

B.V.Sc. & A.H. (Fourth Professional) Examination – 2024

Veterinary Gynaecology and Obstetrics Paper-I

Time: Three Hours

Maximum Marks: 100

Weightage: 20

Unit-1 (Veterinary Gynaecology)

Instructions:

- 1) Attempt all questions
- 2) Answer of all questions is to be written in the space provided along with the question in question-booklet.
- 3) Overwriting is not allowed in the objective type question.

Q.1 Fill in the blanks.

(20x0.5 = 10)

- 1.1 More is the frequency of probe in USG..... is the resolution.
- 1.2 The dose of hCG in management of follicular cyst in cattle is.....
- 1.3 Large and small luteal cells both secrete..... Hormone
- 1.4 The hormone of choice for treatment of persistent corpus luteum is
- 1.5 Hormone used for pregnancy diagnosis in bitch is.....
- 1.6 The drug of choice for treatment of pseudopregnancy in bitch is.....
- 1.7 Common symptom of follicular cyst in cattle is
- 1.8 The long half-life of PMSG is due to high content of.....
- 1.9 Potato soup like pus is characteristic feature in..... infection.
- 1.10 Congenital lack of lead to PCL.
- 1.11 Brucella infection in mare results in..... (Name of disease/condition)
- 1.12 Ovulation in cattle takes place in..... phase of estrous cycle.
- 1.13 test is performed to diagnose the subclinical endometritis in cow.
- 1.14 The shape of the caruncle in cow uterus is.....
- 1.15 The gestation period of buffalo is.....
- 1.16 CIDR stands for.....
- 1.17 The characteristics feature of proestrus in bitch is
- 1.18 Recipient animal should be in estrus with in hrs of the donor.
- 1.19 Hermaphrodite is common in..... (Name of species)
- 1.20 Minimum.....embryos are required to maintain pregnancy in sow.

Q.2 Choose the most suitable answer and write the number of the correct answer 1 or 2 or 3 or 4 in the space given against each sub question: (20x0.5 = 10)

- 2.1 Gestation period of bitch is..... Days ()
1. 52
2. 62
3. 72
4. 48
- 2.2 Which hormone regulate the length of estrous cycle ()
1. Estrogen
2. Progesterone
3. Prolactin
4. GnRH
- 2.3 The cause of repeat breeding are- ()
1. Mangmental
2. Infectious
3. Hormonal
4. All of the above
- 2.4 Earliest and most accurate method of pregnancy diagnosis in cattle ()
1. Per-rectal method
2. Hormonal
3. X-ray
4. Ultrasonography
- 2.5 Bitch is considered as ()
1. Seasonally polycyclic
2. Seasonally monocyclic
3. Polycyclic
4. None of the above
- 2.6 Sterility hump is a feature of ()
1. Follicular cyst
2. Luteal cyst
3. Uterine infection
4. Anestrus
- 2.7 The hormone used for estimation of pregnancy in animals ()
1. Progesterone
2. Esterone sulphate
3. PMSG
4. All of the above
- 2.8 Half life of PMSG is..... hrs ()
1. 24-48
2. 48-72
3. 72-96
4. 96-120
- 2.9 The receptor present on zona to identify the sperm of same species during fertilization is known as ()
1. ZP1
2. ZP2
3. ZP3
4. ZP4

- 2.10 The size of dominant follicle ranges from..... mm in mare ()
1. 20-25
2. 25-30
3. 30-35
4. 35-40
- 2.11 Subclinical endometritis in bovine can be diagnosed by ()
1. Endometrial biopsy
2. USG
3. Per-rectal examination
4. None of the above
- 2.12 Gestation period of mare is.....days ()
1. 320
2. 340
3. 350
4. 330
- 2.13 Corpus luteum secret ()
1. Progesterone
2. Oxytocin
3. Relaxin
4. All of the above
- 2.14 The important cause of repeat breeding in India is- ()
1. Managerial
2. Infectious
3. Hormonal
4. Congenital
- 2.15 Species in which ovulation occurs as primary oocyte is- ()
1. Cow
2. Bitch
3. Sow
4. Doe
- 2.16 Wave of abortion is seen in the disease ()
1. Campylobacteriosis
2. Listeriosis
3. Leptospirosis
4. Brucellosis
- 2.17 is example of short day breeder ()
1. Mare
2. Sow
3. Bitch
4. Goat
- 2.18 Most sensitive animal for physiological polyspermy is ()
1. Sow
2. Goat
3. Mare
4. Sheep

2.19 Sexual differentiation of bovine embryo occurs at..... days of gestation ()

- 1. 35
- 2. 40
- 3. 45
- 4. 50

2.20 Which agent is progesterone synthesis inhibitor ()

- 1. Epostane
- 2. Mifepristone
- 3. Aglepristone
- 4. Korlym

Q.3 Attempt any ten out of the following twelve questions. Answer of each question should be in 2 to 3 lines. (10x2.0= 20)

3.1 Explain about Donor Animal in Embryo transfer programme

3.2 Role of HPO Axis in reproduction

3.3 Explain Endometrial cups

3.4 Explain Pedometer

3.5 What is Zona block

3.6 Explain the term Cloud Burst

3.7 Probes used in USG

3.8 What is in vitro fertilization

3.9 Explain Superovulation

Do not write across this line



3.10 Differentiate between Follicle and Corpus luteum

3.11 Explain Supra basal progesterone

3.12 What is Cystic corpora lutea

Q.4 Attempt any six out of the following eight questions. Answer of each question should be in 8 to 10 lines. (6 x 6.0 = 36)

4.1 Discuss about Ovulatory defects in bovine

4.4 Explain why chances of uterine infections are more in post partum animal

4.5 Discuss about hormonal control of estrous cycle in cow

4.6 Discuss about Luteal cyst in cattle

4.7 Explain common reproductive disorders in goat

Do not write across this line

4.8 Discuss about canine pyometra

Q.5 Answer the following question in 1-2 pages (attempt any two). (2x12.0 = 24)

Long question should preferably have sub divisions. Please indicate weightage of marks for subdivisions in each long question.

5.1 Define puberty and sexual maturity, discuss the factors along with mechanism affecting onset of puberty in female animals? (4+4+4)

5.2 What is repeat breeder cow? Discuss its aetiology and treatment strategies. (2+4+6)

5.3 Define follicular dynamics and discuss the various events along with hormonal regulation in follicular dynamics in cattle? (2+10)

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Veterinary Gynaecology and Obstetrics Paper-II

Time: Three Hours

Maximum Marks: 100

Weightage: 20

Unit-2 (Veterinary Obstetrics)

Unit-3 (Veterinary Andrology and A.I.)

Instructions:

- 1) Attempt all questions
- 2) Answer of all questions is to be written in the space provided along with the question in question-booklet.
- 3) Overwriting is not allowed in the objective type question.

Q.1 Fill in the blanks.

(20x0.5 = 10)

- 1.1 Duration of second stage of parturition in cow is _____ hour.
- 1.2 Involution of uterus is completed within _____ days in cows.
- 1.3 The greenish discharge voided at the whelping in bitches is due to _____.
- 1.4 Most common site in ectopic pregnancy is _____.
- 1.5 Cervico-vaginal fixation with pre-pubic tendon is called as _____ technique.
- 1.6 Thickened grayish white skin patches on the aborted fetus are indicative of _____.
- 1.7 Always rule out _____ before instituting any treatment for abdominal pain in pregnant buffaloes
- 1.8 In caesarean section, uterus is incised along its _____ axis.
- 1.9 A few days before parturition there is relaxation of _____ ligament
- 1.10 In mare, umbilical cord shows pulsation up to _____ minutes after foaling and if broken immediately 400-1500 ml of blood is lost.

1.11 Abnormal sperm percentage in a semen sample should not exceed _____ %.

1.12 High content of ergothionine and inositol in vesicular glands is characteristics of _____ species.

1.13 Duration of spermatogenesis in buffalo bull is _____ days.

1.14 Sperm concentration in semen of bull is _____ millions/ml.

1.15 The milk is heated for _____ °C for 10 minutes before dilution of semen.

1.16 _____ has been used as an universal cryoprotective agent for cryopreservation of spermatozoa.

1.17 Egg yolk provides _____ to prevent the sperm from agglutination and cold shock.

1.18 Sigmoid flexus is pre scrotal in _____.

1.19 In freezing of the straws manually the straws are placed at 4-5 cm above the level of liquid nitrogen for 10-15 minutes where straw reaches the temp _____ °C.

1.20 Number of spermatozoa required for A.I. with frozen semen in cattle straws is _____ million motile sperms after thawing.

Q.2 Choose the most suitable answer and write the number of the correct answer 1 or 2 or 3 or 4 in the space given against each sub question: (20x0.5 = 10)

2.1 Primary uterine inertia as a cause of dystocia is commonly observed in ()

1. Bitch
2. Cow
3. Mare
4. Goat

2.2 Pre-cervical uterine torsion is diagnosed through ()

1. Per rectal examination
2. Per vaginal examination
3. Abdominal ballotement
4. Radiography

2.3 Bilateral hip-flexion posture is also known as ()

1. Breach presentation
2. Nape posture
3. Dog sitting posture
4. None of these

2.4 Retention of fetal membranes occur in abortions due to ()

1. Trichomoniasis
2. Vibriosis
3. Brucellosis
4. 2 & 3

2.5 Pygopagus conjoined twins are joined at ()

1. Thorax
2. Ischium
3. Ventral abdomen
4. Sacrum

2.6 Onset of labor occurs under the influence of ()

1. Oxytocin and estradiol
2. Prostaglandin and relaxin
3. Cortisol
4. All

2.7 Parturition in bovines can be induced during last term by administering ()

1. Corticosteroids
2. Oxytocin
3. PGF2 alpha
4. 1 & 3

2.8 Involution of uterus takes place in cows at

()

1. 30 days
2. 90 days
3. 100 days
4. 120 days

2.9 Commercially available preparation of HCG is

()

1. Chorulon
2. Folligon
3. Receptal
4. Lutalyse

2.10 PGF₂ alpha for the treatment of bovine pyometra by I.M. route is given @

()

1. 25 mg
2. 10 mg
3. 30 mg
4. 5 mg

2.11 Which of the following cells are quite resistant to radiation therapy ()

1. Sertoli cells
2. Spermatocytes
3. Spermatids
4. None

2.12 GPC is one of the major energy substrate present in the semen and it can be utilized by spermatozoa in

()

1. Anaerobic conditions
2. Aerobic and Anaerobic conditions
3. Aerobic conditions
4. None of the above

2.13 Abnormalities of head ___% spermatozoa are permissible in normal and good quality semen

()

1. 2
2. 6
3. 4
4. 8

- 2.14 Which enzyme is secreted by acrosome that helps in penetration of spermatozoa into the ovum ()
1. Protease
 2. Peptidase
 3. Lipase
 4. Hyaluronidase.
- 2.15 In which animal the temperature is important in collection of semen with A.V ()
1. Boar
 2. Dog
 3. Stallion
 4. Bull.
- 2.16 Which is the secondary sperm defect ()
1. Pyriform
 2. Distal protoplasmic droplet
 3. Microphalic head
 4. Macrophagic head
- 2.17 Which of the following antibiotics is used in routine for TRIS dilutor ()
1. Gentamycin
 2. Chloramphenicol
 3. Ampicillin
 4. Streptomycin sulphate
- 2.18 Citric acid whey dilutor is most suitable for ()
1. Buffalo
 2. Bull
 3. Buck
 4. Ram
- 2.19 How many million live motile sperm cells are required per dose after thawing for artificial insemination with frozen semen ()
1. 40 - 50
 2. 10 -15
 3. 50 - 60
 4. 70- 80

2.20 Seminal plasma has high contents of which of the following minerals than sperms

()

1. Magnesium
2. Sodium and Calcium
3. Zinc
4. Iron.

Q.3 Attempt any ten out of the following twelve questions. Answer of each question should be in 2 to 3 lines.

(10x2.0= 20)

3.1 Premature birth

3.2 Puerperium

3.3 Uterine torsion

3.4 Breech presentation

3.5 Fructolytic index

3.6 Artificial Insemination

Please write your Roll Number above this line

3.7 Sexual maturity

3.8 Impotentia generendi

3.9 Spermiogenesis

3.10 Equilibration

3.11 Tertiary sperm cell abnormalities

3.12 Artificial Insemination

Q.4 Attempt any six out of the following eight questions. Answer of each question should be in 8 to 10 lines. (6 x 6.0 = 36)

4.1 Schistosoma reflexus

4.2 Prolonged gestation

4.3 Mutation

4.4 Seminal vesiculitis

Please write your Roll Number above this line

4.5 Describe selection of bull for artificial insemination.

4.6 Properties of an ideal dilutor.

4.7 Sperm metabolism.

4.8 Glycerolization

Q.5 Answer the following question in 1-2 pages (attempt any two). (2x12.0 = 24)

- 5.1 Write in detail about causative factors, diagnosis and treatment of torsion in buffaloes. (12 marks)
- 5.2 Define parturition (3 marks), state different theories of parturition and describe foetal hypothalamic adrenal axis theory in detail. (9 marks)
- 5.3 What are the basic prerequisites of semen dilution? (3 marks) Write in details the method for preservation of bull semen at ultra low temperature. (9 marks)