AP® Minecraft Exam
Thursday afternoon, May 30, 2019

SECTION I: Multiple Choice

I affirm that:

- This exam is being administered on Thursday afternoon, May 30, 2019 and will begin between the hours of 8 a.m. and 9 a.m.* If this exam is being offered to me at any other time or any other date, I will refuse to take the exam and will contact the Office of Testing Integrity.

- I will not take this exam booklet from the room or disclose any of the multiple-choice questions to anyone, including my AP teacher.

I understand and accept that my exam score may be canceled if I do not meet these conditions and sign below.

* The administration of this exam in New York must begin between 2 p.m. and 3 p.m.

Signature ____________________________ Date __________

Print your full legal name here:

(First) ____________________________ (M.I.) ____________________________ (Last) ____________________________
MINECRAFT
SECTION I
Time—25 minutes
Number of questions—45
Percent of total score—40

Directions: Use your knowledge of Minecraft to select the best answer to the following multiple choice questions.

Notes:
- All questions refer to the defaults of Minecraft version 1.12.2
- Assume vanilla gameplay (no modifications), unless otherwise indicated.
- Assume no “cheats” granted in survival mode, unless otherwise indicated.
- Assume that the player’s ign is steve
- The designation “object” refers to any of the following:
  I. Entities that can be summoned through the /summon command
  II. Items that can be obtained through the /give command
  III. Blocks that can be placed through the /setblock command

1. One reason why a diamond axe may be a better weapon than a diamond sword is because a diamond axe
   a) Deals more damage per hit
   b) Has a higher attack speed
   c) Has a greater durability
   d) Requires fewer resources to craft
   e) Can receive mending through an enchanting table, whereas the sword cannot

2. A hoe is enchanted with 5 levels of experience. What is the chance that the hoe will receive only unbreaking?
   a) 30%
   b) 60%
   c) 65%
   d) 75%
   e) 100%
3. One bone can be used to craft how many bone meal?
   a) 1
   b) 2
   c) 3
   d) 4
   e) 5

4. Two stone pickaxes, one with 40 durability and the other with 60 durability, are combined in a crafting table. How much durability will the resulting stone pickaxe have?
   a) 40
   b) 60
   c) 100
   d) 105
   e) 132

5. Marcus Persson is the creator of Minecraft. What nickname is he commonly given?
   a) Dinnerbone
   b) Grum
   c) Jeb
   d) Notch
   e) ProfMobius

6. The following command is executed:
   /tp steve ~5 ~ ~
   In what direction will steve move?
   a) Positive X
   b) Negative X
   c) Negative Y
   d) Positive Z
   e) Negative Z

7. When creating portals, one block in the nether corresponds to how many blocks in the overworld?
   a) 3
   b) 7
   c) 8
   d) 15
   e) 16
Questions 8-9 refer to the following information.

<table>
<thead>
<tr>
<th>Data for a Food in Minecraft</th>
</tr>
</thead>
<tbody>
<tr>
<td>Saturation Restored</td>
</tr>
<tr>
<td>Saturation Ratio</td>
</tr>
</tbody>
</table>

\[
\text{Saturation Ratio} = \frac{\text{Saturation Restored}}{\text{Hunger Points Provided}}
\]

8. How many hunger points does this food provide?
   a) 4
   b) 5
   c) 6
   d) 8
   e) 10

9. What food has the properties depicted in the table?
   a) Baked potato
   b) Enchanted golden apple (notch apple)
   c) Golden apple
   d) Rabbit stew
   e) Steak

10. What resource do zombie pigmen drop?
    a) Coal
    b) Diamond
    c) Gold
    d) Iron
    e) Quartz

11. How many redstone is needed to craft a clock?
    a) 0
    b) 1
    c) 3
    d) 4
    e) 5
12. How is a bottle o’ enchanting obtained?
   a) Crafting
   b) Enchanting
   c) End city chests
   d) Stronghold chests
   e) Trading

13. On what kind of tree do cocoa beans generate?
   a) Acacia
   b) Birch
   c) Dark oak
   d) Jungle
   e) Swamp

14. Adding redstone to a potion causes what?
   a) It increases the duration of the potion
   b) It increases the strength of the potion
   c) It creates an awkward potion
   d) It negates the effect (for example, a potion of healing turns to a potion of damage)
   e) Redstone cannot be added to a brewing stand

15. Which block will not move when there is air below it?
   a) Anvil
   b) Dragon egg
   c) Gravel
   d) Sand
   e) Stone slab

16. Which effect will increase mining speed?
   a) Absorption
   b) Haste
   c) Mining fatigue
   d) Slowness
   e) Speed
17. What (if anything) is wrong with the following client command?
   `/tp 4000000 0 0`
   a) X=4,000,000 is outside the world
   b) Y=0 is in the void
   c) The player to be teleported is not specified
   d) Unloaded chunks cannot be teleported to
   e) Nothing; the command will execute without error

18. What kind of villager wears a white robe?
   a) Butcher
   b) Farmer
   c) Fisherman
   d) Librarian
   e) Priest

19. How many sticks can be crafted from one wood (not wooden plank)?
   a) 1
   b) 2
   c) 4
   d) 6
   e) 8

20. In what game do players try to mine the blocks under their opponents?
   a) Bed wars
   b) Hunger games
   c) Prison
   d) Spleef
   e) Survival games

21. Which is not a type of minecart that can be crafted?
   a) Chest
   b) Furnace
   c) Hopper
   d) Spawner
   e) TNT
Questions 22-23 refer to the following list

I. Blaze Powder
II. Charcoal/Coal
III. Gunpowder

22. Which of these items are needed to craft a fire charge?
   a) I only
   b) III only
   c) I and III only
   d) II and III only
   e) I, II, and III

23. Which of these items can be used as fuel?
   a) I only
   b) II only
   c) I and II only
   d) II and III only
   e) I, II, and III

24. In the nether, nether quartz ore is about as abundant as which ore in the overworld?
   a) Coal
   b) Iron
   c) Redstone
   d) Gold
   e) Diamond

25. Suppose a torch (light level 14) is placed in a large flat cavern at \((x, y, z)=(1, 100, 1)\). What is the light level at \((4, 100, -3)\), assuming no other light sources?
   a) 7
   b) 9
   c) 10
   d) 11
   e) 12
26. The default flat surface area enclosed by the world border is about how many blocks?
   a) $2.3 \times 10^{14}$
   b) $9.0 \times 10^{14}$
   c) $1.8 \times 10^{15}$
   d) $3.6 \times 10^{15}$
   e) $1.8 \times 10^{17}$

Questions 27-28 refer to the following
“It’s more magical than that! It automatically opens and turns towards players who get close”.

27. Who said the quote?
   a) Anton Albiin
   b) Daniel Wustenhoff
   c) David Marby
   d) Erik Broes
   e) Markus Persson

28. What block is being described?
   a) Chest
   b) Command block
   c) Daylight sensor
   d) Enchanting table
   e) Nether portal

29. Assume $roll=2$ and the $p$-value of an unstackable item is $0.185$. What is the chance that exactly one item appears?
   a) $0.185$
   b) $(0.185)^2$
   c) $(2 \times 0.185 \times 0.815)$
   d) $0.630$
   e) $(0.815)^2 - (0.185)^2$

30. What is the average $y$-coordinate for the surface of an ocean biome?
   a) 60
   b) 63
   c) 66
   d) 69
   e) 72
Questions 31-32 refer to the following

“I never fail to get a little bit excited when I mine into a vein of iron ore. After a while in every Minecraft world, coal isn’t really worth picking up any more because it’s so easy to find when you need it. But I never miss an opportunity even when I’m being pursued by a horde of hissing creepers to grab a bit of iron”.

31. Who said the quote?
   a) Daniel Frisk
   b) Duncan Geere
   c) Martin Johansson
   d) Nathan Adams
   e) Tomas Alaeus

32. What blast resistance do all ore blocks have?
   a) 15
   b) 17.5
   c) 25
   d) 30
   e) 45

Question 33-34 refer to the following commands in a default redstone-ready preset world

```
/fill 6 1 7 4 9 2 minecraft:dirt
/fill 7 8 3 6 5 1 minecraft:stone
```

33. After execution, how many dirt blocks will be in the world?
   a) 77
   b) 80
   c) 152
   d) 154
   e) 162

34. After execution, how many stone blocks will be in the world?
   a) 6
   b) 12
   c) 24
   d) 30
   e) 40
35. Which dye cannot be obtained without crafting?
   a) Light blue
   b) Light grey
   c) Magenta
   d) Pink
   e) Purple

36. Which type of pressure plate will increase the strength of the redstone signal emitted for each additional item dropped onto it (until the signal strength is 15)?
   a) Gold
   b) Iron
   c) Quartz
   d) Stone
   e) Wooden

37. Which explosion is the strongest?
   a) Bed in the end/nether
   b) Creeper
   c) End crystal
   d) Ghast fireball
   e) Wither skulls

38. Which mob can only be attacked by melee damage and splash potions?
   a) Blaze
   b) Charged creeper
   c) Enderman
   d) Skeleton
   e) Wither

39. Which block burns forever?
   a) Grass
   b) Lily Pads (above water)
   c) Obsidian
   d) Netherrack
   e) Wooden pressure plate
Question 40 refers to the following list

I. doFireTick
II. keepInventory
III. mobGriefing

40. Which of these gamerules is (are) set to true by default?
   a) II only
   b) III only
   c) I and III only
   d) II and III only
   e) I, II, and III

41. Which of the following commands has the same effect as /time set noon?
   a) /time set 6000
   b) /time set 12000
   c) /time set 13000
   d) /time set 18000
   e) /time set 24000

42. Which of these commands requires the lowest op level (0) in multiplayer?
   a) /difficulty
   b) /fill
   c) /list
   d) /seed
   e) /tp

43. Which plant block will break (and drop its item) if a block is placed adjacent to it?
   a) Cactus
   b) Nether wart
   c) Peony
   d) Pumpkin
   e) Sugar cane

44. Which is the only command that can only be executed in single player?
   a) /clear
   b) /kill
   c) /me
   d) /publish
   e) /whitelist
45. Which block forms when water flows into lava?
   a) Clay
   b) Dirt
   c) Glass
   d) Obsidian
   e) Sand
END OF SECTION I
IF YOU FINISH BEFORE TIME IS CALLED,
YOU MAY CHECK YOUR WORK ON THIS SECTION.

DO NOT GO ON TO SECTION II UNTIL YOU ARE TOLD TO DO SO.

____________________________________________________________

MAKE SURE YOU HAVE DONE THE FOLLOWING.

- PLACED YOUR AP NUMBER LABEL ON YOUR ANSWER SHEET
- WRITTEN AND GRIDDED YOUR AP NUMBER CORRECTLY ON YOUR
  ANSWER SHEET
- TAKEN THE AP EXAM LABEL FROM THE FRONT OF THIS BOOKLET
  AND PLACED IT ON YOUR ANSWER SHEET
AP® Minecraft Exam

SECTION I: Multiple Choice

DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO.

Instructions

Section I of this exam contains 45 multiple-choice questions. Fill in only the circles for numbers 1 through 45 of the answer sheet.

Indicate all of your answers to the multiple-choice questions on the answer sheet. No credit will be given for anything written in this exam booklet, but you may use the booklet for notes or scratch work. After you have decided which of the suggested answers is best, completely fill in the corresponding circle on the answer sheet. Give only one answer to each question. If you change an answer, be sure that the previous mark is erased completely. Here is a sample question and answer.

Sample Question

Chicago is a
(A) state
(B) city
(C) country
(D) continent
(E) village

Sample Answer

A ● B C D E

Use your time effectively, working as quickly as you can without losing accuracy. Do not spend too much time on any one question. Go on to other questions and come back to the ones you have not answered if you have time. It is not expected that everyone will know the answers to all of the multiple-choice questions.

Your total score on the multiple-choice section is based only on the number of questions answered correctly. Points are not deducted for incorrect answers or unanswered questions.