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SARDAR PATEL UNIVERSITY
B.Sc. 5th SEMESTER EXAMINATIONSaturday, 26th December, 2020

Time - 02 : 00 pm to 04: 00 pm

Subject / Course Code : Botany (US05CBOT02)

Structural, Adaptive and reproductive biology of Angiosperm

Maximum Marks : 70

Draw neat and labeled diagrams wherever necessary.

Q. 1 Multiple choice question

(10)

- (1) Which of the following is /are involved in transport of food material in plants ?
 (a) Xylem (b) Phloem
 (c) Both (a) & (b) (d) None of these
- (2) Wood rays are usually absent in
 (a) Secondary wood (b) Secondary phloem (c) Primary xylem (d) None of these
- (3) _____ is the succulent xerophyte
 (a) Aloe (b) Neem (c) Tulsi (d) Adhatoda
- (4) Which protects the plants from wetting ?
 (a) Trichomes (b) Cuticle (c) Epidermis (d) Rhizodermis
- (5) Salt glands are present in
 (a) Tamarix (b) Tamarind (c) Turmeric (d) All of these
- (6) Sunken stomata are common features of
 (a) Epiphytes (b) Halophytes
 (c) Mesophytes (d) Xerophytes
- (7) A culture room can be sterilized by
 (a) Red light (b) Green light (c) UV light (d) All of these
- (8) Which of the following is false fruit ?
 (a) Banana (b) Cherry (c) Apple (d) Mango
- (9) Pappus is a modification of
 (a) Calyx (b) Corolla (c) Stamens (d) Pistil
- (10) The seeds of Moringa are dispersed by
 (a) Wind (b) Animal (c) Water (d) Insects

Q-2 Fill in the blanks and True/False

1 x 8 = (08)

- (1) Crystal of calcium carbonates are called as _____
- (2) Casparian strips are found in _____
- (3) _____ is the famous plant embryologist from india
- (4) Exine proteins of the Pollen grains are synthesized in _____
- (5) The function of root cap is protection of root tip (True/False)
- (6) Vivipary is most common in hydrophytes (True/False)
- (7) Sucrose is the carbon source in culture media (True/False)
- (8) A fruit where fruit wall and seed coat are fused is called caryopsis (True/False)

[1]

Q-3 Short answer question (Attempt anyTen)

(20)

- (1) What is apical cell theory?
- (2) What are histogen ? where are they located ?
- (3) What are raphides ?
- (4) What is epicuticular waxes ?
- (5) What is function of cuticle ?
- (6) Write anatomical adaptations in xerophytic root
- (7) Name any four famous plant embryologist
- (8) What is parthenocarpy ?
- (9) What are application of embryo culture ?
- (10) What is pollen allergy ?
- (11) Explain pollen pistil interaction
- (12) Define - Incompatibility

Q-4 Long answer question (Attempt any4 (four))

(4 x 8= 32)

- (1) Describe secondary growth in root (08)
- (2) Explain- root cap and rhizodermis (08)
- (3) Describe anatomical adaptations in hydrophytes (08)
- (4) Explain Structure of vascular cambium (08)
- (5) Describe methods of embryo culture (08)
- (6) Write control of fertilization (08)
- (7) Write note on dispersal of seeds (08)
- (8) Write about dehiscent fruits (08)

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