

## Subject: Veterinary Gynaecology & Obstetrics

1. "Catlin mark" relates to:
  - a. CNS defect
  - b. Muscular defect
  - c. Joint defect
  - d. Musculoskeletal defect
  
2. Long biological half-life of eCG is mainly due to presence of
  - a. Carbohydrate
  - b. Linolenic acid
  - c. Sialic acid
  - d. Zn
  
3. Caruncles in cow, sloughs post-partum at:
  - a. Day of parturition
  - b. 6-10 days post-partum
  - c. 15-20 days post-partum
  - d. 25-30 days post-partum
  
4. Sheep is considered as
  - a. Monoestrous
  - b. Polyestrous round the year
  - c. Seasonal polyestrous
  - d. Seasonal monoestrous
  
5. Clitoris of the mare is an important reservoir of the following infectious organism
  - a. *Taylorella equigenitalis*
  - b. *Brucella equi*
  - c. *Trypanosoma equiperdum*
  - d. *Trypanosoma equi*
  
6. Formation and maintenance of tight junction between Sertoli cells is regulated by
  - a. Testosterone
  - b. Dihydrotestosterone
  - c. LH
  - d. FSH
  
7. Body of prostate is absent in
  - a. Boar
  - b. Ram
  - c. Stallion
  - d. Bull

8. Seeding of embryo is done at
- 6 to -7°C
  - 10°C
  - 0°C
  - 80°C
9. Enzootic abortion of ewes (EAE) is caused by
- Chlamydia abortus*
  - Brucella melitensis*
  - Toxoplasma gondii*
  - Salmonella* spp.
10. The ovaries of cyclic buffalo heifers have a reservoir of approximately ..... to ..... numbers of primordial follicles, compared with over 100,000 in cattle.
- 40,000 to 50,000
  - 60,000 to 70,000
  - 10,000 to 20,000
  - 70,000 to 80,000
11. Erythritol is related to ----- while virgin heifer test is related to -----
- Brucellosis & Campylobacteriosis
  - Brucellosis & Trichomoniasis
  - Brucellosis & Tuberculosis
  - Trichomoniasis & Campylobacteriosis
12. Which embryonic stage is most suitable for cryo-preservation
- Morula
  - Early blastocyst
  - Hatched blastocyst
  - 16-32 cell stage
13. .... is characterised by a persistent penile erection that lasting longer period of time, resulting in pain and dysuria.
- Phimosis
  - Persistent franulum
  - Priapism
  - Para phimosis
14. Hatching of blastocyst in cattle occurs mostly at..... following IVF
- 6-7 days
  - 8-11 days
  - 12-15 days
  - 16-19 days

15. Which causative organism is responsible for contagious equine metritis (CEM) in equine?
- Equine herpes virus 1
  - Trypanosoma equiperdum*
  - Brucella equi*
  - Taylorella equigenitalis*
16. Which of the following is not a Preovulatory FSH, LH control centre in hypothalamus
- Suprachiasmatic nuclei
  - Anterior hypothalamic nuclei
  - Arcuate nucleus
  - Preoptic nuclei
17. During sexed semen production, DNA is stained with the membrane-permeable agent bisbenzimidazole DNA-binding dye, Hoechst 33342 that binds specifically to .....nucleotide along with minor groove of the DNA.
- G-C pair
  - A-T pair
  - G and T
  - C and A
18. At about..... days of pregnancy in mare the CL of pregnancy degenerates, followed by development of accessory CL which maintains pregnancy upto 150 days.
- 12-15 days
  - 16-20 days
  - 35-40 days
  - 65-70 days
19. Which of following have role in remodelling of follicular layers after ovulation?
- PGE<sub>2</sub>
  - PGF<sub>2</sub>
  - Oxytocin
  - Estrogen
20. The CLs are unresponsive to exogenous PGF<sub>2α</sub> until about ..... days after ovulation; thus prostaglandins cannot be used to synchronize estrus in pigs
- 5
  - 7
  - 9
  - 12

21. Treating female animal with FSH to induce follicular growth before ultrasound guided oocyte recovery performed is called
- Flushing
  - Superovulation
  - Coasting
  - Ablation
22. .... hormone is required in addition to LH to support luteal function in the bitch, and it is considered as major luteotropic hormone in this species.
- Progesterone
  - Relaxin
  - Prolactin
  - FSH
23. Cloning involves
- Cyto-nuclear transfer
  - Cytoplasmic transfer
  - Nuclear transfer
  - A gene transfer
24. The copulatory tie forms in
- Canine
  - Swine
  - Equine
  - Caprine
25. What is the approximate diameter of bovine embryo.
- 150-220 $\mu$ m
  - 121-190  $\mu$ m
  - 200-250  $\mu$ m
  - 100-120  $\mu$ m
26. Alteration of a fetus from transvers or vertical to a longitudinal presentation is known as
- Rotation
  - Retropulsion
  - Version
  - Repulsion
27. Foot-nape posture is usually bilateral in
- Bovine
  - Equine
  - Swine
  - Canine

28. Efficacy of sex-sorting of spermatozoa using flow-cytometry is
- 2 million live spermatozoa/ hour
  - 20 million live spermatozoa/ hour
  - 200 million live spermatozoa/ hour
  - 12 million live spermatozoa/ hour
29. Cells which possess ability to give rise to all tissue types/ organ except placenta are
- Unipotent
  - Multipotent
  - Pluripotent
  - Totipotent
30. Earliest method of pregnancy diagnosis in farm animals is
- Progesterone assay
  - Early conception factor
  - B-mode ultrasonography
  - Colour Doppler ultrasonography
31. Estrus lasts .....hours in ewe and ..... hours in the doe.
- 24-36 hrs and 24-48 hrs
  - 24-48 hrs and 24-36 hrs
  - 30-36 hrs and 36-42 hrs
  - 36-42 hrs and 30-36 hrs
32. Dystocia due to wry neck is commonly seen in
- Canine
  - Feline
  - Equine
  - Bovine
33. Complete fetotomy in posteriorly presented dead fetus involves cuts
- 3
  - 5
  - 4
  - 6
34. Most common cause of dystocia in sow is
- Foot Nape posture
  - Feto-maternal disproportion
  - Primary Uterine inertia
  - Breech presentation
35. Length of French mini straw is
- 133mm
  - 65mm
  - 110mm
  - 165mm



36. Fetal secretion responsible for maternal recognition of pregnancy in swine is
- P<sub>4</sub>
  - E<sub>2</sub>
  - PAG
  - IFN-tau
37. The Bartholin gland in female which secrete a viscid fluid most actively at estrus, have a tuboalveolar structure similar to the ..... gland in the male.
- Seminal vesicle
  - Prostate
  - Urethral
  - Bulbourethral
38. The inguinal ligament of the gonad is often called the.....testis
- Rete
  - Gubernaculum
  - Epididymis
  - Sustentacular
39. Steroid and protein hormones works through their receptors present in
- Nucleus and membrane, respectively
  - Membrane and nucleus, respectively
  - Nucleus and cytoplasm
  - Membrane only
40. Select the sequence of hormones arranged in order of decreasing molecular weight
- Placental lactogen>hCG>Relaxin>Testosterone
  - Relaxin>Testosterone>Placental lactogen>hCG
  - Placental lactogen>Relaxin>hCG>Testosterone
  - hCG>Placental lactogen>Relaxin>Testosterone
41. The environment for enhancing the fertilizing ability of sperm is mainly found in
- caput epididymis
  - corpus epididymis
  - cauda epididymis
  - seminiferous tubule
42. Blood flow to the bovine ovary is highest during the
- follicular phase
  - luteal phase
  - just before ovulation
  - luteal regression

43. Ovsynch plus protocol differs with Ovsynch in terms of following treatment.....
- Estradiol benzoate administered 3 days before start of Ovsynch
  - Estradiol benzoate administered 24h before the 2<sup>nd</sup>GnRH injection of Ovsynch
  - eCG administered 3 days before start of Ovsynch
  - Norgestomet administered 3 days before start of Ovsynch
44. A decline in rectal temperature by 1°C precedes parturition process in
- Mare
  - Cow
  - Bitch
  - Sow
45. Casting of wethers or casting of calf bed is related to the
- Uterine prolapse
  - Rectal prolapse
  - Vaginal prolapse
  - Prolapse of bladder
46. Selection of dominant follicle involves the decline in ..... and acquisition of..... responsiveness.
- Estrogen and LH
  - FSH and LH
  - LH and FSH
  - LH and Estrogen
47. Relationship of extremities of fetus to its own body is known as
- Presentation
  - Position
  - Posture
  - Version
48. SIPS condition follows vaginal bleeding commonly in
- Cat
  - Bitch
  - Crossbred cow
  - Mare
49. Cervical seal which forms after conception, increases in size until it protrudes or covers the external os of cervix and it is visible & palpated between:
- 05-10 days post-conception
  - 15-20 days post-conception
  - 25-30 days post-conception
  - 40-120 days post-conception

50. Dicephalus tetra brachiuspygopagus tetrapus and dicaudatus is referred to the fetus joined together at
- Xiphoid cartilage
  - Sacrum
  - Ischium
  - Thorax
51. Dose rate of Cabergoline for treatment of pseudo pregnancy in bitch is
- 5 $\mu$ g/kg body weight
  - 1-2 $\mu$ g/kg body weight
  - 5mg/kg body weight
  - 1-2mg/kg body weight
52. To find out the images of non-pregnant uterus through USG in bitches, the urinary bladder filled up with urine could be the landmark that would appear as
- Echoic
  - Anechoic
  - Hypoechoic
  - Hyperechoic
53. Camerer's torsion fork is used for
- Rotation
  - Detorsion of uterus
  - Retropulsion
  - Traction
54. Adventitious placenta is found in condition
- Bull dog calf fetus
  - Hydrallantois
  - Anasarca
  - Hydramnios
55. Monster with 2 faces on opposite side of the head are called
- Cephalopagus
  - Jeniceps
  - Syncephalus
  - Diprosopus
56. The length of the estrous period depends on whether and when mating occurs in
- Sheep
  - Mare
  - Camel
  - Bitch



57. Weaver finch feather test is done for
- LH
  - FSH
  - Estrogen
  - Prolactin
58. Species in which vertical diameter and transverse diameter of pelvis are nearly equal
- Caprine
  - Equine
  - Feline
  - Bovine
59. Peg cells are found in
- Oviduct
  - Vagina
  - Uterus
  - Ovary
60. Pressure inside A.V. of bull should be
- 30-45 mm of Hg
  - 30-45 mm of H<sub>2</sub>O
  - 45-55 mm of Hg
  - 45-55 mm of H<sub>2</sub>O
61. Accessory corpus luteum is commonly observed in
- Camel
  - Cattle
  - Buffalo
  - Equine
62. Number of carbon atom in a molecule of estrogen
- 18
  - 19
  - 20
  - 21
63. 'Rig' is a term used for
- Balanoposthitis in ram
  - Cryptorchid stallion
  - Castrated ram
  - Castrated male cat
64. Transport time of sperm in epididymis is
- 9-14 days
  - 4-9 days
  - 15-20 days
  - 20-25 days

65. The development of mature spermatozoa from spermatids is called as
- Spermateliosis
  - Spermiogenesis
  - Spermatocytegenesis
  - Spermiation
66. Uterine horn in caesarean section of buffalo is incised over
- Lesser curvature
  - Greater curvature
  - Towards ovarian end
  - Towards cervical end
67. Digital stimulation of vagina in bitch to induce oxytocin release and uterine contraction is called
- Polarization
  - Feathering
  - Ferguson
  - Seeding
68. Obturator paralysis is commonly observed in
- Ovine
  - Equine
  - Canine
  - Bovine
69. Freemartin results when
- A male fetus born co-twin with a female fetus
  - A male fetus born co-twin with a male fetus
  - A female fetus born co-twin with a female fetus
  - Monozygotic male twin fetus
70. White side test is performed for diagnosis of endometritis includes
- 5% NaOH
  - 1% NaOH
  - 5% NaCl
  - 1% NaCl
71. Summer anestrus and winter anestrus is commonly observed in
- Mare and Buffalo, respectively
  - Mare and Sheep, respectively
  - Buffalo and Mare, respectively
  - Sheep and Mare, respectively

72. Optimum calving to conception interval should be ..... days for annual production of calves in a profitable dairy farming model.
- 85
  - 45
  - 95
  - 115
73. First successful cryopreservation of cattle embryo (Frosty II) was done by
- Wilmot and Rowson (1973)
  - Wilmot et al. (1983)
  - Wittingham (1972)
  - Brackett et al. (1982)
74. A cow with sub clinical endometritis is defined when it has one of the following percent of polymorphonuclear cells in uterine cytology:
- >2%
  - >4%
  - >8%
  - >18%
75. Alveoli of the mammary glands developed under the influence of
- Estrogen
  - Progesterone
  - Prolactin
  - Prostaglandin E
76. Dilatation of cervix is easier in
- Cow
  - Buffalo
  - Mare
  - Sheep
77. Muc-1 synthesis in the uterus is stimulated by
- Interferon tau
  - Progesterone
  - Estrogen
  - Oxytocin
78. Molecular weight of interferon tau in cow is
- 10000 D
  - 300-400 D
  - 24000 D
  - 38000 D

79. Preferred transferable stage of embryo to surrogate mother in E.T.T. is :
- Early morula
  - Late morula
  - Early blastocyst
  - Hatching blastocyst
80. Filamentous growth of the bovine conceptus is positively related to
- Estrogen concentration
  - Progesterone concentration
  - PGF<sub>2α</sub> concentration
  - PGE<sub>2</sub> concentration
81. Sperm reservoir of sow, ruminants and bitch is located in
- Uterotubal junction, cervical crypts and endometrial gland, respectively
  - Uterotubal junction, endometrial gland and cervical crypts, respectively
  - Endometrial gland, uterotubal junction and endometrial gland, respectively
  - Cervical crypts, cervical crypts and uterotubal junction, respectively
82. Land mark for reproductive organs' examination through rectal palpation in mare is
- Uterus
  - Cervix
  - Ovary
  - Broad ligament
83. Which substrate is responsible for estrogen synthesis according to two cell two gonadotropin theory?
- Pregnanolone
  - Estrone
  - Androstenedione
  - Dihydrotestosterone
84. Inner most layer of cumulus oophorus adjacent to zona pellucida is named as
- Theca interna
  - Perivitelline layer
  - Corona radiata
  - Discus poligerus
85. Large luteal cells are derived from
- Granulosa cells
  - Theca externa cells
  - Theca interna cells
  - Zona cells

86. Softening of zona matrix is due to  
a. Hyluronidase  
b. Trypsin and plasmin  
c. Acrosin  
d. Arylsulfatase
87. Centric type nidation/implantation occurs in  
a. Ruminants  
b. Rodents  
c. Canine  
d. Primates
88. Balanoposthitis in ram is known as  
a. Phallocampsis  
b. Pizzle rot  
c. Rain bow penis  
d. Crampiness
89. Biological test for pregnancy diagnosis is most useful in  
a. Mare  
b. Cat  
c. Cow  
d. Bitch
90. Complete destruction of endometrium and fibrosis of uterine wall is observed in  
a. Parametritis  
b. Perimetritis  
c. Sclerotic metritis  
d. Endometritis
91. Which of the following drugs inhibit synthesis of progesterone?  
a. Cabergoline  
b. Epostane  
c. Aglepristone  
d. Mifepristone
92. Which enzyme converts progesterone to estrogen at the time of initiation of parturition in bovine?  
a. Aromatase  
b.  $17\alpha$  hydroxylase  
c.  $5\alpha$  reductase  
d. cytochrome p450



93. Plasma progesterone milieu decline in mid gestation and remains low until a few days before parturition in
- Equine
  - Ovine
  - Caprine
  - Bovine
94. In Friedman test, mare serum is injected into immature
- Rat
  - Hamster mice
  - Rabbit
  - Frog
95. Expulsion of dead fetus after completion of gestation period is known as
- Abortion
  - Premature delivery
  - Still birth
  - Over matured fetus
96. Full activation of transcription in sheep and cow embryos occurs in the ..... cleavage division.
- Fifth
  - Fourth
  - Seventh
  - Third
97. Diffuse and microcotyledonary placenta found in
- Cat
  - Mare
  - Canine
  - Sheep
98. Drug of choice for the treatment of mummification in bovine is
- Cloprostenol
  - Stilbesterol
  - Valethamate bromide
  - Oxytocin
99. Vaginal mucus agglutination test is performed to diagnose
- Campylobacteriosis
  - Trichomoniasis
  - Brucellosis
  - Epivag

100. .... cell is able to differentiate into any cell type but not placenta
- Totipotent
  - Pluripotent
  - Multipotent
  - Unipotent
101. Norethisterone contains
- eCG
  - Testosterone
  - Progesterone
  - Estrogen
102. FSH and LH are chemically
- Glycoprotein
  - Peptide
  - Polypeptide
  - Protein
103. Oocyte maturation is brought by
- Transient decrease in cAMP level
  - Transient increase in cAMP level
  - Normal level of cAMP
  - No relation with cAMP
104. Embryo flushing media is filtered through filter having pore size of
- 40 $\mu$
  - 70 $\mu$
  - 22 $\mu$
  - 0.22 $\mu$
105. Supplementation of ..... hormone in IVC medium may increase the blastocyst development rate
- Activin
  - Melatonin
  - Progesterone
  - Heparin
106. Endometrial prostaglandin synthesis inhibitor (EPSI) is having similar chemical nature of ..... that inhibits the PGF<sub>2 $\alpha$</sub>  production in cow.
- Linolenic acid
  - Linoleic acid
  - Arachidonic acid
  - Docosa and ecosaheptaenoic acid

107. Which species is most susceptible to polyspermy?
- Swine
  - Equine
  - Bovine
  - Canine
108. Solidification of a solution by extreme elevation of viscosity, using high cooling rate, resulting in a glass-like state rather than opaque ice is called as
- Encapsulation
  - Fast freezing
  - Slow freezing
  - Vitrification
109. The combined processes of flattening of the blastomeres and polarization are referred to as
- Cortical reaction
  - Implantation
  - Compaction
  - Hatching
110. Supplementation of ..... to the flushing medium is important in order to prevent adhesion of the embryo to the plastic ware.
- BSA
  - Heparin
  - IGF-1
  - PHE
111. Pampiniform plexus is a plexus formed by
- Cremaster muscle
  - Testicular vein
  - Testicular artery
  - Internal pudendal artery
112. Conceptus elongation occurs by cellular reorganization and remodelling in
- Cow
  - Sheep
  - Sow
  - Buffalo
113. Dominant cells found in the estrus period of bitch
- Intermediate cells
  - Superficial cells
  - Parabasal cells
  - Cornified cells

114. Transport time of ova in the oviduct of cattle and sheep ranges from  
a. 72 to 90 hrs  
b. 92 to 108 hrs  
c. 24 to 48 hrs  
d. 24 to 36 hrs
115. The inner surface of the cervix in mare is having  
a. Circular mucosal folds  
b. Conspicuous mucosal folds  
c. Vertical mucosal folds  
d. Horizontal mucosal folds
116. Binding of sperm to sperm receptors occurs through an interaction with O-linked oligosaccharides on  
a. ZP3  
b. ZP2  
c. ZP1  
d. Perivitelline membrane
117. The testis of stallion descend into the scrotum at ..... weeks of age.  
a. 3-4  
b. 1-3  
c. 4-6  
d. less than 1
118. Manchette is formed in  
a. Acrosomal phase  
b. Golgi phase  
c. Maturation phase  
d. Cap phase
119. Gestation length of ewe is longer than normal in following conditions  
a. Spring-born than fall-born  
b. Pregnancy with female fetus than male fetus  
c. Twins than single  
d. Pregnancy with three foetuses
120. INDUSCHIP is related to:  
a. Selection of elite animals of crossbred population  
b. Selection of elite animals of indigenous breeds  
c. Selection of elite animals of exotic breeds  
d. Identification and traceability of animals

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1.	<b>A</b>
2.	<b>C</b>
3.	<b>B</b>
4.	<b>C</b>
5.	<b>A</b>
6.	<b>D</b>
7.	<b>B</b>
8.	<b>A</b>
9.	<b>A</b>
10.	<b>C</b>
11.	<b>B</b>
12.	<b>B</b>
13.	<b>C</b>
14.	<b>B</b>
15.	<b>D</b>
16.	<b>C</b>
17.	<b>B</b>
18.	<b>C</b>
19.	<b>A</b>
20.	<b>D</b>
21.	<b>C</b>
22.	<b>C</b>
23.	<b>C</b>
24.	<b>A</b>
25.	<b>B</b>
26.	<b>C</b>
27.	<b>B</b>
28.	<b>A</b>
29.	<b>C</b>
30.	<b>B</b>

31.	<b>A</b>
32.	<b>C</b>
33.	<b>B</b>
34.	<b>C</b>
35.	<b>A</b>
36.	<b>B</b>
37.	<b>D</b>
38.	<b>B</b>
39.	<b>A</b>
40.	<b>D</b>
41.	<b>C</b>
42.	<b>B</b>
43.	<b>C</b>
44.	<b>C</b>
45.	<b>A</b>
46.	<b>B</b>
47.	<b>C</b>
48.	<b>B</b>
49.	<b>D</b>
50.	<b>B</b>
51.	<b>A</b>
52.	<b>B</b>
53.	<b>A</b>
54.	<b>B</b>
55.	<b>B</b>
56.	<b>C</b>
57.	<b>A</b>
58.	<b>B</b>
59.	<b>A</b>
60.	<b>C</b>

61.	<b>D</b>
62.	<b>A</b>
63.	<b>B</b>
64.	<b>A</b>
65.	<b>A</b>
66.	<b>B</b>
67.	<b>B</b>
68.	<b>D</b>
69.	<b>A</b>
70.	<b>A</b>
71.	<b>C</b>
72.	<b>A</b>
73.	<b>A</b>
74.	<b>D</b>
75.	<b>B</b>
76.	<b>C</b>
77.	<b>B</b>
78.	<b>C</b>
79.	<b>C</b>
80.	<b>B</b>
81.	<b>A</b>
82.	<b>C</b>
83.	<b>C</b>
84.	<b>C</b>
85.	<b>A</b>
86.	<b>B</b>
87.	<b>A</b>
88.	<b>B</b>
89.	<b>A</b>
90.	<b>C</b>

91.	<b>B</b>
92.	<b>B</b>
93.	<b>A</b>
94.	<b>C</b>
95.	<b>C</b>
96.	<b>B</b>
97.	<b>B</b>
98.	<b>A</b>
99.	<b>A</b>
100.	<b>B</b>
101.	<b>C</b>
102.	<b>A</b>
103.	<b>A</b>
104.	<b>D</b>
105.	<b>B</b>
106.	<b>B</b>
107.	<b>A</b>
108.	<b>D</b>
109.	<b>C</b>
110.	<b>A</b>
111.	<b>B</b>
112.	<b>C</b>
113.	<b>D</b>
114.	<b>A</b>
115.	<b>B</b>
116.	<b>A</b>
117.	<b>B</b>
118.	<b>A</b>
119.	<b>A</b>
120.	<b>B</b>