

Domain Knowledge Test for recruitment of Assistant Professor in DUVASU, Mathura

Subject: Veterinary Microbiology

- Q. No. 1** Catalase positive and oxidase negative test is a character of
- A *Streptococcus*
 - B *Staphylococcus*
 - C *Pasteurella*
 - D *Pseudomonas*
- Q. No. 2** CS1 pilus is associated with
- A Uro Pathogenic *Escherichia coli* (UPEC)
 - B Entero Toxigenic *Escherichia coli* (ETEC)
 - C Entero Haemorrhagic *Escherichia coli* (EHEC)
 - D *Salmonella* spp.
- Q. No. 3** In Multilocus Sequence Typing (MLST) method of molecular subtyping
- A 16S rRNA gene is amplified
 - B 23S rRNA gene is amplified
 - C Housekeeping gene is amplified
 - D Restriction digestion is done
- Q. No. 4** pXO1 plasmid of *Bacillus anthracis* encodes for
- A Capsule
 - B Toxin
 - C Fimbriae
 - D Pilus
- Q. No. 5** In MRSA, penicillin-binding protein 2a (PBP2a) is encoded by gene
- A *mecA*
 - B *pcbAB*
 - C *pcbC*
 - D *penDE*
- Q. No. 6** The recommended turbidity of broth before using into Antibiotic Sensitivity Test is
- A 0.5 McFarland standard
 - B 1.0 McFarland standard
 - C 1.5 McFarland standard
 - D 3.5 McFarland standard
- Q. No. 7** Which selective media is used in hybridoma technology
- A RPMI-1640 medium
 - B Iscove's medium
 - C EMEM medium
 - D HAT medium

- Q. No. 8** The quality of a vaccine that confers solid protection to the host against any challenge (experimental or natural) by the pathogen is called
- A Potency
 - B Efficacy
 - C Safety
 - D Sterility
- Q. No. 9** In addition to Macrophages and Dendritic cells, which cell is professional antigen processing and presenting cell
- A Neutrophils
 - B Basophils
 - C B Cells
 - D T Cells
- Q. No. 10** T helper type 2 (Th2) cells are a distinct lineage of CD4⁺ effector T cell that secretes
- A IL-4
 - B IFN- γ
 - C TNF- β
 - D IL-2
- Q. No. 11** Bacteria contains small acid soluble proteins (SASPs) in their
- A Cell wall
 - B Middle lamella
 - C Biofilms
 - D Endospores
- Q. No. 12** Reverse vaccinology is an improvement on vaccinology that employs bioinformatics and reverse pharmacology practices, and was first used against
- A Serogroup B meningococcus
 - B SARS-CoV-2
 - C FMD
 - D Porcine reproductive and respiratory syndrome virus (PRRSV)
- Q. No. 13** The member of order Mononegavirales replicate in cytoplasm except
- A *Paramyxoviridae*
 - B *Bornaviridae*
 - C *Rhabdoviridae*
 - D *Filoviridae*
- Q. No. 14** HPAI is classified as which Biosafety level pathogen?
- A Biosafety level -1
 - B Biosafety level -2
 - C Biosafety level -3
 - D Biosafety level -4

- Q. No. 15** What is the A260/A280 ratio for pure DNA
- A ~1.8
 - B ~2.5
 - C ~1.0
 - D ~3.2
- Q. No. 16** Hydropericardiurn syndrome in chicken is caused by
- A Fowl adenovirus (FAV) serotype 1
 - B Fowl adenovirus (FAV) serotype 2
 - C Fowl adenovirus (FAV) serotype 3
 - D Fowl adenovirus (FAV) serotype 4
- Q. No. 17** Rotavirus is classified into P serotypes and G serotypes on the basis of
- A VP4 and VP7 protein
 - B VP1 and VP5 protein
 - C VP6 and VP9 protein
 - D VP2 and VP3 protein
- Q. No. 18** The most common cause of contagious bovine mastitis for the majority of dairy herds which often results in persistent subclinical chronic infections is
- A *Streptococcus uberis*
 - B *Staphylococcus aureus*
 - C *Pseudomonas aeruginosa*
 - D *Klebsiella pneumoniae*
- Q. No. 19** When the Bacteriophage genome gets inserted into bacterial host it is termed as
- A Transformation
 - B Lytic cycle
 - C Transversion
 - D Lysogenic cycle
- Q. No. 20** In the DNA extraction by PCI method, isoamyl alcohol helps
- A to protect genomic DNA during a catastrophe
 - B in separating genomic DNA into a soluble phase
 - C to denatures the protein portion of a cell
 - D in reducing foaming between interphase
- Q. No. 21** Pregnant cows commonly abort following IBR infection of:
- A Respiratory form
 - B Eye form
 - C Genital form
 - D Digestive form
- Q. No. 22** T independent antigens evoke the synthesis of antibody of class
- A IgA
 - B IgM
 - C IgD
 - D IgG

- Q. No. 23** Which of the following is changed by immunoglobulin class switching
- A the V region of L chain
 - B the C region of L chain
 - C the V region of H chain
 - D the C region of H chain
- Q. No. 24** Sequences of DNA that move (or jump) from one location in the genome to another is known as
- A Transposons
 - B Oncogenes
 - C Tumor suppressor genes
 - D Proto-oncogenes
- Q. No. 25** In India for control of Brucellosis, calf-hood vaccination is being practiced using live attenuated vaccine having strain
- A S19
 - B RB51
 - C Rev. 1
 - D P52
- Q. No. 26** Colored colonies produced by *Staphylococcus aureus* on Baird Parker Medium are
- A Pink colored
 - B Yellow colored
 - C Black colored
 - D Brown colored
- Q. No. 27** Systemic and septicemic pasteurellosis in lambs of <2 months is mainly caused by
- A *Mannheimia haemolytica* (mainly A:2)
 - B *Mannheimia haemolytica* A:1
 - C *Pasteurella multocida*
 - D *Bibersteinia trehalosi*
- Q. No. 28** *Pasteurella multocida*, mainly type D, produce a toxin 'Pmt' which is a mitogen for
- A B-cells
 - B Osteoblasts
 - C T-cells
 - D Macrophages
- Q. No. 29** A phenomenon 'satellitism' is characteristics of
- A *Pasteurella hemolytica*
 - B *Actinobacillus lignieresii*
 - C *E. coli*
 - D *Haemophilus* spp.

- Q. No. 30** *Bordetella bronchoseptica* causes atrophic rhinitis in pigs often associated with a co-infection of
- A *Pseudomonas aeruginosa*
 - B *Clostridium perfringens*
 - C *Pasteurella multocida*
 - D *Streptococcus pneumoniae*
- Q. No. 31** What is the name of classification used for non-tuberculous mycobacteria?
- A Carl Linnaeus classification
 - B Kauffmann and White classification
 - C Lancefield classification
 - D Runyon classification
- Q. No. 32** Growth of which of the following bacteria is not inhibited by Digitonin
- A *Acholeplasma*
 - B *Anaeroplasm*
 - C *Mycoplasma*
 - D *Ureaplasma*
- Q. No. 33** In semisolid media growth concentrated in a disc called a *dinger zone*-about 0.5 cm below the surface is characteristics of
- A *Listeria* spp.
 - B *Leptospira* spp.
 - C *Actinobacillus* spp.
 - D *Haemophilus* spp.
- Q. No. 34** *Compylobacter fetus* sub species *fetus* contains various serovars based on
- A Capsular antigen
 - B Heat labile surface antigens
 - C Heat stable surface antigens
 - D H-flagellar antigen
- Q. No. 35** Monoclonal antibodies mimicking activity of enzyme are called as
- A Abzymes
 - B Ribozymes
 - C Mabzymes
 - D Pepzymes
- Q. No. 36** *Diphtheria toxoid* is example of
- A Inactivated endotoxin
 - B Inactivated exotoxin
 - C Conjugated endotoxin
 - D Killed bacterial vaccine
- Q. No. 37** The rapid alternative version of SRID (Single Radial Immunodiffusion) test is
- A Counter current immunoelectrophoresis
 - B Rocket Immunoelectrophoresis
 - C Agar gel Immunodiffusion test
 - D Polyacryamide gel Electrophoresis

- Q. No. 38** Footrot in sheep is caused by the coexistence of two Gram-negative, anaerobic bacteria, *Fusobacterium necrophorum* and
- A *Clostridium chauvoei*
 - B *Actinomyces bovis*
 - C *Dichelobacter nodosus*
 - D *Prevotella* spp.
- Q. No. 39** Production of spindle or fusiform shaped macroconidia is distinguishing feature of
- A *Microsporium* spp.
 - B *Trichophyton* spp.
 - C *Epidermophyton* spp.
 - D *Trichosporon* spp.
- Q. No. 40** In *Clostridium perfringens* type D, pulpy kidney disease in older lambs occurs due to secretion of a toxin known as
- A beta toxin
 - B epsilon toxin
 - C iota toxin
 - D alpha toxin
- Q. No. 41** *Histoplasma capulatum* is a facultative intracellular fungus that binds to CD11/CD18 receptors on
- A Macrophages
 - B TH-cell
 - C Eosinophils
 - D B-cells
- Q. No. 42** Which of the following is not the property of chicken anemia virus infection?
- A Bone marrow aplasia
 - B Sub-cutaneous haemorrhages
 - C Severe loss of egg production
 - D Atrophied thymus and bursa
- Q. No. 43** Which of the following statement is wrong about Prions?
- A They are very resistant to many environmental insults and chemicals
 - B They evoke no inflammatory or immune response in their host
 - C They produce slow but fatal neurodegenerative disease in their hosts
 - D They have more α -helical structure than their normal cellular counterpart
- Q. No. 44** Ochratoxins are produced by several species of
- A *Aspergillus* and *Penicillium*
 - B *Mucror* and *Rhizopus*
 - C *Alternaria* and *Absidia*
 - D *Cryptococcus neoformans*

- Q. No. 45** Members of *Anaplasmataceae* have been have been classified based on the similarities in
- A 23S rRNA
 - B 16S rRNA
 - C 70S rRNA
 - D 5S rRNA
- Q. No. 46** Most common selective media used for isolation of *Bacillus anthracis* is
- A PLET agar
 - B EMJH medium
 - C MSA
 - D Edward's medium
- Q. No. 47** Bovine farcy is caused by
- A *Mycobacterium farcinogenes* and *Mycobacterium senegalense*
 - B *Histoplasma* species and *Blastomyces* species
 - C *Burkholderia mallei* and *Burkholderia pseudomallei*
 - D *Brucella abortus* and *Actinomyces bovis*
- Q. No. 48** Vaccine virus strain used in India under mass PPR vaccination campaigns is
- A Sungri/96 strain
 - B Doyle's strain
 - C Neethling strain
 - D Romanian strain
- Q. No. 49** The concentration of RNA can be determined by measuring the absorbance at 260 nm (A₂₆₀) in a spectrophotometer and an absorbance of 1 unit at 260 nm corresponds to
- A 10 µg/ml RNA
 - B 20 µg/ml RNA
 - C 30 µg/ml RNA
 - D 40 µg/ml RNA
- Q. No. 50** J5 strain is used as a vaccine strain to induce protective immune response in mastitis caused by
- A *Escherichia coli*
 - B *Staphylococcus aureus*
 - C *Streptococcus uberis*
 - D *Streptococcus pyogenes*
- Q. No. 51** For optimum preservation of bacterial cultures for longer duration in glycerolated broth culture, 0.5 ml broth culture of bacteria is mixed with 0.5 ml of
- A 30% glycerol
 - B 10% glycerol
 - C 90% glycerol
 - D 50% glycerol

- Q. No. 52** HEPES is added to the culture medium at the start of the cell culture process. Its main role is
- A to give nutrition to growing cells
 - B help in fast replication of the cells
 - C to maintain temperature during replication of cells
 - D to maintain the pH level of the culture medium as carbon dioxide accumulates because of the respiration of the cells
- Q. No. 53** Tumor suppressor protein which blocks the progression of the cell cycle at G1 phase is
- A p53
 - B Caspase 2
 - C ErbA
 - D AP-1
- Q. No. 54** ELISA test used to differentiate between vaccinated and infected animals; particularly to support FMD control programme in area that are endemic for FMD is
- A LPB-ELISA
 - B Indirect ELISA (iELISA)
 - C Competitive ELISA
 - D NSP-ELISA
- Q. No. 55** A vector that can replicate in more than one host organisms or two different cell types (e.g. a prokaryotic cell and a eukaryotic cell) is called as
- A Expression vector
 - B Secretion vector
 - C Shuttle vector
 - D Cloning vector
- Q. No. 56** Genome of virioids is made up of
- A ssRNA
 - B dsRNA
 - C ssDNA
 - D dsDNA
- Q. No. 57** Which of the following is not true in rate-zonal technique of centrifugation?
- A Subcellular organelles, which have different densities but are similar in size separate efficiently.
 - B Separation of proteins of similar densities and differing only 3 folds in relative molecular mass can be achieved easily.
 - C The technique is employed for the separation of enzymes, RNA-DNA hybrids, ribosomal subunit, subcellular organelle, etc.
 - D The highest density of preformed liquid density gradient, should not exceed that of densest particle to be separated.

- Q. No. 58 Rabies virions are released from affected cell by**
A Budding through intracytoplasmic membranes
B Budding through plasma membranes
C Budding through nuclear membrane
D cell lysis
- Q. No. 59 Ethidium bromide (EtBr) used in PAGE at a final concentration of**
A approximately 0.2-0.5 ng/mL
B approximately 0.2-0.5 mg/mL
C approximately 0.2-0.5 pg/mL
D approximately 0.2-0.5 μ g/mL
- Q. No. 60 Lumpy skin disease (LSD) is an infectious disease in cattle caused by a virus of the family *Poxviridae* also known as**
A Nigerian 75/1
B Diallo
C Arasur 87
D Neethling virus
- Q. No. 61 The double stranded DNA (8Kb) which is covalently closed circular, supercoiled, associated with histones, and is infectious in case of**
A Papillomavirus
B Polyomavirus
C Circovirus
D Adenovirus
- Q. No. 62 Lancefield classification of streptococci is based on**
A M and T antigens
B M, T, R antigens
C C substances/ antigens
D M antigen
- Q. No. 63 Nagler's reaction with *Clostridium perfringens* on egg yolk agar is due to**
A Haemolysin
B Mucin
C Toxin
D Lecithinase
- Q. No. 64 *Streptococcus pneumoniae* can be differentiated from all other α -haemolytic streptococci by**
A Growth characteristics on blood agar
B Morphology
C digitonin sensitivity test
D Bile solubility test

- Q. No. 65** The members of order Mononegavirales replicate in cytoplasm except
- A *Paramyxoviridae*
 - B *Bornaviridae*
 - C *Rhabdoviridae*
 - D *Filoviridae*
- Q. No. 66** International Centre for FMD (ICFMD) with BSL3 containment facility is present at
- A New Delhi
 - B Hyderabad
 - C Bhubaneswar
 - D Mukteshwar
- Q. No. 67** Which of the following is most effective method for disinfection of prions
- A UV light irradiation
 - B Treatment with Formalin
 - C Treatment with alcohol
 - D 2N NaOH treatment
- Q. No. 68** The order of decreasing case fatality rate by *Alphaviruses* in horses is
- A EEE > WEE > VEE (epizootic)
 - B EEE > VEE (epizootic) > WEE
 - C VEE (epizootic) > WEE > EEE
 - D VEE (epizootic) > EEE > WEE
- Q. No. 69** *Escherichia coli* commonly causing infection in pigs have fimbrial antigen
- A K99
 - B K88
 - C K77
 - D K66
- Q. No. 70** Major structural protein of *infectious bursal disease virus* (IBDV) which elicits neutralizing antibody is
- A VP4
 - B VP3
 - C VP2
 - D VP1
- Q. No. 71** Rolling disease of mice is caused by
- A *Mycoplasma synoviae*
 - B *Mycoplasma agalactiae*
 - C *Mycoplasma pneumoniae*
 - D *Mycoplasma neurolyticum*
- Q. No. 72** The Weil-Felix test is an agglutination reaction between
- A Antibody against *Rickettsia* and antigen from *Pseudomonas*
 - B Antibody against *Rickettsia* and antigen from *Staphylococcus*
 - C Antibody against *Rickettsia* and antigen from *Brucella*
 - D Antibody against *Rickettsia* and antigen from *Proteus*

- Q. No. 73** Zebra markings/ stripes of congestion on mucosal folds of large intestine (posterior colon) of sheep is pathognomonic lesion in
- A PPR
 - B Sheep pox
 - C Bluetongue
 - D Enterotoxaemia
- Q. No. 74** Avian infectious bronchitis virus (IBV) have many antigenic variant strains which are classified based on changes in their
- A S1-protein genes
 - B M1-protein genes
 - C VP1-protein genes
 - D S2-protein genes
- Q. No. 75** Misshapening of the eggs in chickens is caused by the infection of following agents except
- A Infectious bronchitis virus
 - B Egg drop syndrome (EDS) virus
 - C Newcastle disease virus
 - D *Ornithobacterium rhinotracheale*
- Q. No. 76** Non motile *Clostridium* spp. is
- A *Clostridium septicum*
 - B *Clostridium botulinum*
 - C *Clostridium perfringens*
 - D *Clostridium tetani*
- Q. No. 77** IMViC pattern of *Escherichia coli* is
- A + + - -
 - B + - + -
 - C - - + +
 - D + - + +
- Q. No. 78** Coggins test is used for diagnosis of
- A Classical swine fever
 - B African swine fever
 - C Equine viral arteritis
 - D Equine infectious anaemia
- Q. No. 79** Which of the following virus has icosahedral symmetry
- A Orthomyxovirus
 - B Adenovirus
 - C Rhabdovirus
 - D TMV

- Q. No. 80** The virus previously referred to as BoHV-1.3, a neuropathogenic agent, is now classified as
- A BoHV-5
 - B BoHV-1.1
 - C BoHV-1.2a
 - D BoHV-1.2b
- Q. No. 81** In SDS PAGE beta mercaptoethanol is used
- A as preservative that chelates divalent cations
 - B to help in keeping the proteins linear
 - C to stabilize and activate certain enzymes
 - D to break all the disulfide bonds and denature the protein of interest
- Q. No. 82** A modified form of conventional PCR that reduces the presence of undesired products and primer-dimers due to non-specific DNA amplification at room (or colder) temperatures
- A Long-range PCR
 - B Multiplex PCR
 - C Hot start PCR
 - D Fast-cycling PCR
- Q. No. 83** Which of the following statement is true for MHC class I molecules
- A Peptide binding groove is open at both ends
 - B Peptide binding groove is open at amino terminal ends
 - C Peptide binding groove is closed at both ends
 - D Peptide binding groove is open at carboxyl terminal ends
- Q. No. 84** ssRNA is the natural ligand for mouse
- A TLR1
 - B TLR3
 - C TLR4
 - D TLR7
- Q. No. 85** Which of the following technique/ tool is used to measure antibody affinity for an antigen
- A Surface Plasmon Resonance (SPR)
 - B Dot-blot
 - C Western blotting
 - D Lateral flow
- Q. No. 86** Which of the following antigen presenting cell is related to adaptive immunity
- A Macrophages
 - B Dendritic cells
 - C Microglial cells
 - D B-Cells

- Q. No. 87** Cell free viruses in Marek's disease are found predominantly in
- A Nerve cells
 - B Epithelial cells
 - C Lymphoblastoid cells
 - D Feather follicles
- Q. No. 88** Which of the following will be designated as notifiable avian influenza?
- A Any avian influenza virus having IVPI > 1.2
 - B Non-H5/H7 avian influenza virus having IVPI < 1.2
 - C Any non-H5/H7 avian influenza virus subtypes
 - D Any non-H5/H7 avian influenza virus having 10% mortality in IVPI
- Q. No. 89** Which of the following is not the property of *Rotavirus*
- A Non-enveloped
 - B 10 segments of ds RNA
 - C Stable at pH 3.0
 - D Triple layered capsid
- Q. No. 90** Which of the following families contain enveloped viruses
- A *Astroviridae*
 - B *Picornaviridae*
 - C *Rhabdoviridae*
 - D *Polyomaviridae*
- Q. No. 91** The following antibiotics act on bacteria by damaging cell membrane except
- A Tetracycline
 - B Gramicidins
 - C Polymyxins
 - D Tyrocidins
- Q. No. 92** Which of the following *Actinobacillus* spp. is non-haemolytic on sheep blood agar?
- A *Actinobacillus capsulatus*
 - B *Actinobacillus pleuropneumoniae*
 - C *Actinobacillus suis*
 - D *Actinobacillus ureae*
- Q. No. 93** *Mannheimia hemolytica* produces a toxin, that is important in the pathogenesis of disease associated with it, is known as
- A Enterotoxin
 - B Leukotoxin
 - C Neurotoxin
 - D Exfoliative toxin

- Q. No. 94** Inoculation of which of the following virus in chicken egg embryo by yolk sac route reveals characteristic 'cherry red discoloration' and death of the chicken embryo?
- A Bluetongue virus (BTV)
 - B PPR virus
 - C BVD virus
 - D Malignant Catarrhal Fever virus
- Q. No. 95** Swine vesicular disease is caused by
- A Aphthovirus
 - B Cardiovirus
 - C Hepatovirus
 - D Enterovirus
- Q. No. 96** Much of the success of *Salmonella* in causing infection is attributed to which type of bacterial secretion system expressed at different times during the infection?
- A Type I (T1SS)
 - B Type II (T2SS)
 - C Type III (T3SS)
 - D Type IV (T4SS)
- Q. No. 97** Which of the following laboratory animal is highly fatal to Canine Distemper Virus?
- A Guinea pig
 - B Ferret
 - C Mice
 - D Monkey
- Q. No. 98** Which of the following Toll Like Receptor (TLR) is been found localized within the endosomes and not present on cell surface in humans?
- A TLR3
 - B TLR4
 - C TLR5
 - D TLR6
- Q. No. 99** The Bacterial Ghost (BG) platform technology is an innovative system for vaccine production as BG can act as vehicles for antigen delivery. BG are empty cell envelopes of
- A Gram-negative bacteria
 - B Gram-positive bacteria
 - C Acid-fast bacteria
 - D Partially acid fast bacteria

- Q. No. 100** If vector expressed antigenic protein is used as a vaccine, it can be referred to as
- A DNA vaccine
 - B Recombinant subunit vaccine
 - C Attenuated vaccine
 - D Conjugate vaccine
- Q. No. 101** *Yersinia enterocolitica* produces a chromosomally encoded enterotoxin (Yst) with similar activity to the ST toxin secreted by
- A *E. coli*
 - B *Klebsiella* spp.
 - C *Pseudomonas aeruginosa*
 - D *Proteus* spp.
- Q. No. 102** Spontaneous generation theory was finally disproved by the work of
- A Louis Pasteur
 - B Robert Koch
 - C Edward Jenner
 - D Antonie van Leeuwenhoek
- Q. No. 103** The lipid A components of lipopolysaccharide of Gram negative bacteria is also called as
- A Lipoprotein
 - B OMP
 - C Endotoxin
 - D Mycolic acid
- Q. No. 104** Which of the following is not true about FcεRI ?
- A It has role in degranulation
 - B It has role in phagocytosis
 - C It is low affinity receptor
 - D It is high affinity receptor
- Q. No. 105** Which of the following is a both T-cell and B-cell mitogen?
- A ConA
 - B PHA
 - C Pokeweed Mitogen (PWM)
 - D Wheat germ agglutinin
- Q. No. 106** Louping ill virus belongs to which of the following family?
- A *Togaviridae*
 - B *Arteriviridae*
 - C *Flaviviridae*
 - D *Astroviridae*

- Q. No. 107** COFAL test is used for the diagnosis of
- A Marek's disease
 - B Fowl Pox
 - C Avian Leukosis
 - D Infectious Bronchitis
- Q. No. 108** The strain of virus used in vaccine for infectious canine hepatitis is
- A CAV-1
 - B CAV-2
 - C CAV-3
 - D CAV-4
- Q. No. 109** *E. coli* O157:H7 non-hemorrhagic strains are converted to hemorrhagic strains
- A by lysogenic conversion after bacteriophage infection of non-hemorrhagic cells
 - B by lytic conversion after bacteriophage infection of non-hemorrhagic cells
 - C by point mutation
 - D by frame shift mutation
- Q. No 110** For lymphocyte proliferation assay, lymphocytes from whole blood can be separated by isopycnic centrifugation on linear Ficoll-Isopaque gradients with a density ranging from
- A 1.055 to 1.095 g/mL
 - B 2.055 to 2.095 g/mL
 - C 1.555 to 1.995 g/mL
 - D 0.055 to 0.095 g/mL
- Q. No. 111** *Salmonella* spp. produce hydrogen sulfide, which can readily be detected by growing them on media containing
- A Ammonium sulfate
 - B Sodium lauryl sulfate
 - C Hydrogen sulfate
 - D Ferrous sulfate
- Q. No. 112** Which of the following is NOT involved in the interaction of TCR with peptide-MHC complex?
- A Hydrogen bond
 - B Electrostatic bond
 - C Covalent bond
 - D Hydrophobic bond
- Q. No. 113** Serum Sickness is an example of which type of Hypersensitivity reaction?
- A Type I Hypersensitivity
 - B Type II Hypersensitivity
 - C Type III Hypersensitivity
 - D Type IV Hypersensitivity

- Q. No. 114** Lateral transduction is the process by which very long fragments of bacterial DNA are transferred to another bacterium. So far, this form of transduction has been only described in
- A *Streptococcus* spp.
 - B *Salmonella typhimurium*
 - C *E. coli*
 - D *Staphylococcus aureus*
- Q. No. 115** Which of the bacterial efflux transporters superfamily are primary transporters, the rest being secondary transporters?
- A The major facilitator superfamily (MFS)
 - B The ATP-binding cassette superfamily (ABC)
 - C The small multidrug resistance family (SMR)
 - D The resistance-nodulation-cell division superfamily (RND)
- Q. No. 116** Intranuclear eosinophilic Torres bodies are found in which of the following disease?
- A Yellow fever
 - B Orf
 - C Bovine ephemeral fever
 - D Visna/Maedi
- Q. No. 117** The virus having complex symmetry is
- A Herpesvirus
 - B Parvovirus
 - C Poxvirus
 - D Arenavirus
- Q. No. 118** FMD vaccine currently being used for disease control under National Animal Disease Control Programme (NADCP) in India lacks one of the following serotypes
- A A
 - B O
 - C Asia 1
 - D C
- Q. No. 119** A class of gene activators that increase the efficiency of transcription of viral or cellular genes is known as
- A *Promoters*
 - B *Enhancers*
 - C *Silencer*
 - D *Regulators*

Q. No. 120 ESKAPE is an acronym comprising the scientific names of six highly virulent and antibiotic resistant bacterial pathogens including

- A *Enterococcus faecium*, *Staphylococcus aureus*, *Klebsiella pneumoniae*, *Acinetobacter baumannii*, *Pseudomonas aeruginosa*, and *Enterobacter* spp.
- B *Enterococcus faecium*, *Streptococcus uberis*, *Klebsiella pneumoniae*, *Acinetobacter baumannii*, *Pseudomonas aeruginosa*, and *Enterobacter* spp.
- C *Enterococcus faecium*, *Staphylococcus aureus*, *Klebsiella pneumoniae*, *Acinetobacter baumannii*, *Pasteurella multocida*, and *Enterobacter* spp.
- D *Enterococcus faecium*, *Staphylococcus aureus*, *Klebsiella pneumoniae*, *Aeromonas* spp., *Pseudomonas aeruginosa*, and *Enterobacter* spp.



Key: Veterinary Microbiology

Question No.	Answer	Question No.	Answer	Question No.	Answer
1	B	41	A	81	D
2	B	42	C	82	C
3	C	43	D	83	C
4	B	44	A	84	D
5	A	45	B	85	A
6	A	46	A	86	D
7	D	47	A	87	D
8	B	48	A	88	A
9	C	49	D	89	B
10	A	50	A	90	C
11	D	51	A	91	A
12	A	52	D	92	A
13	B	53	A	93	B
14	C	54	D	94	A
15	A	55	C	95	D
16	D	56	A	96	C
17	A	57	A	97	B
18	B	58	B	98	A
19	D	59	D	99	A
20	D	60	D	100	B
21	A	61	A	101	A
22	B	62	C	102	A
23	D	63	D	103	C
24	A	64	D	104	C
25	A	65	B	105	C
26	C	66	C	106	C
27	D	67	D	107	C
28	B	68	B	108	B
29	D	69	B	109	A
30	C	70	C	110	A
31	D	71	D	111	D
32	A	72	D	112	C
33	B	73	A	113	C
34	C	74	A	114	D
35	A	75	C	115	B
36	B	76	C	116	A
37	B	77	A	117	C
38	C	78	D	118	D
39	A	79	B	119	B
40	B	80	A	120	A