



Student Name _____ Father Name _____ Roll Number _____

Class: 2nd /Year - Biology Marks : 67 Exam Format Chaptewise MCQs

Time: Date _____ Examinee Sig _____ Chapter#: 18

MCQ's		S/Q		L/Q		Total	
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Objective Type

1. Encircle the Correct Option. (1 x 56 = 56)

1. درست جواب کے گرد دائرہ لگائیں۔

1) Reproduction is very important to the survival of

a) Species	b) Individual	c) Population	d) Community
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2) Rapid aging and low resistance to environmental stress and disease are limitations for

a) Fragmentation	b) Budding	c) Cloning	d) Regeneration
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3) Evolution of pollen tube is parallel to the evolution of

a) Gamete	b) Fruit	c) Seed	d) Pollen
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4) In which of the following , sporophyte is completely depend upon the gametophyte ?

a) Gymnosperms	b) Angiosperms	c) Bryophytes	d) Thallophytes
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5) Vehicle for transport of male gamete in land plants is .

a) Water	b) Pollen grain	c) Wind	d) Pollen tube
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6) In spermatophytes , important step in land adaption is the evolution of .

a) Seed coat	b) Pollen tube	c) Fruit	d) Flower
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7) The process in which seeds are not found in banana is called.

a) See Dormancy	b) Fruit Ripening	c) Parthenocarp	d) Photoperiodism
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8) Which one is not parthenogenic fruit ?

a) Banana	b) Pineapple	c) Grape	d) Mango
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9) Parthenocarp is the development of fruit without .

a) Pollination	b) Germination	c) Fertilization	d) Hormones
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10) Which one is Parthenogenic Fruit .

a) Apple	b) Pineapple	c) Peach	d) Mango
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11) The special condition of rest , which enables an embryo to survive the long periods of unfavourable environment condition , is called

a) Bud dormancy	b) Leaf dormancy	c) Stem dormancy	d) Seed dormancy
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12) Which hormones stimulates ripening of tomatoes and citrus fruits ?

a) Auxins	b) Ethene	c) Cytokinins	d) Gibberellines
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13) Fruit ripening is often accompanied by a burst of respiratory activity called the .

a) Dimetric	b) Climax	c) Climactic	d) Trimetric
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14) Germinating pollen grain is a rich source of .

a) Gibberellins	b) Auxins	c) Abscisic acid	d) Cytokinin
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15) Developing seeds are a rich source of .

a) Auxins	b) Gibberellins	c) Cytokinins	d) All of these
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16) Which one of the following is a type of asexual reproduction ?

a) Fertilization	b) Vernalization	c) Apomixes	d) Photoperiodism
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17) In honey bee sperms are produced by .

a) Meiosis	b) Mitosis	c) Parthenogenesis	d) Apomixis
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18) Haploid Parthenogenesis is present in .

a) Wasp	b) Bee	c) Aphid	d) Ants
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19) During oogenesis , the total non-disjunction of chromosomes occur is

a) Queen bee	b) Ants	c) Wasps	d) Aphids
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20) In honey bee , males are haploid and produce sperms by .

a) Mitosis	b) Meiosis	c) Apomixis	d) Parthenogenesis
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21) Development of an egg into embryo without fertilization is called as .

a) Parthenocarp	b) Parthenogenesis	c) Meiosis	d) Fragmentation
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22) In honey bee male sperms are produced by .

a) Meiosis	b) Mitosis	c) Apomixis	d) Parthenocarp
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23) Diploid parthenogenesis occurs in .

a) Wasp	b) Ant	c) Aphid	d) Bee
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24) Haploid males produce sperms by mitosis in .

a) Hydra	b) Earthworm	c) Honey bee	d) Human
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25) Which one is the method of sexual reproduction in the following ?

a) Fission	b) Sporulation	c) Budding	d) Conjugation
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26) Reptiles and birds are .

a) Oviparous	b) Viviparous	c) Vibiparity	d) Ovoviviparous
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27) Oviparous animals .

a) Lay eggs	b) Give birth to young	c) Give larva	d) Give pupa
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28) Ovoviviparity is shown by

a) Reptile	b) Bird	c) Duck bill platypus	d) Human
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29) The animals that lay shelled eggs to protect the developing embryo from harsh terrestrial conditions are called .

a) Oviparous	b) Viviparous	c) Ovoviviparous	d) None of these
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30) The Sac-like scrotum is present in

a) Ovary	b) Testis	c) Lung	d) Kidney
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31) The hormone responsible for production of sperm cells and male secondary sexual characteristics during puberty is

a) Progesterone	b) Thyroxine	c) Testosterone	d) Estrogens
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32) Which hormone is male stimulates the interstitial cells of the testes to secrete testosterone

a) TSH	b) FSH	c) ICSH	d) LH
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33) The cells provide liquid medium for protection and nourishment to sperms .

a) Placenta	b) Epididymis	c) Sertoli	d) Vas deferens
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34) Between the seminiferous tubules are interstitial cells , which secrete .

a) Estrogen	b) Testosterone	c) Aldosterone	d) Corticosteroid
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35) Sertoli cells are cells of

a) Testes	b) Ovaries	c) Urethra	d) Bladder
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36) Fluid secreted by sertoli cells provides liquid medium protection and nourishment to .

a) Oocyte	b) Sperms	c) Polar body	d) Spermatids
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37) The first convoluted part of vas - deference is called .

a) Scrotum	b) Epididymis	c) Seminiferous Tubules	d) Ureter
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38) Germs cells in the ovary produce many .

a) Spermatogonia	b) Zoospores	c) Zygosporos	d) Oogonia
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39) Second meiotic division in oocytes , until fertilization proceeds are far as .

a) Prophase	b) Metaphase	c) Anaphase	d) Telophase
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40) Oviduct opens into .

a) Uterus	b) Ureter	c) Ovary	d) Vagina
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41) Gonorrhoea is caused by .

a) Neisseria	b) T.Pallidum	c) Herpes simplex	d) Clostridium
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42) The disease caused by a gram positive bacterium Neisseria is called .

a) Gonorrhoea	b) Syphilis	c) Herpes	d) AIDS
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43) Syphilis is caused by a spirochaete named as .

a) Neisseria gonorrhoeae	b) Escheria coli	c) Treponema pallidum	d) Hyphomicrobium
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44) Corpus luteum secretes a hormone called .

a) Progesterone	b) Oestrogen	c) Oxytocin	d) Testosterone
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45) Release of egg from follicle is called as .

a) Ovulation	b) Menstruation	c) Follicle artesia	d) Fertilization
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46) Lutenizing hormone in human female induces .

a) Menstruation	b) Menopause	c) Oogenesis	d) Ovulation
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47) The increase of level of estrogen stimulates secretion of .

a) ACTH	b) FSH	c) Progesterone	d) LH
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48) Developing Seeds are rich source of .

a) Auxins	b) Cytokinins	c) Gibberellins	d) All of these
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49) Oviduct open into .

a) Uterus	b) Cervix	c) Vagina	d) Bladder
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50) Reproduction is necessary for the survival of .

a) Species	b) Community	c) Individual	d) Biome
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51) Luteinizing hormone induces .

a) Flowering	b) Vernalization	c) Menopause	d) Ovulation
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52) Reproduction is very important to the survival of.

a) Species	b) Population	c) Individual	d) Both A & B
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53) In plants photoperiod and temperature affect.

a) Flowering	b) Fruit and seed production	c) Buds and seed dormancy	d) All of these
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54) Developing seeds are rich source of.

a) Auxins	b) Cytokinin	c) Gibberellins	d) All of these
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55) Common methods of asexual reproduction are.

a) Tissue culturing	b) Identical twins	c) Cloning	d) All of these
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56) Photoperiod affect flowering when shoot meristem start producing.

a) Floral buds	b) Leaves	c) Lateral bud	d) Both B & C
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2. Write "T" for a true statement and "F" for a false statement (1 x 4 = 4)

2. درست جواب کے سامنے (✓) نشان لگائیں اور غلط کے سامنے (X) کا نشان لگائیں۔

57) Asexual reproduction involves mitotic cell division.

True False

58) Asexually produced offspring are genetically identical to their parents.

True False

59) Sexual reproduction involves single parent.

True False

60) Sexually produced offspring are identical to their parent.

True False

3. Fill in the blanks. (1 x 7 = 7)

3. خالی جگہ پُر کریں۔

61) Asexual reproduction requires only a single _____ organism.

62) Sexual reproduction usually involves _____ parents.

63) Phytochromes are the special _____ sensitive pigments.

64) External fertilization occurs in _____ environment.

65) _____ and _____ animals provide more protection to their young one during development.

66) A placenta is established between the uterine and _____ tissues for the exchange of oxygen.

67) The reduction of progesterone level, stimulates the _____ gland to produce oxytocin hormone.



StudentName_____ FatherName_____ Roll Number_____

Class: 2nd /Year - Biology Marks : 52 ExamFormat ChapteWiseMCQs

Time:_____ Date_____ ExamineSig_____ Chapter#: 19

MCQ's

S/Q

L/Q

Total

Objective Type

1. Encircle the Correct Option. (1 x 43 = 43)

1. درست جواب کے گرد دائرہ لگائیں۔

1) Apical meristems are present in .

a) Shoot and root tips	b) Vascular cambium	c) Corks ambium	d) Stem nodes
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2) Primary growth in plants is caused by .

a) Apical meristem	b) Lateral meristem	c) Intercalary meristem	d) Rib meristem
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3) How many folds , cell volume , increase during elongation due to uptake of water .

a) 120	b) 130	c) 150	d) 180
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4) During elongation the cell volume increase up to .

a) 50 fold	b) 100 fold	c) 150 fold	d) 200 fold
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5) Secondary growth leads to an increase in the diameter of the .

a) Stem	b) Root	c) Leaf	d) Stem and Root
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6) Apical dominance is caused by .

a) Gibberlins	b) Cytokinins	c) Ethene	d) Auxins
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7) The removal of apex releases the lateral buds from the apical dominance . It is

a) Inhibitory effect	b) Compensatory	c) Apical dominances	d) Reproduction
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8) Apical dominance is caused by .

a) Auxin	b) Ethene	c) Cytokinin	d) Gibberellins
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9) Fertilization is the process which leads to the union of .

a) Individuals	b) Gametes	c) Sperms	d) Eggs
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10) A plant has a growth pattern called .

a) Open growth	b) Growing point	c) Meristem	d) Apical meristem
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11) Cleavage results in the formation of rounded closely packed mass of blastomeres , known as .

a) Morulla	b) Blastulla	c) Gastrula	d) Neurula
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12) The germ layers are formed during .

a) Cleavage	b) Gastrulation	c) Organogenesis	d) Growth
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13) Blastomeres are formed during .

a) Cleavage	b) Gastrulation	c) Morulla	d) Fertilization
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14) Somites are formed and organized by .

a) Ectoderm	b) Mesoderm	c) Endoderm	d) Blastoderm
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15) Immediately after fertilization , the egg undergoes a series of mitotic divisions called .

a) Morulla	b) Gastrulation	c) Cleavage	d) Blastulla
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16) During gastrulation the clastoderm splits into two layers , an upper layer of cell is called .

a) Hypoblast	b) Area pellucida	c) Epiblast	d) Area opaca
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17) The shell , over thick egg , is secreted as it passes through .

a) Ovary	b) Oviduct	c) Ulterus	d) Cloaca
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18) The mesodermal cells do not invaginate but migrate medially and caudally from both sides and create a midline thickening called .

a) Hensen's Node	b) Primitive streak	c) Epiblast	d) Hypoblast
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19) The cavity formed between somatic and splanchnic mesoderm is .

a) Archenteron	b) Hensen's node	c) Coelom	d) Neurocoel
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20) The cavity formed between somatic and splanchnic mesoderm is .

a) Primitive Gut	b) Blastocoel	c) Neurocoel	d) Coelom
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21) The discoidal cap of cells above the blastocoel is called .

a) Ectoderm	b) Mesoderm	c) Endoderm	d) Blastoderm
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22) Clear cytoplasm in an Ascidian zygote produces .

a) Muscles cell	b) Larval epidermis	c) Gut	d) Notochord
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23) Grey vegetal cytoplasm gives rise to .

a) Gut	b) Muscle cell	c) Notochord	d) Neural tube
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24) Grey vegetal cytoplasm give rise to

a) Larva epidermis	b) Notochord	c) Muscle cells	d) Gut
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25) The unspecialized cells present in flatworms and planaria are .

a) Neoblasts	b) Osteoblasts	c) Osteoclasts	d) Chondrocytes
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26) The branch of biology which deals with the study of abnormal development and their causes is called .

a) Teratology	b) Gerontology	c) Embryology	d) Microcephaly
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27) The condition in which an individual has small skull is termed as .

a) Harelip	b) Microcephaly	c) Diabetes	d) Epilepsy
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28) The condition in which an individual has small skull is termed as .

a) Harelip	b) Mircrocephaly	c) Diabetes	d) Epilepsy
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29) Environmental factors causing abnormal development are grouped together as .

a) Toxins	b) Carcinogens	c) Mutagens	d) Teratogens
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30) The branch of biology which deals with abnormal development is called .

a) Teratology	b) Palaeontology	c) Gerontology	d) Mythology
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31) Which of the following chromosomal abnormalities lead to tallness , aggressiveness , mental defect and anti social behaviour .

a) XXY	b) XO	c) XXXY	d) XYY
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32) Clear cytoplasm , in an ascidian zygote produces .

a) Muscle cells	b) Larval epidermis	c) Gut	d) Notochord
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33) In ascidian fertilized egg , yellow cytoplasm gives rise to .

a) Muscle cells	b) Larval epidermis	c) Notochord & neural tube	d) Gut
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34) Gray equatorial cytoplasm gives rise to .

a) Neural tube	b) Gut	c) Muscle cells	d) Larval epidermis
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35) Somites are formed and organized by .

a) Ectoderm	b) Mesoderm	c) Endoderm	d) Blastoderm
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36) Hypoblast is mainly presumptive .

a) Endoderm	b) Ectoderm	c) Mesoderm	d) Blastoderm
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37) Growth rate is influenced by.

a) Hormones	b) Water	c) Vitamins	d) All of these
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38) Neurula is the stage in which embryo has.

a) Blastocoele	b) Neural tube	c) The germ layers	d) Archenterons
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39) The mesodermal cells do not invaginate but migrate medially and caudally from both sides and create a midline thickening called.

a) Henseon's node	b) Primitive streak	c) Epiblast	d) Hypoblast
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40) Negative physiological changes in our body are called.

a) Degeneration	b) Abnormalities	c) Aging	d) Regeneration
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41) Study of aqing is called.

a) Teratology	b) Paleontology	c) Gerontology	d) Cell Biology
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42) The negative physiological changes in our body are said to be.

a) Maturation	b) Childhood	c) Aging	d) Death
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43) The human life is judged to be maximum of.

a) 60 - 70 years	b) 70 - 100 years	c) 120 - 125 years	d) 130 - 135 years
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2. Write "T" for a true statement and "F" for a false statement (1 x 5 = 5)

2. درست جواب کے سامنے (✓) نشان لگائیں اور غلط کے سامنے (X) کا نشان لگائیں۔

44) Primary growth leads to increase in length, while secondary growth leads to increase in width.

True False

45) The plants in which flowering is not at all effected by the day length are called day neutral plants.

True False

46) The somatic mesoderm soon splits in the middle to form two layers (a) Outer parietal layer (b)

Inner visceral layer

True False

47) In the clear cytoplasmic area, cytoplasm contains information essential for development.

True False

48) The phase of cell movement and rearrangement is called cleavage.

True False

3. Fill in the blanks. (1 x 4 = 4)

3. خالی جگہ پُر کریں۔

49) The influence of notochordal cells on the ectodermal cells to become nervous system was called _____ .

50) _____ is a condition in which individuals have small skull.

51) Growth is accompanied by two factors. (a) by increase in _____ (b) increase in _____ .

52) _____ are the regions where growth is initiated by the proliferation of cells.



StudentName_____ FatherName_____ Roll Number_____
Class: 2nd /Year - Biology Marks : 61 ExamFormat ChaptetWiseMCQs

Time: _____ Date _____ ExamineSig _____ Chapter#: 20

MCQ's		S/Q		L/Q		Total	
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Objective Type

1. Encircle the Correct Option. (1 x 52 = 52)

1. درست جواب کے گرد دائرہ لگائیں۔

1) A full set of genes in an individual is called .

a) Gene pool	b) Genome	c) Phenotype	d) Genotype
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2) V - Shaped chromosomes are called .

a) Acrocentric	b) Telocentric	c) Metacentric	d) Submetacentric
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3) The particular array of chromosomes that an individual process is called is .

a) Genotype	b) Phenotype	c) Karyotype	d) Epistasis
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4) The particular array of chromosomes that an individual processes is called its .

a) Kinesis	b) Karyotype	c) Kinetochore	d) Kinetomere
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5) Particular array of chromosomes that an individual possesses is called its .

a) Karyokinesis	b) Karyotype	c) Karyogamy	d) Plasmogamy
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6) Particular array of chromosomes that an individual possesses is called .

a) Holotype	b) Karyotype	c) Neotype	d) Partype
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7) Highly condensed portion of the chromatin is called .

a) Nucleosome	b) Heterochromatin	c) Euchromatin	d) Polysome
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8) Every 200 nucleotides , the DNA duplex is coiled around a core of eight histone proteins forming a complex , known as .

a) Polysome	b) Heterochromatin	c) Neucleosome	d) Euchromatin
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9) How many million nucleotides are in DNA of typical human chromosomes .

a) 120	b) 130	c) 150	d) 180
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10) Nucleosome occurs every .

a) 50 nucleotides	b) 100 nucleotides	c) 150 nucleotides	d) 200 nucleotides
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11) Unlike most proteins , histones are _____

a) Positively charged	b) Negatively charged	c) Neutral	d) Discharged
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12) Number of histone protein molecules in a single nucleosome are .

a) 06	b) 09	c) 08	d) 10
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13) Nucleosome occur at every ?

a) 2000 nucleotides	b) 1200 nucleotides	c) 200 nucleotides	d) 150 nucleotides
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14) Highly condensed portions of the chromatin are called .

a) Euchromatin	b) Heterochromatin	c) Supercoils	d) Centromeres
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15) The 5-carbon sugar in DNA is .

a) Maltose	b) Ribose	c) Deoxyribose	d) Lactose
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16) DNA was discovered in .

a) 1869	b) 1864	c) 1861	d) 1871
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17) The basic structure of human nucleic acid was determined by .

a) Watson and Crick	b) Maurice Wilkins	c) P.A Levene	d) Vernon Ingram
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18) X-ray diffraction analysis of DNA was performed by

a) Erwin Chargaff	b) Watson & Crick	c) Rosalind Franklin	d) Charles Darwin
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19) Okazaki fragments are synthesized by .

a) DNA ligase	b) RNA polymerase	c) DNA polymerase	d) Primase
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20) In euokaryote , number of nucleotides in Okazaki fragments are about .

a) 1000 - 2000	b) 100 - 200	c) 300 - 400	d) 400 - 500
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21) The enzyme which joins the two pieces of DNA is

a) DNA polymerase	b) DNA ligase	c) Restriction endonuclease	d) DNA polymerase
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22) Which strand of DNA elongates towards the replication fork ?

a) Parental strand	b) Leading strand	c) Lagging strand	d) Sense strand
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23) Beadle and Tatum exposed Neurospora spores to .

a) X - rays	b) Alpha rays	c) Gamma - rays	d) Beta rays
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24) RNA polymerase I is used for the synthesis of .

a) mRNA	b) tRNA	c) rRNA	d) DNA
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25) Human cells contain type of rRNA molecules .

a) 20	b) 45	c) 195	d) 300
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26) Copying of mRNA from DNA is called .

a) Translation	b) Transduction	c) Transformation	d) Transcription
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27) mRNA is synthesized by .

a) DNA polymerase	b) RNA ligase	c) RNA polymerase	d) Endonuclease
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28) In bacteria the newly synthesized mRNA is released in .

a) Nucleus	b) Cytoplasm	c) Mitochondria	d) Nucleolus
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29) Which of the following polymerase synthesize tRNA .

a) RNA polymerase - I	b) RNA polymerase - II	c) RNA polymerase - III	d) RNA polymerase
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30) Strand of DNA which is not transcribed is called as .

a) Template strand	b) Antisense strand	c) Coding strand	d) Lagging strand
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31) A gene starts with codon , which encodes the amino acid methionine

a) UAA	b) UAG	c) AUG	d) UGG
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32) Which of the following is a " Start " codon ?

a) AUG	b) UAA	c) UAG	d) UGA
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33) Which one of the following is initiation codon .

a) AUG	b) GUA	c) UGA	d) GAC
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34) The following are non- sense codons except that of .

a) AUG	b) UAA	c) UGA	d) UGA
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35) Which one of the given is Non - Sense Codon ?

a) UCC	b) UAA	c) UCG	d) UCU
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36) Every gene starts with initiation codon AUG which normally encodes the amino acid .

a) Arginine	b) Citrulline	c) Lysine	d) Methionine
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37) A combination of three nucleotides of DNA that specifies an amino acid is called .

a) Cistron	b) Anticodon	c) Exon	d) Genetic code
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38) When information contained in mRNA is used to direct the synthesis of polypeptide by ribosomes , the process is called .

a) Translation	b) Transcription	c) Transduction	d) Transformation
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39) The ultimate source of all changes is .

a) Evolution	b) Mutation	c) Genetic drift	d) Migration
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40) This condition appears as a result of point mutation .

a) Down syndrome	b) Turner syndrome	c) Klinefelter syndrome	d) Sickle cell anemia
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41) Each Okazaki fragment is synthesized by .

a) RNA polymerase I	b) DNA polymerase I	c) DNA polymerase II	d) DNA polymerase III
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42) The genetic code for glycine is .

a) UAG	b) GAU	c) GUA	d) GGU
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43) Genetic code for the amino acid methionine is

a) AUC	b) UGC	c) CGC	d) AUG
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44) A Gene with initiation codon , which encodes the Amino Acid methionine is .

a) UAA	b) UAG	c) AUG	d) UGG
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45) Pentose sugar in the molecule of DNA is .

a) Ribose	b) Deoxyribose	c) Lactose	d) Sucrose
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46) mRNA is synthesized by.

a) DNA	b) RNA polymerase	c) RNA ligase	d) None of these
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47) Which of the following are nonsense codons?

a) AUG	b) UAA	c) CUA	d) All of these
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48) Enzyme are responsible for assembly of.

a) Nucleic acid	b) Protein	c) Carbohydrates	d) All of these
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49) In bacteria the newly synthesized mRNA is released in .

a) Nucleus	b) Cytoplasm	c) Mitochondria	d) None of these
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50) A central role for chromosomes in heredity was first suggested in 1900 by.

a) Karl correns	b) T.H. Morgen	c) W. Sutton	d) F. Griffiths
-----------------	----------------	--------------	-----------------

51) Chromosomal theory of Inheritance was first formulated by.

a) Karl Correns	b) Carvin Bridges	c) T.H. Morgan	d) W. Sutton
-----------------	-------------------	----------------	--------------

52) Transfer of genetic material from one cell to other that can alter the genetic make-up of recipient cell is called.

a) Transformation	b) Transcription	c) Translation	d) Replication
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2. Write "T" for a true statement and "F" for a false statement (1 x 4 = 4)

2. درست جواب کے سامنے (✓) نشان لگائیں اور غلط کے سامنے (X) کا نشان لگائیں۔

53) The strand of DNA that is not transcribed is called the coding strand.

True False

54) TATAAT sequence called - 35 sequence is part of promoter, where transcription actually starts.

True False

55) Rosalind Franklin carried out an x-ray diffraction analysis of DNA.

True False

56) The base pairs in DNA helix are planar and stack 34 nm apart as a result of hydrophobic interactions.

True False

3. Fill in the blanks. (1 x 5 = 5)

3. خالی جگہ پُر کریں۔

57) Particular tRNA molecules become attached to specific amino acids through the action of activating enzymes called_____.

58) _____ is the transfer of genetic material from one cell to another and can alter the genetic make up of the recipient cell.

59) In a bacteria, a subunit of RNA polymerase called _____ recognizes-10 sequence in the promoter and binds RNA polymerase there.

60) A typical human chromosome contain about _____ nucleotides in its DNA.

61) Miescher extracted a white substance from the nuclei of human cells and fish sperm and called this substance_____ .



StudentName_____ FatherName_____ Roll Number_____
Class: 2nd /Year - Biology Marks : 92 ExamFormat ChapteWiseMCQs
Time: n_____ Date_____ ExamineSig_____ Chapter#: 21

MCQ's		S/Q		L/Q		Total	
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Objective Type

1. Encircle the Correct Option. (1 x 71 = 71)

1. درست جواب کے گرد دائرہ لگائیں۔

1) The Chromosomes number becomes doubled during .

a) G ₁ - Phase	b) G ₂ - Phase	c) S - Phase	d) G ₀ - Phase
---------------------------	---------------------------	--------------	---------------------------

2) It is the period of extensive metabolic activity .

a) G ₁ - Phase	b) S - Phase	c) G ₂ - Phase	d) G ₀ - Phase
---------------------------	--------------	---------------------------	---------------------------

3) In the case of human cell , cell cycle duration is about .

a) 24 hours	b) 23 hours	c) 22 hours	d) 21 hours
-------------	-------------	-------------	-------------

4) The period of life cycle of cell between two consecutive divisions is termed as .

a) Resting Phase	b) Inter Phase	c) G ₁ Phase	d) G ₂ Phase
------------------	----------------	-------------------------	-------------------------

5) In the case of human cell , average cell cycle is about .

a) 24 hours	b) 26 hours	c) 28 hours	d) 25 hours
-------------	-------------	-------------	-------------

6) Chromosomal part which uncoils , during interphase is called .

a) Euchromatin	b) Heterochromatin	c) Chromatids	d) Satellite DNA
----------------	--------------------	---------------	------------------

7) Nerve cells and eye lens cells remain in _____ stage for life time .

a) G ₁	b) G ₂	c) G ₀	d) S
-------------------	-------------------	-------------------	------

8) Length of cell cycle in yeast cells is

a) 30 minutes	b) 60 minutes	c) 90 minutes	d) 120 minutes
---------------	---------------	---------------	----------------

9) Period of non - apparent division is called .

a) Cell cycle	b) Interphase	c) Mitotic phase	d) Meiosis
---------------	---------------	------------------	------------

10) Post mitotic cell can exit the cell cycle during phase .

a) G - 0	b) G - 1	c) G - 2	d) S
----------	----------	----------	------

11) Chromosomes become double during the phase of Cell Cycle ?

a) M - Phase	b) G ₁ - Phase	c) S - Phase	d) G ₂ - Phase
--------------	---------------------------	--------------	---------------------------

12) The full cell cycle in yeast cells is completed in .

a) 24 hours	b) 4.5 hours	c) 30 minutes	d) 90 minutes
-------------	--------------	---------------	---------------

13) Cell cycle involves .

a) Growth of cell	b) Cell division	c) Replication of DNA	d) Growth of cell , replication of DNA cell division
-------------------	------------------	-----------------------	------------------------------------------------------

14) The stage of mitosis at which chromatids separate as independent structures (chromosomes) in the .

a) Prophase	b) Telophase	c) Metaphase	d) Anaphase
-------------	--------------	--------------	-------------

15) The spindle fibers are composed of RNA and protein called .

a) Insulin	b) Tubulin	c) Actin	d) Myosin
------------	------------	----------	-----------

16) The centriole lies within the

a) Karyosome	b) Centrosome	c) Chromosome	d) Nucleosome
--------------	---------------	---------------	---------------

17) The microtubules are composed of proteins tubulin and traces of .

a) DNA	b) NAD	c) FAD	d) RNA
--------	--------	--------	--------

18) At cytokinesis in plants , a membrane structure phragmoplast is formed from vesicles which originate form .

a) Lysosomes	b) Endoplasmic reticulum	c) Golgi complex	d) Centrioles
--------------	--------------------------	------------------	---------------

19) The most critical phase of mitosis , which ensures equal distribution of chromatids in the daughter cells is .

a) Anaphase	b) Metaphase	c) Prophase	d) Telophase
-------------	--------------	-------------	--------------

20) During cell division , the nuclear division is called .

a) Cytokinesis	b) Karyokinesis	c) Plasmolysis	d) Diakinesis
----------------	-----------------	----------------	---------------

21) The phase of mitosis which ensures equal distribution of chromatids in daughter cell is .

a) Prophase	b) Metaphase	c) Anaphase	d) Telophase
-------------	--------------	-------------	--------------

22) Mitotic apparatus is organized during

a) Prophase	b) Metaphase	c) Anaphase	d) Telophase
-------------	--------------	-------------	--------------

23) Karyokinesis involves division of .

a) Cell	b) Nucleus	c) Cytoplasm	d) Cell membrane
---------	------------	--------------	------------------

24) Mitotic apparatus is organized during .

a) Prophase	b) Metaphase	c) Anaphase	d) Telophase
-------------	--------------	-------------	--------------

25) Karyokinesis involves division of .

a) Cell	b) Nucleus	c) Cytoplasm	d) Cell membrane
---------	------------	--------------	------------------

26) During cell division the nuclear division is called .

a) Cytokinesis	b) Karyokinesis	c) Karyotype	d) Plasmolysis
----------------	-----------------	--------------	----------------

27) During cell division the nuclear division is called .

a) Cytokinesis	b) Karyokinesis	c) Karyotype	d) Plasmolysis
----------------	-----------------	--------------	----------------

28) The microtubule is composed of traces of RNA and protein called .

a) Myosin	b) Troponin	c) Actin	d) Tubulin
-----------	-------------	----------	------------

29) Phragmoplast is formed by vesicles originated from

a) Endoplasmic reticulum	b) Golgi complex	c) Chloroplast	d) Mitochondria
--------------------------	------------------	----------------	-----------------

30) Each chromosome when visible consists of two unseparated replicas .

a) Chiasma	b) Tetrad	c) Homologous chromosome	d) Chromatids
------------	-----------	--------------------------	---------------

31) The division of whole cell is called .

a) Karyokinesis	b) Cytokinesis	c) Interphase	d) Kinetochore
-----------------	----------------	---------------	----------------

32) The spread of tumor cells and establishment of secondary areas of growth is called .

a) Epistasis	b) Prosthesis	c) Pleiotropy	d) Metastasis
--------------	---------------	---------------	---------------

33) An unwanted clone of cells and establishment of secondary areas of growth is called .

a) Tumor	b) Growth	c) Lump	d) Swelling
----------	-----------	---------	-------------

34) The tumor which is localized and not transferred to other body parts .

a) Malignant	b) Benign	c) Apoptosis	d) Necrosis
--------------	-----------	--------------	-------------

35) Which of the following behaves like normal cells ?

a) Benign tumor	b) Malignant tumor	c) Cancer	d) Gall
-----------------	--------------------	-----------	---------

36) Cancer is caused mainly by mutation in .

a) Somatic cells	b) Malignant cells	c) Sex cells	d) Reproductive cells
------------------	--------------------	--------------	-----------------------

37) Cancer is caused by mutation in .

a) Germ cells	b) Somatic cells	c) Epidermal cells	d) Reproductive cells
---------------	------------------	--------------------	-----------------------

38) Least number of chiasma are present during .

a) Leptotene	b) Diakinesis	c) Pachytene	d) Diplotene
--------------	---------------	--------------	--------------

39) The condensation of chromosomes reaches to its maximum phase during .

a) Leptotene	b) Pachytene	c) Zygotene	d) Diakinesis
--------------	--------------	-------------	---------------

40) Crossing over during meiosis occurs in stage .

a) Diplotene	b) Pachytene	c) Zygotene	d) Leptotene
--------------	--------------	-------------	--------------

41) Meiosis generally takes place in plants during formation of .

a) Gametes	b) Spores	c) Zygote	d) Embryo
------------	-----------	-----------	-----------

42) The stage of meiosis that lasts for days , weeks or even years is .

a) Leptotene	b) Zygotene	c) Pachytene	d) Diplotene
--------------	-------------	--------------	--------------

43) Each bivalent consists of four .

a) Chromosomes	b) Chromatids	c) Chiasmata	d) Spores
----------------	---------------	--------------	-----------

44) The prophase stage in which the chromosomes become visible shorten and thick .

a) Leptotene	b) Zygotene	c) Pachytene	d) Diplotene
--------------	-------------	--------------	--------------

45) In which stage of meiosis , the paired chromosomes repel each other and begin to separate .

a) Leptotene	b) Zygotene	c) Pachytene	d) Diplotene
--------------	-------------	--------------	--------------

46) Synapsis takes place in .

a) Leptotene	b) Zygotene	c) Pachytene	d) Diplotene
--------------	-------------	--------------	--------------

47) Meiosis - II is just like the .

a) Amitosis	b) Mitosis	c) Regeneration	d) Replacement
-------------	------------	-----------------	----------------

48) Chiasmata formation takes place during .

a) Leptotene	b) Diakinesis	c) Pachytene	d) Diplotene
--------------	---------------	--------------	--------------

49) Meiosis occurs only in .

a) Diploid cells	b) Triploid cells	c) Pentaploid cells	d) Haploid cells
------------------	-------------------	---------------------	------------------

50) The pairing of homologous chromosomes is completed in .

a) Leptotene	b) Zygotene	c) Pachytene	d) Diplotene
--------------	-------------	--------------	--------------

51) Special type of cell division in which the number of chromosomes in daughter cells is reduced to half as compared to parent cell is called as .

a) Mitosis	b) Budding	c) Parthenogenesis	d) Meiosis
------------	------------	--------------------	------------

52) Pairing of homologous chromosomes is called as .

a) Synapse	b) Synapsis	c) Bivalent	d) Tetrad
------------	-------------	-------------	-----------

53) Pairing of homologous chromosomes for tetrad formation starts at .

a) Zygotene	b) Leptotene	c) Pachytene	d) Diplotene
-------------	--------------	--------------	--------------

54) The autosomal non-disjunction in man in which 21st pair of chromosomes fails to segregate resulting in gamete with 24 chromosomes is called .

a) Down's syndrome	b) Klinefelter's syndrome	c) Turner's syndrome	d) Jacob's syndrome
--------------------	---------------------------	----------------------	---------------------

55) The syndrome having trisomy at chromosome pair number 21 is .

a) Turner's	b) Down's	c) Patau's	d) Edward's
-------------	-----------	------------	-------------

56) Individual with Klinefelter's syndrome has sex chromosomes as following .

a) XO	b) XXO	c) XXY	d) XXXY
-------	--------	--------	---------

57) In non-disjunction chromosomes fail to segregate during .

a) Prophase	b) Metaphase	c) Anaphase	d) Telophase
-------------	--------------	-------------	--------------

58) All are related to Turner's syndrome except .

a) Short stature	b) Webbed neck	c) Broad face	d) Without ovaries
------------------	----------------	---------------	--------------------

59) Unequal separation of chromosomes is called .

a) Disjunction	b) Separation	c) Non-disjunction	d) Metastasis
----------------	---------------	--------------------	---------------

60) If mother's age is above 45 years, then ratio of Down's syndrome is .

a) $\frac{1}{1000}$	b) $\frac{3}{1000}$	c) $\frac{1}{100}$	d) $\frac{3}{100}$
---------------------	---------------------	--------------------	--------------------

61) The frequency of occurrence of Down's syndrome is .

a) $\frac{1}{700}$	b) $\frac{1}{40}$	c) $\frac{1}{500}$	d) $\frac{1}{200}$
--------------------	-------------------	--------------------	--------------------

62) The sex chromosomes of the person affected with Klinefelter's syndrome are.

a) SYY	b) XXX	c) XXY	d) XY
--------	--------	--------	-------

63) Mongolism is the other name of .

a) Down's syndrome	b) Klinefelter's syndrome	c) Turner's syndrome	d) Jacob's syndrome
--------------------	---------------------------	----------------------	---------------------

64) The autosomal non-disjunction in man in which 21st pair of chromosome fail to segregate resulting in gametes with 24 chromosomes is .

a) Down's syndrome	b) Turner's syndrome	c) Klinefelter	d) Jacob's syndrome
--------------------	----------------------	----------------	---------------------

65) The pairing of homologous chromosomes is completed in phase of meiosis .

a) Leptotene	b) Zygotene	c) Pachytene	d) Diplotene
--------------	-------------	--------------	--------------

66) Contractile ring in cytokinesis is formed by .

a) Tubulin	b) Actin and Myosin	c) Keratin	d) Cyclins
------------	---------------------	------------	------------

67) In Turner syndrome the affected person has set of chromosomes .

a) XO	b) XXY	c) XYY	d) XXO
-------	--------	--------	--------

68) The leptotene and zygotene last for .

a) Few hours	b) Few days	c) Few weeks	d) Few years
--------------	-------------	--------------	--------------

69) In Klinefelter's syndrome.

a) One X chromosome is missing	b) Additional sex chromosome is present	c) Sex chromosome fails to segregate	d) None of these
--------------------------------	-----------------------------------------	--------------------------------------	------------------

70) Mitosis is divided into.

a) Karyokinesis	b) Cytokinesis	c) Interphase	d) Both A & B
-----------------	----------------	---------------	---------------

71) Separation of homologous chromosomes occurs during.

a) Prophase	b) Metaphase	c) Telophase	d) Anaphase-1
-------------	--------------	--------------	---------------

2. Write "T" for a true statement and "F" for a false statement (1 x 14 = 14)

2. درست جواب کے سامنے (✓) نشان لگائیں اور غلط کے سامنے (X) کا نشان لگائیں۔

72) Meiosis occurs in haploid cells only.

True False

73) Cell cycle is comprised of two phases i.e. karyokinesis and cytokinesis.

True False

74) A point where non-sister chromatids cross each other is called kinetochore.

True False

75) G_0 stands for no gap.

True False

76) Full life cycle of yeast cells require 90 seconds to be completed.

True False

77) Crossing over takes place during metaphase I.

True False

78) Autosomal non disjunction may occur in chromosomes other than 21st chromosome.

True False

79) Benign tumors are always non localized.

True False

80) Cancer is caused mainly by mutations in germ cells.

True False

81) Genetic informations remain unchanged during mitosis.

True False

82) Homologous chromosomes are necessarily identical.

True False

83) The cells are kept alive due to trophic factors.

True False

84) Cytokinesis involves the division of cytochromes.

True False

85) Phragmoplast is a type of fragmentation.

True False

3. Fill in the blanks. (1 x 7 = 7)

3. خالی جگہ پُر کریں۔

86) Mongolism is also known as _____ .

87) During _____ homologous chromosomes get close to each other.

88) _____ phase precedes G_2 phase.

89) Polar microtubules _____ during anaphase.

90) Mitotic apparatus is formed during _____ of cell division.

91) The chromosome number (44+1) denotes _____ Syndrome.

92) Intracellular contents are released during the type of cell death called -----.



StudentName _____ FatherName _____ Roll Number _____
Class: 2nd /Year - Biology Marks : 77 ExamFormat ChapteWiseMCQs
Time: n _____ Date _____ ExamineSig _____ Chapter#: 22

MCQ's		S/Q		L/Q		Total	
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Objective Type

1. Encircle the Correct Option. (1 x 51 = 51)

1. درست جواب کے گرد دائرہ لگائیں۔

1) Position of a gene on the chromosome is called its .

a) Place	b) Habitat	c) Allele	d) Locus
----------	------------	-----------	----------

2) _____ is the , form of appearance of a trait .

a) Genotype	b) Phenotype	c) Pleiotropy	d) Epistasis
-------------	--------------	---------------	--------------

3) The position of a gene on the chromosome is called its _____

a) Allele	b) Phenotype	c) Locus	d) Genotype
-----------	--------------	----------	-------------

4) The form of appearance of the trait is called .

a) Genotype	b) Karyotype	c) Phenotype	d) Homozygous
-------------	--------------	--------------	---------------

5) Locus is a .

a) Part of DNA	b) Position of Gene	c) Partner of Gene	d) Complement of Gene
----------------	---------------------	--------------------	-----------------------

6) All the genes found in a breeding population constitute .

a) Genotype	b) Genome	c) Gene frequency	d) Gene pool
-------------	-----------	-------------------	--------------

7) The position of a gene on the chromosomes is called .

a) Allele	b) Synapse	c) Locus	d) Linkage
-----------	------------	----------	------------

8) This cross finds out the homozygous or heterozygous nature of the genotype .

a) Self cross	b) Back cross	c) Test cross	d) Dihybrid cross
---------------	---------------	---------------	-------------------

9) Incomplete dominance was discovered by 4'O clock plant in 1899 by .

a) Devries	b) Johanson	c) Carl Correns	d) Tscharmach
------------	-------------	-----------------	---------------

10) A man with blood group AB cannot be the father of a son who has blood group .

a) O	b) AB	c) B	d) A
------	-------	------	------

11) The best example of inheritance of multiple alleles is .

a) MN Blood type	b) Rh-Blood type	c) ABO Blood type	(c) d) MNS Blood type
------------------	------------------	-------------------	-----------------------

12) The individuals , which are universal recipients , have

a) A Blood group	b) B Blood group	c) AB Blood group	d) O Blood group
------------------	------------------	-------------------	------------------

13) ABO blood group system was discovered in 1901 by

a) Punnet	b) Wiener	c) Bernstein	d) Landsteiner
-----------	-----------	--------------	----------------

14) The universal donor blood group is

a) A	b) B	c) AB	d) O
------	------	-------	------

15) ABO blood group system is encoded by a single polymorphic gene with

a) Three multiple alleles	b) Five multiple alleles	c) Four multiple alleles	d) Six multiple alleles
---------------------------	--------------------------	--------------------------	-------------------------

16) ABO blood group system in man is encoded by a polymorphic gene I on chromosome .

a) 7	b) 9	c) 21	d) 10
------	------	-------	-------

17) ABO blood group system was discovered by .

a) Mendel	b) K Landsteiner	c) Sutton	d) Correns
-----------	------------------	-----------	------------

18) ABO Blood system was discovered by

a) Landsteiner	b) Levine	c) Bernstein	d) Waldayer
----------------	-----------	--------------	-------------

19) Universal recipient blood group is _____ blood group .

a) A	b) B	c) AB	d) O
------	------	-------	------

20) Secretors have dominant secretor gene " Se " on chromosome .

a) 9	b) 19	c) 21	d) 24
------	-------	-------	-------

21) The blood serum containing antibodies is called .

a) Antigen	b) Immunoglobulin	c) Plasma	d) Antiserum
------------	-------------------	-----------	--------------

22) Rh blood group system is named after its .

a) Discoverer	b) Rhesus monkey	c) A patient	d) Rhinocers
---------------	------------------	--------------	--------------

23) The blood serum containing antibodies is called .

a) Lymph	b) Plasma	c) Antiserum	d) Antigen
----------	-----------	--------------	------------

24) A sex - limited trait is limited to only one sex due to

a) Anatomical difference	b) Physiological difference	c) Ecological difference	d) Taxonomic difference
--------------------------	-----------------------------	--------------------------	-------------------------

25) About 50 % of cases of MODY are caused by mutation in .

a) Kinase gene	b) Galactoxinase gene	c) Hexo- isomerase gene	d) Glucokinase gene
----------------	-----------------------	-------------------------	---------------------

26) The maturity on set diabetes of the young is .

a) An autosomal recessive trait	b) A sex linked trait	c) An autosomal dominant trait	d) A sex influenced trait
---------------------------------	-----------------------	--------------------------------	---------------------------

27) The type of inheritance with same phenotypic and genotypic ratio , in F2 .

a) Dominance	b) Epistasis	c) Incomplete dominance	d) Co - dominance
--------------	--------------	-------------------------	-------------------

28) Hypophosphatemic rickets is an _____ trait .

a) X - linked	b) Y - linked	c) X and Y linked	d) An Autosomal
---------------	---------------	-------------------	-----------------

29) The cross which is used to find homozygous or heterozygous nature of genotype .

a) Reciprocal cross	b) Monohybrid cross	c) Dihybrid cross	d) Test cross
---------------------	---------------------	-------------------	---------------

30) If an off spring has its parents types 30+30 and recombinant types 20+20 . What is the percentage of its recombination frequency .

a) 20	b) 40	c) 60	d) 80
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31) Green colour blindness is called.

a) Tritanopia	b) Protanopia	c) Deuteranopia	d) Protonema
---------------	---------------	-----------------	--------------

32) When a single gene has multiple phenotypic effects, the phenomenon is called.

a) Codominance	b) Epistasis	c) Pleiotropy	d) Sex-linkage
----------------	--------------	---------------	----------------

33) What happens when both alleles of a gene pair independently express in a heterozygote?

a) Dominance	b) Incomplete dominance	c) Over dominance	d) Codominance
--------------	-------------------------	-------------------	----------------

34) A heterozygote offspring quantitatively exceeds the phenotypic expression of both the homozygote parents due to.

a) Dominance	b) Incomplete dominance	c) Over dominance	d) Codominance
--------------	-------------------------	-------------------	----------------

35) How many gene pairs contribute to the wheat grain colour?

a) One	b) Two	c) Three	d) Four
--------	--------	----------	---------

36) Who for the first time found white eye mutant in Drosophila?

a) Morgan	b) Bridges	c) Correns	d) De Vries
-----------	------------	------------	-------------

37) Which of the following traits is transmitted directly from an affected father to only his sons?

a) Autosomal	b) X - linked	c) Y - linked	d) X and Y linked
--------------	---------------	---------------	-------------------

38) Which phenomenon reduces the chances of genetic recombination and variations among offspring?

a) Linkage	b) Independent assortment	c) Crossing over	d) Dominance
------------	---------------------------	------------------	--------------

39) Which of the following traits is not sex - linked recessive?

a) Haemophilia	b) Hypophosphatemic ricket	c) Colour blindness	d) tfm syndrome
----------------	----------------------------	---------------------	-----------------

40) Which of these traits zigzags from maternal grandfather through a carrier daughter to a grandson?

a) Autosomal	b) X - linked	c) Y - linked	d) X and Y linked
--------------	---------------	---------------	-------------------

41) When a haemophilic carrier woman marries a normal man , who among her offspring may be affected.

a) All her children	b) All her daughters	c) Half of her daughters	d) Half of her sons
---------------------	----------------------	--------------------------	---------------------

42) What is the risk of a colour blind child in a family when mother is colour blind but father is normal?

a) 100%	b) 75%	c) 50%	d) 25%
---------	--------	--------	--------

43) What is the risk of a colour blind child in a family when father is colour blind mother is normal?

a) 0%	b) 100%	c) 25%	d) 50%
-------	---------	--------	--------

44) When a gene or gene pair at one locus, interferes with or hides the effect caused by another gene or pair at another locus, the phenomenon is.

a) Pleiotropy	b) Co dominance	c) Epistasis	d) Dominance
---------------	-----------------	--------------	--------------

45) A gene with multiple phenotypic effect is.

a) Polygenic	b) Monogenic	c) Bombay type	d) Pleiotropic
--------------	--------------	----------------	----------------

46) Bombay phenotype is an example of.

a) Pleiotropy	b) Dominance	c) Probability	d) Epistasis
---------------	--------------	----------------	--------------

47) In cats the dominant allele W not only makes fur pure white but also causes.

a) Black spots	b) Deafness	c) Brown spots	d) Blindness
----------------	-------------	----------------	--------------

48) ABO blood group system in man is encoded by a polymorphic gene I on chromosome.

a) 7	b) 9	c) 21	d) 10
------	------	-------	-------

49) Human skin colour is controlled by gene pairs.

a) Two to Four	b) Four to Six	c) Three to Six	d) Six to Ten
----------------	----------------	-----------------	---------------

50) A gamete without any sex chromosome is called.

a) Homogamete	b) Isogamete	c) Heterogamete	d) Nullogamete
---------------	--------------	-----------------	----------------

51) The sex chromosomes were discovered by.

a) Sutton	b) Morgan	c) Jordan	d) Correns
-----------	-----------	-----------	------------

2. Write "T" for a true statement and "F" for a false statement (1 x 10 = 10)

2. درست جواب کے سامنے (✓) نشان لگائیں اور غلط کے سامنے (X) کا نشان لگائیں۔

52) In grasshopper, the male has XY and the female has XX types of sex chromosomes.

True False

53) Pea is normally a self fertilizing plant.

True False

54) Dihybrids are offspring of the parents who differ in one contrasting pair of trait.

True False

55) X - linked traits pass direct from father to son.

True False

56) A person suffering from Blue cone monochromacy can not see blue colour.

True False

57) In birds and moths eggs determine sex.

True False

58) A homozygote forms all gametes of the same type.

True False

59) The allele for a sex limited trait is dominant in one sex but recessive in the other.

True False

60) Pattern baldness is a sex influenced trait.

True False

61) Carriers of haemophilia show no symptoms of the disease.

True False

3. Fill in the blanks. (1 x 16 = 16)

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3. خالی جگہ پُر کریں۔

62) _____ is the basic unit of biological information.

63) A sudden change in the structure of a gene is called _____

64) _____ is the chance of an event to occur.

65) A cross among monohybrids is a _____ cross.

66) An individual with a homozygous genotype is called _____ .

67) Different alleles of a gene that are both expressed in a heterozygote are called _____

68) When a heterozygote exceeds the phenotypic expression of both the homozygotes the phenomenon is called _____ .

69) When a single gene affects two or more traits, the phenomenon is called _____

70) A gene with multiple phenotypic effect is called _____ .

71) The phenomenon of staying together of all the genes of a chromosome is called _____ .

72) _____ minimizes the chances of genetic recombination.

73) _____ is an exchange of segments between non-sister chromatids of homologous chromosomes during meiosis.

74) All chromosomes other than sex chromosomes are called _____ .

75) _____ is the maleness determining gene in man.

76) Type _____ of diabetes mellitus is non insulin dependent.

77) Polygenic inheritance with environmental influence is called _____ inheritance.



Student Name _____ Father Name _____ Roll Number _____

Class: 2nd /Year - Biology Marks : 65 ExamFormat ChaptewiseMCQs

Time: Date _____ ExamineSig _____ Chapter# :23

MCQ's		S/Q		L/Q		Total	
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Objective Type

1. Encircle the Correct Option. (1 x 60 = 60)

1. درست جواب کے گرد دائرہ لگائیں۔

1) Recombinant DNA is introduced into the host cell by means of .

a) Vector	b) Phage	c) Bacterium	d) Fungus
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2) In which year Hamilton O. Smith , at John Hopkins University , Isolated the first restriction Enzymes ?

a) 1965	b) 1970	c) 1975	d) 1985
---------	---------	---------	---------

3) Gene of interest is joined to the open ends of plasmid by

a) DNA ligase	b) DNA polymerase	c) RNA polymerase	d) Helicase
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4) Commonly used restriction enzyme is

a) Plasmid	b) P ^{sc} 101	c) p ^{BR} 322	d) Eco R1
------------	------------------------	------------------------	-----------

5) Recombinant DNA is introduced into the host cell by means of .

a) Fungus	b) Bacterium	c) Vector	d) Virus
-----------	--------------	-----------	----------

6) P^{sc} 101 has antibiotic resistance gene for

a) Tetracycline	b) Ampicillin	c) Neomycin	d) Ergotone
-----------------	---------------	-------------	-------------

7) It makes the bacterial cell more permeable to take up recombinant plasmids .

a) Sodium chloride	b) Cesium chloride	c) Calcium chloride	d) Potassium chloride
--------------------	--------------------	---------------------	-----------------------

8) Plasmid P^{BR} 322 has antibiotic resistance gene for .

a) Tetracycline	b) Tetracycline and ampicillin	c) Ampicillin	d) Penicillin
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9) The two different pieces of DNA joined together is called as .

a) Dimeric DNA	b) Chimeric DNA	c) Trimeric DNA	d) Tetrameric DNA
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10) Eco R1 , is a commonly used .

a) Gene	b) Restriction enzyme	c) Bacteriophage	d) Bacteria
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11) The enzymes which are used to cut the gene of interest are known as .

a) DNA polymerase	b) Restriction endonucleases	c) RNA polymerase	d) DNA ligase
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12) First restriction enzyme was isolated by .

a) Kary Mullis	b) Hamilton	c) Sanger	d) Mendel
----------------	-------------	-----------	-----------

13) A collection of bacterial and phage viruses clones containing a particular segment of DNA from the source cell is called .

a) Recombinant DNA	b) Expressing system	c) Genomic library	d) Genome
--------------------	----------------------	--------------------	-----------

14) DNA polymerase enzyme was isolated from .

a) Bacteria	b) Viruses	c) Fungi	d) Protozoa
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15) The polymerase chain reaction was developed in 1983 by

a) Kary B. Mullis	b) Theodore M.Klein	c) Gottlieb haberlandet	d) J. Craig venter
-------------------	---------------------	-------------------------	--------------------

16) Taq polymerase is obtained from .

a) Fungus	b) Algae	c) Bacterium	d) Virus
-----------	----------	--------------	----------

17) Thermus aquaticus is a / an

a) Fungus	b) Protozoan	c) Alga	d) Bacterium
-----------	--------------	---------	--------------

18) Primer for PCR contains about .

a) 05 bases	b) 10 - 20 bases	c) 30 bases	d) 40 bases
-------------	------------------	-------------	-------------

19) Genome fragments can be separated according to their lengths during the process .

a) Cataphoresis	b) PCR	c) Cloning	d) Gel electrophoresis
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20) Aspartame is a .

a) Monopeptide	b) Dipeptide	c) Tripeptide	d) Polypeptide
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21) Which of these would you expect to be a biotechnology product ?

a) Vaccine	b) DNA probe	c) Protein	d) Steroid
------------	--------------	------------	------------

22) The cells which cling to an egg after ovulation is called .

a) Cumulus	b) Ovary cells	c) Heap	d) Plethora
------------	----------------	---------	-------------

23) Polyhydroxy butyrate is called .

a) Antithrombin III	b) Nutura sweet	c) Biodegradable plastic	d) Luciferine
---------------------	-----------------	--------------------------	---------------

24) Antibodies made by soybean are used to cure .

a) Tumor cells	b) Mumps	c) Genital herpes	d) Cystic fibrosis
----------------	----------	-------------------	--------------------

25) An enzyme α - galactosidase that can be used to treat a human lysosome storage , is harvested from .

a) Soyabeans	b) Tobacco plants	c) Sugarcane	d) Corn plants
--------------	-------------------	--------------	----------------

26) Antithrombin III is a biotechnological product produce by .

a) Sheep	b) Goat	c) Mice	d) Cow
----------	---------	---------	--------

27) The use of transgenic farm animals to produce pharmaceutical is termed as .

a) Gene therapy	b) Genetic drift	c) Gene farming	d) Gene pharming
-----------------	------------------	-----------------	------------------

28) Urine is preferable vehicle for a biotechnology product than .

a) Milk	b) Blood	c) Plasma	d) Tissue fluid
---------	----------	-----------	-----------------

29) Cystic fibrosis patient lack a gene that codes for transmembrane carriers of

a) Sulphate ions	b) Carbonate ions	c) Chloride ions	d) Bromide ions
------------------	-------------------	------------------	-----------------

30) Persons with Huntington's disease have a unique site where a restriction enzyme cuts .

a) DNA	b) RNA	c) Lipids	d) Proteins
--------	--------	-----------	-------------

31) Patients of cystic fibrosis often die due to numerous infections of the

a) Digestive tract	b) Excretory tract	c) Respiratory tract	d) Reproductive tract
--------------------	--------------------	----------------------	-----------------------

32) Cystic fibrosis patients lack a gene that code for trans - membrane carrier of .

a) Calcium ions	b) Sodium ions	c) Chloride ions	d) Potassium ions
-----------------	----------------	------------------	-------------------

33) Adult transgenic tobacco plants glowed when sprayed with the substrate .

a) Luciferon	b) Luciferin	c) Luciferol	d) Luciferase
--------------	--------------	--------------	---------------

34) Arabidopsis is .

a) Heat resistant	b) Water absorbent	c) Totipotent	d) Slat tolerant
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35) The enzyme luciferase is produced in an insect called .

a) Housefly	b) Firefly	c) Butterfly	d) Tsetsefly
-------------	------------	--------------	--------------

36) Which enzyme acts as molecular scissors ?

a) DNA polymerase	b) Restriction endonuclease	c) RNA polymerase	d) DNA gyrase
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37) The organisms used as biofilters is .

a) Transgenic plant	b) Transgenic animal	c) Transgenic bacteria	d) Transgenic virus
---------------------	----------------------	------------------------	---------------------

38) An antibody made by soybeans can be used for treatment of .

a) AIDS	b) Hepatitis	c) Herpes simplex	d) Genital herpes
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39) DNA Polymerase Enzyme was isolated from .

a) Viruses	b) Bacteria	c) Fungi	d) Protozoa
------------	-------------	----------	-------------

40) Adult transgenic tobacco plant glowed when sprayed with substrate .

a) Luciferin	b) Luciferol	c) Luciferase	d) Luciferous
--------------	--------------	---------------	---------------

41) A team of japanese scientists are attempted to introduced the C4 Cycle into the

a) Wheat	b) Rice	c) Corn	d) Cotton
----------	---------	---------	-----------

42) An antibody made by soybean can be used as treatment for .

a) Herpes simplex	b) Malaria	c) AIDS	d) Gonorrhea
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43) Transgenic bacteria are produced in large vats called .

a) Transducer	b) Bioreactor	c) Biomultiplier	d) Culter media
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44) The phenomena in which transfer of genetic material from one cell to another and can alter the genetic make up of the recipient cell is .

a) Translocation	b) Translation	c) Transduction	d) Transformation
------------------	----------------	-----------------	-------------------

45) Which of these is a true statement?

a) Both plasmids and viruses can serve as vectors	b) Plasmids can carry recombinant DNA but viruses can not	c) Vectors carry only the foreign gene into the host cell	d) Only gene therapy uses vectors
---------------------------------------------------	-----------------------------------------------------------	-----------------------------------------------------------	-----------------------------------

46) Which of these is a benefits to having insulin produced by biotechnology?

a) It is just as effective	b) It is non allergenic	c) It can be mass produced	d) It is less expensive
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47) Restriction fragment length polymorphism (RFLPs).

a) Are achieved by using restriction enzymes	b) Are the basis for DNA finger prints	c) Identify individuals genetically	d) Can be subjected to get electrophoresis
----------------------------------------------	----------------------------------------	-------------------------------------	--------------------------------------------

48) Which of these would you not expect to be a diotechnology product.

a) Vaccine	b) Modified enzyme	c) DNA probes	d) Protein hormones
------------	--------------------	---------------	---------------------

49) What is the benefits using a retrovirus as a vector in gene therapy?

a) It is not able to enter cells	b) It incorporates the foreign gene into the host chromosome	c) It eliminates a lot of unnecessary steps	d) It prevents infection by other viruses
----------------------------------	--------------------------------------------------------------	---------------------------------------------	-------------------------------------------

50) Gel electrophoresis.

a) Cannot be used on nucleotides	b) Measures the size of plasmids	c) Tells whether viruses are infectious	d) Measure the change and size of proteins and DNA fragments
----------------------------------	----------------------------------	-----------------------------------------	--------------------------------------------------------------

51) Which of these is incorrectly matched?

a) Protoplast - plant cell engineering	b) DNA polymerase - PCR	c) RFLPS - DNA finger printing	d) DNA ligase - mapping human chromosomes
----------------------------------------	-------------------------	--------------------------------	-------------------------------------------

52) A collection of bacterial and phage viruses clones containing a particular segment of DNA from the source cell is called.

a) Recombinant DNA	b) Genomic library	c) Expressing system	d) Genome
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53) Taqpolymerase are enzyme present in.

a) Fungi	b) Bacteria	c) Algae	d) Virus
----------	-------------	----------	----------

54) Thermusaquaticus is a/an.

a) Fungus	b) Alga	c) Protozoan	d) Bacterium
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55) Kary B.Mullis developed the polymerase chain reaction in.

a) 1963	b) 1973	c) 1983	d) 1993
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56) The Polymerase Chain Reaction (PCR) was developed in 1983 by.

a) Kary B. Mullis	b) Theodore M. Klein	c) Gottlieb Haberlandt	d) Craig Venter
-------------------	----------------------	------------------------	-----------------

57) A full set of genes of an individual is called.

a) Genome	b) Karyotype	c) Genotype	d) Dominance
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58) PCR takes its name from _____ the enzyme that carries out DNA replication in a cell.

a) DNA Polymerase	b) DNA Ligase	c) DNA Polymerase I	d) Restriction enzyme
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59) A probe is a single stranded unclotide sequente that will hybridize in to certain piece of.

a) RNA	b) Carbohydrate	c) DNA	d) Amino Acids
--------	-----------------	--------	----------------

60) Primer for PCR contains about.

a) 5 bases	b) 10-20 bases	c) 30 bases	d) 40 basese
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2. Fill in the blanks. (1 x 5 = 5)

2. خالی جگہ پُر کریں۔

61) The use of polymerase chain reaction (PCR) creates a _____ of copies in a laboratory test tube.

62) _____ free living organisms in the environment that have had a foreign gene inserted into them.

63) _____ known sequences of DNA that are used to ind complementary DNA strands; can be used diagnostically to determine the presence of particular gene.

64) _____ production of many identical copies of a gene.

65) _____ self duplicating ring of accessory DNA in the cytoplasm of bacteria.



StudentName_____ FatherName_____ Roll Number_____

Class: 2nd /Year - Biology Marks : 72 ExamFormat ChaptewiseMCQs

Time: _____ Date _____ ExamineeSig _____ Chapter#: 24

MCQ's	S/Q	L/Q	Total
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Objective Type

1. Encircle the Correct Option. (1 x 57 = 57)

1. درست جواب کے گرد دائرہ لگائیں۔

1) According to endosymbiont hypothesis , the aerobic bacteria developed into .

a) Ribosomes	b) Lysosomes	c) Mitochondria	d) Golgi apparatus
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2) Flagella may have arisen through the ingestion of prokaryotes similar to spiral shaped bacteria called.

a) E-coli	b) Streptococcus	c) Spirochete	d) Rhizobium
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3) Archaeobacteria can tolerate temperature upto .

a) 60 ⁰ C	b) 90 ⁰ C	c) 120 ⁰ C	d) 150 ⁰ C
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4) Endosymbiont hypothesis was proposed by

a) Cuvier	b) Lyell	c) Lynn Margulis	d) Malthus
-----------	----------	------------------	------------

5) A respiratory protein found in all aerobic species is the .

a) Cytochrome - a	b) Cytochrome - b	c) Cytochrome - c	d) Cytochrome - d
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6) Which respiratory protein is found in all aerobic species ?

a) Glial cell line	b) Cytochrome	c) Serine	d) Cysteine
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7) Who published the essay on the " principle of population " ?

a) Wallace	b) Lamarck	c) Malthus	d) Lyell
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8) Wallace developed theory of natural selection essentially identical to .

a) Lamarck	b) Linnaeus	c) Darwin	d) Hutton
------------	-------------	-----------	-----------

9) An essay on the principle of population was published by .

a) Sutton	b) Lyell	c) Malthus	d) Darwin
-----------	----------	------------	-----------

10) Book " The origin of species " was written by .

a) Linnaean	b) Darwin	c) Lamarck	d) Wallace
-------------	-----------	------------	------------

11) Alfred Wallace developed a theory of natural selection essentially identical to.

a) Linnaeus's	b) Darwin's	c) Lamark's	d) Mendel's
---------------	-------------	-------------	-------------

12) An example of natural selection in action is evolution of antibiotic resistance in .

a) Algae	b) Fungi	c) Bacteria	d) Viruses
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13) The first photosynthetic organisms probably used Hydrogen Sulphide as a source of Hydrogen for reducing CO₂ to .

a) Sugars	b) H ₂ CO ₃	c) RUBP	d) Malate
-----------	-----------------------------------	---------	-----------

14) Darwin " Origin of species " was published in .

a) 1840	b) 1865	c) 1890	d) 1850
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15) How many types of finches did Darwin collect on Galapagos Island .

a) 13 types	b) 20 types	c) 25 types	d) 30 types
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16) The armored mammal that lives only in America is the .

a) Armadillo	b) Pangolin	c) Echidna	d) Porcupine
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17) Armadillo , the armoured mammals live only in .

a) Europe	b) America	c) Australia	d) Asia
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18) Eustachian tubes connect throat with .

a) Eyes	b) Middle ear	c) Nose	d) Tongue
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19) The vermiform appendix is a vestigial organ in .

a) Carnivores	b) Fungivores	c) Herbivores	d) Omnivores
---------------	---------------	---------------	--------------

20) In terrestrial vertebrates , the gill pouches develop into .

a) Gills	b) Lungs	c) Nose	d) Eustachian tube
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21) Which of the following is vestigial organ of whale ?

a) Pelvis	b) Leg bones	c) Lungs	d) Pelvis and leg bones
-----------	--------------	----------	-------------------------

22) Most fossils are found in .

a) Ice	b) Stony rock	c) Mud	d) Sedimentary rock
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23) The armored mammal that lives only in America , is the _____

a) Armadillo	b) Penguin	c) Echidna	d) Porcupine
--------------	------------	------------	--------------

24) The total aggregate of genes in a population at any one time is called .

a) Genome	b) Succession	c) Gene pool	d) Gene flow
-----------	---------------	--------------	--------------

25) A group of interbreeding individuals belonging into a particular species and sharing a common geography area is called .

a) Community	b) Population	c) Ecosystem	d) Biosphere
--------------	---------------	--------------	--------------

26) A localized group of individuals belonging to the same species is called as .

a) Community	b) Population	c) Ecosystem	d) Biosphere
--------------	---------------	--------------	--------------

27) The change in frequency of allelest at a locus that occurs by change is called .

a) Gene pool	b) Genetic	c) Genetic drift	d) Mutation
--------------	------------	------------------	-------------

28) Emigration and immigration of members of population causes disturbance in the .

a) Genetic Drift	b) Genotype	c) Gene pool	d) Gene frequency
------------------	-------------	--------------	-------------------

29) The ultimate source of all evolutionary changes , which affect gene frequency is .

a) Selection	b) Migration	c) Mutation	d) Genetic drift
--------------	--------------	-------------	------------------

30) The ultimate source of changes is .

a) Evolution	b) Mutation	c) Genetic drift	d) Migration
--------------	-------------	------------------	--------------

31) The change in frequency of alleles at a locus that occurs by chance is called .

a) Genepool	b) Genetic	c) Genetic drift	d) Mutation
-------------	------------	------------------	-------------

32) According to Endosymbiotic hypothesis , the aerobic bacteria developed into .

a) Ribosomes	b) Chloroplasts	c) Mitochondria	d) Golgi bobies
--------------	-----------------	-----------------	-----------------

33) Biogeography , is the geographical distribution of .

a) Phylum	b) Class	c) Species	d) Genus
-----------	----------	------------	----------

34) The floral parts of a flowering plant are .

a) Homologous	b) Analogous	c) Similar	d) Different
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35) The idea of endosymbiont was purposed by .

a) Cuvier	b) Lyell	c) Malthus	d) Margulis
-----------	----------	------------	-------------

36) Endosymbiont Hypothesis was proposed by .

a) Wallace	b) Lamarck	c) Lynn Margulis	d) Linnaeus
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37) Archaeobacteria can tolerance temperature up to .

a) 50 ⁰ C	b) 70 ⁰ C	c) 100 ⁰ C	d) 120 ⁰ C
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38) Flagella may have arisen through ingestion of Prokaryotes like .

a) Closteridium	b) Vibro	c) Spirochetes	d) Salmonella
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39) Which one is not a vestigial organ of human being ?

a) Appendix	b) Coccyx	c) Nictitating membrane	d) Eye lid
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40) Darwin's theory , as presented in the Origin of Species , mainly concerned

a) How new species arise	b) How adaptations evolve	c) The origin of life	d) How extinctions occur
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41) The gill pouches of mammals and birds are.

a) Support for " ontogeny recapitulates phylogeny "	b) Homologous structures	c) Used by the embrayos to breathe	d) Evidence for the degeneration of unused body parts
-----------------------------------------------------	--------------------------	------------------------------------	-------------------------------------------------------

42) The smallest biological unit that can involve over time is.

a) A particular cell	b) A population	c) An individual organism	d) A species
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43) A gene pool consists of.

a) All the alleles exposed to natural selection	b) The total of all alleles present in a population	c) The entire genome of a reproducing individual	d) The frequencies of the alleles for a gene locus within a population
-------------------------------------------------	-----------------------------------------------------	--------------------------------------------------	------------------------------------------------------------------------

44) In a population with two alleles for a particular locus , B and b , the allele frequency of B is 0.7. What would be the frequency of heterozygote (Bb) if the population is in Hardy-Weinberg equilibrium?

a) 0.7	b) 0.42	c) 0.09	d) 0.49
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45) Selection acts directly on.

a) Phenotype	b) Genotype	c) Each allele	d) 0.42
--------------	-------------	----------------	---------

46) In a population that is in Hardy Weinberg equilibrium , 16% of the individuals show the recessive trait . What is the frequency of the dominant allele in the population?

a) 0.6	b) 0.84	c) 0.7	d) 0.04
--------	---------	--------	---------

47) The ultimate source of changes is.

a) Evolution	b) Genetic drift	c) Mutation	d) Migration
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48) Among the scientists who believed in divine creation was.

a) Lamark	b) Carolus Linnaeus	c) Darwin	d) Hyell
-----------	---------------------	-----------	----------

49) Lyell published the principle of _____ .

a) Population	b) Community	c) Biome	d) Geology
---------------	--------------	----------	------------

50) An essay on the principle of population was published by.

a) Darwin	b) Linnaens	c) Wallace	d) Malthus
-----------	-------------	------------	------------

51) In natural selection, the environment plays role affecting the proportions of gene in.

a) Population	b) Community	c) Area	d) Biome
---------------	--------------	---------	----------

52) A group of individuals belong to a particular species and sharing a common geographic area is called.

a) Community	b) Ecosystem	c) Population	d) Biosphere
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53) Hardy- Weinberg's theorem describes the frequencies of genotype of genotype of non-evolving.

a) Family	b) Population	c) Species	d) Community
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54) Endangered species of plants have been recorded to more than.

a) 300	b) 400	c) 500	d) 600
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55) Which one of the following is endangered in Pakistan.

a) Indian rhino	b) Cheer pheasant	c) Indus dophin	d) Tiger
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56) In Pakistan among the animals declared extinct is.

a) White headed duck	b) Crocodile	c) Marbled teal	d) Houbara Bustard
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57) Zoos and botanical gardens are to save species whose extinction is _____ .

a) Permanent	b) Imminent	c) Dominant	d) Prominent
--------------	-------------	-------------	--------------

2. Fill in the blanks. (1 x 15 = 15)

2. خالی جگہ پُر کریں۔

58) Archaeobacteria can tolerate high temperature sup to _____

59) The first eukaryote appeared about _____ years ago.

60) _____ presented the theory of the origin of species by means of Natural Selection.

61) _____ developed a theory of natural selection essentially identical to Darwin's.

62) _____ are considered to be the ancestors of all life.

63) A respiratory protein called _____ is found in all aerobic organisms.

64) Total aggregate of genes in a population at any time is called its _____

65) Hardy Weinberg theorem describes a _____ population.

66) _____ is a series of changes in the genetic composition of a population over time.

67) Level of classification between species and family is called _____.

68) Hardy Weinberg equation is binomial expansion of _____.

69) An _____ species is in imminent danger of extinction throughout its range.

70) A _____ is a localized group of individuals belonging to the same species.

71) The first photosynthetic organisms used _____ as source of hydrogen for reducing carbon dioxide to sugars.

72) _____ published an essay on 'The Principle of Population'.



StudentName _____ FatherName _____ Roll Number _____

Class: 2nd /Year - Biology Marks : 38 ExamFormat ChapterWiseMCQs

Time: _____ Date _____ ExaminerSig _____ Chapter#: 25

MCQ's		S/Q		L/Q		Total	
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Objective Type

1. Encircle the Correct Option. (1 x 30 = 30)

1. درست جواب کے گرد دائرہ لگائیں۔

1) Who defined the niche as the species occupation ?

a) Charles Eton	b) Charles Layll	c) Cuvier	d) Sutton
-----------------	------------------	-----------	-----------

2) A group of inter breeding individuals , belonging to same species and sharing a common geographic area , is called .

a) Community	b) Biome	c) Population	d) Ecosystem
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3) Who proposed the term niche in ecology ?

a) Haeckel	b) Darwin	c) Charles Eton	d) Joseph Grinnel
------------	-----------	-----------------	-------------------

4) All living organisms of the planet earth are collectively called .

a) Biosphere	b) Lithosphere	c) Hydrosphere	d) Atmosphere
--------------	----------------	----------------	---------------

5) The actual location of place where an organism lives is called .

a) Niche	b) Environment	c) Habitat	d) Ecosystem
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6) Biosphere is spread out over the surface of planet earth extending about .

a) 3 - 6 kilometers	b) 4 - 8 kilometers	c) 8 - 10 kilometers	d) 8 - 12 kilometers
---------------------	---------------------	----------------------	----------------------

7) Biome is a large .

a) Simple community	b) Complex community	c) Regional community	d) Climax community
---------------------	----------------------	-----------------------	---------------------

8) In 1971 , the term Niche was first proposed by American Ornithologist named .

a) Earnest Haeckel	b) Joseph Grinnell	c) Lamark	d) Darwin
--------------------	--------------------	-----------	-----------

9) The whole of the world's land is called .

a) Ecosphere	b) Lithosphere	c) Biosphere	d) Hydrosphere
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10) All the food chains and food webs begin with .

a) Primary consumer	b) Secondary consumer	c) Decomposers	d) Producers
---------------------	-----------------------	----------------	--------------

11) In nature , balance of ecosystem is kept by .

a) Food chain	b) Food web	c) Succession	d) Trophic level
---------------	-------------	---------------	------------------

12) When bacteria in soil oxidize ammonia or ammonium ions , this is called .

a) Oxidation	b) Denitrification	c) Ammonification	d) Nitrification
--------------	--------------------	-------------------	------------------

13) Several bacteria in the soil are able to oxidize ammonia or ammonium ions ,this oxidation is known as .

a) Ammonification	b) Nitrification	c) Oxidation	d) Denitrification
-------------------	------------------	--------------	--------------------

14) Bacteria in the root nodules fix nitrogen and convert it into .

a) Nitrate	b) Nitrite	c) Amino acids	d) Ammonia
------------	------------	----------------	------------

15) Once nitrate enters the plant cell it is reduced to .

a) Nitrite	b) Ammonia	c) Proteins	d) Carbohydrate
------------	------------	-------------	-----------------

16) Mutualism is a type of .

a) Symbiosis	b) Commensalism	c) Parasitism	d) Predation
--------------	-----------------	---------------	--------------

17) The bacteria in the root nodules fix nitrogen in soil from air , converting it into ____

a) Nitrate	b) Nitrite	c) Ammonia	d) Amino Acid
------------	------------	------------	---------------

18) Relationship between insects and flowering plants is the example of .

a) Commensalism	b) Mutualism	c) Predation	d) Parasitism
-----------------	--------------	--------------	---------------

19) All the food chains and food webs begin with .

a) Consumers	b) Carnivores	c) Decomposers	d) Producers
--------------	---------------	----------------	--------------

20) Disease in living organisms caused by parasites is called .

a) Parasitism	b) Infestation	c) Infection	d) Predation
---------------	----------------	--------------	--------------

21) Disease in living organism caused by parasites are called .

a) Infection	b) Endoparasites	c) Disinfestation	d) Ectoparasites
--------------	------------------	-------------------	------------------

22) An association between organisms of different species in which one partner gets benefit and other is harmed .

a) Mutualism	b) Symbiosis	c) Parasitism	d) Commensalism
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23) Lichen is symbiotic association between a fungus and

a) Diatom	b) An Alga	c) Angiosperms	d) Gymnosperms
-----------	------------	----------------	----------------

24) The symbiotic relationship between insect and flowering plants is the example of .

a) Parasitism	b) Predation	c) Mutualism	d) Commensalism
---------------	--------------	--------------	-----------------

25) Lichens are an example of

a) Parasitism	b) Mutualism	c) Predation	d) Commensalism
---------------	--------------	--------------	-----------------

26) The study of relationship of an organism to their environment is known as.

a) Biology	b) Ecology	c) Zoology	d) Mycology
------------	------------	------------	-------------

27) Similar group of individuals who can inter breed and produce organisms of their own kind forms a.

a) Population	b) Community	c) Species	d) Succession
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28) When living and non - living interact to produce a stable system in which exchange of material with flow of energy takes place , it forms a / an.

a) Environment	b) Ecosystem	c) Stable community	d) Ecological succession
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29) The living organism which prepare their own food are .

a) Predators	b) Parasites	c) Producers	d) Prey
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30) The living organisms , which cannot prepare their own food but obtain readymade food from others are.

a) Primary and secondary consumers	b) Only primary consumer	c) Secondary and tertiary consumers	d) Consumers
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2. Write "T" for a true statement and "F" for a false statement (1 x 5 = 5)

2. درست جواب کے سامنے (✓) نشان لگائیں اور غلط کے سامنے (X) کا نشان لگائیں۔

31) At different places in an environment when you study only one population, it will be synecology.

True False

32) Abiotic components include all living components.

True False

33) Primary succession starting in a pond is called xerosere.

True False

34) The animal that is caught and eaten is the predator.

True False

35) Endoparasites live inside the body of the host.

True False

3. Fill in the blanks. (1 x 3 = 3)

3. خالی جگہ پُر کریں۔

36) A group of similar organisms living together in space and time is called _____ .

37) Organisms which can synthesize their own food are called _____ .

38) Animals, non-green plants and microorganisms directly or indirectly depend upon green plants for their food so they so are called _____ .



Student Name _____ Father Name _____ Roll Number _____

Class: 2nd /Year - Biology Marks : 44 Exam Format : Chapter Wise MCQs

Time : notespk.com_Nauman Sadaf | Date _____ Examiner Sig _____ Chapter#: 26

MCQ's		S/Q		L/Q		Total	
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Objective Type

1. Encircle the Correct Option. (1 x 40 = 40)

1. درست جواب کے گرد دائرہ لگائیں۔

1) Decomposers and detritus feeders are only living organism .

a) Littoral zone	b) Limnetic zone	c) Profundal zone	d) Atmospheric zone
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2) The zone where enough light penetrates to support the photosynthesis is .

a) Littoral zone	b) Limnetic zone	c) Profundal zone	d) Benthic zone
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3) Limnetic phytoplanktons includes the .

a) Bacteria	b) Algae	c) Mosses	d) Cyanobacteria
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4) The light in this zone is insufficient to support photosynthesis .

a) Limnetic	b) Profundal	c) Littoral	d) All of these
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5) The zone , rich in life , in a fresh water lake is called .

a) Littoral zone	b) Limnetic zone	c) Profundal zone	d) Desert
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6) Which of the following is drifting animal .

a) Insect larvae	b) Protozoa	c) Turtle	d) Snake
------------------	-------------	-----------	----------

7) In aquatic ecosystem near shore zone is called .

a) Littoral zone	b) Limnetic zone	c) Profundal zone	d) Benthic zone
------------------	------------------	-------------------	-----------------

8) A little light is left to power photosynthesis at the depth of .

a) 500 feet	b) 600 feet	c) 1000 feet	d) 1200 feet
-------------	-------------	--------------	--------------

9) Phytoplanktons are drifting .

a) Plants	b) Animals	c) Ptozoa	d) Crustaceans
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10) Fresh water ecosystem covers less than .

a) 7 %	b) 5 %	c) 3 %	d) 1 %
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11) The producers in limnetic zone are .

a) Amoebae	b) Cyanobacteria	c) Hydrilla	d) Crustaceans
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12) The average rainfall in temperature deciduous forest in between .

a) 600 - 1500 mm	b) 650 - 1500 mm	c) 700 - 1500 mm	d) 750 - 1500 mm
------------------	------------------	------------------	------------------

13) Temperature deciduous forests are located in Pakistan at _____

a) Shogran	b) Chilas	c) Mianwali	d) Sindh
------------	-----------	-------------	----------

14) Alpine coniferous forests are found on high .

a) Latitudes	b) Longitudes	c) Altitudes	d) Slopes
--------------	---------------	--------------	-----------

15) The scientific name of rhesus monkey is .

a) Macaca mullata	b) Taxus baccata	c) Felis catus	d) Solenorctor tiberanus
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16) A dominant plant of the deciduous forest is the .

a) Cactus	b) Euphorbia	c) Acacia	d) Taxus baccata
-----------	--------------	-----------	------------------

17) Coniferous forests located at high altitude are .

a) Alpine	b) Boreal	c) Taiga	d) Arctic
-----------	-----------	----------	-----------

18) Which one is not a desert .

a) Thal	b) Sahara	c) Thar	d) Taiga
---------	-----------	---------	----------

19) Northern coniferous forests are called .

a) Tundra	b) Taiga	c) Alpine	d) Boreal
-----------	----------	-----------	-----------

20) The grass lands of tropical climate have woody trees are called .

a) Prieries	b) Boreals	c) Savana	d) Tundra
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21) The rate of primary production is about 700 - 1500 g / m² annually in .

a) Desert	b) Tundra	c) Tropical glassland	d) Temperate grass
-----------	-----------	-----------------------	--------------------

22) Layer is a characteristics of .

a) Tundra	b) Grass land	c) Taiga	d) Desert
-----------	---------------	----------	-----------

23) In temperature grassland the rate of primary production is about .

a) 700 - 1400 g / m ²	b) 700 - 1600 g / m ²	c) 700 - 1800 g / m ²	d) 700 - 1500 g / m ²
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24) In temperate grassland , the rate of primary production is .

a) 700 - 1500 g / m ²	b) 700 - 1400 g / m ²	c) 700 - 1600 g / m ²	d) 700 - 1300 g / m ²
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25) Desert ecosystem occurs in region , where annual rain falls is less than .

a) 25 - 50 cm	b) 5 - 10 cm	c) 15 - 20 cm	d) 250 - 270 cm
---------------	--------------	---------------	-----------------

26) In Sindh , the desert ecosystem is called .

a) Thar	b) Thal	c) Sahara	d) Gobi
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27) Average rain fall in desert ecosystem is .

a) 10 - 20 inches	b) 30 - 40 inches	c) 50 - 60 inches	d) 70 - 80 inches
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28) In Pakistan the desert ecosystem of western Punjab is .

a) Cholistan	b) Rajistan	c) Thar	d) Thal
--------------	-------------	---------	---------

29) Which biome has been increased in area by human activities ?

a) Grass land	b) Savanna	c) Coniferous	d) Desert
---------------	------------	---------------	-----------

30) The biomes which has been increased in area by human activities .

a) Grassland	b) Savanna	c) Coniferous	d) Desert
--------------	------------	---------------	-----------

31) Deserts generally occur in region where annual rainfall is less than .

a) 25 - 50 cm	b) 5 - 10 cm	c) 250 - 270 cm	d) 15 - 20 cm
---------------	--------------	-----------------	---------------

32) Cacti and Euphorbia are the desert plants which store water n their

a) Fleshy leaves	b) Fleshy buds	c) Fleshy stems	d) Fleshy roots
------------------	----------------	-----------------	-----------------

33) Deserts ecosystem of Mianwali and Bhakkar is called .

a) Thal	b) Thar	c) Cholistan	d) Sahara
---------	---------	--------------	-----------

34) Desert ecosystem of Bhakkar and Mianwali is .

a) Thar	b) Thal	c) Cholistan	d) Rohi
---------	---------	--------------	---------

35) Northern coniferous forests are called as .

a) Boreal	b) Taiga	c) Alpine	d) Deciduous
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36) The soil or terrestrial ecosystem have same adaptations for animals and plants.

a) Supporting tissues	b) Retention of food	c) Temperature	d) Nutrients
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37) Most plants fit only into a few ecosystem , which type of plants seems in ecosystem of grass land.

a) Trees	b) Shrubs	c) Perennial herbs	d) Annual weeds
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38) In which type of ecosystem the smallest fraction of nutrients present in soil.

a) Savanna	b) Tundra	c) Grassland	d) Desert
------------	-----------	--------------	-----------

39) Which biome will be with richest soil with nutrients and can be converted into agriculture.

a) Deciduous forest	b) Tropical rain forest	c) Grassland	d) Coniferous forest
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40) Which of the bimes has been increased in area by human activities.

a) Savana	b) Grassland	c) Desert	d) Coniferous
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2. Fill in the blanks. (1 x 4 = 4)

2. خالی جگہ پُر کریں۔

41) Water is slower to heat and _____ than air.

42) The distribution of life in lakes depends on access to _____, and to place for attachment.

43) Ecosystem on land is also known as _____ ecosystem.

44) Ecosystem in water is also called as _____ ecosystem.



StudentName_____ FatherName_____ Roll Number_____

Class: 2nd /Year - Biology Marks : 37 ExamFormat ChapterWiseMCQs

Time: _____ Date _____ ExamineeSig _____ Chapter# : 27

MCQ's		S/Q		L/Q		Total	
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Objective Type

1. Encircle the Correct Option. (1 x 32 = 32)

1. درست جواب کے گرد دائرہ لگائیں۔

1) It is not fossilized fuel .

a) Lignite	b) Peat	c) Natural gas	d) Oil
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2) Which of the following act as environmental buffer ?

a) Desert	b) Oceans	c) Forests	d) Lakes
-----------	-----------	------------	----------

3) The destruction of forests leaves the soil barren and this is called

a) Deforestation	b) Forestation	c) Aforestation	d) Reforestation
------------------	----------------	-----------------	------------------

4) Establishment of new forests , where no forests existed before is called .

a) Deforestation	b) Desertification	c) Reforestation	d) Afforestation
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5) As chlorofluorocarbons rise the the atmosphere , the ultraviolet rays release .

a) Flourine	b) Chlorine	c) Carbon	d) Hydrogen
-------------	-------------	-----------	-------------

6) Ozone molecules is made up by binding of three atoms of .

a) Carbon	b) Hydrogen	c) Nitrogen	d) Oxygen
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7) Stone monuments like " Taj Mahal " are being aroded due to " Stone cancer " by .

a) Acid rain	b) Green house effect	c) Eutrophication	d) Radiation
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8) The ozone layer has developed a hole over the .

a) Arctica	b) Equator	c) Antractica	d) Tropics
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9) The decline in thickness of ozone layer is caused by increasing level of

a) Hydrocarbons	b) Nitrocarbonds	c) Chlorofluorocarbons	d) Florocarbons
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10) Ozone in the upper layer of atmosphere that filters .

a) IR radiation	b) UV radiation	c) β radiation	d) γ radiation
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11) A single chlorine atom can react with ultraviolet rays and destroy as many as .

a) One million O ₃ molecules	b) Four million O ₃ molecules	c) Three million O ₃ molecules	d) Six million O ₃ molecules
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12) The increase of environmental temperature due to high amount of CO₂ is known as .

a) Global warming	b) Acid rains	c) Ozone depletion	d) Stone cancer
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13) Tresure of all type of resources is .

a) Weather	b) Climate	c) Environment	d) Water
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14) The colour of the pure form of ozone (O₃) is .

a) Whitish	b) Yellowish	c) Bluish	d) Greenish
------------	--------------	-----------	-------------

15) Establishment of new forests where no forest existed previously

a) Afforestation	b) Reforestation	c) Deforestation	d) Forestation
------------------	------------------	------------------	----------------

16) The decline in the thickness of ozone layer is due to increasing level of .

a) CO ₂	b) CFC ₃	c) Hydrogen	d) Hydrocarbons
--------------------	---------------------	-------------	-----------------

17) Establishment of new forests where no forests existed before is called .

a) Forestation	b) Reforestation	c) Deforstation	d) Afforestation
----------------	------------------	-----------------	------------------

18) Which of the following act as environmental buffers ?

a) Deserts	b) Forests	c) Industry	d) Fossil fuels
------------	------------	-------------	-----------------

19) Ozone depletion is commonly caused by .

a) CFC ₂	b) CO ₂	c) Smoke	d) Smong
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20) Which of the continent has the highest rate of human population.

a) Australia	b) Africa	c) Asia	d) North America
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21) If the population is above the carrying capacity what must happen.

a) It must immediately cure	b) It can continue to increase	c) It can remain stable indefinitely	d) It must eventually decline
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22) What is our principle source of energy.

a) Nuclear energy	b) Geothermal energy	c) Solar energy	d) Tidal energy
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23) Batteries store which type of energy.

a) Electrical	b) Mechanical	c) Chemical	d) Nuclear
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24) Population of Pakistan in the year 1947 was.

a) 32.5 million	b) 50 million	c) 150 million	d) 180 million
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25) Study of Human Populations and the things that affect them, is called.

a) Human Biology	b) Demography	c) Sociobiology	d) Teratology
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26) The world population is expected to be nearly doubled by.

a) 2020	b) 2040	c) 2030	d) 2050
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27) The increase of environment temperature due to high amount of CO₂ is known as.

a) Global warming	b) Ozone depletion	c) Acid rains	d) Stone cancer
-------------------	--------------------	---------------	-----------------

28) The steady internal state of homeostasis is known as.

a) Disorder	b) Normal Health	c) Disease	d) Abnormal Health
-------------	------------------	------------	--------------------

29) In pure form , Ozone is.

a) Greenish	b) Yellowish	c) Reddish	d) Bluish
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30) A chemical that kills weed plants is called.

a) Pesticide	b) Fungicide	c) Insecticide	d) Herbicide
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31) Beri Beri is caused by.

a) Infection	b) Nutritional Deficiency	c) Physical disorder	d) Chemical Cause
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32) Energy from sun flows through as ecosystem in the form of.

a) Light	b) Temperaure	c) Radiant heat	d) Evaporation
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2. Fill in the blanks. (1 x 5 = 5)

2. خالی جگہ پُر کریں۔

33) The most widely used source of energy on earth is _____.

34) When energy changes from one form to another form some _____ is done.

35) Air , water and soil are resources which come in category of _____ resources.

36) There are seven classes of food, water, carbohydrates , proteins , vitamins, fats, fibers and _____.

37) To save energy actually refers to the _____ of energy.