਿਚ ਕਵਿਤਾ ਪਹਿਲਾਂ ਹੋਂਦ ਵਿਚ ਆਉਂਦੀ ਹੈ ਅਤੇ ਵਾਰਤਕ ਬਾਅਦ ਵਿਚ ਲਿਖੀ ਜਾਣੀ ਸ਼ੁਰੂ ਹੁੰਦੀ ਹੈ। ਇਸ ਦਾ ਕਾਰਨ ਇਹ ਵੀ ਮੰਨਿਆ ਜਾਂਦਾ ਹੈ ਕਿ ਮਨੁੱਖ ਮੁੱਢਲੇ ਪੜਾਅ ਤੇ ਬੁਨਿਆਦੀ ਪ੍ਰਵਿਰਤੀਆਂ ਦੀ ਪੈਦਾਵਾਰ ਜਜ਼ਬਿਆਂ ਦੇ ਅਧੀਨ ਵਲਵਲਿਆਂ ਵਾਲੀ ਦਿਲ ਦੀ ਬੋਲੀ ਬੋਲਦਾ ਹੈ ਪਰੰਤੂ ਸਭਿਅਤਾ ਦੇ ਵਿਕਾਸ ਨਾਲ ਉਹ ਆਪਣੀਆਂ ਸੱਭਿਆਚਾਰਕ ਸਿਰਜਣਾਵਾਂ ਰਾਹੀਂ ਬੁਨਿਆਦੀ ਪ੍ਰਵਿਰਤੀਆਂ ਨੂੰ ਬੌਧਿਕਤਾ ਦੇ ਅਧੀਨ ਨਿਯੰਤਰਿਤ ਕਰਨਾ ਸ਼ੁਰੂ ਕਰ ਦਿੰਦਾ ਹੈ। ਸੋ ਸਭਿਅਤਾ ਦੇ ਵਿਕਾਸ ਨਾਲ ਦਿਮਾਗ ਦੀ ਵਰਤੋਂ ਵਧੇਰੇ ਹੋਣ ਲੱਗਦੀ ਹੈ, ਭਾਵ ਵਿਚਾਰ ਪ੍ਰਧਾਨ ਹੋਣ ਲੱਗਦੇ ਹਨ। ਇਸ ਤੋਂ ਇਹ ਸਿੱਟਾ ਤਾਂ ਨਹੀਂ ਕੱਢਿਆ ਜਾ ਸਕਦਾ ਕਿ ਕਵਿਤਾ ਕੇਵਲ ਭਾਵ ਪਰਧਾਨ ਅਤੇ ਵਾਰਤਕ ਕੇਵਲ ਵਿਚਾਰ ਪਰਧਾਨ ਹੁੰਦੀ ਹੈ ਪਰ ਇਕ ਗੱਲ ਪੱਕੀ ਹੈ ਕਿ ਅਨੁਪਾਤਕ ਤੌਰ ਤੇ ਕਵਿਤਾ ਵਿਚ ਭਾਵਾਂ ਦੀ ਮਾਤਰਾ ਵਧੇਰੇ ਹੁੰਦੀ ਹੈ ਜਦੋਂ ਕਿ ਵਾਰਤਕ ਵਿਚ ਵਿਚਾਰਾਂ ਦੀ ਪੇਸ਼ਕਾਰੀ ਵਧੇਰੇ ਹੁੰਦੀ ਹੈ। ਮਨੁੱਖ ਆਮ ਬੋਲਚਾਲ ਤਾਂ ਮੁੱਢ ਵਿਚ ਵੀ ਵਾਰਤਕ ਅੰਦਰ ਹੀ ਕਰਦਾ ਹੋਵੇਗਾ ਪਰ ਕਲਾਤਮਿਕ ਸਿਰਜਣਾ ਪਹਿਲਾਂ ਪਹਿਲ ਕਵਿਤਾ ਵਿਚ ਹੀ ਹੋਈ ਹੋਵੇਗੀ।

ਉਪਰੋਕਤ ਪੈਰਾ ਦੇ ਅਧਾਰ ਤੇ ਉੱਤਰ ਦਿਓ:

ਮਨੁੱਖ ਨੇ ਰੋਜ਼ਾਨਾ ਜੀਵਨ ਵਿਚ ਘਰੇਲੂ ਪੱਧਰ 'ਤੇ ਗੱਲਬਾਤ ਲਈ ਸਭ ਤੋਂ ਪਹਿਲਾਂ ਕਿਹੜੇ ਸਾਹਿਤਕ ਰੂਪ ਦੀ ਵਰਤੋਂ ਕੀਤੀ ਹੋਵੇਗੀ ?

- (a) ਕਵਿਤਾ
- (b) ਵਾਰਤਕ
- (c) ਕਵਿਤਾ ਅਤੇ ਵਾਰਤਕ ਦੋਨੋਂ
- (d) ਬੋਲੀਆਂ

93. 'ਛਾਹ ਵੇਲਾ' ਕਿਹੜੇ ਸਮੇਂ ਨੂੰ ਕਿਹਾ ਜਾਂਦਾ ਹੈ ?
- ਸ਼ਾਮ ਦੇ ਸਮੇਂ ਨੂੰ
 - ਦੁਪਹਿਰ ਦੇ ਸਮੇਂ ਨੂੰ
 - ਰਾਤ ਦੇ ਸਮੇਂ ਨੂੰ
 - ਸਵੇਰ ਦੇ ਸਮੇਂ ਨੂੰ
94. ਹੇਠ ਲਿਖੇ ਵਾਕ ਨੂੰ ਪੂਰਾ ਕਰਨ ਲਈ ਸਹੀ ਸ਼ਬਦ ਜੁੱਟ ਚੁਣੋ :
- _____ ਦੀ ਵੰਡ ਨੇ ਦੋਵਾਂ ਭਰਾਵਾਂ ਨੂੰ _____ ਪਹੁੰਚਾ ਦਿੱਤਾ।
- ਜੈਦਾਦ, ਕਚਹਿਰੀ
 - ਜਾਇਦਾਦ, ਕਚੈਹਰੀ
 - ਜੈਦਾਤ, ਕਚਹਰੀ
 - ਜਾਇਦਾਦ, ਕਚਹਿਰੀ
95. ਹੇਠ ਲਿਖਿਆਂ ਵਿੱਚੋਂ ਸਹੀ ਵਿਸ਼ਰਾਮ ਚਿੰਨ੍ਹ ਵਾਲਾ ਵਾਕ ਚੁਣੋ :
- ਚੰਗਾ ਹੁਣ ਅਸੀਂ ਚੱਲਦੇ ਹਾਂ।
 - ਚੰਗਾ, ਹੁਣ ਅਸੀਂ ਚੱਲਦੇ ਹਾਂ।
 - ਚੰਗਾ ! ਹੁਣ ਅਸੀਂ ਚੱਲਦੇ ਹਾਂ।
 - ਚੰਗਾ; ਹੁਣ ਅਸੀਂ ਚੱਲਦੇ ਹਾਂ।
96. Chrysanthemum ਫੁੱਲ ਦਾ ਪੰਜਾਬੀ ਵਿੱਚ ਨਾਂ ਕੀ ਹੈ ?
- ਚਮੇਲੀ
 - ਠਰਗਸ
 - ਗੁਲਦਾਊਦੀ
 - ਗੁਲਨਾਰ
97. ਪੱਛਮੀ ਪੰਜਾਬ ਵਿੱਚ ਸਾਂਦਲਬਾਰ ਦੀਆਂ ਔਰਤਾਂ ਦੇ ਨਾਚ ਦਾ ਨਾਂ ਹੈ -
- ਗਿੱਧਾ
 - ਸੰਮੀ
 - ਮਾਹੀਆ
 - ਮਲਵਈ ਗਿੱਧਾ

98. 'ਭੁੱਖੇ ਦੀ ਧੀ ਰੱਜੀ ਉਡਾਉਣ ਲੱਗੀ' ਅਖਾਣ ਵਿੱਚ ਖਾਲੀ ਥਾਂ ਤੇ ਸਹੀ ਸ਼ਬਦ ਭਰੋ।

- (a) ਧਨ
- (b) ਮੌਜ
- (c) ਤੋਤੇ
- (d) ਖੇਹ

99. 'ਆਪ ਅੱਜ-ਕਲ੍ਹ ਕੀ ਕਰਦੇ ਹੋ?' - ਕਿਹੜਾ ਪੁਰਖ ਹੈ ?

- (a) ਪਹਿਲਾ ਪੁਰਖ
- (b) ਦੂਜਾ ਪੁਰਖ
- (c) ਤੀਜਾ ਪੁਰਖ
- (d) ਇਨ੍ਹਾਂ ਵਿੱਚੋਂ ਕੋਈ ਨਹੀਂ

100. ਸਮਾਨਾਰਥਕ ਸ਼ਬਦਾਂ ਦੀ ਸੂਚੀ ਮਿਲਾਓ :

ਸੂਚੀ I	ਸੂਚੀ II
A. ਤਹਿਜ਼ੀਬ	i. ਦੋਸਤੀ
B. ਗੋਂ	ii. ਜਿਸਮ
C. ਜੁੱਸਾ	iii. ਸੱਭਿਅਤਾ
D. ਸੱਜਣਤਾ	iv. ਮਤਲਬ

ਉਪਰੋਕਤ ਦਾ ਸਹੀ ਮਿਲਾਨ ਕਰੋ :

- (a) A-iii, B-iv, C-i, D-ii
- (b) A-iii, B-iv, C-ii, D-i
- (c) A-iii, B-ii, C-iv, D-i
- (d) A-ii, B-iii, C-iv, D-i

- 101.** The 'PGS', with respect to the organic certification, stands for :
- (a) Pesticides Governance Scheme (b) Paramparagat Gram Scheme
(c) Participatory Governance Service (d) Participatory Guarantee System
- 102.** The most common colour of the cultivated groundnut flowers is :
- (a) Yellow (b) Pink
(c) Blue (d) Red
- 103.** Particles ranging from 0.01 – 0.03 mm diameter would be considered as
- (a) Sand (b) Silt
(c) Clay (d) Gravel
- 104.** Rice is basically a :
- (a) Short day plant (b) Long day plant
(c) Day-neutral plant (d) Both (b) and (c)
- 105.** The theoretical yield of parent acid from an active ingredient is termed as
- (a) Active equivalent (b) Technical ingredient
(c) Acid equivalent (d) Acid value
- 106.** Which of the following is/are advantages of crop rotation ?
1. To reduce the pest and disease incidence.
 2. To maintain the fertility status of the soils
 3. To keep the weeds under control
- (a) 1 only (b) 2 only
(c) 1 and 3 only (d) 1, 2 and 3
- 107.** The Dapog method of raising rice nursery was introduced in India from
- (a) Burma (b) Japan
(c) USA (d) Philippines
- 108.** Which of the following statement(s) is/are correct ?
1. Phenylmercuric acetate (PMA) is a chemical used in agriculture crops in order to increase transpiration.
 2. Enforced dormancy is associated with deeper placement of seeds.
- (a) 1 only (b) 2 only
(c) Both 1 and 2 (d) Neither 1 nor 2

109. Choose the most suitable option :

- (a) *Commelina benghalensis* is a monocot weed unlike *Crotalaria verrucosa*
- (b) *Crotalaria verrucosa* is a monocot weed unlike *Commelina benghalensis*
- (c) Both *Commelina benghalensis* and *Crotalaria verrucosa* are monocot weeds
- (d) Neither *Commelina benghalensis* nor *Crotalaria verrucosa* are monocot weeds

110. Choose the correct option :

- (a) Hay fever is commonly caused by Ambrosia
- (b) Weed introduction from some other part of the world is called Antagonism
- (c) Both (a) and (b)
- (d) None of the above

111. Golden rice is a rich source of

- (a) Vitamin A
- (b) Vitamin B
- (c) Ascorbic acid
- (d) Vitamin K

112. Consider the following statements and choose the correct option :

1. CH₄ is released from paddy fields.
 2. Pearl millet can be transplanted.
 3. Scientific name of Kodo millet is *Paspalum scrobiculatum*
- (a) 1 only
 - (b) 1 and 2 only
 - (c) 2 and 3 only
 - (d) 1, 2 and 3

113. Sweet corn is :

- (a) *Zea mays indentata*
- (b) *Zea mays indurata*
- (c) *Zea mays saccharata*
- (d) *Zea mays amylacea*

114. The oil content in groundnut seeds is about %

- (a) 45
- (b) 25
- (c) 15
- (d) 05

115. The fruit of rapeseed and mustard is known as

- (a) Pod
- (b) Caryopsis
- (c) Siliqua
- (d) Dutum

116. Nipping in gram means a process of

- (a) Removal of all buds present in the axil of the leaves
- (b) Removal of leaves
- (c) Removal of terminal bud
- (d) Burning of leaves

117. Which of the following soil water is the most useful for plants ?

- (a) Gravitational water
- (b) Capillary water
- (c) Hygroscopic water
- (d) Superfluous water

118. The force of attraction that binds the molecules of the same kind is :

- (a) Adhesion
- (b) Matric force
- (c) Cohesion
- (d) Interface

119. The 'Leaf colour chart' (LCC) is used for judging the amount of nitrogen application to the standing crop(s) of which of the following ?

- (a) Gram and mustard
- (b) Rice
- (c) Mustard and sorghum
- (d) Sorghum and gram

120. Extension is a :

- (a) One way flow of message
- (b) Two way flow of message
- (c) Restricted way flow of message
- (d) None of the above

SPACE FOR ROUGH WORK

SPACE FOR ROUGH WORK

READ INSTRUCTIONS BEFORE FILLING ANY DETAILS OR ATTEMPTING TO ANSWER THE QUESTIONS.

Booklet Sr. No.



Question
Booklet Set

D

Candidate's Name _____

Father's Name _____

Date of Birth :
D D M M Y Y Y Y

OMR Response Sheet No. _____ Roll No. _____

Candidate's Signature :

(Please sign in the box)

[Total Questions : 120]

[Time Allowed : 2 Hours]

INSTRUCTIONS

1. The candidate shall NOT open this booklet till the time they are told to do so by the Invigilation Staff. However, in the meantime, the candidate can read these instructions carefully and subsequently fill the appropriate columns given above in CAPITAL letters. The candidate may also fill the relevant boxes 1 to 9 of the Optical Mark Reader (OMR) response sheet, supplied separately.
2. Use only blue or black **ball point pen** to fill the relevant columns on this page as well as in OMR sheet. Use of Ink pen or any other pen is not allowed.
3. Other than filling credentials/information in specific space allotted above, do not write anything else on the Test Booklet. Space for rough work is provided at the end. The candidate shall be liable for any adverse effect if the information given above is wrong or illegible or incomplete.
4. Each candidate is required to attempt 120 questions in 120 minutes, except for orthopedically/visually impaired candidates, who would be given 40 extra minutes, for marking correct responses on the OMR sheet.
5. The question paper booklet has **28** pages.
6. The candidates, when allowed to open the question paper booklet, must first check the entire booklet to confirm that the booklet has complete number of pages, the pages are printed correctly and there are no blank or torn pages. In case there is any such error in the question paper booklet then the candidate should IMMEDIATELY bring this fact to the notice of the Invigilation Staff and obtain a new booklet of the same series as given earlier.
7. The serial number of the new Question booklet, if issued for some reason, should be entered in the relevant column of the OMR. The Invigilation Staff must make necessary corrections in their record regarding the change in the serial no. of Question booklet.
8. The paper consists of total 480 Marks. Each question shall carry 4 marks. There are four options for each question and the candidate has to mark the MOST APPROPRIATE answer on the OMR response sheet.
9. There is **negative marking** (1 mark for each question) for questions wrongly answered by the candidate.
10. If a candidate gives more than one answer, it will be treated as a wrong answer even if one of the given answers is correct. There will be same penalty, as above, to that question.
11. If Question is left blank, i.e. question remains unattempted, there will be no penalty for that question.
12. Use of Electronic/Manual Calculator is prohibited.
13. The candidate **MUST READ INSTRUCTIONS BEHIND THE OMR SHEET** before answering the questions and check that two carbon copies attached to the OMR sheet are intact.

1. Identify the fauna from the following information :

Nature : Scavengers

Common species : White rumped, Slender-Billed, Red-headed

Common threats : Use of diclofenac for veterinary purposes

Impact of decline in population : Increased risk of spread of rabies and ill impact on observance of last rites by Parsis in ‘Tower of Silence’.

(a) Pygmy hog

(b) Forest Owlet

(c) Sandpiper

(d) Vulture

2. With respect to achievements of Indians in the field of Science and Technology, match the following :

List I

List II

1. Inelastic theory of scattering

P. S. Chandrasekhar

2. Work on stellar evolution and white dwarfs

Q. C.V. Raman

3. Contribution to quantum mechanics and development of Bose-Einstein Condensate

R. S.N. Bose

4. Research on Crescograph and Electromagnetic Waves

S. J.C. Bose

Code :

1 2 3 4

(a) P Q R S

(b) Q P S R

(c) Q P R S

(d) P Q S R

3. ‘Naz foundation v. Government of NCT of Delhi’, ‘National Legal Services Authority v. Union of India’, ‘Navtej Singh Johar v. Union of India’ cases are often heard in news in context of :

(a) Man-Animal conflict and wildlife conservation

(b) LGBTQIA + rights

(c) Simultaneous elections to Lok Sabha and State Legislatures

(d) Reservation based on caste

4. Beginning with Dwarka, Gujarat, if you travel to Jagannath Temple, Puri along the coast, what's the correct order of cities you might visit ?
1. Mumbai
 2. Mangalore
 3. Panaji
 4. Vishakapatnam
- (a) 1, 2, 3, 4
(b) 3, 1, 2, 4
(c) 1, 3, 2, 4
(d) 4, 1, 2, 3
5. Bibi Bhani, the daughter of Sikh Guru 'X', was married to Sikh Guru 'Y'. 'Z', one of the sons of Guru 'Y', was married to Mata Ganga and became _____ guru of sikhs ?
- (a) Third
(b) Fourth
(c) Fifth
(d) Sixth
6. As per Article 266(1) of Indian Constitution, all revenues received by the Government of India, all loans raised by that government by the issue of treasury bills, loans or ways and means advances and all moneys received by that government in repayment of loan shall form :
- (a) Consolidated Fund of India
(b) Contingency Fund of India
(c) Public Account of India
(d) Current Account of India
7. Which of the following abbreviations, often heard in news in context of Indian Economy, is incorrectly matched ?
- (a) CAG : Comptroller and Auditor General
(b) CGST : Customs, Goods and Service Taxes
(c) EPFO : Employees' Provident Fund Organization
(d) FPI : Foreign Portfolio Investment

8. What term is often seen in news and represents a style of politics where 'Objective facts are less influential in shaping public opinion than appeals to emotion and personal belief' ?
- (a) Orwellian Politics (b) Post Truth Politics
(c) Utopian Politics (d) Fabian Politics
9. Arrange chronologically, the following events of modern history of Punjab :
1. Rajiv-Longowal accord
 2. Creation of Ropar division as one of the five divisions of Punjab
 3. Trifurcation of Punjab including constitution of separate state of Haryana
 4. Guru Ka Bagh Morcha
- (a) 4, 2, 1, 3 (b) 4, 3, 1, 2
(c) 3, 4, 1, 2 (d) 3, 4, 2, 1
10. What is the minimum number of districts that you must pass through, to reach birthplace of Udham Singh from Bhagat Singh museum at Khatkar Kalan (including the origin and destination districts) ?
- (a) 4 (b) 5 (c) 6 (d) 7
11. Total 280 candidates are undergoing training at Punjab Police Academy. All these candidates drink either one, two or three drinks out of tea, coffee and juice. It is known that :
- I. Number of candidates who drink tea, coffee and juice are in Arithmetic Progression in that order.
 - II. Number of candidates who drink tea and coffee, tea and juice, and coffee and juice are in Arithmetic Progression in that order.
 - III. Number of candidates who drink only tea, only coffee and only juice are in Arithmetic Progression in that order.
 - IV. Number of candidates who drink only one drink is two times the number of candidates who drink only two drinks.
 - V. Number of candidates who drink only two drinks is nine times the number of candidates who drink all the three drinks.
- How many candidates drink coffee ?
- (a) 130 (b) 110
(c) 60 (d) 70

12. A cuboid has six sides of different colours. The red side is opposite to black. The blue side is adjacent to white. The brown side is adjacent to blue. The red side is face down. Which one of the following would be the opposite to brown ?
- (a) Blue
 - (b) Black
 - (c) White
 - (d) Red
13. A wheat merchant has four varieties of wheat – A, B, C, D with him. He mixed the entire quantity of the wheat of varieties A and B with him. With this mixture, if he mixes the entire quantity of wheat of variety C, which costs ₹ 20 per kg, the mixture so formed would cost ₹ 25 per kg. Instead, if he mixes with it the entire quantity of wheat of variety D, which costs ₹ 36 per kg, the mixture so formed would cost ₹ 31 per kg. If the entire quantity of wheat of variety D is thrice that of wheat of variety C, how much (in ₹) would the mixture of the entire quantity of wheat of all 4 varieties cost
- (a) ₹ 29.5 per kg
 - (b) ₹ 28 per kg
 - (c) ₹ 30.5 per kg
 - (d) ₹ 26.5 per kg
14. **Statement 1 :** The cost of 2 pens and 3 pencils is \$10.
Statement 2 : The cost of 1 pen and 2 pencils is \$5.
- To answer the question, ‘What is the cost of 3 pens and 4 pencils ?’,
- (a) Statement 1 alone is sufficient, but statement 2 alone is not sufficient.
 - (b) Statement 2 alone is sufficient, but statement 1 alone is not sufficient.
 - (c) Both statements together are sufficient, but neither statement alone is sufficient.
 - (d) Each statement alone is sufficient.

15. In terms of population, Chennai is much larger than Bangalore. Since Mumbai has a greater population than Delhi, it follows that Chennai has more inhabitants than Delhi.

All of the following make the argument more logically correct EXCEPT :

- (a) Delhi has fewer inhabitants than Bangalore
- (b) Bangalore has the same number of inhabitants as Delhi
- (c) Chennai has the same number of inhabitants as Mumbai
- (d) Mumbai has more inhabitants than Bangalore

16. **Directions (Question Nos. 16) :** The following table provides the details about the number of students in 5 different areas of expertise in MBA over the years.

Years	Areas of Expertise in MBA				
	Marketing	Finance	Business Analyst	HR	Operations
2017	71	149	150	133	116
2018	126	61	105	114	154
2019	84	109	121	104	83
2020	65	62	142	155	97
2021	137	57	79	121	87

In which year was the percentage of students participating in 'Business Analyst' area of expertise maximum ?

- (a) 2017
- (b) 2018
- (c) 2019
- (d) 2020

17. Paresh can finish a certain piece of work in 35 days at a stretch. But after few days, he increases his speed by 60% and finishes the work in 26 days. Find after how many days did he increase his speed ?
- (a) 8
 - (b) 9
 - (c) 10
 - (d) 11
18. A coconut tree is taller than a pine tree by 6 meters. A woodcutter starts cutting the coconut tree from 12 m above the ground so that after the coconut tree falls, its top just touches the bottom of the pine tree. Had he cut the pine tree from 8 m above the ground, the top of the pine tree would have fallen in a way that its top would just have touched the bottom of the coconut tree. What is the height of the coconut tree ?
- (a) 33 meters
 - (b) 29 meters
 - (c) 27 meters
 - (d) 21 meters
19. How many two-digit numbers are there such that the product of their digits is a perfect square greater than 1 ?
- (a) 18
 - (b) 16
 - (c) 14
 - (d) 12
20. Five friends Ram, Rakesh, Ramesh, Rohit and Rupesh are sitting on a round table facing the center. Rakesh is sitting to the left of Ram. Rohit is sitting to the right of Ramesh. Ram and Ramesh are sitting next to each other. Where is Rupesh sitting with respect to Rohit ?
- (a) Immediate left
 - (b) Second person to the left
 - (c) Third person to the left
 - (d) Fourth person to the left

21. 'ਨਿੱਕੜੀ ਸੂਈ ਵੱਟਮਾਂ ਧਾਗਾ ਬੈਠ ਕਸੀਦਾ ਕੱਢ ਰਹੀਂ ਆਂ' ਕੀ ਹੈ ?

- (a) ਘੋੜੀ
- (b) ਬੋਲੀ
- (c) ਲੋਰੀ
- (d) ਸੁਹਾਗ

22. ਜੇ ਕਵਿਤਾ ਨੂੰ ਦਿਲ ਦੀ ਬੋਲੀ ਸਮਝਿਆ ਜਾਂਦਾ ਹੈ ਤਾਂ ਵਾਰਤਕ ਨੂੰ ਦਿਮਾਗ ਦੀ ਸਿਰਜਣਾ ਖਿਆਲ ਕੀਤਾ ਜਾਂਦਾ ਹੈ। ਇਸ ਦਾ ਅਰਥ ਇਹ ਹੈ ਕਿ ਕਵਿਤਾ ਵਿਚ ਭਾਵ ਅਤੇ ਵਾਰਤਕ ਵਿਚ ਵਿਚਾਰ ਪਰਧਾਨ ਹੁੰਦੇ ਹਨ। ਵੈਸੇ ਵੀ ਸਾਹਿਤਕ ਇਤਿਹਾਸ ਵਿਚ ਕਵਿਤਾ ਪਹਿਲਾਂ ਹੋਂਦ ਵਿਚ ਆਉਂਦੀ ਹੈ ਅਤੇ ਵਾਰਤਕ ਬਾਅਦ ਵਿਚ ਲਿਖੀ ਜਾਣੀ ਸ਼ੁਰੂ ਹੁੰਦੀ ਹੈ। ਇਸ ਦਾ ਕਾਰਨ ਇਹ ਵੀ ਮੰਨਿਆ ਜਾਂਦਾ ਹੈ ਕਿ ਮਨੁੱਖ ਮੁੱਢਲੇ ਪੜਾਅ ਤੇ ਬੁਨਿਆਦੀ ਪ੍ਰਵਿਰਤੀਆਂ ਦੀ ਪੈਦਾਵਾਰ ਜਜ਼ਬਿਆਂ ਦੇ ਅਧੀਨ ਵਲਵਲਿਆਂ ਵਾਲੀ ਦਿਲ ਦੀ ਬੋਲੀ ਬੋਲਦਾ ਹੈ ਪਰੰਤੂ ਸਭਿਅਤਾ ਦੇ ਵਿਕਾਸ ਨਾਲ ਉਹ ਆਪਣੀਆਂ ਸੱਭਿਆਚਾਰਕ ਸਿਰਜਣਾਵਾਂ ਰਾਹੀਂ ਬੁਨਿਆਦੀ ਪ੍ਰਵਿਰਤੀਆਂ ਨੂੰ ਬੌਧਿਕਤਾ ਦੇ ਅਧੀਨ ਨਿਯੰਤਰਿਤ ਕਰਨਾ ਸ਼ੁਰੂ ਕਰ ਦਿੰਦਾ ਹੈ। ਸੋ ਸਭਿਅਤਾ ਦੇ ਵਿਕਾਸ ਨਾਲ ਦਿਮਾਗ ਦੀ ਵਰਤੋਂ ਵਧੇਰੇ ਹੋਣ ਲੱਗਦੀ ਹੈ, ਭਾਵ ਵਿਚਾਰ ਪ੍ਰਧਾਨ ਹੋਣ ਲੱਗਦੇ ਹਨ। ਇਸ ਤੋਂ ਇਹ ਸਿੱਟਾ ਤਾਂ ਨਹੀਂ ਕੱਢਿਆ ਜਾ ਸਕਦਾ ਕਿ ਕਵਿਤਾ ਕੇਵਲ ਭਾਵ ਪਰਧਾਨ ਅਤੇ ਵਾਰਤਕ ਕੇਵਲ ਵਿਚਾਰ ਪਰਧਾਨ ਹੁੰਦੀ ਹੈ ਪਰ ਇਕ ਗੱਲ ਪੱਕੀ ਹੈ ਕਿ ਅਨੁਪਾਤਕ ਤੌਰ ਤੇ ਕਵਿਤਾ ਵਿਚ ਭਾਵਾਂ ਦੀ ਮਾਤਰਾ ਵਧੇਰੇ ਹੁੰਦੀ ਹੈ ਜਦੋਂ ਕਿ ਵਾਰਤਕ ਵਿਚ ਵਿਚਾਰਾਂ ਦੀ ਪੇਸ਼ਕਾਰੀ ਵਧੇਰੇ ਹੁੰਦੀ ਹੈ। ਮਨੁੱਖ ਆਮ ਬੋਲਚਾਲ ਤਾਂ ਮੁੱਢ ਵਿਚ ਵੀ ਵਾਰਤਕ ਅੰਦਰ ਹੀ ਕਰਦਾ ਹੋਵੇਗਾ ਪਰ ਕਲਾਤਮਿਕ ਸਿਰਜਣਾ ਪਹਿਲਾਂ ਪਹਿਲ ਕਵਿਤਾ ਵਿਚ ਹੀ ਹੋਈ ਹੋਵੇਗੀ।

ਉਪਰੋਕਤ ਪੈਰਾ ਦੇ ਅਧਾਰ ਤੇ ਉੱਤਰ ਦਿਓ:

ਮਨੁੱਖ ਨੇ ਰੋਜ਼ਾਨਾ ਜੀਵਨ ਵਿਚ ਘਰੇਲੂ ਪੱਧਰ 'ਤੇ ਗੱਲਬਾਤ ਲਈ ਸਭ ਤੋਂ ਪਹਿਲਾਂ ਕਿਹੜੇ ਸਾਹਿਤਕ ਰੂਪ ਦੀ ਵਰਤੋਂ ਕੀਤੀ ਹੋਵੇਗੀ ?

- (a) ਕਵਿਤਾ
- (b) ਵਾਰਤਕ
- (c) ਕਵਿਤਾ ਅਤੇ ਵਾਰਤਕ ਦੋਨੋਂ
- (d) ਬੋਲੀਆਂ

23. 'ਛਾਹ ਵੇਲਾ' ਕਿਹੜੇ ਸਮੇਂ ਨੂੰ ਕਿਹਾ ਜਾਂਦਾ ਹੈ ?

- (a) ਸ਼ਾਮ ਦੇ ਸਮੇਂ ਨੂੰ
- (b) ਦੁਪਹਿਰ ਦੇ ਸਮੇਂ ਨੂੰ
- (c) ਰਾਤ ਦੇ ਸਮੇਂ ਨੂੰ
- (d) ਸਵੇਰ ਦੇ ਸਮੇਂ ਨੂੰ

24. ਹੇਠ ਲਿਖੇ ਵਾਕ ਨੂੰ ਪੂਰਾ ਕਰਨ ਲਈ ਸਹੀ ਸ਼ਬਦ ਜੁੱਟ ਚੁਣੋ :

_____ ਦੀ ਵੰਡ ਨੇ ਦੋਵਾਂ ਭਰਾਵਾਂ ਨੂੰ _____ ਪਹੁੰਚਾ ਦਿੱਤਾ।

- (a) ਜੈਦਾਦ, ਕਚਹਿਰੀ
- (b) ਜਾਇਦਾਦ, ਕਚੈਹਰੀ
- (c) ਜੈਦਾਤ, ਕਚਹਰੀ
- (d) ਜਾਇਦਾਦ, ਕਚਹਿਰੀ

25. ਹੇਠ ਲਿਖਿਆਂ ਵਿੱਚੋਂ ਸਹੀ ਵਿਸ਼ਰਾਮ ਚਿੰਨ੍ਹ ਵਾਲਾ ਵਾਕ ਚੁਣੋ :

- (a) ਚੰਗਾ ਹੁਣ ਅਸੀਂ ਚੱਲਦੇ ਹਾਂ।
- (b) ਚੰਗਾ, ਹੁਣ ਅਸੀਂ ਚੱਲਦੇ ਹਾਂ।
- (c) ਚੰਗਾ ! ਹੁਣ ਅਸੀਂ ਚੱਲਦੇ ਹਾਂ।
- (d) ਚੰਗਾ; ਹੁਣ ਅਸੀਂ ਚੱਲਦੇ ਹਾਂ।

26. Chrysanthemum ਫੁੱਲ ਦਾ ਪੰਜਾਬੀ ਵਿੱਚ ਨਾਂ ਕੀ ਹੈ ?

- (a) ਚਮੇਲੀ
- (b) ਨਰਗਸ
- (c) ਗੁਲਦਾਊਦੀ
- (d) ਗੁਲਨਾਰ

27. ਪੱਛਮੀ ਪੰਜਾਬ ਵਿੱਚ ਸਾਂਦਲਬਾਰ ਦੀਆਂ ਔਰਤਾਂ ਦੇ ਨਾਚ ਦਾ ਨਾਂ ਹੈ -

- (a) ਗਿੱਧਾ
- (b) ਸੰਮੀ
- (c) ਮਾਹੀਆ
- (d) ਮਲਵਈ ਗਿੱਧਾ

28. 'ਭੁੱਖੇ ਦੀ ਧੀ ਰੱਜੀ ਉਡਾਉਣ ਲੱਗੀ' ਅਖਾਣ ਵਿੱਚ ਖਾਲੀ ਥਾਂ ਤੇ ਸਹੀ ਸ਼ਬਦ ਭਰੋ।

- (a) ਧਨ
- (b) ਮੌਜ
- (c) ਤੋਤੇ
- (d) ਖੇਹ

29. 'ਆਪ ਅੱਜ-ਕਲ੍ਹ ਕੀ ਕਰਦੇ ਹੋ?' - ਕਿਹੜਾ ਪੁਰਖ ਹੈ ?

- (a) ਪਹਿਲਾ ਪੁਰਖ
- (b) ਦੂਜਾ ਪੁਰਖ
- (c) ਤੀਜਾ ਪੁਰਖ
- (d) ਇਨ੍ਹਾਂ ਵਿਚੋਂ ਕੋਈ ਨਹੀਂ

30. ਸਮਾਨਾਰਥਕ ਸ਼ਬਦਾਂ ਦੀ ਸੂਚੀ ਮਿਲਾਓ :

ਸੂਚੀ I	ਸੂਚੀ II
A. ਤਹਿਜ਼ੀਬ	i. ਦੋਸਤੀ
B. ਗੌਂ	ii. ਜਿਸਮ
C. ਜੁੱਸਾ	iii. ਸੱਭਿਅਤਾ
D. ਸੱਜਣਤਾ	iv. ਮਤਲਬ

ਉਪਰੋਕਤ ਦਾ ਸਹੀ ਮਿਲਾਨ ਕਰੋ :

- (a) A-iii, B-iv, C-i, D-ii
- (b) A-iii, B-iv, C-ii, D-i
- (c) A-iii, B-ii, C-iv, D-i
- (d) A-ii, B-iii, C-iv, D-i

31. Match the following :

List I

1. Author of the famous book 'Species Plantarum'
2. Proposed the concept of 'plant ideotypes' for the first time
3. Coined the term 'heterosis' for the first time

List II

- P. Carl Linnaeus
- Q. G.H. Shull
- R. C.M. Donald

Code :

- | | 1 | 2 | 3 |
|-----|----------|----------|----------|
| (a) | P | Q | R |
| (b) | R | Q | P |
| (c) | P | R | Q |
| (d) | R | P | Q |

32. Consider the following statements :

1. The wheat grain protein is called 'X'.
2. Initially, the potassium deficiency symptoms in barley appear on 'Y'.

Identify correct pair of X and Y (respectively)

- (a) Zein and Upper leaves
- (b) Gluten and Upper leaves
- (c) Glycinin and Middle leaves
- (d) Gluten and Lower leaves

33. If 30 maize plants are counted in 5 metre of row length and the row spacing is 60 cm, what will be the population density of maize ?

- | | |
|-----------------------------|-----------------------------|
| (a) 50,000 plants/ hectare | (b) 75,000 plants/hectare |
| (c) 1,00,000 plants/hectare | (d) 1,25,000 plants/hectare |

34. Flooding kills the weeds by excluding the _____ from their environment.

- | | |
|---------------|--------------|
| (a) Air | (b) Water |
| (c) Nutrients | (d) Microbes |

35. Loss of horizontal resistance to a plant disease during a breeding cycle is

- (a) Boom and bust cycle
- (b) Vertifolia effect
- (c) Quantitative resistance
- (d) Pathovar

36. Soils with pH < 8.5, EC > 4 dS m⁻¹ and ESP less than 15 are designated as

- (a) Saline soils (b) Alkali soils
(c) Black alkali soils (d) Sodic soils

37. Pick the correct statement :

- (a) One standard atmosphere is equal to 101,325 hPa
(b) One standard atmosphere is equal to 101.325 hPa
(c) Generally, dry adiabatic lapse rate per 100 m ascent is 9.8°C
(d) Generally, dry adiabatic lapse rate per 100 m ascent is 0.98°C

38. Consider the following statements and choose the incorrect ones :

1. Widely spaced isobars represent steep change in pressure
 2. Cumulo-nimbus clouds are associated with heavy rainfall, thunder and lightning.
 3. India receives less than normal rainfall under the influence of La Nina.
- (a) 2 only (b) 3 only
(c) 1 and 2 only (d) 1 and 3 only

39. Match the following entities in list I with corresponding entries in List II :

List I

1. Father of modern organic agriculture
2. Father of Indian Plant Pathology
3. The father of extension in a global context

List II

- P. Sir Albert Howard
Q. E.J. Butler
R. B.B. Mundkur
S. Paul Leagans
T. Sigmund Freud

Code :

- | | 1 | 2 | 3 |
|-----|----------|----------|----------|
| (a) | R | Q | P |
| (b) | P | Q | S |
| (c) | Q | R | S |
| (d) | Q | R | T |

40. Yellow vein mosaic of okra is primarily transmitted by

- (a) Aphid (b) White fly
(c) Leaf hopper (d) Nematode

41. Choose the correct match :

- (a) Mancozeb and Thiram : Systemic fungicides
- (b) Glyphosate : Selective contact herbicide
- (c) Carbendazim : Systemic fungicide
- (d) Glyphosate : Nonselective contact herbicide

42. Fernoxone is _____

- (a) 2, 4-D ester salt
- (b) 2, 4-D amine salt
- (c) 2, 4-D sodium salt
- (d) 2, 4-D ester amine salt

43. Crop rotations are effective in controlling

- (a) Crop bound weeds but not crop associated weeds
- (b) Both crop bound weeds and crop associated weeds
- (c) Crop associated weeds but not crop bound weeds
- (d) Neither crop bound weeds nor crop associated weeds

44. The bio-agent useful for managing water hyacinth is

- (a) *Bactra* sp.
- (b) *Cyrtobagous salviniae*
- (c) *Neochetina bruchi*
- (d) *Dactylopius* sp.

45. Choose the correct options :

1. First herbicide-resistant weed in the world: *Amaranthus* sp.
2. First herbicide-resistant weed in the world: *Senecio vulgaris*
3. *Zea mays ceratina* is flour corn
4. *Zea mays ceratina* is waxy corn

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

46. Consider the following statements and choose the correct options :

1. Leaf reddening in cotton is due to deficiency of Mg.
2. Leaf reddening in cotton is due to deficiency of Zn and Ca.
3. Diamond back moth is a pest of crucifers.
4. Diamond back moth is a pest of pulses and oil seeds.

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

47. The Bhopal Gas Tragedy was due the leakage of _____ gas.
- (a) Hexane (b) Methane
(c) Methyl thiocyanate (d) Methyl isocyanate
48. If two chemicals, A and B have LD₅₀ values of 85 mg kg⁻¹ and 5010 mg kg⁻¹ respectively, which one of the following statement is true ?
- (a) A is less toxic than B (b) B is less toxic than A
(c) Both have equal toxicity (d) Both are safe chemicals
49. Which of the following is the most suitable combination related to the requirements for soil solarisation ?
- (a) Summer season; black polythene; moist soil
(b) Winter season; black polythene; dry soil
(c) Summer season; transparent polythene; moist soil
(d) Summer season; transparent polythene; dry soil
50. Among the following, which group of elements is immobile in plants :
- (a) Ca, Cu, B, Fe (b) Cu, Mn, Mg, B
(c) Ca, N, K, S (d) S, Cu, Mg, B
51. Which among the following is known as the “Queen of Oilseeds” ?
- (a) Groundnut (b) Sesame
(c) Sunflower (d) Mustard
52. Which type of earthworm is useful for vermicomposting ?
- (a) Epigeic (b) Mesogeic
(c) Endogeic (d) Endogeic or Mesogeic
53. 1. Central Soil Salinity Research Institute is located at X.
2. The first KVK in India was established in 1974 at Y.
Identify X and Y.
- (a) Karnal and Puducherry respectively
(b) Bathinda and Ahmedabad respectively
(c) Hyderabad and Delhi respectively
(d) Jaipur and Kolkata respectively

- 54.** Pick the correct statement :
- (a) The largest source of irrigation in India is canals
 - (b) Sunflower is a cross pollinated crop
 - (c) Deep ploughing is recommended twice for every season
 - (d) World Wetlands Day is celebrated on 21st March
- 55.** Among the following, which crop has the highest water requirement in general ?
- (a) Wheat
 - (b) Cotton
 - (c) Sugarcane
 - (d) Rye
- 56.** Author of the book 'The Road Back to Nature : Regaining the Paradise Lost' is
- (a) Rachel Carlson
 - (b) Subhash Palekar
 - (c) Yoshikazu Kawaguchi
 - (d) Masanobu Fukuoka
- 57.** The process of dissolution and removal of sesquioxides from A horizon and their deposition in B horizon is called :
- (a) Podzolisation
 - (b) Laterisation
 - (c) Humification
 - (d) Calcification
- 58.** The phosphorus fixing capacity of clay minerals may be found in order :
- (a) Vermiculite > Illite > Montmorillonite > Muscovite
 - (b) Montmorillonite > Vermiculite > Kaolinite > Muscovite
 - (c) Muscovite > Illite > Montmorillonite > Vermiculite
 - (d) Illite > Montmorillonite > Muscovite > Vermiculite
- 59.** The organic matter content (%) of soil with 1.3 % organic carbon is :
- (a) 2.60
 - (b) 1.95
 - (c) 0.65
 - (d) 2.24
- 60.** Among the following, which crop yields leaf fibre :
- (a) Jute
 - (b) Cotton
 - (c) Agave
 - (d) Mesta

- 65.** Safflower in India is usually grown during :
- (a) Rabi season
 - (b) Kharif season
 - (c) Zaid season
 - (d) Rabi, kharif and zaid seasons
- 66.** Compared to popular rice varieties, 'DRR Dhan 48' and 'DRR Dhan 49' contain higher levels of :
- (a) Iron
 - (b) Zinc
 - (c) Boron
 - (d) Molybdenum
- 67.** 1. High yielding dwarf varieties of wheat were developed by X
2. The term 'Evergreen Revolution' has been given by Y
Identify X and Y (respectively) :
- (a) Dr. M. S. Swaminathan and Dr. R. S. Paroda
 - (b) Dr. R. S. Paroda and C. T. Patel
 - (c) Dr. N. E. Borlaug and Dr. M. S. Swaminathan
 - (d) Dr. B. P. Pal and Dr. R. S. Paroda
- 68.** The term 'cultivar' is used to designate a new crop type intentionally bred and released for cultivation. Who has been credited with coining of the term 'cultivar' in year 1923 ?
- (a) L.H. Bailey
 - (b) M.S. Swaminathan
 - (c) John Ray
 - (d) A.P. de Candolle
- 69.** "Tungro virus" of rice is usually transmitted by :
- (a) Gundhy bug
 - (b) Gall midge
 - (c) Army worm
 - (d) Green leaf hopper
- 70.** What would be the harvest index of rice if grain yield is 3.5 tonnes/ha and straw yield is 6.5 tonnes/ha ?
- (a) 35%
 - (b) 45%
 - (c) 54%
 - (d) 65%

- 79.** Choose the most suitable option :
- (a) *Commelina benghalensis* is a monocot weed unlike *Crotalaria verrucosa*
 - (b) *Crotalaria verrucosa* is a monocot weed unlike *Commelina benghalensis*
 - (c) Both *Commelina benghalensis* and *Crotalaria verrucosa* are monocot weeds
 - (d) Neither *Commelina benghalensis* nor *Crotalaria verrucosa* are monocot weeds
- 80.** Choose the correct option :
- (a) Hay fever is commonly caused by Ambrosia
 - (b) Weed introduction from some other part of the world is called Antagonism
 - (c) Both (a) and (b)
 - (d) None of the above
- 81.** Golden rice is a rich source of
- (a) Vitamin A
 - (b) Vitamin B
 - (c) Ascorbic acid
 - (d) Vitamin K
- 82.** Consider the following statements and choose the correct option :
1. CH₄ is released from paddy fields.
 2. Pearl millet can be transplanted.
 3. Scientific name of Kodo millet is *Paspalum scrobiculatum*
- (a) 1 only
 - (b) 1 and 2 only
 - (c) 2 and 3 only
 - (d) 1, 2 and 3
- 83.** Sweet corn is :
- (a) *Zea mays indentata*
 - (b) *Zea mays indurata*
 - (c) *Zea mays saccharata*
 - (d) *Zea mays amylacea*
- 84.** The oil content in groundnut seeds is about %
- (a) 45
 - (b) 25
 - (c) 15
 - (d) 05
- 85.** The fruit of rapeseed and mustard is known as
- (a) Pod
 - (b) Caryopsis
 - (c) Siliqua
 - (d) Dutum

- 86.** Nipping in gram means a process of
- (a) Removal of all buds present in the axil of the leaves
 - (b) Removal of leaves
 - (c) Removal of terminal bud
 - (d) Burning of leaves
- 87.** Which of the following soil water is the most useful for plants ?
- (a) Gravitational water
 - (b) Capillary water
 - (c) Hygroscopic water
 - (d) Superfluous water
- 88.** The force of attraction that binds the molecules of the same kind is :
- (a) Adhesion
 - (b) Matric force
 - (c) Cohesion
 - (d) Interface
- 89.** The 'Leaf colour chart' (LCC) is used for judging the amount of nitrogen application to the standing crop(s) of which of the following ?
- (a) Gram and mustard
 - (b) Rice
 - (c) Mustard and sorghum
 - (d) Sorghum and gram
- 90.** Extension is a :
- (a) One way flow of message
 - (b) Two way flow of message
 - (c) Restricted way flow of message
 - (d) None of the above

91. Consider the following statements :

1. 'Painted Bug' causes damage to Mustard
2. Ascochyta blight is a fungal disease of Chickpea
3. Insect 'Fall army worm' generally prefers to attack the Maize crop
4. 'BL-43' and 'BL-42' are the varieties of Barley

Choose the correct statements.

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

92. Fill in the blanks in List I from List II (Choose the most appropriate option)

List I	List II
1. The optimum seed rate for sowing one hectare of pearl millet is : <u>X</u>	P. 70-80 Kg
2. The optimum seed rate for timely sown fieldpea crop (for 1 hectare) is : <u>Y</u>	Q. 7-8 Kg
	R. 40-50 Kg
	S. 4-5 Kg

X and Y are respectively :

Code :

- | | X | Y |
|-----|----------|----------|
| (a) | P | R |
| (b) | Q | S |
| (c) | R | Q |
| (d) | S | P |

93. A number of electro-chemical changes happen in the paddy soils due to the continuous submergence or flooding. Which one of the following statements is incorrect about the electro-chemical changes in the submerged paddy soils ?

- (a) Increase in pH of the acid soil
- (b) Decrease in pH of the sodic soil
- (c) Increase in redox potential of the soil
- (d) Decrease in redox potential of the soil

- 101.** Which one of the following groups of essential plant nutrients falls in the ‘non-mineral nutrients’ category ?
- (a) Primary nutrients
 - (b) Secondary nutrients
 - (c) Micronutrients
 - (d) C, H and O
- 102.** Consider the following statements :
1. Chemically, quick lime is CaO
 2. ‘Zinc sulphate heptahydrate’ contains approximately 42% Zinc
 3. Fertilizer ‘single super phosphate’ contains approximately 42% Sulphur
- Choose the correct statement(s) :
- (a) 1 only
 - (b) 1 and 2 only
 - (c) 1 and 3 only
 - (d) 2 and 3 only
- 103.** Choose the correct statement(s) :
- (a) When greengram are allowed to sprout, Vitamin C is synthesized.
 - (b) BPH is a pest of rice that causes ‘hopper burn’ symptoms.
 - (c) Both (a) and (b)
 - (d) Neither (a) nor (b)
- 104.** For Punjab, ‘Rice (short duration) – Vegetable Pea – Wheat – Mungbean’ rotation is an example of :
- (a) One-year rotation
 - (b) One and half-year rotation
 - (c) Half-year rotation
 - (d) Two-year rotation
- 105.** Find out the quantity of atrazine herbicide WP containing 50% active ingredient (a.i.) to be applied at the rate of 1.5 kg a.i./ha.
- (a) 1.0 kg/ha
 - (b) 2.0 kg/ha
 - (c) 3.0 kg/ha
 - (d) 0.75 kg/ha

- 106.** Which one of the following nitrogenous fertilizers is not included in the Fertilizer Control Order (FCO) of India ?
- (a) Ammonium sulphate
 - (b) Calcium Ammonium Nitrate
 - (c) Ammonium nitrate
 - (d) All of the above
- 107.** Based upon morphological features, weeds have been classified into grassy, sedges and broadleaf groups. The sedges belong to the plant family :
- (a) Poaceae
 - (b) Asteraceae
 - (c) Graminae
 - (d) Cyperaceae
- 108.** Rice weeds *Echinochloa crus-galli* and *Echinochloa colona* belong to the following group of plants :
- (a) CAM plants
 - (b) C₄ plants
 - (c) C₃ plants
 - (d) Dicot plants
- 109.** If on a 20-acre farm, crops are raised on 15 acres in kharif (rainy season), 15 acres in rabi (winter season) and 20 acres in zaid (summer) during one year, what would be the cropping intensity of the farm ?
- (a) 150%
 - (b) 250%
 - (c) 350%
 - (d) 500%
- 110.** “Weirs” and “Flumes” are primarily used to :
- (a) Measure refractive index of water
 - (b) Measure the viscosity of water in the field
 - (c) Measure the density of water in the channel
 - (d) Measure the water flow in the channel

- 111.** Which one of the following is the correct pair of sulphur containing amino acids ?
- (a) Cysteine and lysine
 - (b) Cysteine and leucine
 - (c) Cysteine and methionine
 - (d) Cysteine and isoleucine
- 112.** The “Bangalore process” of anaerobic composting was developed by :
- (a) Albert Howard
 - (b) C.N. Acharya
 - (c) P.N. Arya
 - (d) Robert Howard
- 113.** Choose the most suitable option :
- (a) Sorghum grain is considered as *Caryopsis*.
 - (b) Ergot or sugary disease of sorghum is primarily caused by *Gleocercospora sorghi*.
 - (c) Both (a) and (b)
 - (d) Neither (a) nor (b)
- 114.** The optimum sowing time of chickpea in the North India under the irrigated condition is :
- (a) First fortnight of October
 - (b) Second fortnight of October
 - (c) First fortnight of December
 - (d) Second fortnight of November
- 115.** “LL 1373” and “LL 931” are the varieties of :
- (a) Kabuli chickpea
 - (b) Desi chickpea
 - (c) Linseed
 - (d) Lentil

- 116.** Consider the following statements about Soybean and choose the correct option :
- (a) It is considered to have originated in Brazil
 - (b) It is considered to have originated in USA
 - (c) It is a short day plant
 - (d) It is a temperate C4 plant
- 117.** The ‘sterility mosaic’ disease of pigeonpea is caused by X; and, Out of Sand, Peat and Clay, Y has highest Soil bulk density. Identify X and Y (respectively) :
- (a) Virus and clay
 - (b) Bacteria and clay
 - (c) Nematode and peat
 - (d) Virus and sand
- 118.** The state with highest production of green gram (mungbean) in India and country with highest production of pigeonpea in the world are respectively :
- (a) Punjab & India
 - (b) Rajasthan & India
 - (c) Madhya Pradesh & China
 - (d) Uttar Pradesh & China
- 119.** “Canola” refers to the cultivars of Oilseed rape in Canada. The seeds of “Canola” should contain :
- (a) <20% erucic acid
 - (b) >20% erucic acid
 - (c) >2% erucic acid
 - (d) <2% erucic acid
- 120.** Powdery mildew of pea and Dropsy disease in human beings may respectively be caused by :
- (a) *Fusarium pisi* and weed *Pluchea lanceolata*
 - (b) *Erysiphe pisi* and weed *Argemone Mexicana*
 - (c) *Uromyces fabae* and weed *Digera arvensis*
 - (d) *Fusarium pisi* and weed *Convolvulus arvensis*

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