



Faculty of Agriculture

Final Exam for Biotechnology English programs

Agric. Botany Dept.

Level one (1st semester 2020)

Time: 2 Hours

Course: Botany (Morphology & Anatomy)

Code: AB0801

Total mark: 60 marks

Model Exam 2

Choose The Correct Answer:

- 1-The cell is surrounded by non-living protective outer covering known as
A-Plasma lamea B- Cell wall C- Cytoplasmic membrane D- Tonoplast.
- 2-Only example of living cell which can function without nucleus is the
A-Cambial cell B- Companion cell C-Sieve tube cell D-Tracheids.
- 3-Chromoplasts are found in
A-flower petals B-ripe fruits C-Carrot roots D- All
- 4-In Chromoplasts, instead of chlorophyll they contain
A-Carotenoid B- Xanthophyll C- Chlorophyll D-A &B only
- 5-Roots differ mainly from shoots in the absence of
A- Nodes B- Internodes C- Size D- A &B only
- 6-Lateral roots originate from the pericycle
A-Endogenously B- Exogenously C- Both
- 7-In roots, some of the epidermal cells develop into
A-Scales B- Root hairs C- Trichomes
- 8-proliferous layer is replaced by the outer layer of cortex that are being suberized and called
A-Epidermis B- Exodermis C- Ectodermis. D-Endodermis
- 9-Endodermis is the
A-First layer of cortex B- Last layer of cortex C- Middle layer of cortex
- 10-Endodermis is functioning in the
A-Prevention of water and solutes passage B-Control the rate of water and solutes passing
C- Both
- 11-Endodermal cells can prevent a leakage of solutes from the vascular cylinder to the cortex,
consequently salts concentration in the stele is
A- Decreased B-Increased
- 12-Pericycle functions are

A-Initiation of lateral roots B- initiation parts of the vascular ring C-initiation of phellogen
D- All

13-In the center of the stele in roots, xylem seemed as

A-Triangle shaped B- Star shaped C- Rectangle shaped

14-In T.S. wide central pith is found in roots of

A-Dicots B- Monocots C-Both

15- The primary xylem which matures first is called

A-Meta xylem B- Protoxylem C-Secondary Xylem

16-Monocoat roots are

A-Diarch B- pentarch C- Polyarch

17-The roots is called exarch because the maturation of xylem

A-Starts from inside to outside B- Starts from outside to inside

18-Thickening in metaxylem is

A-Annular or spiral B-Pitted or reticulate

19-In roots, phloem forms separate strands

A-Parallel B- Alternating with xylem C-Both

20-The vascular bundles in roots are

A- Collateral B- Radial C-Concentric

21-In the initiation of lateral roots, cells of pericycle resume their meristematic activity and divide by

A-Anticlinal walls B- Periclinal walls C- Both

22-Dicot plants include all plants have embryos with

A- One cotyledone B- Two Cotyledone C-Multi cotyledons D- All

23-Dicot plants have broad leaves with

A-Parallel venation B- Reticulate venation C-longitudinal venation D- A&B only

24-Monocot stems have vascular bundles with

A-Fasciular cambium B- Non fasciular cambium C- Both

Note:-Questions from 25 to 36 in Fig A

25- Fig. A indicates a T.S. In a

A- Monocot root B- Dicot Root C- Monocot stem D-Dicot stem

26-Number 1 refers to

A- Cortex B- Epidermis C- Root hair

27- Number 2 refers to

A-Cortex B-Epidermis C- Endodermis

28-Number 3 refers to

A-Cortex B- Endodermis C-Pericycle

29- Number 4 refers to

A- Endodermis. B- Pericycle. C- Periderm.

30- Number 5 refers to

A-Proto xylem B- Meta xylem C- Phloem

31-Number 6 refers to

A-Protoxylem B-Meta xylem C-Phloem

32-Number 5+6 refers to

A-Primary xylem B-Secondary xylem C-Primary phloem D-Secondary phloem

33- Number 7 refers to

A-Proto xylem B- Meta xylem C- Phloem

34- Number 8 refers to

A-Pith B- Vacuole C-Air vacuole

35- Number 9 refers to

A-Root hair B-Root scale C- Root stele

36-Number 10 refers to

A-Cortex B-Vascular cylinder C- Endodermis

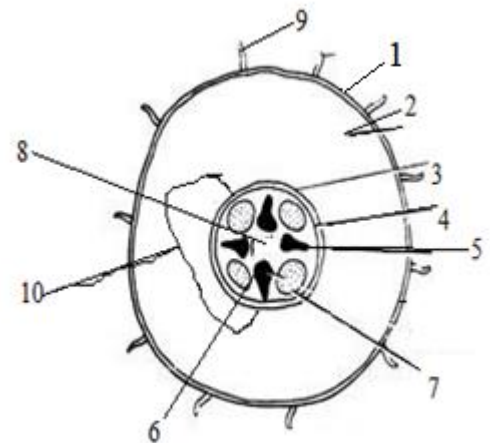


Fig A

Note: Question from 37 to 40 on Fig B

37- Fig. B shows the

A-The spring and autumn woods B- Sap and heart woods

38-Number 1 refers to

A- Cambium ring B-Cortex C-Pericycle

39-Number 2 refer to

A-Spring wood B-Autumn wood C- Hard wood

40-Number 3 refers to

A- Autumn wood B- Spring wood C-Hard wood

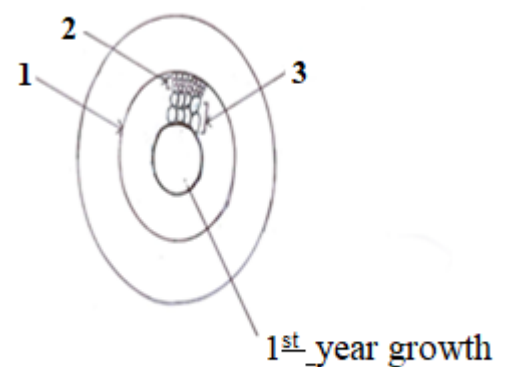


Fig B

Note: Questions from 41 to 70 are True or False (Your Answer in Answer sheet A is True and B is False)

- 41- Tylosis are abundant in sap wood than in hard wood.
- 42- Green algae have no chlorophyll.
- 43- Potato Tubers is a kind from aerial stems.
- 44-The only cell with 3 N is the endosperm cell.
- 45- Monocot stem differs from dicots in the presence of the ground tissue.
- 46-In transition region the radial arrangement of bundles in roots change with collateral arrangement in stem.
- 47-The cortex in dicot root is wider than in monocot root.
- 48- The sieve tube is the only case of a living cell function without nucleus.
- 49-The pollen grain is the female gametophytes.
- 50-The Sap wood is lighter than the hard wood.
- 51- The increase in thickness results in the destruction of outer tissues and this stimulate the formation of periderm.
- 52-Sap wood is still functioning, while hard wood stopped functioning.
- 53- Meristematic cells have no vacuole.
- 54-Stomata are thicker in mesophytes than in xerophytes.
- 55- In squash stem the vascular bundles appear in two circles.
- 56-Sweet potato is a kind of subterranean stem.
- 57- The root system in hydrophytes is larger and deeper more than in xerophytes.
- 58-Monocots possess secondary growth, while dicots not.
- 59-Dicots seeds have embryo with two cotyledons.
- 60- Water and air are factors affecting on seed germination.
- 61- Golden algae is a kind from prokaryotic.
- 62- Collenchyma tissue function is storage food and air.
- 63-Lichens are organisms made up from fungi + algae.
- 64-Egg plant is a plant from family Cucurbitaceae.
- 65- The flowers in Cucurbitaceae family are bisexual.
- 66-Hypogeal germination possess, when cotyledons stay underground.
- 67- Mosses are vascular plants, while ferns are non-vascular plants.
- 68- The plant consists from two main systems root system and shoot system.
- 69- Xylem is a living tissue, while phloem is a dead tissue.

70- Palm Dates is a plant from Poaceae family.

Note: Questions from 71 to 74 on Fig C

71-Fig. C refers to

- A-Cortex tissue B-Periderm tissue

72- Number 1 shows the

- A-Cork cells B-Epidermis cell

73-Number 2 shows the

- A-Vascular cambium B- Cork cambium

74- Number 3 shows the

- A-Phelloderm B-Exodermis

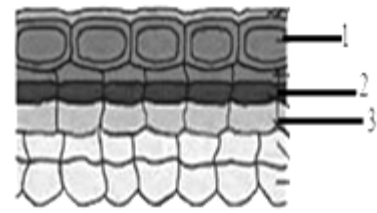


Fig C

Notes: Questions from 75 to 80 on Fig D

75-Fig. D refers to the types of

- A-Meristem tissue B-Mature tissue C-Paranchyma tissue

76-Number 1 refers to

- A-Lateral meristem B-Apical meristem C-Intercalary meristem.

77-Number 2 refers to

- A-Lateral meristem B-Intercalary meristem C- Apical meristem.

78-Number 3 refers to

- A-Intercalary meristem B- Apical meristem. C-Lateral meristem.

79-Number 4 refers to

- A-Node B-Internode C-Buds

80-Number 5 refers to

- A-Internode B-Node C- Axillary bud

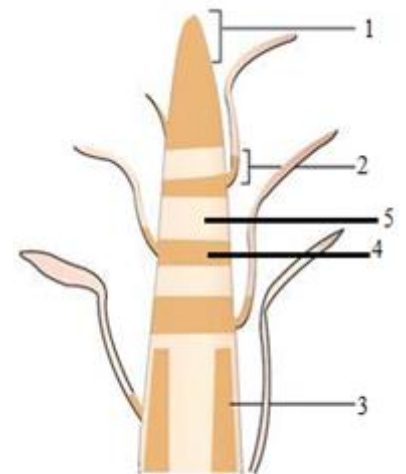


Fig D

With our Best wishes

The Examiners

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