

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

B

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. Which of the following is not a fiber crop?
 - a) *Crotalariajuncea*
 - b) *Agave sisalana*
 - c) *Corchoruscapsularis*
 - d) *Lens esculenta*Moeench

2. 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) $[100 (\text{yield of cotton seed in t/ha}) / (\text{yield of seed cotton in t/ha})]$

3. Which one of the following is essential element to the plants
 - a) Strontium (Sr)
 - b) Nickel (Ni)
 - c) Chromium (Cr)
 - d) Arsenic (As)

4. As perSeed 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

5. The example of augmentation cropping is
 - a) Maize + Cucurbits
 - b) Pearlmillet + greengram
 - c) Berseem + forage brassica
 - d) Wheat + chickpea

6. The early maturing variety of potato is:
 - a) KufriChamatkar
 - b) KufriBadshah
 - c) KufriKhyati
 - d) KufriNavjot

7. Extra-long staple hybrid of cotton is
 - a) Mahalakshmi
 - b) Varalaxmi
 - c) Dhanalaxmi
 - d) Krishna

8. The 'grassy shoot disease' of sugarcane can be prevented by:
 - a) Moist hot air treatment of seed-canes
 - b) Spraying of a suitable fungicide
 - c) Spraying of a recommended bactericide
 - d) Light trap

9. 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
10. The quantity of Sathi 10 WP (Pyrazosulfuron ethyl) used for pre emergence weed control in rice
- a) 600 g/acre b) 400 g/acre c) 2000g/ acre d) 60g/ acre
11. Which variety of sugarcane should be planted under saline water conditions in south-western districts of Punjab?
- a) CoJ 85 b) Co 118 c) CoJ 88 d) CoPb 92
12. 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
13. In Soybean-Peas-Summermoong cropping system the pea and moong should be sown during
- a) Pea during First fortnight of October and summer moong during second fortnight of March
- b) 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
14. 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
15. The optimum time for sugarcane planting during the spring season in Punjab is:
- a) Mid-September to end of October b) Mid-November to end of December
- c) Mid-January to end of February d) Mid-February to end of March

- 16.** To get higher seed yield in berseem, the crop should be sprayed
- Two sprays of 2% urea at weekly interval, starting from flower initiation
 - Two sprays of 2% Potassium nitrate at weekly interval, starting from flower initiation.
 - Two sprays of 7.5 g of Salicylic acid using 100 litres of water per acre.
 - Either B or C
- 17.** Plough Pan is developed due to
- Repeated puddling
 - Use of surplus residue as a mulch
 - Green manuring
 - Use of gypsum
- 18.** Which one of the following statements is incorrect about the desert locusts?
- They belong to the family called Acrididae
 - The life cycle comprises of four stages, i.e. egg, caterpillar, pupa and adult
 - The adult can consume the food equal to its body weight in a day
 - solitary adults are brown whereas gregarious adults are pink (immature) and yellow (mature)
- 19.** Perennial legume fodder is
- Cowpea
 - Clusterbean
 - Berseem
 - Stylo
- 20.** Genetically the purest seed stock is
- Basic seed
 - Breeder seed
 - Foundation seed
 - Registered seed
- 21.** Wheat sowing using Happy Seeder requires
- 5-10 kg more seed per acre than recommended
 - 5 kg more DAP per acre than recommended
 - First irrigation at 25-30 days in light soils and at 30-35 days after sowing in medium to heavy soils
 - All the above
- 22.** Shattering andjassid tolerant variety of desi cotton
- LH 2076
 - LD 949
 - LD 1019
 - FDK 124
- 23.** Which of the following statement is not true for sub soiling in case of sugarcane?
- It should be done once in 3 to 4 years before preparing the field
 - It helps in breaking hard pan
 - Increase water infiltration and better root penetration
 - It is done by tractor drawn sub soiler upto a depth of 80-100 cm

- 24.** For mechanical harvesting of sugarcane by sugarcane harvester the crop should be planted
- 120 cm row spacing
 - 120-30 cm paired row trench method
 - Either A or B
 - Plant two rows of sugarcane 30 cm apart in 20- 25- cm deep trench
- 25.** For higher yield and better grain quality PR 124 and PR 126 transplanting should be done from
- 15- 20 days old nursery
 - 25- 30 days old nursery
 - 40- 45 days old nursery
 - 50- 55 days old nursery
- 26.** 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.
- 27.** Early maturing maize composite suitable for rainfed conditions
- PMH 2
 - Parkash
 - Megha
 - PAC 751
- 28.** The variety of sugarcane which has the ability of ratooning is
- Co-205
 - Co-419
 - Co-312
 - Co-453
- 29.** The lower leaves become rusty brown near the base and ultimately dry up in rice due to the deficiency of
- Zn
 - Fe
 - N
 - K
- 30.** *Epipyropesmelanoleuca* is a parasitoid of
- Sugarcane leaf hopper
 - Sugarcane whitefly
 - Sugarcane root borer
 - Sugarcane top borer
- 31.** 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
- 32.** Which one of the following is not the limitation for wide scale adoption of sprinkler method of irrigation
- Undulated fields
 - High wind velocity
 - Large amount of dissolved salts
 - High initial investment and operating cost

- 33.** Isolation distance for producing foundation seed of bajra hybrid
 a) 400 meter b) 600 meter c) 800 meter d) 1000 meter
- 34.** Depending upon the variety, the recommended seed rate for planting of sugarcane in Punjab ranges between:
 a) 55 – 65 quintals/ hectare b) 65 – 75 quintals/ hectare
 c) 75 – 85 quintals/ hectare d) 85 – 105 quintals/ hectare
- 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.** Wilting of tobacco due to water logging is known as
 a) Flaming b) Floating c) Flooding d) Flooping
- 37.** The fall armyworm (*Spodoptera frugiperda*) is a pest that feeds in large numbers on leaves and stems caused major damage recently to the crop of
 a) Rice b) Wheat c) Maize d) Cotton
- 38.** 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
- 39.** Which of the following is not a C 4 plant?
 a) Maize b) Sorghum c) Sugarcane d) Wheat
- 40.** The optimum sowing time of 'toria' in Punjab is:
 a) Whole September b) Whole October
 c) Whole November d) October – November
- 41.** Photoperiod insensitive variety of rice
 a) Pusa Basmati 1121 b) Pusa Basmati 1509
 c) Pusa Basmati 1637 d) All the above
- 42.** 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

- 43.** In the intercropping of Gobhisarson + Toria, the crops are sown in alternate rows at a spacing of:
- a) 15.0 cm b) 22.5 cm c) 35.0 cm d) 42.5 cm
- 44.** 'Parawilt' of cotton is:
- a) Caused by a fungus b) A physiological disorder
c) Caused by a virus d) Caused by a mycoplasma
- 45.** The first stable product of C₃ pathway is
- a) Phosphoglycerate b) Oxaloacetate
c) Pyruvic acid d) Malate dehydrogenase
- 46.** 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
- 47.** What is Phostoxin?
- a) Weedicide for controlling broad weeds
b) Used for management of stored grain insects
c) Nematicide for controlling nematodes
d) Fungicide for controlling plant diseases
- 48.** India has only one locust breeding season and that is
- a) Summer breeding b) Winter breeding
c) Spring breeding d) None of the above
- 49.** The incorrect combination of nutrient and deficiency symptom is
- a) P – Accumulation of free reducing sugar
b) K – Accumulation of the diamineputriscine
c) Mg – Inter-veinalchlorosis of older leaves
d) Fe – Gray speck in oats
- 50.** 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

51. The best time for sowing of potato in Punjab is:
- First fortnight of September
 - Last week of September to mid-October
 - Last fortnight of October to first week of November
 - Second fortnight of November
52. For greenmanuringsunhemp can be sown during
- January - February
 - April- July
 - August – November
 - December – January
53. Which of the following statement is not true forsugarbeet?
- Sugarbeet is the second largest sugar crop in the world, after sugarcane.
 - It is a short duration (6-7 months) sugar crop.
 - The tropical sugarbeet hybrids have good potential under Punjab conditions
 - June to mid-July is optimum time of sowing
54. Seed rate for soybean
- 25 - 30 Kg/acre
 - 15 - 20 Kg/acre
 - 10 - 12 Kg/acre
 - 6 – 8 Kg/acre
55. PAU 881 is an early maturing variety of
- Mungbean
 - Pigeonpea
 - Ricebean
 - Soyabean
56. Summerurdbean (Blackgram) in the central and sub mountainous tracts of Punjab is sown after
- Potato/Toria
 - Sugarcane
 - Cotton
 - Wheat
57. Which one of the following is not a bunch type variety of ground nut?
- TG 37 A
 - SG 99
 - M 552
 - SG 84
58. Yellow rust is in wheat crop can be controlled by spraying of which one of the following using 200litres of water as soon as yellow rust is noticed
- 100 ml Opera 18.3 SE per acre
 - 200 ml Opera 18.3 SE per acre
 - 200 g Caviet 25 WG per acre
 - Either B or C
59. ‘Wilt’ is a serious disease in pigeon pea. Which one of the following measures may not help in reducing the incidence of this disease?
- Adoption of three to four-year crop rotation
 - Adoption of mixed cropping with sorghum
 - Adoption of disease resistant varieties
 - Adoption of mulching with pigeon pea trash

69. 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
70. Wheat variety suitable for growing under poplar plantation
- a) PBW 677 b) PBW 725
c) Both A and B d) C 306
71. Syntheticpyrethroids should not be used for the control of rice insect pest because it increase the population of
- a) Rice plant hopper b) Rice hispa
c) Grasshopper d) Mite
72. Application of super digested compost to acidic calcareous and heavy soils increases the availability of
- a) N b) P c) K d) Ca
73. Spray of *Bacillus thuriangiensis* is suggested to manage the:
- a) Pod borer of chickpea b) Tungro virus of rice
c) Aphid of mustard d) Phyllody of sesame
74. Which one of the following is “Macaroni Wheat”?
- a) Triticumaestivum b) Triticum durum
c) Triticumdicocum d) Triticumsphaerococum
75. 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.
76. 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
77. 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

- 85.** At what stage *Bagradahilaris* attacks mustard crop
- Germinating crop in October
 - Mature crop in March-April
 - Flowering stage
 - Germinating crop in October and again on mature crop in March-April.
- 86.** Gram variety suitable for rained conditions
- PBG 7
 - GPF 2
 - PDG 4
 - PBG 5
- 87.** Rice variety Pusa 44/ Peeli Pusa is no more recommended for cultivation in Punjab because of
- 15- 20 % more water requirement than PR varieties
 - Susceptible to all the prevalent pathotypes of bacterial blight
 - Both A and B
 - Higher broken grain percentage
- 88.** 'DWRB 123' is a newly released variety of crop, particularly suitable for brewing industry.
- Wheat
 - Sorghum
 - Oats
 - Barley
- 89.** Sesame belongs to the plant family:
- Pedaliaceae
 - Asteraceae
 - Poaceae
 - Chenopodiaceae
- 90.** For preventing damage by shoot fly in sorghum the seed should be treated with
- 10 ml Slayer 30 FS (thiamethoxam) per kg seed
 - Sulphur dust @ 4 g/kg seed
 - Bavistin 2g/Kg.seed
 - Thiram 2g/kg seed
- 91.** Which of the following is a hexaploid species of wheat?
- Triticum spelta*
 - Triticum durum*
 - Triticum persicum*
 - Triticum monococcum*
- 92.** Extra early maturing maize composite for summer season is
- Sangam
 - Parbhat
 - Paras
 - Punjab Sathi 1

100. Crop logging is generally used in
a) Maize b) Cotton c) Potato d) Sugarcane

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. The substance made from only carbon is
 a) Sugar b) Acetic acid c) Graphite d) Methane

- 110.** 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
- 111.** 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
- 112.** 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
- 113.** 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
- 114.** 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
- 115.** 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
- 116.** 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

- 117.** 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
- 118.** Marsh gas, formed from decaying organic matter and also found in coal mines, is
- a) Carbon dioxide
 - b) Methane
 - c) Ethane
 - d) Carbon monoxide
- 119.** Where is National Plant Protection Training Institute located?
- a) Hyderabad
 - b) New Delhi
 - c) Jaipur
 - d) Bangalore
- 120.** The National Bureau of Plant Genetic Resources is located at
- a) Bangalore
 - b) Jammu
 - c) New Delhi
 - d) Shillong
