



Q1. Select the correct answer for each of the following: (100 Mark)

1. The endometrial cups produce pregnant mare serum gonadotrophin (PMSG) in pregnant mares at the period

- a. 21-30 days b. 40-130 days c. 150-300 days d. 300-330days

2. The guide of early pregnancy diagnosis in the mares by

- a. Uterus b. The ovaries c. Cervix d. The medial uterine artery

3. The effect of Melatonin hormone in breeding season

- a. Increase GnRH b. Decrease GnRH c. Increase LH d. Don't affect

4. Injection of estrogen in non-pregnant cow cause:

- a. True estrous. b. False estrous. c. Has no effect d. Silent heat

5. The best treatment of the mummified fetus in cow is

- a. C.S. b. PGF2 c. Fetotomy d. GnRH

6. The type of ovulation in camel and lama is:

- a. Spontaneous b. Induced by mating b. Induced by FSH injection d. Induced by LH injection

7. Interferon, as a maternal recognition of pregnancy function to inhibit

- a. Luteolysis c. Folliculogenesis b. Steroidogenesis d. Estrus signs

8. Localized placentitis in the mare causes:

- a. Prolonged gestation b. Fetal anomaly c. Abortion d. Dystocia

9. Induced parturition in ewe can be produced by

- a. Dexamethasone b. LH c. Oxytocin d. Progesterone

10. Which of the following females described as short day breeder is

- a. Mare b. Bitch c. Cow d. Ewe

11. The type of estrus cycle in bitch is

- a. Continuously polyestrous b. Seasonal polyestrous c. Mono estrous d. Short-day breeder

12. Granulosa cell tumor occur mainly in the:

- a. Buffalo b. Mare c. Ewe d. Bitch

13. Silent heat is one of the most important phenomena in:

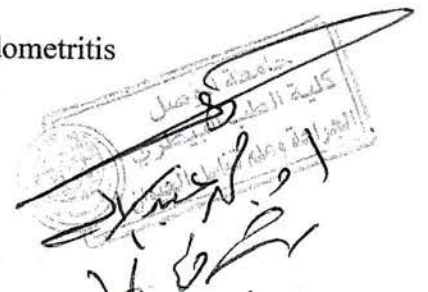
- a. Goat b. Camel c. Buffalo d. Cow

14. The effective treatment of follicular cystic ovary is the administration of:

- a. FSH b. PGF2 α c. Estrogen d. hCG

15. Which of the following disorders is related to early embryonic death:

- a. Delay ovulation b. Cystic ovary c. Ovarobursal adhesions d. Endometritis



16. The effective treatment of pyometra is the administration of:

- a. PMSG b. PGF₂ α c. Estrogen d. hCG

17. One of the following hormones is not used for the treatment of inactive ovaries:

- a. LH b. GnRH c. PMSG d. FSH

18. Anestrus is not related to one of the listed genital disorders:

- a. In active ovaries b. Luteal cystic ovary c. Persistent corpus luteum d. Follicular cystic ovary

19. The repeat breeder cow is characterized by

- a. Regular estrus b. Silent estrus c. Anestrus d. Irregular estrus

20. The specific maturation sign of the cultured oocyte is the presence of:

- a. Polar body b. Pronuclei c. Sperm heads. d. Sperm tail

21. Before the process of freezing, embryos should be dehydrated using

- a. PBS b. BSA c. EmbryoGlue d. Glycerol 10%

22. IVF culture is ended with:

- a. Zygote b. Matured oocytes c. Blastocyst d. Morula

23. At embryo transfer, embryos are collected from:

- a. Uterine horn b. Cervix c. Vagina d. Oviduct

24. Embryo Transfer involves the collection of:

- a. Fetuses b. Oocytes c. Blastocytes d. Morula

25. Oophoritis is the inflammation of:

- a. Corpus Luteum b. Oocyte c. Ovary d. Oviduct

26. The accumulation of gas in the fetal body is called:

- a. Ascites b. Anasarca c. Emphysema d. Hydropsy

27. The fluid-filled stage of early embryonic development is called

- a. Morula b. Zygote c. Gastrula d. Blastocyst

28. In white heifer disease, the ovaries are:

- a. Hypoplastic b. Hyperplastic c. Normal d. Aplastic

29. The Wolffian duct is responsible for the development of

- a. Placenta b. Male organs c. Female organs d. Umbilical cord

30. In advanced pregnancy, the main source of the allantoic fluid is

- a. Blood circulation b. Fetal urine c. Maternal urine d. Nasopharynx secretion

31. The maneuvers used to correct the ventral position is called

- a. Extension b. Traction c. Retropulsion d. Rotation

32. Progesterone assay cannot be used for pregnancy diagnose in

- a. Cow b. Mare c. Buffaloe cow d. Bitch

33. PGF₂ α is used for estrus synchronization as it causes

- a. Follicular growth b. Luteolysis c. Ovulation d. Luteostasis

34. In cows, the first estrus after calving might be short and silent results in the low level of

- a. Estrogen b. Oxytocin c. Progesterone d. FSH



- Evisceration is the process by which**
- Gases are removed from fetal body
 - Fluids are removed from fetal body
 - Abdominal organs are withdrawn
 - Fetal head is removed
- 36. At parturition, the effect of Ferguson's reflex is to increase the secretion of**
- Estrogen
 - Oxytocin
 - PGF_{2α}
 - Relaxin
- 37. At luteolysis, the source of oxytocin is the:**
- Uterus
 - Bloodstream
 - Pituitary gland
 - Corpus luteum
- 38. The initial treatment step for ring womb is:**
- Obstetrical maneuvers
 - Caesarean section
 - Hormonal treatment
 - Fetotomy
- 39. Relaxin is responsible for**
- Expansion of pelvis
 - Uterine contractions
 - Luteolysis
 - Luteogenesis
- 40. eCG has biologic activities similar to:**
- HCG
 - LH
 - FSH and LH
 - FSH
- 41. In cows, at the 2nd- 3rd days after birth, lochia becomes:**
- Mucopurulent
 - Bloody stained
 - Mucoid
 - Watery
- 42. The type of placentation in goats is:**
- Zonary
 - Diffuse
 - Discoid
 - Cotyledonary
- 43. In cows, uterine prolapse might occurs:**
- Pre-partum
 - Post-mating
 - Postpartum
 - After caesarean section.
- 44. Ovarian hematomas are common form of the ovarian disease in:**
- Swine
 - Canine
 - Equine
 - Cows
- 45. Posthitis means the inflammation of**
- Penis
 - Prepuce
 - Glans penis
 - Body of penis
- 46. Phallitis means the inflammation of**
- Testis
 - Prepuce
 - Glans penis
 - Body of penis
- 47. Semen sample might be mixed with urine when semen is collected by:**
- Electro-ejaculator
 - Trans-rectal massage
 - Surgical method
 - Condom
- 48. A sperm with a double middle piece is likely to occur during:**
- Overheating
 - Spermatogenesis
 - Rough manipulation
 - Ejaculation
- 49. Identify the method that could not be applied for semen collection from stallions:**
- Artificial vagina
 - Condom
 - Direct method
 - Rectal massage
- 50. Laparoscopic insemination involves the direct deposition of semen into the:**
- Cervix
 - Vagina
 - Uterine horn
 - Oviduct
- 50. Laparoscopic insemination involves the direct deposition of semen into the:**
- Cervix
 - Vagina
 - Uterine horn
 - Oviduct
- 51. In pregnant females, the production of PGF_{2α} is blocked by:**
- Oxytocin
 - The embryo
 - Estrogen
 - Corpus luteum



52. In male's camel, one of these accessory genital glands is not present:

- a. Ampulla b. Prostate gland c. Seminal vesicles d. Bulbourethral glands

53. The elevation in estrogen levels during the late follicular phase leads to:

- a. Luteolysis b. Follicle growth c. Increase LH surge d. Follicle regression

54. The most obvious sign of estrus in the buffalo cow is:

- a. Homosexual behavior b. Vaginal mucous c. Standing to be mounted d. Frequent urination

55. Which organism is a known specific causative agent of endometritis?

- a. E. coli b. Brucella abortus c. Streptococcus spp. d. Fusobacterium necrophorum

56. A true hermaphroditism in female animals is characterized by?

- a. Ovarian aplasia b. Ovotestis c. Ovarian cysts d. Imperforate hymen

57. Identify the method that is not be applied for semen collection in dogs

- a. Electroejaculation b. Condom c. Artificial vagina d. Digital manipulation

58. The mitochondrial sheaths in the sperm cell located in the:

- a. Main piece b. Midpiece c. Proximal centriole d. Sperm's head

59. The source of the sticky, gelatinous material in the stallion's semen is the:

- a. bulbourethral gland b. Seminal vesicle c. Sertoli cells d. Ampulla

60. One of the following is not an ovarian congenital anomaly:

- a. Ovotestis b. Ovarian cyst c. Ovarian Hypoplasia d. Ovarian Agenesis

61. Genetically not identical twins are:

- a. Acquired anomaly b. Congenital anomaly c. Dizygotic d. Monozygotic

62. Which one is not related to the classification of gestation periods?

- a. The ovum b. The placenta c. The fetus d. The embryo

63. The intrauterine migration of equine embryos is very important in several ways, except of:

- a. Prevents PGF₂ α production b. Inhibits oxytocin receptors
c. Nutrients harvesting d. Enhances placentation

64. The fetal membrane that prevents the penetration of compact materials and infection agents is:

- a. False amnion b. Chorion c. Allantoic d. Amnion

65. Which one of these hormones does the placenta not secretes:

- a. hCG b. Progesterone c. PGF₂ α d. Estrogen

66. Which one of the following is not related to the role of yolk sac:

- a. Provide nutrients b. Gaseous exchanges c. Elimination of wastes d. Synthesis of hormones

67. The internal organs of the reproductive system are originating from:

- a. Endoderm b. Ectoderm c. Mesoderm d. Trophoblast

68. If a sperm with X chromosome fertilized the ova, the duct that develops is the:

- a. Wolffian b. Müllerian c. Both d. None



Towards the end of pregnancy, a smooth discoid rubber-like masses float free in allantoic fluids called:

- a. White streaks b. Cotyledons c. Caruncles d. Hippomenes

70. The equation used to determine the fetal calve age is

- a. $X = 2.5 (CRL+21)$ b. $X = 2.5 (CRL+17)$ c. $X = 2.1 (CRL+21)$ d. $X = 2.1 (CRL+17)$.

71. A fetid red-brown watery vaginal discharge can be seen in the case of:

- a. Endometritis b. Metritis c. Pyometra d. Puerperal septic metritis

72. Foley catheter is specifically used for:

- a. Urine evacuation b. Embryo transferring c. Embryo flushing d. Uterine washing

73. One of the following growth factors is secreted from the oocyte:

- a. Activin b. Inhibin c. AMH d. GDF9

74. An example of gonadotrophin-independent follicle growth stage is:

- a. Secondary b. Primordial c. Antral d. Preantral

75. In the granulosa cells, the testosterone is aromatized to oestradiol-17 β under the influence of

- a. LH b. Progesterone c. PGF2 α d. FSH

76. In camels, the ranges of estrus cycle vary from 16-30 days due to the:

- a. Spontaneous ovulation b. Anovulation c. Delay ovulation d. Induced ovulation

77. At sonography, the cavity of the active corpus luteum appears as

- a. Hypo-echogenic tissue b. Non-Echogenic c. Hyper-echogenic tissue d. Not detectable

78. Recognition of irregular- hyperechogenic amniotic membrane and placentomes locating above the fetus, might indicates to

- a. Oversized Fetus b. Dead Fetus c. Macerated fetus d. Twinning

79. The maneuvers used to correct the shoulder flexion is called:

- a. Extension b. Traction c. Retropulsion d. Rotation

80. Camel's shed the peno-preputial adhesions at:

- a. Aging b. Maturity c. Birth d. Puberty

81. At the bone interface, the ultrasound waves are?

- a. Transmitted across the interface b. Reflected c. Diffused d. Deviated

82. For estrus synchronization in cows, CIDR is allocated in the:

- a. Vulva b. Uterine horn c. Cervix d. Vagina

83. Immediately after ovulation, the ruptured follicle is called:

- a. Corpus luteum b. Corpus hemorrhagicum c. Corpus Albicans d. Atretic follicle

84. The ultrasound-guided needle used for follicle pickup reaches the ovary through the:

- a. Cervix b. Uterus c. Sub-lumber region d. Vagina

85. PGF2 α is used for estrus synchronization as it causes:

- a. Follicular growth b. luteolysis c. Ovulation d. Suppress ovarian activity



