

PUNJAB PUBLIC SERVICE COMMISSION

Objective Type Test (Mar-2020) for Recruitment of Agriculture Development Officer in
the Department of Agriculture and Welfare of Farmers, Government of Punjab

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

Total Questions: 120
Time Allowed: 2 Hours

Candidate's Name _____

Father's Name _____

Date of Birth

DD MM YYYY

OMR Response Sheet No. _____

Roll No. _____

Candidate's Signature (Please sign in the box)

Question
Booklet Set

C

Booklet Series No.

INSTRUCTIONS

1. The candidate shall NOT open this booklet till the time 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 out of 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. 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, by marking correct responses on the OMR sheet.
5. 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 printed correctly and there are no blank 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.
6. 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.
7. The question paper booklet has 17 pages.
8. The paper consists of total 300 Marks. Each question shall carry 2.5 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 no negative marking for wrong answers or questions not attempted by the candidate.
10. The candidate MUST READ INSTRUCTIONS BEHIND THE OMR SHEET before start answering the Questions and check that two carbon copies attached to the OMR sheet are intact.

Section I

1. For seed production of maize hybrid Parkash, the parental lines and seed rate/ acre should be
 - a) CM 139 (6 Kg.) and CM 140 (2 Kg.)
 - b) CM 40 (6 Kg.) and CM 20 (2 Kg.)
 - c) CM 5 (5.5 Kg.) and CM 20 (2.5 Kg.)
 - d) CM 5(6 Kg.) and CM 200 (2 Kg.)

2. The first stable product of C₃ pathway is
 - a) Phosphoglycerate
 - b) Oxaloacetate
 - c) Pyruvic acid
 - d) Malate dehydrogenase

3. Highest green fodder yielding variety of berseem
 - a) BL 1
 - b) BL 22
 - c) BL 42
 - d) BL 180

4. Which one of the following strategies is unsuitable for the management of 'Ascochyta blight' of chickpea?
 - a) Timely sowing to avoid the early drought
 - b) Destruction and burial of diseased crop residues by deep tillage
 - c) Spraying of NPV (Nuclear Polyhedrosis Virus) on the crop
 - d) Cultivation of resistant varieties

5. Which one of the following is "Macaroni Wheat"?
 - a) Triticum aestivum
 - b) Triticum durum
 - c) Triticum dicoccum
 - d) Triticum sphaerococcum

6. The foliar cover at the top layer of the crop plants is referred as:
 - a) Foliage canopy
 - b) Plant canopy
 - c) Crop canopy
 - d) Leaf area index

7. Spray of *Bacillus thuringiensis* is suggested to manage the:
 - a) Pod borer of chickpea
 - b) Tungro virus of rice
 - c) Aphid of mustard
 - d) Phyllody of sesame

8. Which of the following is not a fiber crop?
 - a) *Crotalaria juncea*
 - b) *Agave sisalana*
 - c) *Corchorus capsularis*
 - d) *Lens esculenta* Moench

9. As per Seed Standards for Certified Seed, the maximum number of weed seeds in one kg seed of rice is
 a) 5 b) 10 c) 15 d) 20
10. Isolation distance for producing foundation seed of bajra hybrid
 a) 400 meter b) 600 meter c) 800 meter d) 1000 meter
11. The optimum sowing time of 'toria' in Punjab is:
 a) Whole September b) Whole October
 c) Whole November d) October – November
12. 'DWRB 123' is a newly released variety of crop, particularly suitable for brewing industry.
 a) Wheat b) Sorghum c) Oats d) Barley
13. Early-Maturing Variety of sugarcane tolerant to most of the prevalent pathotypes of red rot disease and tolerant to frost
 a) CoPb 92 b) Co 118 c) CoJ 85 d) CoJ 64
14. Lucky seed drill is used for
 a) Simultaneous sowing and spray of pre emergence herbicide in direct seeded rice
 b) Simultaneous sowing and spray of pre emergence herbicide in raya
 c) Simultaneous sowing and drilling of fertilizer in direct seeded rice
 d) Simultaneous sowing and drilling of fertilizer in wheat
15. Sowing of wheat in standing rice/basmati rice requires
 a) 40 kg. seed /acre b) 45 -50 kg seed/ acre
 c) 55 – 60 kg seed /acre d) 75-80 Kg. seed / acre
16. Factors such as crop species, varieties, weeds, insect-pests, and diseases, which determine the crop configuration and performance of cropping pattern at a given site, are actually:
 a) Economical determinants of cropping system
 b) Biological determinants of cropping system
 c) Regional determinants of cropping system
 d) Occasional determinants of cropping system
17. Linseed cultivation is mainly confined to
 a) Amritsar and Ludhiana districts
 b) Gurdaspur, Hoshiarpur and Ropar districts
 c) Patiala and Ludhiana districts
 d) Bhatinda, Abhor and Fazilka districts

18. What is Phostoxin ?
- Weedicide for controlling broad weeds
 - Used for management of stored grain insects
 - Nematicide for controlling nematodes
 - Fungicide for controlling plant diseases
19. Which of the following disease is easily recognized by the appearance of long whip-like shoots covered with dusty black mass of spores?
- Red rot
 - Wilt
 - Smut
 - Leaf scald
20. Wheat variety suitable for growing under poplar plantation
- PBW 677
 - PBW 725
 - Both A and B
 - C 306
21. For proper control of weeds, it is always necessary to use
- Flood jet or flat fan spray nozzles
 - Fixed type hollow cone nozzle.
 - Double swirl spray nozzle
 - Adjustable nozzles.
22. Chemically Amistar Top 325 SC is ----- and used for controlling
- Azoxystrobin for controlling Karnal Bunt of wheat
 - Azoxystrobin for controlling leaf blight in cotton
 - Difencconazole for controlling leaf blight in cotton
 - Both B and C
23. The intensity of crop rotation can be computed by using the following formula:
- $100 \left(\frac{\text{Number of crops in the rotation}}{\text{Number of years of the rotation}} \right)$
 - $100 \left(\frac{\text{Area under each crop in the rotation}}{\text{Number of years of the rotation}} \right)$
 - $100 \left(\frac{\text{Number of years of the rotation}}{\text{Number of crops in the rotation}} \right)$
 - $100 \left(\frac{\text{Number of years of the rotation}}{\text{Area under each crop in the rotation}} \right)$
24. The copper deficiency in wheat under rice-wheat system in sandy soils can be corrected by
- Soil application of 25 Kg CuSO_4 / ha
 - Soil application of 25 Kg CuSO_4 / ha
 - Foliar application of 0.2 % CuSO_4
 - Foliar application of 0.5 % CuSO_4
25. PAU 881 is an early maturing variety of
- Mungbean
 - Pigeonpea
 - Ricebean
 - Soyabean

- 33.** Wheat variety which had tremendous popularity and maximum area, high level of tolerance to drought and heat stress but succumbing to both strip and leaf rust
 a) HD 229 b) PBW 343 c) C 306 d) PBW 550
- 34.** The inter-row space between two adjacent rows of the base crop in paired row planting is
 a) Reduced b) Increased
 c) Equal d) None of the above
- 35.** Which one is not true for canola type varieties of *Brassica*?
 a) Less than 2 % erucic acid in the oil
 b) Less than 30 micro moles glucosinolates per gram defatted meal
 c) Raya variety RCL 3 is canola type
 d) Oil rich in erucic acid is good for health
- 36.** Which one of the following is not a part of Seed Production in Lucerne?
 a) Take the last cutting of fodder in mid March.
 b) Stop irrigation after full blossoming to arrest further vegetative growth and thus ensure good seed yield.
 c) The seed crop should be sown in rows 80 to 90 cm apart.
 d) Harvest when two third of the pods dry up.
- 37.** Extra early maturing maize composite for summer season is
 a) Sangam b) Parbhat
 c) Paras d) Punjab Sathi 1
- 38.** The lower leaves become rusty brown near the base and ultimately dry up in rice due to the deficiency of
 a) Zn b) Fe c) N d) K
- 39.** Gram variety suitable forrainfed conditions
 a) PBG 7 b) GPF 2 c) PDG 4 d) PBG 5
- 40.** Sterilitymosai is viral disease of which crop and is transmitted by
 a) Moong by white fly b) Arhar by eriophyid mite
 c) Moond by eriophyid mite d) Cowpea by aphid
- 41.** The best time for sowing of potato in Punjab is:
 a) First fortnight of September
 b) Last week of September to mid-October
 c) Last fortnight of October to first week of November
 d) Second fortnight of November

60. Perennial legume fodder is
 a) Cowpea b) Clusterbean c) Berseem d) Stylo
61. Chemical promoting seed germination
 a) Potassium nitrate b) Potassium chloride
 c) Sodium chloride d) Acetic acid
62. Sesame belongs to the plant family:
 a) Pedaliaceae b) Asteraceae
 c) Poaceae d) Chenopodiaceae
63. Seed rate for soybean
 a) 25 - 30 Kg/acre b) 15 - 20 Kg/acre
 c) 10 - 12 Kg/acre d) 6 - 8 Kg/acre
64. Safflower oil is valued for its high
 a) Linoleic acid b) Erucic acid
 c) Saturated fatty acid d) Essential oil
65. Seed plot technique in potato is used to produce:
 a) Large sized potato b) Virus free seed
 c) Insect free seed d) Fungus free seed
66. Which one of the following is the correct formula to compute the ginning percentage in cotton?
 a) $[100 (\text{yield of lint in t/ha}) / (\text{yield of cotton seed in t/ha})]$
 b) $[100 (\text{yield of fibre in t/ha}) / (\text{yield of cotton seed in t/ha})]$
 c) $[100 (\text{yield of lint in t/ha}) / (\text{yield of seed cotton in t/ha})]$
 d) $[100 (\text{yield of cotton seed in t/ha}) / (\text{yield of seed cotton in t/ha})]$
67. Genetically the purest seed stock is
 a) Basic seed b) Breeder seed
 c) Foundation seed d) Registered seed
68. The amount of Ammonium Chloride required for providing one Kg. nitrogen
 a) 2.2 kg b) 6.2 kg c) 1.7 kg d) 4 kg
69. For synchronous maturity in summermoong stop last irrigation
 a) At about 35 days after sowing b) At about 45 days after sowing
 c) At about 55 days after sowing d) At about 65 days after sowing

- 78.** Shattering and jassid tolerant variety of desi cotton
 a) LH 2076 b) LD 949 c) LD 1019 d) FDK 124
- 79.** For mechanical harvesting of sugarcane by sugarcane harvester the crop should be planted
 a) 120 cm row spacing
 b) 120-30 cm paired row trench method
 c) Either A or B
 d) Plant two rows of sugarcane 30 cm apart in 20- 25- cm deep trench
- 80.** White grub in maize can be controlled by
 a) Phorate 10 % granules @15 kg/ ha mix in the soil before sowing
 b) Carbofuran 3 % granules @30 kg/ ha mix in the soil before sowing
 c) Either A or B
 d) Rogor 30 EC@ 500 ml/ ha spray
- 81.** Which of the following is not a C 4 plant?
 a) Maize b) Sorghum c) Sugarcane d) Wheat
- 82.** A Punjab farmer wants to grow 4 crops in a year, the most suitable crop rotation is
 a) Rice- mustard – wheat – moong b) Maize – potato – wheat- moong
 c) Maize- onion- wheat – cowpea d) Cotton –toria- wheat- moong
- 83.** Synthetic pyrethroids should not be used for the control of rice insect pest because it increases the population of
 a) Rice plant hopper b) Rice hispa
 c) Grasshopper d) Mite
- 84.** Summer urdbean (Blackgram) in the central and sub mountainous tracts of Punjab is sown after
 a) Potato/Toria b) Sugarcane c) Cotton d) Wheat
- 85.** Well rotten FYM contains 40-50 % moisture and one ton of such FYM supplies N, P and K equivalent to
 a) 4 kg Urea, 5 kg Superphosphate and 3 kg muriate of Potash
 b) 4 kg Urea, 10 kg Superphosphate and 6 kg muriate of Potash
 c) 2 kg Urea, 10 kg Superphosphate and 6 kg muriate of Potash
 d) 4 kg Urea, 6 kg Superphosphate and 4 kg muriate of Potash

- 86.** Which one of the following is not a bunch type variety of ground nut?
 a) TG 37 A b) SG 99 c) M 552 d) SG 84
- 87.** Which one is not the principle of system of rice intensification
 a) Reduced water application b) Increase organic matter
 c) Increase plant density d) Early & healthy plant establishment
- 88.** A carbon rich porous product obtained after the partial combustion of rice straw at low temperature in presence of little or no oxygen is
 a) Press mud b) Prali char
 c) Parli compost d) Prali wonder
- 89.** Crop logging is generally used in
 a) Maize b) Cotton c) Potato d) Sugarcane
- 90.** Which of the following statement is not true for sugarbeet?
 a) Sugarbeet is the second largest sugar crop in the world, after sugarcane.
 b) It is a short duration (6-7 months) sugar crop.
 c) The tropical sugarbeet hybrids have good potential under Punjab conditions
 d) June to mid-July is optimum time of sowing
- 91.** Yellow rust in wheat crop can be controlled by spraying of which one of the following using 200 litres of water as soon as yellow rust is noticed
 a) 100 ml Opera 18.3 SE per acre b) 200 ml Opera 18.3 SE per acre
 c) 200 g Caviet 25 WG per acre d) Either B or C
- 92.** Which of the following can control of white rust in rapeseed and mustard crops?
 a) Spray the crop with 250 g Ridomil Gold per acre at 60 and 80 days after sowing
 b) Dursban/Coroban 20 EC
 c) Furadan 3 G
 d) Seed treatment with thiram
- 93.** Rice variety Pusa 44/ Peeli Pusa is no more recommended for cultivation in Punjab because of
 a) 15- 20 % more water requirement than PR varieties
 b) Susceptible to all the prevalent pathotypes of bacterial blight
 c) Both A and B
 d) Higher broken grain percentage

94. Finger-and-toe disease and abortion in animals can be due to feeding of
- Ergot disease affected fodder
 - Downy mildew affected fodder
 - Shoot fly affect fodder
 - High HCN at early growth of the fodder
95. Suitable inter crops for autumn planted sugarcane
- Summer moongbean, mash and mentha
 - Potato, raya, toria, gobhisarson, wheat
 - Cotton
 - Pearmillet, pigeon pea, groundnut
96. Which of the following statement is not true for Dhaincha?
- Punjab Dhaincha 1 is variety of dhaincha
 - Botanically it is *Sesbaniaaculeata*
 - It takes 250 days to mature
 - It is used as a green manure crop
97. The vertical side of the furrow made in the soil away from which the turned soil is thrown is called
- Furrow face
 - Furrow slice
 - Furrow sole
 - Furrow wall
98. The variety of sugarcane which has the ability of ratooning is
- Co-205
 - Co-419
 - Co-312
 - Co-453
99. Which one of the following strategies does not help in preventing the incidence of 'whitefly' in cotton?
- Timely sowing
 - Growing whitefly tolerant hybrids
 - Late sowing
 - Clearing the wild vegetation/weeds around the fields
100. In Soybean-Peas-Summermoong cropping system the pea and moong should be sown during
- Pea during First fortnight of October and summer moong during second fortnight of March
 - Pea during First fortnight of November and summer moong during second fortnight of March

- c) Pea during First fortnight of November and summer moong during second fortnight of February
- d) Pea during First fortnight of October and summer moong during first fortnight of March

Section II

Directions : (Questions 101 to 104): Read the following information carefully to answer the given questions:

XYZ Ltd. Presently has three Accounts Assistants – A, B and C - and five Accounts Officers – D, E, F, G and H. Its management is planning to open a new office in another city using three Accounts Officers and two Accounts Assistants from its present staff. The following guidelines have been established to set up the new office:

- (i) A and C are constantly finding faults with each other and should not be sent as members of the same team.
- (ii) C and E function well alone but not as a team. They should not be sent as members of the same team.
- (iii) D and G do not enjoy good relations. They should not be sent as members of the same team.
- (iv) Since D and F have been competing for a promotion, they should not be sent as members of the same team.

- 101.** If C and F are moved to the new office, then what is the number of different teams that can be formed?
 a) 1 b) 2 c) 3 d) 4
- 102.** If C is sent to the new office, then which member of the staff cannot go with C?
 a) D b) F c) G d) H
- 103.** Under the guidelines developed, which of the following must go to the new office?
 a) B b) D c) E d) G
- 104.** If D goes to the new office, then which of the following is/are correct?
 1) C cannot go 2) A cannot go 3) H must also go
 a) 1 only b) 2 only c) 1 and 2 d) 1 and 3

Directions (Questions 105-106) : Each of the questions below consists of a question and two statements numbered I and II given below it. You have to decide whether the data provided in the statements are sufficient to answer the question.

Read both the statements and give answer

- (a) If the data in statement I alone are sufficient to answer the question, while the data in statement II alone are not sufficient to answer the question;

- (b) If the data in statement II alone are sufficient to answer the question, while the data in statement I alone are not sufficient to answer the question;
- (c) If the data either in statement I alone or in statement II alone are sufficient to answer the question; and
- (d) If the data given in both statement I and II together are not sufficient to answer the question;

105. In a certain code, '13' means 'stop smoking' and '59' means 'injurious habit'. What do '9' and '5' mean respectively in that code?

- I) '157' means 'stop bad habit'.
- II) '839' means 'smoking is injurious'.

106. How is D related to A?

- I) B is the brother of A.
- II) B is D's son.

Directions (Questions 107-108) : In each of the following questions, two statements are given followed by three or four conclusions numbers I, II, III and IV. You have to take the given statements to be true even if they seem to be at variance from the commonly known facts and then decide which of the given conclusions logically follows from the given statements disregarding commonly known facts.

107. Statements: All aeroplanes are trains. Some trains are chairs.

- Conclusions:
- I. Some aeroplanes are chairs.
 - II. Some chairs are aeroplanes.
 - III. Some chairs are trains.
 - IV. Some trains are aeroplanes.

- a) None follows
- b) Only I and II follow
- c) Only II and III follow
- d) Only III and IV follow

108. Statements: All shares are debentures. No debenture is an equity.

- Conclusions:
- I. No equity is a share.
 - II. Some debentures are shares.
 - III. No share is an equity.

- a) Only I follows
- b) Only II follows
- c) Only III follows
- d) All follow

109. In a row of 40 girls, when Komal was shifted to her left by 4 places her number from the left end of the row became 10. What was the number of Swati from the right end of the row if Swati was three places to the right of Komal's original position?

- a) 22
- b) 23
- c) 25
- d) None of these

- 110.** The term 'MANAV', which was in the news recently, is a
- a) A database involving indigenous tribal groups
 - b) A satellite launched by ISRO
 - c) A human atlas project launched by the Department of Biotechnology (DBT), Government of India.
 - d) A humanoid robot created in Japan
- 111.** The sex of a child is determined by the
- a) Chromosomes of the father
 - b) Chromosomes of the mother
 - c) Rh factor of the parents
 - d) Blood group of the father
- 112.** Fish can survive inside a frozen lake because
- a) Fish are warm blooded animals
 - b) Fish hibernate in ice
 - c) Water near the bottom does not freeze
 - d) Ice is a good conductor of heat
- 113.** Marsh gas, formed from decaying organic matter and also found in coal mines, is
- a) Carbon dioxide
 - b) Methane
 - c) Ethane
 - d) Carbon monoxide
- 114.** The National Bureau of Plant Genetic Resources is located at
- a) Bangalore
 - b) Jammu
 - c) New Delhi
 - d) Shillong
- 115.** The substance made from only carbon is
- a) Sugar
 - b) Acetic acid
 - c) Graphite
 - d) Methane
- 116.** The three primary colours are
- a) Blue, green and red
 - b) Blue, yellow and red
 - c) Yellow, orange and red
 - d) Violet, indigo and blue
- 117.** Who among Siddhartha, Nikunj, Vipul and Mukul is the Youngest?
I. Vipul is younger than Mukul but older than Siddhartha and Nikunj.
II. Mukul is the oldest.
III. Siddhartha is older than Nikunj.
- a) Only 1
 - b) Only I and II
 - c) Only I and III
 - d) All of these

- 118.** Quinine, the commonly used drug for malaria, is obtained from a plant. What part of the plant yields the drug?
- a) Leaves b) Fruits c) Root d) Stem bark
- 119.** The walls and ceiling of an auditorium are covered with fibrous material, such as glass fibre, to
- a) Beautify the auditorium
b) Reduce the cost of construction
c) Make the auditorium fire-proof
d) Absorb sound and prevent echoes
- 120.** Where is National Plant Protection Training Institute located?
- a) Hyderabad b) New Delhi c) Jaipur d) Bangalore
