

Study Regular

NIELIT/NIC EXAM 2017 EBOOK OF IMPORTANT 500 QUESTIONS

Topic Covered:

- One Word Substitution
- Vocabulary
- Reasoning Questions
- Computer Network
- Theory of Computation
- DBMS
- Engineering Mathematics
- Data Structure
- Digital Electronics & CA
- Operating System

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MANIA OF BEING IMPORTANT	MEGALOMANIA
MEDICINE WHICH LESSENS PAIN	ANODYNE
MORNING PRAYER	MATIN
OLD AGE WHEN A MAN BEHAVE LIKE A FOOL	DOTAGE
ONE WHO COMES FROM A VILLAGE AND CONSIDERED STUPID	BUMPKIN
ONE WHO FIGHTS FOR MONEY	MERCENARY
ONE WHO FORSAKES RELIGION	RENEGADE
ONW WHO IS GUILTY OF FIRING PROPERTY	ARSONIST
ONE WHO IS VERY CAREFUL AND PARTICULAR	METICULOUS
ONE WHO PAYS TOO MUCH ATTENTION TO HIS CLOTHS AND APPEARANCE	DANDY
ONW WHO PRETENDS ILLNESS TO ESCAPE DUTY	MALINGERER
ONE WHO TALKS CONTINUOUSLY	LOQUACIOUS
ONE WHO WORKS IN RETURN FOR BEING TAUGHT THE TRADE	DISCIPLE
ONE WHOSE ATTITUDE IS TO EAT, DRINK AND MERRY	EPICUREAN
PEOPLE IN ROWDY SCENCE	RABBLE
PERASON OBSESSED WITH ONE IDEA OR SUBJECT	MONOMANIIAC
PERSON WHO DOES NOT BELIEVE IN ANY RELIGION	PAGAN
PERSON WHO HOLDS SCHOLARSHIP AT A UNIVERSITY	BURSAR
PERSON WHO IS AGAINST THE ORDINARY SOCIETY ESP. DRESSING	HIPPY
PERSON WHO IS ALWAYS DISSATISFIED	MALCONTENT
PERSON WHO LIVES ALONE AND AVOID OTHERS	RECLUSE
PERSON WHO LOVES NATURE	AESTHETE
PERSON WHO PRETENDS TO HAVE MORE KNOWLEDGE	CHARLATAN
PERSUASIVE AND FLUENT SPEECH	ELOQUENCE
PHYSICIAN WHO DELIVERS BABIES	OBSTERICIAN
PLACE WHERE COWS ARE SHELTERED	BYRE
PLACE WHICH PROVIDES BOTH BOARD AND LODGING	INN
POWER OF READING THOUGHTS OF OTHERS	TELEPATHY

RIDICULULOUS USE OF WORDS	MALAPROPISM
RIDE ON SOMEONE'S BACK	PIGGYBACK
ROOM LEADING INTO A LARGE ROOM	ANTEROOM
SEAT ON ELEPHANT'S BACK	HOWDAH
SONG SUNG AT BURIAL	DIRGE
THING THAT BRING GENTLE AND PAINLESS DEATH FROM INCURABLE DISEASE	EUTHANASIA

Bring under control especially a group of people causing trouble	Subdue
Calmness of mind and temper	Equanimity
Ceremony of crowning a king	Coronation
Chain of flowers ,leaves ribbons etc.	Festoon
Collection of flowers	Anthology
Compel to a course of action	Coerce
Compensation of loss	Indemnity
Complain or protest irritatingly	Grudge /grumble
Concluding part of speech	Peroration
Confused and disorderly	Promiscuous
Conference for discussion on a subject	Symposium
Confused struggle or fight	Scrimmage
Copy or reproduction of a work	Replica
Craze for flowers	Anthomania
Cud-chewing animal	Ruminant
Cut into small peaces	Mince
Cutting or arm, leg, etc. By surgery	Amputation
Cutting and gathering of grain	Harvest
Difficult or dangerous situation	Predicament
Done or obtained without payment or free of charge	Gratuitous
Easily bending	Supple
Equally sensitive to all colours	Panchromatic
Express earnest disapproval of	Deprecate
Expand and contract rhythmically	Pulsate
Fastest speed of a horse	Gallop
Felling of fear and disappointment	Dismay
Feeling or impression that something evil is going to happen	Presentment
Feeling that everything turns	Giddiness

Fixed sum of money paid to somebody as income in his lifetime	Annuity
Fond of new things	Newfangled
Foolish love	Infatuation
Forecast of the probable course of a disease or illness	Prognosis
Gay and elegant dress or appearance	Finery
Give more force or importance to	Accentuate
Give something as a security for debt	Pawn/mortgage

A person who leads an immoral life	Libertine/Lecher
One hates the institution of marriage	Misogamist
One who eats everything	Omnivorous
One who works for the welfare of the women	Philogynist /Feminist
A boastful fellow	Swashbuckler
A noisy quarrelsome women, a shrew	Termagant
One who is habitual drunken	Toper/sot
One who is brilliant performer on stage(specially music)	Virtuoso
An annual calendar with position of stars	Almanac
A statement accepted as true without proof	Axiom
Examination of living tissue	Biopsy
Compulsory enlistment for military service	Conscription
An exact copy of handwriting ,printing	Facsimile/Xerox
Animals which live in a flock , used for human beings also	Gregarious/sociable
An act of separation from a person to avoid infection	Quarantine
Dress with medals, ribbons worn at official ceremonies	Regalia
A thing kept in memory of an event	Souvenir
A place where animals are slaughtered for the market	Abattoir
The dwelling place if an animal underground	Borrow
A place where treasurers ,stores ,ammunition are hidden	Cache
A graveyard where dead are buried	Crèche
An original glass bottle for holding wine or other alcoholic drinks	Decanter
A squirrel's home	Drey
A home for old people	Infirmiry

A place for wild animals and birds	Menagerie
A house or shelter for a dog	Kennel
A place where pigs are kept	Sty
A case in which the blade of a sword is kept	Sheath ,Scabbard
A place where lather is tanned	Tannery
One who drives a motor car	Chauffeur
One who introduces performing artists on the stage programmes	Compere
One who studies the pattern of voting in elections	Psephologist
Government by old man	Gerontocracy
Government by the worst citizen	Kekistocracy
Government run universally	Panarcy
A funeral procession comprising a number of mourners	Cortege

A PERSON LEAVING HIS NATIVE COUNTRY TO SETTLE IN ANOTHER	EMIGRANT
A PERSON HAVING THE SAME NAME	NAMESAKE
A PERSON WHO IS TALKTIVE	GARRULOUS
SOMETHING THAT CANNOT BE TAKEN AWAY	INALIENABEL
ONE WHO TRAVELS FROM PLACE TO PLACE	TRAMP
TO MOVE ALONG WITH QUICK SHORT TWISTING ACTIONS	WRIGGLE
BE THE EMODIMENT OR PERFERCT EXAMPLE OF	CHARACTERISE
ONE WHO DERSERTS HIS RELIGION	APOSTATE
CUSTOM OF HAVING MANY WIVES	POLYGAMY
PERSON WHO BELIVES THAT GOD IS EVERYTHING AND EVEYTING IS GOD	PANTHEIST
RELATIONSHIP BY BLOOD OR BIRTH	CONSANGUINITY
BELIEF OR OPINION CONTRARY TO WHAT IS GENERALLY ACCEPTED	HERESY
A COUNTRY RULED BY TWO COUNTRY	CONDOMUNIUM
A LADY’S PURSE	RETICULE
A RELIGIOUS SONG	HYMN
A VERSE LETTER	EPISTLE
A ANIAML STORY WITH MORAL	FABLE
ART OF CUTTING TREE AND BUSHES INTO ORNAMENTAL SHAPE	TOPIARY

CHANGE ONE'S MIND TWO QUICKLY	VACILLATION
CONGRULATIONS SOME ONE IN FORMAL MANNER	FELICATATE
CREATURE HAVINGH BOTH MALE AND FEMALE ORGANS	HERMAPHRODITE
EQUAL IN RANK	PEER
FAULT THAT MAY BE FORGIVEN	VENIAL
FEAR OF BECOMING BLAD	PHALACROPHOBIA
Fear of pain	Aglophobia/odynophobia
Fear of getting fat makes young girl stop eating resulting in harmful effect	Anorexia
Fear of males	Androphobia
Fear of ugliness	Cacophobia
Fear of doctors	Catrophobia
Fear of depths	Bathophobia
Fear of dogs	Cynophobia
Extreme fear of beauty	Cellophobia
Fear of thirst	Dipsophobia

Suggest indirectly	Insinuate
Suggesting absence of thought or intellect	vacuous
System of religious worship	Cult
That cannot be erased or removed	Indelible
That cannot be weighed	Imponderable
That easily changes into gas or vapour	Volatile
That which can lessen the severity of (pain , disease)	Palliative
That which cannot be doubted or questioned	Unimpeachable
That which eats grass	Herbivore /herbivorous
Thing to be added at the end of a book etc.	Addendum
Theory of utility	Pragmatism
Turn or wander away from the main topic	Digress
Union of states, parties, or persons	Confederacy
Use in an unworthy or wicked way	Desecrate /defile
Use of public money for one's own benefit	Peculation/embezzlement
Way out for water or stream	Outlet
Whole body of wage earners	Proletariat
Wide spread violence	Havoc
Witty clever retort	Repartee
Word formed from initial letters of a name	Acronym
Word made by changing the order of the letters in another word	Anagram

Woven fabric richly ornamented with designs	Brocade
Written law passed by the law making body	Statute
Of a very short duration of period	Transient
Not clearly expressed or understand	Inscrutable
Area of land almost surrounded by sea	Peninsula
Salt water lake separated from the sea by sand banks	Lagoon
Person who caters to the rich	Sycophant
One who doubts the soundness of inferences	Aesthetic
An expression of mild disapproval	Denigration
Art of poetry	Ceramics
Extreme old age when a man behaves like a fool	Dotage

A person sharing responsibility for a political party's discipline and tactics	Whip
Food which agrees with one's taste	Palatable
A story in verse	Ballad
Plain or self evident truth	Truism
A person who has just started learning	Apprentice
A low area storm with high winds rotating about a centre of low atmospheric pressure	Cyclone
A fault that may be forgiven	Venial
One who is likeable	Amiable
Person who gives himself up to luxury and sexual pleasures	Voluptuary
A field or a part of a garden where fruit trees grow	Orchard
A women of lax moral	Harlot
A person who gives written testimony for use in a court	Deponent
A person who makes and sells ladies hats, etc.	Milliner
To mediate between two parties in a dispute	Intercede
The branch of science which deals with the problems of the old	Geriatrics
Property inherited from one's father pr ancestors	Patrimony
Something left in a will by someone who has died	Legacy
The doctrine that human souls pass from one body to another at the time of death	Transmigration
A drawing on transparent paper	Transparency
The act of violating the sanctity of church	Sacrilege

A style in which a writer makes a display of his knowledge	Pedantic
One who thinks that human nature is essentially evil	Cynic
Interested mainly in a small group country etc.	Insular
The period between two reigns	Interregnum
Poem in short stanzas narrating a popular story	Ballad
One who does not know how to save the money	Spendthrift
Walk in a vain , self-important way	Strut
Clumsy or ill-bred fellow	Boor
A small shop that sells fashionable clothes, cosmetics etc.	Boutique
The normal abode of any animal or plant	Habitant
A person who is skilled in horsemanship	Equestrian
To atone one's sins	Expiate

The study of cells, especially their formation structure and functions	Cytology
The study of finger prints for the purpose of identification	Dactylographic
The study of animal behaviour	Ethology
The study of production of better offspring by the careful selection of parents	Eugenics
The study of effect of environment on workers	Ergonomy
The sun therapy	Heliotherapy
The study of tissues	Histology
The study of teeth	Odontology
The study of correct pronunciation	Orthoepy
The art of method of teaching	Pedagogy
The study of rocks	Petrology
The study of written records their authenticity etc.	Philology
The study of speech sounds and production, transmission , reception	Phonetics
The study of human face	Physiognomy
The study of ancient writing	Palaeography
The art of elegant speech or writing	Rhetoric
The study of caves	Spelelogy
An admirer of art	Dilettante
Use of mild word in place of words required by truth	Euphemism

That which is pig like	Porcine
That is fox like	Vulpine
Study of law	Nomo logy
Study of fossils	Palaeontology
Statement that is obviously true	Platitude
Temple dedicated to all the gods	Pantheon
The study of physical phenomenon of lakes	Limnology
Serious crime like murder ,arson	Felony
Secret place difficult to reach	Recess
Secret religious meeting	Conventicle
Showing contemptuous indifference	Supercilious
A short summary of a book or speech	Epitome
A short saying or poem which express an idea in a very clever and amusing way	Epigram
Scornful and contemptuous language	Opprobrium
Science of time	Horology

To free from the confines of something to liberate from	Emancipate
Something artificial having the appearance of some thing got up	Factitious
As opposed to realistic , imagined not real	Fictitious
Tendency to grow downwards	Geotropism
A personal peculiarity of temperament or constitution	Idiosyncrasy
A person who has a most uncompromising attitude especially on politics	Intransigent
A subtle allusive and generally deprecatory remark	Innuendo
Extremely extravagant in manners and morals	Licentious
Belonging to this world , earthly	Mundane
Application of name or descriptive term to an object to which it is not literally applicable	Metaphor
A scene or situation which is gruesomely imaginative or full of gruesome details	Macabre
A change that befalls something	Mutation
A drama which is marked by very crude appeal to feelings and emotions	Melodrama

One who believes in the philosophy that nothing has real existence	Nihilist
A quick remedy or apparent medicine or similarly a pet scheme	Nostrum
The art of spelling words correctly	Orthography
A passage marking the close of speech	Peroration
A school teacher or a man affecting learning	Pedagogue
Original model	Prototype
To mediate, to pander over a question	Ruminate
A person who refuses compliance with	Recalcitrant
A reasoned willing to avail himself of fallacies that will help his case	Sophist
A very delicate flaw or mistake which is not expected from the person making it	Solecism
A symbolic religious ceremony especially baptism	Sacrament
Abounding in blood	Sanguine
Affectedly and pompously formal person or style	Sententious
That which surpasses	Transcendental
The practise of taking exorbitant or excessive interest on the money lent	Usury
Guilty of accepting bribes extremely mercenary	Venal

That which is not composed of matter	Incorporeal
One who always gets into trouble	Scapegrace
Persuade by flattery	Cajole
That which has very harmful and dangerous effects	Detrimental
That which is corpse like	Cadaverous
That is cat like	Feline
A vehicle that is used to carry a dead body	Hearse
A person who is very cruel	Fiend
Swelling part of a body	Inflammation
The dead body of a animal	Carcase
A medicine which induces vomit	Emetic
A spear on a rope for catching whales and other larger fish	Harpoon
A female of gander	Goose

An adult male of deer	Hart
A word that is the same in sound as another but different in meaning	Homonym
Words alike in sound but different in meaning and spelling	Paronym
A dog used for hunting	Hound
A magnificent tomb	Mausoleum
An impudent girl	Minx
Flesh of sheep used as food	Mutton
Secretion of a plant which attracts the insects or birds that pollinate flowers	Nectar
A member of a wandering tribe	Nomad
A person who looks after horses in a inn	Ostler
A set of instruments put together for a purpose	Apparatus
An area planted with grapes	Vineyard
A disease that is found regularly in a particular place	Endemic
A disease widely epidemic	Pandemic
That which can not be burnt	Incombustible
A person who is very careful in the use of money	Frugal/parsimonious
Able to walk after being bedridden	Ambulatory
Absolute right	Prerogative
Accept without protest or silently	Acquiesce
Being economical in speech or expressed in few words	Laconic
Belief accepted without question	Dogma
Branches of learning concerned with literature history	Humanities

One who has no means of live hood	Pauper
One who makes an eloquent public speech	Orator
One who spends one's money recklessly	Spendthrift/Prodigal
One who sells fruit, vegetables etc. From a barrow in the streets	Grocer
One who shows lack of respect or religious reverence	Impious
Page number of a book	Folio
Pardon or forgiveness of sins by god	Remission
Particular point of good conduct , ceremony honour	Punctilio
Period of rest or sleep taken in the early afternoon	Siesta

Person singing jointly with others	Cosignatory
Person to whom another gives encouragement and help	Protégé
Person who changes his religious belief	Renegade/ Renegade
Personal belonging , equipments etc.	Paraphernalia
Place for ideal peace and happiness	Elysium
Place for public speaking	Rostrum
Plead to obtain a favour	Intercede
Pleasant or sharp to the taste	Piquant
Practise of using abuse	Scurrility
Presented in a forceful and convening manner	Cogent
Principal raw material or commodity grown in a locality	Staple
Put under the surface of water	Submerge
Scatter things among others or place here and there	Intersperse
Severe test of character or endurance	Ordeal
Short saying expressing a general truth	Maxim/proverb/dictum/adage
Smash to pieces	Shatter
Something that is detested	Anathema
Something which religion or custom regards as forbidden	Taboo
State of unconscious	Narcosis
Sticking together	Coherent
Story told to illustrate a moral or spiritual truth	Didactic
Stroke of good luck	Fluke
Study of literature dealing with lives of saints	Hagiology
Style in which a writer makes a display of his knowledge	Ornate
Substance used in place of sugar	Saccharin
Suffering from bodily or mental weakness because old age	Senile
Suggest in addition to the fundamental meaning	Connote

one who is against the religion	Heretic
One who eats human flesh	Cannibal
One who lives at the same time	Contemporary
One who is more than a hundred years old	Centenarian
One who is given to pleasure of the flesh	Epicure
One who lives on others	Parasite
ONE WHO IS A HABITUAL DRUNKED	SOTTOPER
ONE WHO IS SETTLES IN ANOTHER COUNTRY	IMMIGRANT

ONE WHO KNOWS MANY LANGUAGES	POLYGOT
ONE WHO DEALS IN CATTLE	DROVER
ONE WHO CUTS PRECIOUS STONES	LAPIDIST(LAPIDARY)
ONE WHO CURE EYE DISEASE	OCULIST
ONE WHO SELLS SWEETS AND PASTRIES	CONFECTIONER
ONE WHO LOADS AND UNLOADS SHIPS	STEVEDORE
ONE WHO RETIRES FROM SOCITY TO LIVE A SOLITARY LIFE	RECLUSE
ONE WHO PRETENDS TO BE WHAT HE IS NOT	HYPOCRITE
A PROFESSIONAL RIDER IN HORSE RACES	JOCKEY
A NUMBER OF SHEEPS	FLOCK
A COLLECTION OF FLAGS	BUNTING
A NUMBER OF STARS GROUNDED TOGETHER	CONSTELLATION
THE HOUSE OF AN ARAB	DOWAR
A FACTORY FOR MANUFACTURING OF BEERS	BREWERY
A PLACE FOR THE COLLECTION OF DRIED PLANTS	HERBARIUM
A CASE IN WHICH THE SWORD IS KEPT	SHEATH
FREE FROM INFECTION	IMMUNE
THE DEAD BODY OF A ANIMAL	CARACASS
THE SCIENCE OF COLOURS	CHROMATICS
THE SCIENCE OF THE STRUCTURE OF HUMAN BODY	ANATOMY
THE ART OF EFFECTIVE SPEKING	ELOCUTION
THE STUDY OF ROCKS AND SOILS	GEOLOGY
THE STUDY OF MOUNTAINS	ORALOGY
THE STUDY OF LANGUAGES	PHILOLOGY
THE STUDY OF THE ORIGIN AND HISTORY OF WORDS	ETYMOLOGY
THE STUDY OF ANCIENT WRITING	PALEOGRAPHY
THE ART OF PRESERVING SKIN	TAXIDERMY

THE PERIOD BETWEEN TWO REIGNS	INTERREGNUM
A COUNCIL OF CLERGYMEN	SYNOD
THE CEREMONY AT WHICH A MAN BECOMES A PRIEST	ORDINATION
VIOLATING RELIGIOUS THINGS	SACRILIEGE
ONE WHO INTOLERANTLY DEVOTED TO A PARTICULAR CREED	BIGOT
ENGAGED TO BE MARRIED	BETRODTE
AN INSTRUMENT FOR RECODING THE REVOLUTIONS OF THE EARTH	GYROSCOPE
A POEM OF MOURNING	ELEGAY
A HOLLOW SPACE IN A WALL FOR A STUATE	NICHE
LANGUAGES THAT HAS BEEN VERY MUCH USED	HACKNEYED
CURRENT SPELLING	ORTHOGRAPHY
A VERY PRIVATE ROOM	SANCTUM,SANCTORUM
A PLACE WHERE MAD MEN ARE KEPT	LUNATIC
KILLING ONE'S FATHER	PATRICIDE
A MEDICINE THAT LOOSENS THE BOWELS	LAXATIVE
A SPEECH MADE TO ONESELF	SOLILOQUY
SEPARATION FROM OTHER PEOPLE TO AVOID INFECTION	QUARANTINE
AN IMAGINARY IDEAL	UTOPIA
A THING KEPT IN MEOMORY OF AN EVENT	SOUVENIR
COMMON PLACE REMARKS	PLATITUDES
BELIEF OF GOD IN NATURE	PANTHEISM
INCAPABLE OF BEING BURNT	INCOMBUSTIBLE
A PERSON SUFFERING FROM NERVOUS BREAKDOWN	NEUROTIC
AN INSTRUMENT FOR MEASURING GASES	MANOMETER
AN EXAGGERATED STATEMENT	HYPERBOLE
ONE WHO IS COMPLETELY SATISFIED	COMPLACENT
SIMPLE AND EASILY DECEIVED	GULLIBLE
ONE WHO HAS DELUSIONS OF ONE'S GRANDEUR	MEGALOMANIAC
ONE WHO FLAUNTS NEWLY ACQUIRED WEALTH	PARVENU
WEARINESS OF AND SADNESS FOR LIFE AND WORLD	WELTSCHMERZ
BOREDOM AND FRUSTRATION IN LIFE	ENNUI
SHY,TIMID , UNWILLING TO FACE A SITUATION	DIFFIDENT
ONE WHO IS CHVALROUS,IDEALISTIC AND UNPRACTICAL	QUIXOTIC
ONE WHO IS GRAVE AND GLOOMY	SATURNINE

THE ACT OF ENJOYING OR HAVING AN EXPERIENCE INDIRECTLY	VICARIOUSLY
THE TENDENCY TO POSTPONE THINGS FOR FUTURE	PROCRASTINATION

Morbid compulsion of drink	Dipsomania
Fear of work	Ergophobia
Fear of marriage	Gamophobia
Fear of birth	Genophobia
Fear of old age	Geraphobia
Fear of writing	Graph phobia
Fear of pleasure	Hedonophobia
Fear of travel	Hydrophobia
Fear of women	Gynophobia
Fear of getting fat	Lipophobia
Fear of childbirth	Maieusiphobia
Fear of snakes	Ophiopobia
FEAR OF BEING ROBBED	HARPAXOPHOBIA
FEAR OF COCKROACHES	KATSARIDAPHOBIA
Fear of darkness	Nyctophobia
Fear of ghosts	Phasmophobia
Fear of deaths	Thanatophobia
Fear of numbers	Triskaidekaphobia
FEAR OF DARK	LYGOPHOBIA
FEAR OF FAILURE	ATYCHIPHOBIA
FEAR OF GOD	ZEUSOPHOBIA
FEAR OF GOING TO BED	CLINOPHOBIA
FEAR OF POVERTY	PENIAPHOBIA
FEAR OF PROPERTY	ORTHOPHOBIA
FEAR OF RIDING A CAR	AMAXOPHOBIA
FEAR OF SEX	XENOPHOBIA
FEAR OF SPEED	LALOPHOBIA
FEAR OF WORDS	LOGOPHOBIA
FUNNY IMITATION OF A POEM	PARODY
GIVING UP THRONE BY THE KING	ABDICATION
GO BACK AND FORTH	SHUTTLE
GROUP OF THREE NOVALS	TRILOGY
LANGUAGE DIFFICULT TO UNDERSTAND	JARGON
LIST OF EXPLANTATION	GLOSSARY
LOUD TALK OR SPEECH	HARANGUE
MAN HAVING THE WOMAN'S QUALLITY	EFFEMINATE

MAN OF LAX MORAL	LICENTIOUS
MAN WHOSE WIFE IS UNFAITHFUL TO HIM	CUCKOLD
MANIA FOR TRAVEL	DROMOMANIA

SHORT DESCRIPTIVE POEM OR PICTURESQUE SCENE OR INCIDENT	IDYLL
A PERSON WHO IS RESERVEED IN TALKS	RETICENT
A SHORT STAY AT A PLACE	SOJOURN
A RAISED PLACE ON WHICH OFFERING TO A GOD ARE MADE	ALTAR
GOVERNMENT BY THE GODS	THERACHY
A PERSON WITH FULL DISCRETINARY POWER TO ACT ON BEHALF OF A COUNTRY	PLENIPOTENTIARY
TO DERIVE A THING OF ITS HOLY CHARACTER	DESCRATE
A SMALL PIECE OF WOOD	CHIP
A pioneer of a reform movement	Apostle
Wicked to a high degree	Heinous
The original inhabitants of a country	Aborigines
Dungeon entered by trapdoor	Oubliette
Science of printing	Typography
One who robs smuggler of his smuggled goods after the border has been crossed	Hijacker
Use of more words than are needed to express the meaning	Pleonasm
The science of judging of a person's character capabilities etc. From an examination of the shape of his skull	Phrenology
A political leader who tries to stir up people	Demagogue
A light sailing boat built especially for racing	Yacht
Atonement for one's sins	Repentance
Be the embodiment or perfect example	Personify
A person who maliciously destroys by fire	Incendiary
The line which a plough cuts in the ground	Furrow

A person who forsakes religion	Renegade
A person concerned with practical results and values	Pragmatist
Responsible according to law	Legitimate
Decision made upon a political question by the votes of all qualified persons	Plebiscite
Shining , brilliant and magnificent	Resplendent
Cutting for stone in the bladder	Lithotomy
A heavy unnatural slumber	Stupor
Changing one's mind too quickly	Vacillation
To do away with rules	Abrogate

VOCABULARY

1)Fidelity

Syn:Faithfulness,Loyalty,Adherence

2)Irreverence:

Syn:Insult,Disrespect,Humiliations

3)Vindicate

Syn:Justify,Prove,Reassert

4)Ravage

Syn:Demolish,Ruin,Havoc

5)Abrogate

Syn:Prohibit,Repeal,Revoke,Annul,Abolish

6)Infructuous

Syn:Fruitless,Unsuccessful,Unprofitable

7)Benevolence

Syn:Kind,Generous,Virtue,Philanthropy

8)Occult

Syn:Mystical,Secret,Clandestine,Supernatural

9)Prudent

Syn:Wise,Astute,Clever,Cautious,Rational

10)Amicable

Syn:Friendly,Cordial,Congenial

11)Successive

Syn:Continuously,Consecutive,Incessant

12)Delineate

Syn:Explain,Describe,Portray

13)Garnish

Syn:Decorate,Adorn,Embellish

14)Menace

Syn:Threat,Harm,Danger,Peril

15)Panacea

Syn:Cure all,remedy for all ills or diseases,elixir

16)Propitiate

Syn:Calm,Soothe,Placate,Appease

17)Ceremonial

Syn:Formal,Ritual,Custom,Stately

18)Derogatory

Syn:Disparaging,Belittling,Scornful

19)Nomadic

Syn:Vagrant,Wandering,Strolling

20)Restive

Syn:Restless,Impatience,Fidgety

21)Erroneously

Syn:By mistake,wrongly,incorrect,inaccurate

22)Capitulate

Syn:surrender,give in,acquiesce

23)Estranged

Syn:Separated,Apart,Alienated,Remove

24)Itinerant

Syn:Travelling from place to place,Excursional,Ambulatory

25)Surmount

Syn:Conquer,Triumph,Vanquish,Overcome

26)Ostentation

Syn:Pomp>Showiness,Boast,Flamboyance

27)Torpid

Syn:Mentally or physically inactive,listless,apathetic,tardy

28)Transparent

Syn:Lucid,Apparent,Clear,Translucent

29)Convict

Syn:Criminal,Condemned,captive,prisoner

30)Gnome

Syn:a small ugly person,bogle,dwarf

31)Jeopardise

Syn:Endanger,Risk,Imperil

32)Premonition

Syn:Forewarning,ALert,Alarm,Caveat

33)Elude

Syn:Evade,Abstain,Escape,Move away

34)Haughty

Syn:Conceited,Pretentious,Arrogant,Proud

35)Demented

Syn:Idiotic,Mad,Insane

36)Flutter

Syn:Float,Rapidity,Flicker,Quiver

37)Dilate

Syn:Extend,Expand,Widen,Enlarge

38)Obsession

Syn:Preoccupation,Deliberate,Craze,Fad

39)Legitimate

Syn:Legal,lawful,fair & reasonable

40)Exemplary

Syn:Excellent,Commendable,Ideal,Admirable

41)Capricious

Syn:Whimsical,Rapturous,Vagarious

42)Dexterity

Syn:Skillful,Knack,Adroitness,Proficiency

43)Assertive

Syn:Domineering,Affirmative,Bold,Blusterer

44)Knavish

Syn:Unscrupulous,Deceitful,Fraudulent

45)Laconic

Syn:Concise,Brief,Short,Brusque

46)Apprehend

Syn:Arrest,Hold,Catch,Seize

47)Conceal

Syn:Hide,Camouflage,Cover

48)Exhort

Syn:Impel,Push,Prompt,Incite,Encourage

49)Repartee

Syn:Response,Pleasant conversation,retort,banter

50)Poach

Syn:Hunt,smuggle,plunder,illegal practice of treepassing

51)Solitary

Syn:Single,Lonely,Aloof,Monk,Unsociable

52)Meagre

Syn:Inadequate,scant,little,slight

53)Candid

Syn:frank,truthful,straightforward,honest,blunt

54)Decay

Syn:Decompose,rot,deteriorate,fester

55)Lurid

Syn:Shocking,Gruesome,Exaggerated,Horrifying

56)Pognosis

Syn:Forecast,prediction,foretelling,prophet

57)Espionage

Syn:Spying,Surveillance,Undercover

58)Bliss

Syn:Happiness,Joy,Ecstasy,Euphoria

59)Enigma

Syn:Puzzle,Riddle,Conundrum

60)Concurrence

Syn:Agreement,Accord,Unanimity

61)Infirm

Syn:Weak,frail,feeble,lean

62)Cordial

Syn:Friendly,Congenial,Amicable

63)Sole

Syn:One and Only,Alone,Aloof,Solitary,Singular

64)Onus

Syn:Responsibility,burden,load,obligation

65)Vital

Syn:Necessary,Imperative,Important,Crucial,Essential

66)Dissuade

Syn:hinder,deter,divert,discourage

67)Condone

Syn:Forgive,Excuse,Overlook

68)Anguish

Syn:Agony,pain,soreness,distress

69)Thrive

Syn:Flourish,bloom,prosper

70)Brisk

Syn:quick,vigorous,active,energetic

71)Diligent

Syn:Hardworking,Industrious,Assiduous

72)Compassionate

Syn:Sympathetic,pitful,merciful,benignant

73)Blunder

Syn:Mistake,error,fault,blooper

74)Coarse

Syn:Rough,Rude,Boorish,Dirty

75)Tribulation

Syn:Suffering,pain,adversity,unhappiness

76)Allure

Syn:entice,lure,attract,tempt

77)Perish

Syn:decay,die,decline,expire

78)Collate

Syn:Collect & combine,assemble,gather

79)Rampart

Syn:parapet,barricade,barrier

80)Mania

Syn:Madness,mental illness,insanity,dementias

81)Preamble

Syn:Introduction,beginning,preface,prelude

82)Economical

Syn:Parsimonious,thrifty,frugal

83)Baffle

Syn:Puzzle,Perplex,Astound,Dazzle

84)Apex

Syn:Top,zenith,highest point

85)Insolent

Syn:Disrespectful,Audacious,Impudent

86)Innocuous

Syn:Harmless,Banal,Innoxious,Inoffensive

87)Ingenuous

Syn:Innocent,honest,trustful

88)Accomplish

Syn:Achieve,attain,succeed in doing,carry out

89)Superficial

Syn:Shallow,frivolous,without depth

90)Pertinent

Syn:Relevant or applicable to a particular matter,Right,Proper

91)Indebtedness

Syn:Debt,Loan,Liability

92)Unveiled

Syn:Uncovered,Exposed,Revealed

93)Promulgate

Syn:Declare,Announce,Annunciate

94)Exempt

Syn:Free from obligation or liability,Absolved,Excluded,Liberate

95) Dismantle

Syn:Demolish,Take to pieces,Wreck

96)Consensus

Syn:General Agreement,Accord,Harmony

97)Contention

Syn:Heated Disagreement,Dissent,Strife

98)Incipient

Syn:Beginning,Initial,Inchoate

99)Reiterated

Syn:Say something again or number of times,Repeat,Retell

100)Percipience

Syn:The quality of having sensitive insight or understanding,judgement

101)Credentials

Syn:Certificates,Endorsement

102)Conciliatory

Syn:Compromising,Irenic

103)Elusive

Syn:Tricky,Baffling,Subtle

104)Sagacity

Syn:the quality of being sagacious,Acumen,Sapience

REASONING SOME IMPORTANT TYPES OF QUESTIONS:

1) In the following question, select the related word from the given alternatives.

Car : Road :: Ship : ?

a) Water

b) Air

c) Road

d) Both Air and Water

2) In the following question, select the related letters from the given alternatives.

GLOW : FJNU :: PTEL : ?

a) ORFN

b) ORDJ

c) ORJD

d) OPNJ

3) In the following question, select the related number from the given alternatives.

5 : 124 :: 6 : ?

a) 215

b) 216

c) 217

d) 220

4) In the following question, select the odd word pair from the given alternatives.

a) Error : Accurate

b) Careless : Casual

c) Strength : Lethargy

d) Gloomy : Cheerful

5) In the following question, select the odd letters from the given alternatives.

a) FUGT

b) KPLO

c) DWEV

d) CWDX

6) In the following question, select the odd number pair from the alternatives.

a) 11 – 120

b) 17 – 290

c) 21 – 442

d) 12 – 145

7) Arrange the given words in the sequence in which they occur in the dictionary.

1) Pragmatic

2) Protect

3) Postel

4) Postal

5) Pebble

a) 43521

b) 54312

c) 34512

d) 43521

8) A series is given with one term missing. Select the correct alternative from the given ones that will complete the series.

Q, P, O, N, ?

a) M

b) L

c) O

d) J

9) In the following question, select the missing number from the given series.

6, 9, 15, 24, 39, 63, ?

a) 97

b) 115

c) 102

d) 124

10) P and Q are brothers. P is the father of S. R is the only son of Q and is married to U. How is U related to S?

a) Sister-in-law

b) Mother-in-law

c) Sister

d) Mother

11) Nine years later, age of B will be equal to the present age of A. Sum of A's age 3 years later and B's age 4 years ago is 76. If C is half of the present age of B, then what will be C's age (in years) after 10 years?

- a) 32
- b) 36
- c) 27
- d) 31

12) In the following question, from the given alternative words, select the word which cannot be formed using the letters of the given word.

- a) Biner
- b) None
- c) Bane
- d) Hinge

13) In a certain code language, "NIGHT" is written as "ODDGM" and "DARK" is written as "GOYC". How is "GREEN" written in that code language?

- a) IABPF
- b) MCBNB
- c) OGHVL
- d) FPBAI

14) In the following question, correct the equation by interchanging two signs.
 $4 \times 3 - 6 \div 2 + 7 = 8$

- a) - and +
- b) \times and $-$
- c) \div and \times
- d) \times and $+$

15) If $3 \# 4 \% 8 = 6$ and $9 \% 4 \# 3 = 12$, then $13 \% 6 \# 24 = ?$

- a) 4
- b) 3
- c) 5
- d) 6

16) In the following question, select the related word from the given alternatives.

Goiter : Iodine :: Anemia : ?

- a)Vitamin D
- b)Iron**
- c)Vitamin E
- d)Calcium

17)In the following question, select the related letter from the given alternatives.

DE : O :: AF : ?

- a)H
- b)K**
- c)J
- d)I

18)In the following question, select the related number from the given alternatives.

56 : 41 :: 94 : ?

- a)49**
- b)53
- c)60
- d)89

19)In the following question, select the odd word from the given alternatives.

- a)Beneath
- b)On top
- c)Huge**
- d)Above

20)In the following question, select the odd letters from the given alternatives.

- a)MN
- b)NM
- c)OL
- d)ET**

21)In the following question, select the odd number from the given alternatives.

- a)253
- b)473

c)143

d)633

22)Arrange the given words in the sequence in which they occur in the dictionary.

1.Flinching

2.Flintlock

3.Flinpites

4.Flintlocks

5.Flinchers

a)15243

b)51243

c)51324

d)51342

23)In the following question, which one set of letters when sequentially placed at the gaps in the given letter series shall complete it?

_ yzaa _ y _ xy _ aazy _

a)xxzzx

b)xxaza

c)xzxzx

d)aazzx

24)In the following question, select the missing number from the given series.

19, 38, ?, 228, 684, 1368

a)108

b)113

c)114

d)138

25)There are five students – P, Q, R, S and T having different heights in a class. P's height is more than only one student. Q's height is more than S and P but not more than R. S's height is more than P. R is not the smallest. Who is having the maximum height in the class?

a)Q

b)R

c)S

d)T

26) In a row of 74 girls, Shweta is 27th from left end. Palak is 7th to the right of Shweta. What is Palak's position from the right end of the row?

a)40

b)41

c)42

d)44

27) In the following question, from the given alternative words, select the word which can be formed using the letters of the given word.

CAPITULATE

a)CAPABLE

b)LUPIN

c)PITTY

d)TALE

28) In a certain code language, :BIOLOGY" is written as "YRLOLTB" . How is "PHYSICS" written in that code language?

a)KSZRBHH

b)KSBHRXH

c)XHRHBSK

d)KSBHXRH

29) In the following question, correct the equation by interchanging two signs.

$$6 + 8 \div 4 - 4 = 8$$

a)÷and=

b)÷ and +

c)÷ and –

d)+ and –

30) If $4 \times 9 \times 3 = 4$ and $5 \times 3 \times 1 = 3$, then $9 \times 9 \times 7 = ?$

a)5

b)6

c)7

d)9

COMPUTER NETWORKS

1) In some types of networks, a special packet called the token is used to guarantee access to the network media which of the following network can't use this method?

- a) ARCnet
- b) FDDI
- c) ATM
- d) Token Ring

2) In a client/server networking environment, the processing

- a) Takes place only on the client side
- b) Of requests by the client is handled by the server
- c) Takes place only on the server side
- d) None of these

3) The network that you support includes 14 separate offices nation wide connected via a T-1 lines. What kind of network do you have?

- a) Campus Area Network
- b) LAN
- c) MAN
- d) WAN

4) You have been asked to wire a conference room with six computers for a demonstration tomorrow. It need be done as quickly and with the lowest possible expense. What network topology is best suited to this situation?

- a) Star
- b) Ring
- c) Mesh
- d) Bus

5) Which layer is responsible for data translating?

- a) Application
- b) Network
- c) Presentation
- d) Data link

6) In the Ethernet network. What method is used to access the media?

- a) Demand priority
- b) CSMA/CD**
- c) Polling
- d) CSMA/CA

7) Which TCP/IP transport layer protocol is faster?

- a) ICMP – because it is connection-oriented
- b) TCP – because it is connected-oriented
- c) UDP – because it is connection-less**
- d) IP – because it is connection-less

8) Which of the following connectivity devices typically work at the physical layer of the OSI model?

- a) Routers
- b) Bridges
- c) Repeaters**
- d) Gateways

9) For computers to communicate on a network using TCP/IP, which of the following settings must be unique for each computer?

- a) IP Address**
- b) Subnet Mask
- c) Default gateway
- d) WINS Server

10) If, through an error in manufacturing, two network cards were created with the same MAC address, which layer of the OSI model would discover the problem?

- a) Topological
- b) Application
- c) Data link**
- d) Physical

11) Which one is the least expensive that can support 100Mbps?

- a) Coaxial
- b) UTP**
- c) Fiber-optic
- d) STP

12)At which layer of OSI model would a communication problem due to an improperly terminated cable reside?

a)Physical

b)Data link

c)Transport

d)Session

13)Which layer of OSI model is responsible for compression and decompression of data?

a)Application

b)Presentation

c)Session

d)Transport

14)To prevent signal alternation, what is the max number of repeaters that can be placed on one 10 Base 5 or 10 Base 2 network?

a)Four

b)Five

c)Three

d)Any number

15)Which network topologies degrades most gracefully in high network load situations?

a)Ring

b)Star

c)Mesh

d)Bus

16)Which of the following Ethernet components is unique for each card created?

a)Frame type

b)CRC address

c)IRQ

d)MAC address

17)How many digit of the network user address are known as the DNIC (Data Network Identification Code)?

a)First Three

b)First Four

- c)First Five
- d)First Seven

18)Four bits are used for packet sequence numbering in a sliding window protocol used in a computer network. What is the maximum window size?

- a)4
- b)8
- c)15**
- d)16

19)Which of the following TCP/IP protocol is used for file transfer with minimal capability and minimal overhead?

- a)RARP
- b)FTP
- c>TFTP**
- d)TELNET

20)How many bits internet address is assigned to each host on a TCP/IP internet which is used in all communication with the host?

- a)16 bits
- b)32 bits**
- c)48 bits
- d)64 bits

21)ALOHA

- a)is used for channel allocation problem**
- b)is use of data transfer
- c)is buffering
- d)all of the above

22)Error detection at the data link layer is achieved by

- a)bit stuffing
- b)cyclic redundancy codes**
- c)amplifier
- d)equalization

23)Hamming distance between 001111 and 010011 is

- a)1
- b)2

c)3

d)4

24)Which project 802 standard provides for a collision free protocol?

a)802.2

b)802.3

c)802.5

d)None of these

25)Which of the following is not a class A host address?

a)128.4.5.6

b)117.4.5.1

c)117.0.0.0

d)117.8.0.0

26)Which of the following class A host address?

a)230.0.0.0

b)130.4.5.6

c)230.0.0.1

d)30.4.5.6

27)Broad band uses

a)Manchester encoding

b)FSK encoding

c)ASK encoding

d)PSK encoding

28)Unnumbered frame in HDLC are used for

a)Unnumbering a frame

b)Deleting a frame

c)System management

d)None of these

29)What is flow control?

a)To find the best route to a destination

b)To be able to send a beacon message when congestion occurs

c)To determine which machine transmits packets on the wire on a given instance

d)To keep the transmitting device from transmitting no faster than the receiving device can receive

30)RIP is

- a)Protocol used for transmission of IP data grams across a serial line
- b)Resource information protocol
- c)Protocol used to exchange information between the routers
- d)None of these

31)The store and forward mechanism is used in

- a)packet switching
- b)message switching
- c)circuit switching
- d)Data gram switching

32)Which of the following protocols is used to monitor network devices such as hubs, switches, and routes?

- a)SMTP
- b)RIP
- c)SNMP
- d)OSPF

33)Which protocol is exterior routing?

- a)BGP
- b)OSPF
- d)RIP
- d)None of these

34)Which protocol use link state routing

- a)BGP
- b)OSPF
- c)RIP
- d)None of these

35)Symmetric encryption algorithm is same as

- a)secret key encryption algorithm
- b)public key encryption algorithm
- c)RSA algorithm
- d)SHA algorithm

36)Public key encryption makes use of

- a)one key
- b)two key**
- c)hash function
- d)all of the above

37)The private key in public key encryption is used for

- a)encryption
- b)hashing
- c)decryption**
- d)both (a) and (c)

38)A string of 50 1's is replaced by a marker a 1 and the number 50. This refer to

- a)Run-length encoding**
- b)Morse code
- c>Differential encoding
- d)LZW encoding

39)Which protocol use distance vector routing?

- a)OSPF
- b)BGP**
- c)RIP
- d)PPP

40)The topology with highest reliability is

- a)BUS
- b)STAR
- c)RING
- d)MESH**

41)Which of the following layer is responsible for the source to destination delivery of entire message?

- a)Network
- b)Physical
- c)Transport**
- d)Network

42) Which of the following layer oversees both error control & flow control at the source to destination level?

- a) Physical
- b) Data link
- c) Transport**
- d) Network

43) The division of message into segment, is a function of the

- a) Physical
- b) Data link
- c) Transport**
- d) Network

44) In CRC Checking, the divisor is the CRC

- a) One bit less than
- b) One bit more than**
- c) The same size as
- d) There bits more than

45) A GO-BACK-N-ARQ uses a window of size 15. HOW many bits are needed to define the sequence number?

- a) 15
- b) 4**
- c) 16
- d) 5

46) In the 1-persistent approach when a station finds an idle line, it

.....

- a) Waits 1s before sending
- b) It waits for a random amount of time
- c) It sends immediately**
- d) None of these

47) Which layer deals with

- (i) File system transfer**
- (ii) Virtual terminals implementation**
- (iii) Inter process communication**

- a) Application**
- b) Presentation

- c)Session
- d)Transport

48)As an access methodology, what network environment is CSMA/CD most suited for?

- a)Heavily loaded network
- b)Moderately loaded network**
- c)Token ring networks
- d)Token bus networks

49)Which of the following is a necessary part of the IPV6 datagram?

- a)Base header
- b)Extension header
- c>Data packet from the upper layer
- d)(a) and (c)**

50)The value of the total length field in an IP datagram is 36, and the value of the header length is 5. How many bytes of data is the packet carrying?

- a)16**
- b)36
- c)20
- d)5

51)If the fragment offset has a value of 100, it means that

- a)The datagram has not been fragmented
- b)The datagram is 100 bytes in size
- c)The first byte of the datagram is byte 100
- d)The first byte of the diagram is byte 800**

52)Which of the following types of ICMP message needs to be encapsulated into an IP datagram?

- a)Time-exceeded
- b)Multicasting
- c)Echo Reply
- d)All of the above**

53)Which of the following does UDP guarantee?

- a)Sequence number on each user datagram
- b)Acknowledgement to the sender

- c)Flow control
- d)None of these

54)To prevent silly window syndrome created by a receiver that processes data at a very slow rate can be used.

- a)Clark's solution
- b)Nagle's algorithm
- c)Delayed acknowledgment
- d)Both (a) and (c)

55)Spanning tree protocol for ethernet switches. A network of ethernet switches uses the spanning tree protocol so that

- a)The switch can learn, and build an accurate table of IP address
- b)Packets don't cycle in the network forever
- c)Packets will follow the shortest path to a destination
- d)None of these

56)In token ring, the tokens can be removed by

- a)The nearest down stream neighbor
- b)The receiving station
- c)The ring monitor
- d)The nearest upstream neighbor

57)Sliding Window Protocol is

- a)Used to manage the protocols in the Windows Operating System
- b)Used to filter the packets in farewells
- c)Used to control the flow of frames in data communications
- d)None of these

58)On a full duplex data link, the most widely used error recovery technique is

- a)Backward Error Correction (BEC)
- b)Forward Error Correction (FEC)
- c)Automatic Repeat Request (ARQ)
- d)None of these

59)Two Ethernets can be interconnected by the following device, which operate on the data link layer,

- a)Hub

b)Switch

c)Router

d)Gateway

60)The Hamming distance between 1101101 and 1110001 is

a)1

b)2

c)3

d)4

61)The.....measures the number of lost or garbled messages as a fraction of the total sent in sampling period.

a)Connection release failure probability

b)Residual Error rate

c)Transfer failure probability

d)Connection establishment failure probability

62)How many OSI layers are covered in the X.25 standard.

a)Six

b)Two

c)Seven

d)Three

63)The interactive transmission of data within a time sharing system may be best suited to

a)Full Duplex lines

b)Simplex Lines

c)Half-duplex lines

d)None of the above

64)Which of the following OSI level is more closely related to the physical communication facilities

a)Application

b)Network

c)Data Link

d)Physical

65)A T-switch is used to

a)control how messages are passed between computers

- b)echo every character that is received
- c)transmit characters one at a time
- d)rearrange the connection between computing equipments

66)The transmission signal coding method of T1 carrier is called

- a)Binary
- b)NRZ
- c)Manchester
- d)Bipolar

67)Avalanche photodiode receivers can detect bits of transmitted data by receiving

- a)200 photons
- b)300 photons
- c)400 photons
- d) 100 photons

68)In a synchronization moden the receive equalizer is know as

- a)adaptive equalizer
- b)impairment equalizer
- c)statistical equalizer
- d)compromise equalizer

69)Bulletin board system

- a)is a public access message system
- b)convert analog signal to digital signals
- c)convert digital signal to analog signals
- d)is a modem capable of accepting commands

70)Slotted ALOHA

- a)Divide time into discrete intervals
- b)Require global time synchronization
- c)both a and b
- d)none of above

71)ALOHA

- a)is use of data transfer
- b)is buffering
- c)is used for channel allocation problem

d)all of the above

72)One important characteristics of the hub architecture of ARC-net is

- a)directionalized transimission
- b)alternative routing
- c)multiple virtual networks
- d)access control and addressing

73)Coaxial cable has conductors with

- a)equal resistance
- b)the same diameter
- c)a common axis
- d)a and b both

74)Synchronous Protocols

- a)allows faster transmission than asynchronous protocols do
- b)transmit characters one at a time
- c)are generally used by personal computers
- d)none of the above

75)Auto dialling allow

- a)a personal computer to answer incoming calls without human assistance
- b)you to dial a phone numbers by typing them on the keyboard
- c)both a and b
- d)none of the above

76)A network that requires human intervention of route signals is called a

- a)bus network
- b)ring network
- c>T-switched network
- d)star network

77)How many pairs of stations can simultaneously communicate on Ethernet LAN?

- a)3
- b)1
- c)2
- d)None of above

78)FDDI is a

- a)mesh network
- b)ring network**
- c)bus network
- d)star network

79)A certain population of ALOHA users manages to generate 80 request/sec.If the time is slotted in units of 50msec, then channel load would be

- a)4**
- b)3.5
- c)450
- d)none of above

Answer: Channel Load= Request/sec*time slot

$$\frac{80 \times 50 \times 10^{-3}}{4} \quad (10^{-3} \text{ mean } 10 \text{ power } -3)$$

80)Which of the following TCP/IP protocol is used for the file transfer with minimal capability and minimal overhead?

- a)FTP
- b)TFTP**
- c)RARP
- d)TELNET

81)What is the default maximum packet size for 16MB Token Ring Network?

- a)576 bytes
- b)2202 bytes
- c)4202 bytes**
- d)1101 bytes

82)A T-switch is used to

- a)echo every character that is received
- b)control how messages are passed between computers
- c)rearrange the connections between computing equipment**
- d)transmit characters one at a time

83)Which of the following is a voiceband channel?

- a)Telegraph line
- b)Telephone line**

- c)Coaxial cable
- d)None of the above

84)Which of the following types of channels moves data relatively slowly?

- a)wideband channel
- b)voiceband channel
- c)broadband channel
- d)narrowband channel

85)What are the most commonly used transmission speeds in BPS used in data communication?

- a)9600
- b)1200
- c)2400
- d)300

86)Error detection at a data link level is achieved by

- a)cyclic redundancy codes
- b)bit stuffing
- c)equalization
- d)hamming code

87)Which of the following TCP/IP internet protocol a diskless machine uses to obtain its IP address from a server?

- a)RARP
- b)RDP
- c)X.25
- d)RIP

88)To prevent silly window syndrome created by a sender that is sending data at a very slow rate _____can be used.

- a)Clark's solution
- b)Nagle's algorithm
- c>Both(a) and(b)
- d)Delayed acknowledgement

89)In token ring, the tokens can be removed by.....

- a)The ring monitor
- b)The receiving station

- c)The nearest down stream neighbor
- d)The nearest upstream neighbour

90)Start and stop bits do not contain an information, but are used in serial communication for

- a)error detection
- b)error correction
- c)synchronization
- d)none of above

91)To interconnect two IP classes, class A and class C networks

- a)a router is needed
- b)a class B network is needed
- c)a bridge is needed
- d)none of the above

Theory of Computation

1) Let $\Sigma = \{a, b\}$, $L = \Sigma^*$ and $R = \{a^n b^n \text{ such that } n > 0\}$, Then the languages $L \cup R$ and R are respectively

- a) Not regular, regular
- b) regular, regular
- c) regular, not regular
- d) not regular, not regular

2) What is the equivalent CFL for the following CFG $S \rightarrow OS1\epsilon$?

- a) $\{X/X \text{ is a palindrome}\}$
- b) $\{X/X = 0^n 1^n \text{ for } n \geq 0\}$
- c) $\{X/X = 0^n 1^n \text{ for } n > 0\}$
- d) none of the above

3) Let L be the set of all strings over $\{0, 1\}$ of length 6 or less. Write a simple RE corresponding to L .

- a) $(a+1)^*$
- b) $(0+1)^6$
- c) $(0+1+\epsilon)^*$
- d) $(0+1+\epsilon)^6$

4) A grammar that is both left and right recursive for a non terminal is

- a) Ambiguous
- b) Unambiguous
- c) Information is not sufficient to decide
- d) None of these

5) Let L_1 and L_2 are regular sets defined over alphabet Σ^* . Mark the false statement

- a) $L_1 \cup L_2$ is regular
- b) $L_1 \cap L_2$ is not regular
- c) $\Sigma^* - L_1$ is regular
- d) L_1^* is regular

6) Context free languages are closed under

- a) Union
- b) Intersection

c)Complementation

d)Set difference

7)The regular expression for “Binary numbers that are multiples of two” is

a) $(0|1)^*.1$

b) $(0|1)^*.0$

c) $(1|0)^*.1$

d) $(1|0)^*.00$

8)Can a DFA simulate NFA?

a)no

b)yes

c)some time

d)depends on NFA

9)A language L is accepted by a finite automation if and only if it is

a)context-free

b)context-sensitive

c)recursive

d)expressible by a right-linear grammar

10)The Travelling Salesman Problem (TSP) is

a)NP but not NP complete

b)NP -complete

c)Neither NP nor NP-complete

d)None of these

11)If the regular set A is represented by $A = ((01)^*1^*0)$ and the regular set b is represented by $B = (01 + 1)^*$, which of the following is true ?

a) $A \subset B$

b) $B \subset A$

c) $A = B$

d)A and B are incomparable

12)Consider the following statement:

(i) $r + (s + t) = (r + s) + t$

(ii) $r(s + t) = rs + rt$

(iii) $(rs)^* t = r (st)^*$

Which of the above are true about regular expressions r, s and t?

a)(i) only

b)(i) and (ii)

c)(i), (i) and (iii)

d)None of these

13)Let R_1 and R_2 regular sets defined over the alphabet Z then which of the following is true?

a) $R_1 \cup R_2$ is regular

b> $Z^* - R_1$ is regular

c) R_1^* is not regular

d)Both (A) and (B)

14)Consider the following language:

(i) $\{0^n \mid n \text{ is a prime}\}$

(ii)The set of all strings that do not have 3 consecutive 0's

Which of the above language is/are regular sets?

a)none

b)(i) only

c)(ii) only

d)Both

15)The regular expression $0^*(10)^*$ denotes the same set as

a) $0(0 + 10)^*$

b) $(0 + 1)^*10(0 + 1)^*$

c) $(1^*0)^*1^*$

d)None of these

16)The DFA accepting all string containing number of 0's divisible by 3 and number of 1's divisible by 5 contains:

a)Total 5 states, 1 final state

b)Total of 5 states, 2 final states

c)8 states in total, 2 final states

d)A total of 15states, 1 final state

17)How many states do the DFA corresponding to thee grammar: $S \rightarrow S10 \mid 0$ contain?

a)1

b)2

- c)3
- d)DFA does not exist

18)Which of the following represents the set of all string over $\{0,1\}$ beginning with 00?

- i. $00(0 + 1)^*$
- ii. $00^*(0 + 1)^*$
- a)(i) only
- b)(ii) only
- c)(i) and (ii) both
- d) None of these

19)Which of the following regular expression does not contain 00 as substring ?

- a) $(0 + \epsilon)(1 + 10)^*$
- b) $(1^*0^*)^*$
- c) $10^* + 1^*$
- d) $(1 + 0)^*$

20)Suppose $L_1 = \{10, 1\}$ and $L_2 = \{011, 11\}$. How many distinct elements are there in $L = L_1L_2$

- a)4
- b)3
- c)2
- d)None of the above

21)String generated by $(1 + 01)^*$ does not contain the substring,

- a)10
- b)11
- c)01
- d)None of the above

22)Which of the following is a CFL?

- a) $L = \{a^m b^m c^m \mid m \geq 1\}$
- b) $L = \{a^m b^n c^m d^n \mid m \geq 1 \text{ and } n \geq 1\}$
- c) $L = \{a^m b^n c^p \mid m < n \geq p\}$
- d) $\{ww^R \mid W \text{ in } (a + b)^*\}$

23)In a string of length n, how many proper prefixes can be generated

a) 2^n

b) n

c) $n(n + 1)/2$

d) $n - 1$

24) Given an arbitrary DFA with 2^N states, what will be the number of states of the corresponding NFA?

a) $N * N$

b) 2^N

c) $2N$

d) $N!$

25) Consider the following languages:

$L1 = \{a^i b^j \mid j = i^2, i, j \geq 1\}$

$L2 = \{a^i \mid i \text{ is prime}\}$

Which of the above language is/are context free?

a) $L1$ only

b) $L2$ only

c) Both $L1$ and $L2$

d) None of these

26) Recursive language are

a) A proper superset of context free languages

b) Always recognizable by pushdown automata

c) Also called type \emptyset languages

d) All of these

27) If $L1$ is context free language and $L2$ is a regular language which of the following is /are false?

a) $L1 - L2$ is not context free

b) $L1 \cap L2$ is context free

c) $\sim L2$ is context free

d) $L1 \cap L2$ is regular

28) A bottom up parser generates

a) Right most derivation

b) Right most derivation in reverse

c) Left most derivation

d) Left most derivation is reverses

29)CFL's are not closed under

- a)MIN
- b)MAX
- c)Both (A) and (B)
- d)None of these

30)CFL's are closed under

- a)INIT
- b)CYCLE
- c)Both (A) and (B)
- d)None of these

31)S1 : $\{a^n b^n c^m \mid n \leq m \leq 2n\}$ is not CFL

S2 : $\{a^i b^j \mid i \neq 2j\}$ is CFL

Which of the given statements is/are true?

- a)S1 only
- b)S2 only
- c)S1 and S2 both
- d)None of these

32)Consider the grammar with production $S \rightarrow aSb \mid SS \mid \lambda$

The language generated from this grammar is,

- a)Context free
- b)Context free but not linear
- c)Regular
- d)None of these

DATABASE MANAGEMENT SYSTEM

1)The process of similar objects/entities to object classes/entity type known as

- a)Classification
- b)Instantiation
- c)Specialization
- d)Generalization

2)The process of classifying a class of object into more specialized subclasses is

- a)Classification
- b)Instantiation
- c)Specialization
- d)Generalization

3)The process where the same entity member of more than one subclass of the specialization is known as

- a)Disjoint
- b)Overlapping
- c)Mapping
- d)Snapshot

4)Conceptual schema is transformed from high level data model into the implementation data model. This step is called

- a)Data model mapping
- b)Conceptual schema
- c)Functional mapping
- d)Conceptual operation

5)'Singleton' is

- a)a set with only one element
- b)a set with a ton of element
- c)a single value
- d)a key attribute of an entity type

6)The identifying entity type is known as

- a)child entity type
- b)subordinate type

c)co-ordinate entity type

d)dominant entity type

7)Weak entity type is known as

a)parent entity type

b)dominant entity type

c)child entity type

d)co-ordinate entity type

8)A shapshot of the data in the database at a given instant of time, is known as

a)database schema

b)relation schema

c)database instance

d)relation instance

9)QBE is a relation language that incorporates element of

a)TRC

b)DRC

c)Both A & B

d)None of these

10)Which of the following allows of submit queries at runtime?

a)Dynamic SQL

b)Embedded SQL

c)Both A & B

d)None of these

11)All aggregate function except ignores null values in their input collection

a)Sum

b)Count

c)AVG

d)MAX

12)QBE is based on

a)TRC

b)DRC

c)Both

d)None of these

13)Unsafe query means

- a)Query that has 0 result
- b)Query that has consistent result
- c)Query that has infinite result
- d)Query that return result

14)Find the name of all employees who worked for SBI.

Works(empname,compname,salary)

- a) $\pi_{\text{empname}} (\sigma_{\text{compname} = \text{"SBI"}} (\text{works}))$
- b) $\sigma_{\text{empname}} (\pi_{\text{compname} = \text{"SBI"}} (\text{works}))$
- c) $\sigma_{\text{empname} = \text{"SBI"}} (\pi_{\text{empname}} (\text{works}))$
- d) $\pi_{\text{empname}} (\text{works}) (\sigma_{\text{empname} = \text{"SBI"}})$

15)Find the names of all the employees who earned more than every employee of SBI

Works(empname,compname,salary)

$t_1 \leftarrow \text{Max salary} (\sigma_{\text{compname}=\text{"SBI"}} (\text{works}))$

- a) $\pi_{\text{empname}} (\sigma_{\text{salary} > \text{max salary}} (\text{works}))$
- b) $\pi_{\text{empname}} (\sigma_{\text{salary} > t_1} (\text{works}))$
- c) $\pi_{\text{empname}} (\sigma_{\text{salary} < t_1} (\text{works}))$
- d) $\pi_{\text{empname}} (\sigma_{\text{salary} < \text{max salary}} (t_1 * \text{works}))$

16)What is the result of he following command?

ALTER TABLE employee

MOVE TABLESPACE data1;

- a)The tablespace is renamed
- b)only the data is moved into a new segment
- c>Data is moved into a new segment preserving constrains, indexes, and privileges on the table
- d)None of the above

17)Which of the following views could you query to obtain the number of extents allocated to the EMP table?

- a)DBA_SEGMENTS
- b)DBA_DATA_FILES
- c)DBA_FREE_SPACE
- d)None of the above

18) Which trigger type would be fired during instance startup?

- a) User event
- b) SQL statement
- c) Database event
- d) Instance event

19) You want user SCOTT to be able to create tables in different schemas. Which keyword(s) will you use?

- a) ANY
- b) ALL
- c) UNLIMITED
- d) WITH ADMIN

20) What is the first step you should take when transporting a tablespace?

- a) Make the tablespace read-only
- b) Export the metadata from the source
- c) Copy the data files to the target system
- d) None of the above

21) Which of the following hints would you use in an INSERT INTO SELECT command to perform a direct-load insert?

- a) CACHE
- b) DIRECT
- c) APPEND
- d) NOCACHE

22) Which are the three parameters that should be specified in the init.ora file before starting the instance?

- a) DB_NAME
- b) DB_BLOCK_SIZE
- c) CONTROL_FILES
- d) ALL OF ABOVE

23) Which is the script that is used to set up the PL/SQL environment for the database?

- a) catadtd.sql
- b) catproc.sql
- c) catalog.sql
- d) None of the above

24)Which of the following files contains service names and full connect descriptors when the network is configured for local naming?

- a)names.ora
- b)config.ora
- c)sqlnet.ora
- d)tnsnames.ora

25)Which program construct must return a value?

- a)Package
- b)Function
- c)Anonymous block
- d)Stored procedure

26)The concurrent transaction executions proceed without conflicting are ensured by

- a)transaction manager
- b)query processor
- c)storage manager
- d)data model

27)'Ontology' is similar to

- a)physical scheme
- b)logical scheme
- c)conceptual scheme
- d)sub scheme

28)Which of the following is not a file operation?

- a)FindNext
- b)Find
- c)Reset
- d)None of the above

29)Index sequential file is made of all of these expect

- a)primary data storage area
- b)overflow area
- c)hierarchy of indices
- d)address of prime data track

30) Looking was introduced into databases so that

- a) Keys can be Provided to maintain security.
- b) All simultaneous transactions are prevented.
- c) Password can be provided to maintain security.
- d) Consistency can be enforced.

31) Which level of locking provides the highest degree of concurrency light in a relational database?

- a) Page
- b) Table
- c) Row
- d) None of the above

32) Which of the following is true for two-phases locking?

- a) lock acquisition is the second phase
- b) locks can be acquired at any time
- c) locks are acquired in the first phase
- d) None of the above

33) A B tree used as an index for a large database table has four levels including the root node. If a new key is inserted in this index, then, the maximum number of nodes that could be newly created in the process are

- a) 5
- b) 4
- c) 3
- d) 2

34) With respect to the B⁺ tree index method, select the true statements

- a) Records are physically stored in primary key order.
- b) B⁺ trees use a hashing algorithm.
- c) The index tree may become unbalanced as a result of updates.
- d) None of the above

35) Which is the best suitable for sequential access of data

- a) B tree
- b) B⁺ tree
- c) both
- d) None of the above

36) All schedules that are legal under two phase protocol

- a) View serializable
- b) Conflict serializable**
- c) Both (A) and (B)
- d) None of the above

37) Two phase protocol are

- a) Not deadlock free
- b) Deadlock free**
- c) Some times deadlock free
- d) None of the above

38) In two phase locking protocol in growing phase

- a) Transaction may release lock but may not obtain
- b) Transaction may obtain locks but may not release**
- c) Transaction may obtain lock as well as release lock
- d) None of the above

39) In two phase locking protocol in shrinking phase

- a) Transaction may release locks but may not obtain lock**
- b) Transaction may obtain locks but may not release
- c) Transaction may obtain locks as well as release lock
- d) None of the above

40) In strict two phase locking protocol

- a) All exclusive mode lock taken by transaction be held until transaction commits**
- b) All exclusive mode lock taken by transaction can be released before transaction commits
- c) All locks can be released before transaction commits
- d) None of the above

41) In rigorous two phase locking

- a) All locks are released before transaction commits
- b) Only exclusive locks are released before transaction commits
- c) All locks are held before transaction commits**
- d) None of these

42) Atomicity is managed by

- a) Transaction management component**

- b) Recovery management component
- c) Concurrency control component
- d) None of these

43) Isolation is managed by

- a) Transaction management component
- b) Recovery management component
- c) Concurrency control component
- d) None of these

44) Blind write is

- a) Reading data item without reading
- b) Writing without reading data items
- c) Both (A) and (B)
- d) None of these

45) Blind write appears in

- a) Conflict serializable schedule
- b) View serializable schedule
- c) Both (A) and (B)
- d) None of these

46) Which OEM tool would you use to create the logical object in which rollback segment are stored?

- a) Data Manager
- b) Schema Manager
- c) Storage Manager
- d) Instance Manager

47) Which type of administrative operation is recorded in the alert file?

- a) Network errors
- b) Application errors
- c) Shutting down the database
- d) None of these

48) You are creating an index on the EMPNO column in the EMPLOYEE table. Which statement will you use?

- a) CREATE INDEX emp_empno_idx ON employee.empno;
- b) CREATE INDEX emp_empno_id FOR employee.empno;

c)CREATE INDEX emp_empno_idx ON employee (empno);

d)None of these

49)You are using a procedure that queries customer information. Where is the data processed?

a)Table

b)Data files

c)Memory structure

d)Rollback segment

50)You are running a production database and cannot risk any data loss. In which mode should your database be?

a)REDOLOG

b)ARCHIVELOG

c)PRODUCTION

d)NOARCHIVELOG

51)What happens when a user issues a COMMIT operation?

a)Changes are applied to the data block letter.

b)Rollback data is saved in a rollback block buffer.

c)Resource locks are released on data and rollback blocks.

d)LGWR flushes the redo log buffer to the current log group.

52)Which auditing option can be used to verify that backups are performed at the scheduled times?

a)SYSTEM

B)execute

C)ALTER / MANAGE TABLESPACE

d)None of the above

53)Which is the data dictionary view that you can query to check the progress of backup?

a)V\$BACKUP_STATUS

b)V\$SESSION_BACKUP

c)V\$BACKUP_PROGRESS

d)V\$SESSION_LONGOPS

54)A function dependency $X \rightarrow Y$ is trivial if

a) $X \supseteq Y$

- b) $Y \supseteq X$
- c) $X \supset Y$
- d) $X \supset Y$

55) Let R (ABCDE) be a relational schema & $F = \{AB \rightarrow CD, ABC \rightarrow E, C \rightarrow E\}$ be the set of functional dependencies. What is the normal form of R?

- a) 1NF
- b) 2NF**
- c) 3NF
- d) BCNF

56) Let R (ABCDE) be a relational schema and $F = \{AB \rightarrow CD, ABC \rightarrow E, C \rightarrow A\}$ be the functional dependencies. The number of candidate keys is,

- a) 1
- b) 2**
- c) 3
- d) 4

57) Consider relation schema R with set functional dependencies (F) as:

R (ABCDE)

$F = \{AB \rightarrow CD, C \rightarrow A\}$

The given relation is in

- a) 1NF
- b) 2NF
- c) 3NF**
- d) BCNF

58) If every attribute is a candidate key then the table is in

- a) 1NF
- b) 2NF
- c) 3NF
- d) BCNF**

59) Consider relation schema R with set functional dependencies (F) as:

R (ABCD) and $F = \{A \rightarrow BC, B \rightarrow CD, C \rightarrow DA\}$

The number of candidate keys are

- a) 1
- b) 2
- c) 3**

d)4

**60)Consider relation schema R with set functional dependencies (F) as:
R (ABCD) and F {A→B, B → C, C → A}**

The number of candidate keys are

a)1

b)2

c)3

d)4

61)In B tree file organization the highest number of item can be placed in leaf node is

a)n/2

b)(n-1)/2

c)n-1

d)n

62)Though index speedup the searching we don't keep search key value for every record because

a)Every search key value adds up additional CPU time

b)Each search key requires additional storage space

c)Both (A) and (B) true

d) None of these

63)In sequential file organization if a record is not fit in free space then the record is placed in

a)Last block

b)First block

c)Overflowblock

d)None of these

64)In dense index, index record contains

a) a search key value and a pointer to the first record

b)Longest search key value and a pointer to last record

c)Smallest search key value and a pointer to the first loation

d)None of these

65)In B⁺ tree index file if there are K search keys and each leaf node contain n records then number of nodes to be accessed

- a) $\log_2 n^k$
- b) $\log_n k$
- c) $\log_{[k]} n$
- d) $\log_{[n/2]} k$

66) If one block access requires 30ms. to access 100 – blocks index requires.....ms

- a) 180ms
- b) 200ms
- c) 50ms
- d) 210

67) A B⁺ tree of order n index file each leaf node must contain

- a) [n-1] values
- b) $[n(n-1)/2]$ values
- c) $[n/2]$ values
- d) $[(n-1)/2]$ values

68) In RDBMS which data structure is used in the internal storage representation?

- a) B⁺ tree
- b) B tree
- c) Linked list
- d) Hash table

69) If we are accessing a block in 100 block index using binary search how many block reads are required to access the data in 100 block.

- a) 7
- b) 6
- c) 100
- d) 10

ENGINEERING MATHEMATICS

1)An equivalence relation is a relation which is

- a)Reflexive and symmetric
- b)Symmertic and Transitive
- c)Reflexive,Symmetric and transitive
- d)None of the above

2)A function $f : \mathbb{N} \rightarrow \mathbb{N}$ defined by $f(n) = 2n + 3$ is

- a)Surjective
- b)Injective
- c)Both
- d)Non injective

3)If a lattice is distributive, then

- a) $a * (b \cdot c) = (a \cdot b) * (b \cdot c)$
- b) $a \cdot (b * c) = (a \cdot b) * (a \cdot c)$
- c) $a * (b * c) = (a * b) \cdot (a * c)$
- d)None of these

4)The minimum no. of edges in a connected cyclic graph on 2 vertices is

- a)1
- b)2
- c)3
- d)None of these

5)The logical expression $(P \wedge Q) \Rightarrow (R' P) \Rightarrow P$

- a)a tautology
- b)a contradiction
- c)a contingency
- d)All the above

6)The principal conjunctive normal form of $(P \wedge Q) \vee (P \wedge Q)$ is

- a)sum of products
- b)product of sums
- c)sum of max-terms
- d)product of max-terms

7) Let P and Q be any two equivalence relations on a non-empty set S , then choose the correct one

- a) $P \cup Q, P \cap Q$, are both equivalence relations
- b) $P \cup Q$ is an equivalent relation
- c) $P \cap Q$ is an equivalent relation
- d) None of these

8) How many edges are possible in a forest with n vertices and k trees?

- a) $n - k + 1$
- b) $n - k - 1$
- c) $n - k$
- d) Insufficient data

9) The following propositional statement is

$$[(p \rightarrow r) \wedge (q \rightarrow r)] \rightarrow [(p \vee q) \rightarrow r]$$

- a) tautology
- b) contradiction
- c) neither tautology nor contradiction
- d) not decidable

10) An English sentence corresponding to $\exists x \forall y R(x, y)$ is:

- a) it is not true that for all x , x is prime number
- b) it is not true that there is an x such that x is even
- c) there exists an x such that for all y , $x + y$ is even
- d) none of these

11) An English sentence corresponding to $\sim (\exists x P(x))$ is:

- a) it is not true that for all x , x is a prime number
- b) it is not true that there is an x such that x is even
- c) for all x there exists a y such that $x + y$ is even
- d) none of these

12) An English sentence corresponding to $\sim (\forall x Q(x))$ is:

- a) it is not true that for all x , x is a prime number
- b) it is not true that there is an x such that x is even
- c) there exists an x such that for all y , $x + y$ is even
- d) none of these

13) Write the following statements in terms of p, q, r and logical connectives: I am awake implies that I work hard.

a) $\sim r \rightarrow p$

b) $q \rightarrow p$

c) $r \rightarrow p$

d) $p \rightarrow q$

14) Write the following statements in terms of p, q, r and logical connectives: Working hard is sufficient for me to be awake.

a) $\sim r \rightarrow p$

b) $q \rightarrow p$

c) $r \rightarrow p$

d) $p \rightarrow q$

15) Write the following statements in terms of p, q, r and logical connectives: Being awake is necessary for me not to dream of home.

a) $\sim r \rightarrow p$

b) $q \rightarrow p$

c) $r \rightarrow p$

c) $r \rightarrow p$

16) A graph is a directed graph with the property that no edge connects a vertex to itself, and between any two vertices there is at most one edge:

a) complete or round-robin

b) single-elimination

c) tournament

d) none of the above

17) A Tournament graph is a tournament graph with the property that between two distinct vertices there is exactly one edge.

a) Complete or round-robin

b) Single-elimination

c) Tournament

d) None of the above

18) How many maximum edges excluding self loops, does a simple undirected graph of eight vertices have?

a) 7

b) 8

c)28

d)14

19)How many edges does a complete tournament graph with n vertices have?

a) $(n - 1) n/2$

b) $(n - 1)$

c)n

d)None of the above

20)If $f(x) = |x|$, then $f'(0)$ is:

a)0

b)1

c)

d)none of the above

21)The range of the function $f(x) = 1/(2 - \cos 3x)$ is:

a) $[1/3, 1]$

b) $(1/3, 1)$

c) $(1, 3)$

d) $[1, 3]$

22)If $A \cup B = A \cap B$ if:

a) $A = \emptyset$

b) $B = \emptyset$

c) $A = B$

d) $A \subset B$

23) $A \cup (B \cap C)$ is equal to:

a) $(A \cup B) \cup (A \cup C)$

b) $(A \cup B) \cap (A \cap C)$

c) $(A \cap B) \cup (A \cap C)$

d) $(A \cap B) \cap (A \cap C)$

24) $R = \{(1, 1), (1, 2), (1, 3), (2, 2), (2, 3)\}$ on $\{1, 2, 3\}$ is:

a)equivalent

b)transitive only

c)reflexive only

d)symmetric only.

25) R is a relation in the natural numbers defined by $x + 2y = 10$. The domain of R is:

- a) $\{2, 4, 6\}$
- b) $\{1, 3, 5, 7\}$
- c) $\{2, 4, 6, 8\}$
- d) None of the above

26) If $f(x) = x + 5$ and $g(x) = x^2$, find $g \circ f$:

- a) $x^2 + x + 5$
- b) $x^2 (x + 5)$
- c) $x^2 + 5x + 5$
- d) $x^2 + 10x + 25$

27) If A and B are two sets, then $(A \cup B)'$ equals:

- a) $A \cap B$
- b) $(A \cap B)'$
- c) $A' \cap B'$
- d) $A' \cup B'$

28) Let $A = \{x \mid 1 < x < 1\} = B$. Then function $f(x) = x/2$ from A to B is:

- a) injective
- b) surjective
- c) both injective and surjective
- d) neither injective nor surjective

29) If $f(x) = x/x+1$ and $g(x) = 1/x - 1$ then $(f \circ g)(x)$ is equal to:

- a) x
- b) $1/x$
- c) $x + 1$
- d) $1/x + 1$

30) If $f(x) = 5 - 8x$, then $f^{-1}(x)$ is:

- a) $5 - x/8$
- b) $8/5 - x$
- c) $x - 5/8$
- d) $8/x - 5$

31) Let A and B be sets with cardinalities m and n. The number of one-one mappings from A to B, when $m < n$ is

a) m^n

b) nP_m

c) mC_n

d) nC_m

32) Find the solution of the following linear congruence equations $3x \equiv 2 \pmod{8}$

a) 4

b) 5

c) 6

d) 7

33) Find the solution of the following linear congruence equations $4x \equiv 6 \pmod{10}$

a) 3 and 9

b) 4 and 9

c) 3 and 6

d) 4 and 6

34) Which of the following is tautology?

a) $x \vee y \rightarrow y \wedge z$

b) $x \wedge y \rightarrow y \vee z$

c) $x \vee y \rightarrow y \rightarrow z$

d) $x \rightarrow y \rightarrow (y \rightarrow z)$

35) Number of edges of a complete binary tree with 16 leaf nodes is

a) 14

b) 30

c) 32

d) 28

36) $A \cup B = A \cap B$ if and only if:

a) A is empty set

b) B is empty set

c) A and B are non-empty sets

d) A and B are empty sets

37) If $a^2 - b^2$ is a prime number (a and $b \in \mathbb{N}$), then:

a) $a^2 - b^2 = 3$

b) $a^2 - b^2 = a - b$

c) $a^2 - b^2 = a + b$

d) $a^2 - b^2 = 5$

38) If $A = \{2, 3, 4, 5\}$, $B = \{3, 4, 5\}$ and $C = \{2, 5\}$, then the null set is:

a) $A - B$

b) $B - C$

c) $B \cap C$

d) $(B \cup C) - A$

39) The domain and range are same for:

a) constant function

b) identity function

c) absolute value function

d) greatest integer function

40) Let $f(x) = 2x$ and $g(x) = x^2$; $(f \circ g)(4)$ is equal to:

a) 16

b) 32

c) 20

d) 128

41) If $f(x) = x + 1$ and $g(x) = x + 3$, then $f \circ f \circ f \circ f$ is:

a) g

b) g^3

c) g^2

d) none of the above

42) $A \cup A = A$ is called:

a) Identity law

b) Demorgan's law

c) Idempotent law

d) Complement law

43) $(A \cup A')'$ is:

a) A

b) \emptyset

c) μ

d) none of the above

44) $f(x) = \log x$, $g(x) = x^3$, then

$F[g(a)] + f[g(b)]$ is:

a) $f[g(a) + g(b)]$

b) $f[g(ab)]$

c) $g[f(ab)]$

d) $g[f(a)] + g[f(b)]$

45) The function $f : \mathbb{R} \rightarrow \mathbb{R}$ given by $f(x) = x^2$ is:

a) one-one

b) onto

c) one-one and onto

d) none of the above

46) A semi-group is

i) Closed

ii) Commutative

iii) Associative

a) (i) and (ii) only

b) (i) and (iii) only

c) (ii) and (iii) only

d) all are correct

47) What is the cardinality of a multiset having letters "MI SSI SSI PPI"?

a) 4

b) 11

c) 3

d) 6

48) How many distinguishable permutations can be generated from the word "BANANA"?

a) 720

b) 60

c) 240

d) 120

49) How many edges are there in a complete graph having 12 nodes?

a) 12

b) 144

c)66

d)none of the above

50)What is the maximum length of cycle in a diagraph of partial order on A having n element?

a)2

b)3

c)1

d)n

Data Structure

1)The best average behavior is shown by

- a)quick sort
- b)merge sort
- c)heap sort
- d)insert sort

2)The average number of comparisons in sequential search is

- a) n^2
- b) $n(n-1)/2$
- c) $n(n+1)/2$
- d) $n + \frac{1}{2}$

3)Which data structure is needed to convert infix notations to postfix notations?

- a)Stack
- b)Queue
- c)Tree
- d)Graph

4)A list is ordered from smallest to largest when a sort, is called. Which sort would take the longest time to execute?

- a)HeapSort
- b)ShortBubble
- c)QuickSort
- d)SelectionSort

5) A list is ordered from smallest to largest when a sort, is called. Which sort would take the shortest time to execute?

- a)HeapSort
- b)ShortBubble
- c)QuickSort
- d)SelectionSort

6)What data structure would you mostly likely see in a nonrecursive implementation of a recursive algorithm?

- a)Link list

b)Queue

c)Stack

d)Trees

7)What is the maximum total number of nodes in a tree that has N levels?

Note that the root is level (zero)

a) 2^{2N}

b) $2^{N+1} - 1$

c) $2^N - 1$

d) $2^N + 1$

8)How many ancestors does a node in the N^{th} level (root level = 0) of a binary search tree have?

a)N

b) $N + 1$

c) 2^N

d) $2^N + 1$

9)How many different binary trees can be made from three nodes that contain the key values 1, 2 and 3?

a)30

b)20

c)10

d)5

10)The postfix form of $A \times B + C - D + E / F / (G + H)$ is

a) $AB \times C + D - EF / GH + / +$

b) $AB \times C - D + EF / GH / +$

c) $AB \times C + D - EF / GH / * +$

d) $AB \times C - D * EF / GH / + +$

11)Which of the following data structure may give overflow error, even though the current number of element in it is less than its size?

a)simple queue

b)circular queue

c)stack

d)none of these

12)What can be said about the array representation of a circular queue when it contains only one element?

- a)front = rear = NULL
- b)front = rear + 1
- c)front = rear – 1
- d)front = rear \neq NULL

13)Queues serve a major role in

- a)Simulation of recursion
- b)Simulation of arbitrary linked list
- c)Simulation of limited resource allocation
- d)Expression evaluation

14)A list with no nodes is called

- a)error list
- b)empty list
- c)unique list
- d)none of these

15)A list can be initialized to the empty list by which operation

- a)list = 1;
- b)list = 0;
- c)list = NULL;
- d)None of these

16)Primary ADTS are

- a)Linked list only
- b)Stack only
- c)Queue only
- d)All of these

17)Among the following which is not C the primitive data types

- a)int
- b)float
- c)char
- d)structure

18)The postfix equivalent of the prefix * + ab – c d is

- a)ab + cd - *

- b)abcd + - *
- c)ab+cd*-
- d)ab+-cd*

19)[(A\$B) * C – D] + [(E / F) / (G + H)]

Convert the above infix operation into postfix form.

- a)AB\$C * D – EF / GH + / +
- b)AB\$CD * -EF / GH + / +
- c)AB\$C * D – E / F G + 1 + / +
- d)AB\$C * D - / EF + GH / +

20)Which of the following abstract data types can be used to represent a many to many relation?

- a)tree
- b)graph
- c)stack
- d)queue

21)Vertex of degree 1 in a graph is called

- a)pendant vertex
- b)isolated vertex
- c)null vertex
- d)none of these

22)Stack is useful for implementing

- a)radix sort
- b)breadth first search
- c)recursion
- d)none of these

23)Stack is not used in

- a)compilers
- b)system programming
- c)operating system
- d)process scheduling

24)Queue can be used to implement

- a)radix sort
- b)quick sort

c)recursion

d)depth first search

25)Insert operation on queue has to be done after testing

a)overflow

b)memory space

c)underflow

d)no need to test anything

26)..... Is called self referential structure

a)linked list

b)stack

c)queue

d)graph

27)r = malloc (sizeof(struct node))

In this expression what should be written before malloc for appropriate type casting

a)(int *)

b)(char *)

c)(struct node *)

d)(node *)

28)We use malloc and calloc for

a)dynamic memory allocation

b)static memory allocation

c)both dynamic and static memory allocation

d)none of these

29)What is the function of “free (P)”?

a)Address that P is pointing to is unchanged but the data that reside at that address are now undefined

b>Delete P for further use

c)Insert element to 1

d) none of these

30)Reverse polish notation is often called

a)postfix

b)prefix

c)infix

d)none of these

31)The time complexity for evaluating a postfix expression is

a) $O(n)$

b) $O(n \log n)$

c) $O(\log n)$

d) $O(n^2)$

32)The worst-case height of AVL tree with n nodes is

a) $2 \log n$

b) $n \log (n + 1)$

c) $1.444 \log (n + 2)$

d) $1.444 n \log n$

33)The following sequence are inserted into a binary search tree:

6 10 25 12 4 7 15 8 33

What is the type of traversal given by :

6 4 10 7 25 8 12 33 15

a)In order

b)Post order

c)Pre order

d)Level order

34)The running time of building MAX-HEAP is

a) $O(n \log n)$

b) $O(\log n)$

c) $O(n^2)$

d) $O(n)$

35)Which of the following sorting algorithm had average sorting behavior

a)bubble sort

b)merge sort

c)heap sort

d)exchange sort

36)If there are n element in the heap, what is the time complexity of inserting a new element in the heap in worst case?

a) $\Theta(\log N)$

- b) $\Theta(N)$
- c) $\Theta(N \log N)$
- d) $\Theta(N^2)$

37) If a binary search tree is traversed in order, the number of the nodes will be printed in

- a) ascending order
- b) descending order
- c) random order
- d) none of these

38) In a binary search tree, which traversal is used for getting ascending order values:

- a) inorder
- b) postorder
- c) preorder
- d) none of these

39) Which of the following is generally used to implement an almost complete binary tree?

- a) array
- b) linked list
- c) matrix
- d) none of the above

40) The sort algorithm works by comparing adjacent array elements that are out of order.

- a) alphabetic
- b) bubble
- c) compare
- d) list

41) Which of the following is the average no. of key comparisons done by sequential search in the successful case?

- a) $(n + 1)/2$
- b) $n/2$
- c) $(n + 1)$
- d) $2n$

42) Which of the following also called “diminishing interement sort”?

- a) Quick sort
- b) heap sort
- c) merge sort
- d) shell sort

43) Which sort will operate in quadratic time relative to the number of elements in the array (on the average)?

- a) quick sort
- b) bubble sort
- c) heap sort
- d) merge sort

44) Bellman ford algorithm does not work for graphs

- a) That contains negative weight edges
- b) That contains negative-weight cycles
- c) That contains more than one articulation points
- d) None of these

45) Solve $T(n) = 4T(n/2) + n^2$

- a) $\Theta(n^3)$
- b) $\Theta(n^3 \log_2 n)$
- c) $\Theta(n \log_2 n)$
- d) none of the above

46) Solve: $T(n) = 16T(n/4) + n^2$

- a) $\Theta(n^3)$
- b) $\Theta(n^3 \log_2 n)$
- c) $\Theta(n \log_2 n)$
- d) none of the above

47) Eight queen problem is solved by

- a) Dynamic programming
- b) Backtracking
- c) Divide and conquer
- d) Hashing

48) Given 2 sorted list of sizes ‘m’ and ‘n’ respectively. Number of comparisons need in the worst case by the merge sort algorithm will be

- a) $m * n$
- b) $\max(m, n)$
- c) $\min(m, n)$
- d) $m + n - 1$

49) A circuit in a connected graph which includes every vertex of the graph is known as:

- a) Hamiltonian
- b) Euler
- c) Planar
- d) Clique

50) Queues serve a major role in

- a) simulation of recursion
- b) simulation of arbitrary linked list
- c) simulation of limited resources allocation
- d) none of these

51) Which of the following are not file organization?

- a) Random files
- b) Sequential files
- c) Direct files
- d) Data files

52) Which one of the following is similar to direct files?

- a) Sequential files
- b) Relative files
- c) Index files
- d) None of these

53) The processing of accessing data stored in a tape is similar to manipulating data on a

- a) Stack
- b) Queue
- c) List
- d) Heap

54) In Tower of Hanoi problem with 3 needles and 6 disks, how many total no. of moves to solve this problem?

a)63

b)49

c)21

d)58

55)An adjacency matrix representation of graph can not contain information of

a)nodes

b)edges

c)direction of edges

d)parallel edges

56)The information about an array that is used in a program will be stored in

a)symbol table

b)activation record

c)system table

d)dope vector

57)Space matrices have

a)many zero entries

b)many non-zero entries

c)higher dimension

d)none of the above

58)An advantages of changed hash table over the open addressing scheme is

a)worst case complexity of search operation is less

b)space used is less

c)deletion easier

d)none of the above

59)The recurrence relation

$T(1) = 2$

$T(n) = 3T(n/4) + n$, has the solution $T(n)$ equal to

A) $O(n)$

b) $O(\log n)$

c) $O(n^{3/4})$

d)none of the above

60)A binary search tree is generated by inserting in order the following integers

50, 15, 62, 5, 20, 58, 91, 3, 8, 37, 60, 24

The number of nodes in the left subtree and right subtree of the root respectively is

a)(4, 7)

b)(7, 4)

c)(8, 3)

d)(3, 8)

DIGITAL ELECTRONICS AND COMPUTER ARCHITECTURE

1) Which of the following operation is commutative but not associative?

- a) OR
- b) X-OR
- c) NOR
- d) Implication

2) Minimum number of two input NAND gates used to perform the function of two input OR gate is,

- a) 1
- b) 2
- c) 3
- d) 4

3) The octal equivalent of hexadecimal FAFAFA is

- a) 76767676
- b) 76737672
- c) 76727672
- d) 76575372

4) What is 10's complement of $(924)_{11}$?

- a) $(6748)_{11}$
- b) $(405)_{11}$
- c) $(516)_{11}$
- d) None of these

5) The number of input words in a truth table always equals, where n is the number of input bits.

- a) 10^n
- b) 2^n
- c) 4^n
- d) None of the above

6) The gate has two or more input signals. All inputs must be high to get a high output.

- a) OR
- b) NAND
- c) AND

d)NOR

7)In boolean algebra, the overbar stands for the Not operation, the plus sign stands for the Operation.

a)And

b)OR

c)NAND

d)NOR

8)In boolean algebra, the times sign stands for the operation

a)AND

b)OR

c)NAND

d)NOR

9)The ALU carries out arithmetic and logic operations. It processes number rather than decimal numbers.

a)decimal

b)hexadecimal

c)binary

d)All of the above

10)A half-adder adds bits

a)16

b)8

c)10

d)2

11)A binary adder is a logic circuit that can add binary numbers at a time.

a)Hundreds

b)Thousands

c)One

d)Two

12)The leading bit stands for the And the remaining bits for the, is known as signed binary numbers.

a)sign, remainder

b)sign, magnitude

- c)value, sign
- d)variable, value

13)How many full and half-adders are required to add 16-bit numbers?

- a)8 half-adders, 8 full-adders
- b)1 half-adders, 15 full-adders**
- c)16 half-adders, no full-adders
- d)none of these

14)Express -7 as 16-bit signed binary numbers.

- a)0000 0000 0000 0111
- b)1000 0000 0000 0111**
- c)0111 0000 0000 0001
- d)0111 0000 0000 0000

15)The number of 8×1 muxes needed to construct 128×1 mux is

- a)13
- b)17
- c)19**
- d)21

16)The out put of sequential logic circuits depends on

- a)Present input
- b)Past output
- c)Both**
- d)None of these

17)How many flip-flops are required to construct a mod – 60 counter?

- a)3
- b)4
- c)5
- d)6**

18)A 4 bit synchronous counter uses flip-flops with propagation delay time of 25 ns each. The maximum possible time required for change of state will be.

- a)25ns**
- b)50ns
- c)75ns
- d)100ns

19)Every flip flop is defined by

- a)characteristics expression
- b)excitation table
- c)both**
- d)none of these

20)A shift register can be used for

- a)parallel to serial conversion
- b)serial to parallel conversion
- c)All of the above**
- d)None of these

21)The master slave JK flip-flop is effectively a combination of

- a)an SR flip-flop and a T flip-flop**
- b)an SR flip-flop and a D flip-flop
- c)a T flip-flop and a D flip-flop
- d)None of the above

22)The functional difference between SR flip-flop and JK flip-flop is that

- a)Jk flip-flop is faster than SR flip-flop
- b)JK flip-flop has a feed back path
- c)JK flip-flop accepts both inputs 1**
- d)None of the above

23)The number of two input NAND gates required to produce the two input OR function is

- a)1
- b)2
- c)3**
- d)4

24)Which gates is known as universal gate?

- a)NOT gate
- b)AND gate
- c)NAND gate**
- d)XOR gate

25)If one instruction executed in 4nsec, what is the throughput of the system

- a)150 MIPS
- b)200 MIPS
- c)250 MIPS
- d)None of the above

26)..... addressing mode facilitates access to an operand whose location is defined relative to the beginning of the data structure in which it appears.

- a)Absolute
- b)Immediate
- c)Index
- d)Indirect

27)RISC processors employs

- a)branch Prediction
- b)delay branch strategy
- c)loop buffer
- d)none of these

28)The most relevant addressing mode to write position independent code is

- a)Direct mode
- b)Indirect mode
- c)Relative mode
- d)Indexed mode

29)A stack is a set of

- a)Reserved ROM address space
- b)Reserved RAM address space
- c)Reserved I/O address space
- d)None of these

30)The property of locality of reference may fail if a program has

- a)Many unconditional jumps
- b)Many conditional Jumps
- c)Both (A) amd (B)
- d)None of these

31)DRAM stores information using

- a)capacitors
- b)transistors

- c)resistors
- d)none of these

32)Search concept used in associative memory is

- a)Parallel search
- b)Sequential search
- c)Binary search
- d)Selection search

33)Which of the following are approaches for cache coherency?

- a)Bus watching write with through
- b)Hardware transparency
- c)Non cacheable memory
- d)All of these

34)Buffer caches are used

- a)To handle interrupts
- b)Speed up main memory read operation
- c)Increase the capacity of main memory
- d)Improve disk performance

35)Memory interleaving is done to

- a)Increase the amount of logical memory
- b)Reduce memory access time
- c>Simplify memory interfacing
- d)Reduce page faults

36)For a cache capacity of 32 KB, how many lines does the cache holds for line length of 128 bytes

- a)1024
- b)512
- c)256
- d)None of these

37)Memory mapping table is used to

- a)Translate virtual address to physical address
- b)Translate physical address to virtual address
- c>Both (A) and (B)
- d)None of these

38)DMA throughput for a particular system depends on

- a)Transfer type
- b)Memory system configuration
- c)Bus activity generated by user process
- d)All of these

39)The system bus

- a)is used for communication between the processor and L1 cache
- b)is used for communication between the cache and main memory
- c)is used for communication between the main memory and I/O devices
- d)Both (B) and (C)

40)Regarding interrupts,

- a)In a hardware action, the CPU stores the interrupt vector in one of the program-visible registers
- b)The interrupt vector is used to index into a table to retrieve the interrupt handler's address
- c)The hardware actions upon a trap and interrupt are different
- d)Both (A) and (B)

41)What is the maximum speedup factor of n storage pipeline?

- a) $(n - 1)$
- b) $(n + 1)$
- c> $2n$
- d) n

42)Branch instructions are handled in a pipelining using

- a)Prefetch target instruction strategy
- b)Loop buffer strategy
- c)Both (A) and (B)
- d)None of these

43)A pipeline is having speedup factor as 10 and operating with an efficiency of 80% what will be number of stages in the pipeline

- a)10
- b)8
- c)13
- d)None of these

44) In a n-to-m line decoder, the m and n represented as a number of

- a) input lines and output lines respectively
- b) output lines and input respectively**
- c) number of gates and output lines respectively
- d) none of these

45) In multiplexer, the number of input lines depend on

- a) The number of output lines
- b) The number of selector lines**
- c) The number of gates
- d) None of these

46) During DMA transfer, DMA controller takes over the buses to manage the transfer

- a) directly from CPU to memory
- b) directly from memory to CPU
- c) indirectly between the I/O device and memory
- d) directly between the I/O device and memory**

47) Booth's algorithm is used in floating-point

- a) addition
- b) subtraction
- c) multiplication**
- d) division

48) A 33-bit address bus allows access to memory of capacity

- a) 64 Mb
- b) 16 Mb
- c) 1 Gb
- d) 4 Gb**

49) Pipelining improves CPU performance due to

- a) reduced clock access time
- b) increased clock speed
- c) the introduction of parallelism**
- d) addition functional units

50)Which of the following lists memory types from highest to lowest access speed?

- a)secondary storage, main memory, cache, registers
- b)registers, cache, secondary storage, main memory
- c)registers, cache, main memory, secondary storage
- d)None of these

51)To prevent signals from colliding on the bus, prioritize access to memory by I/O channels and processors.

- a)a register
- b)interrupts
- c)the processor scheduler
- d)a controller

52)..... improve system performance by temporarily storing data during transfer between devices or processes that operate at different speeds.

- a)caches
- b)controllers
- c)buffers
- d)registers

53)According to the temporal locality, processes are likely to reference pages that

- a)have been referenced recently
- b)are located at address near recently referenced pages in memory
- c)have been preloaded into memory
- d)none of these

54)In caching system, the memory reference made in any short time interval tend to use only a small fraction of the total memory is called

- a)checker boarding
- b)locality principle
- c)memory interleaving
- d)none of these

55)The register which holds the address of the location to or from which data are to be transferred is known as

- a)index register
- b)instruction register

c)memory address register

d)memory data register

56)Which one is required while establishing the communication link between CPU and peripherals?

a)synchronization mechanism

b)conversion of signal value

c)operating mode

d)all of the above

57)The CPU initializes the DMA by sending

a)The starting address of the memory blocks where data is available or where data is to be stored

b)the word count

c)control for mode and start the transfer

d)all of the above

58)The minimum time delay between the initiations of two independent memory operations is called

a)access time

b)cycle time

c)transfer rate

d)latency time

59)Relative Addressing Mode is used to write Position-independent code because

a)The Code in this mode is easy to atomize

b)The Code in this mode is easy to relocate in the memory

c)The Code in this mode is easy to make resident

d)None of these

60)Hardware control units are faster than Micro-programmed control unit because

a)They do not consist of slower memory element

b)They are made using faster VLSI design technology

c)They contain high speed digital components

d)None of these

61)The register which contains the data to be written into or read out of the addressed location is known as

- a)memory address register
- b)memory data register**
- c)program computer
- d)index register

62)In which addressing mode, the effective address of the operand is generated by adding a constant value to the contents of a register?

- a)absolute mode
- b)indirect mode
- c)immediate mode
- d)index mode**

63)An interrupt that can be temporarily ignored by the counter is known as

- a)vectored interrupt
- b)non-maskable interrupt
- c)maskable interrupt**
- d)none of these

64)In case of pipeline processor, loop buffer is

- a)very-high-speed memory maintained by the instruction fetch stage**
- b)very-high-speed memory maintained by the instruction decode stage
- c) very-high-speed memory maintained by the instruction execute stage
- d)none of these

65)The process of fetching and executing instructions one at a time, in the order of increasing addressing is known as

- a)instruction execution
- b)straight line screening**
- c)instruction fetch
- d)random screening

66)A cache that stores both instruction and data is referred to as

- a)I – cache
- b)D – cache
- c)Unified**
- d)None of the above

67)Which memory is difficult to interface with processor?

- a)static memory
- b)dynamic memory**
- c)ROM
- d)RAM

68)Given below are some statements associated with the registers of a CPU. Identify the false statement.

- a)The program counter holds the memory address of the instruction in execution.**
- b)Only opcode is transferred to the control unit.
- c)An instruction in the instruction register consists of the opcode and the operand
- d)None of these

69)Given below are some statements associated with cache memory. Identify the correct statement.

- a)The level 1 cache always faster than the level 2 cache.
- b)The level 2 cache is used to mitigate the dynamic slowdown every time a Level 1 cache miss occurs.**
- c)Level 2 cache comes as on board only.
- d)None of these

70)What is the control unit's function in the CPU?

- a)to decode program instructions**
- b)to transfer data to primary storage
- c)to perform logical operations
- d)none of these

71)Addressing mode is

- a)explicitly specified
- b)implied by the instruction
- c)both (a) and (b)**
- d)neither (a) and (b)

72)System calls are usually invoked by using

- 1.An indirect jump**
- 2. A software interrupt**
- 3.Polling**

4.A privileged instruction

a)2 and 3

b)1 and 3

c)1, 2, 3 and 4

d)3 and 4

73)Which of the following holds data and processing instructions temporarily until the CPU needs it?

a)ROM

b)control unit

c)main memory

d)coprocessor chips

74)Which of the following affects processing power?

a)data bus capacity

b)addressing scheme

c)clock speed

d)all of the above

75)Microinstruction length is determined by

1.The maximum number of simultaneous micro operation that must be specified.

2.The way in which the control information is represented or encoded.

3.The way in which the next microinstruction address is specified.

a)1 and 2

b)2 and 3

c)1 and 3

d)all of the above

76)In Flynn's classification of computers, the vector and array classes of machines belong to

a)Single instruction/single data category

b) Single instruction/multiple data category

c)Multiple instruction/single data category

d)Multiple instruction/multiple data category

77)The following are four statements regarding what a CPU with only a set of 32 bit registers can perform.

1.Hold and operate on 32 bit integers

2. Hold and operate on 16 bit integers

3. Hold and operate on 64 bit floating point arithmetic

4. Hold and operate on 16 bit UNICODE characters

Which of the following is true about such a CPU?

a) all are true

b) 1, 2 and 3 only

c) 1, 2 and 4 only

d) 1, 3 and 4 only

78) Register is a

a) set of capacitor used to register input instruction in a digital computer

b) set of paper tapes and cards put in a file

c) temporary storage unit within the CPU having dedicated or general purpose use

d) part of the auxiliary memory

79) If in a shift register Q_0 is fed back to input the resulting counter is

a) Twisted ring with $N : 1$ scale

b) Ring counter with $N : 1$ scale

c) Twisted ring with $2N : 1$ scale

d) None of these

80) Conversion of decimal number 99_{10} to hexadecimal number is

a) 63_{16}

b) 8_{16}

c) 61_{16}

d) 50_{16}

81) Conversion of decimal number 81_{10} to hexadecimal number is

a) $2D_{16}$

b) 51_{16}

c) 41_{16}

d) 61_{16}

82) Conversion of binary number 1100011_2 to its decimal number is

a) 29_{10}

b) 97_{10}

c) 99_{10}

d) 93_{10}

83) Conversion of an octal number 60_8 to binary number is

a) 110111_2

b) 111100_2

c) 110010_2

d) 111011_2

84) Conversion of a hexadecimal number $3A_{16}$ to binary number is

a) 1101101_2

b) 111010_2

c) 100110_2

d) 110011_2

OPERATING SYSTEM

1)Multithreading is important because it can

- a)facilitate software design and promote good programming practices
- b)improve performance and scalability
- c)facilitate cooperation/synchronization of activities
- d)all of the above

2)..... Restricts access to shared variable to only one thread at any given time.

- a)asynchronisation
- b)serialization
- c)protection
- d)mutual exclusion

3)An unsafe state implies

- a)the existence of deadlock
- b)that deadlock will eventually occur
- c)that some unfortunate sequence of events might lead to a deadlock
- d)none of the above

4)operating system can divide main memory into portions called so that one process cannot overwrite another's memory, either inadvertently or maliciously.

- a)sections
- b)partitions
- c)modules
- d)regions

5)A memory manager's primary functions is

- a)to determine how to allocate available memory
- b)to determine how to respond to changes in a process's memory usage
- c)to interact with special memory management hardware
- d)all of the above

6)Noncontiguous memory allocation splits program into blocks of memory called that can be loaded into nonadjacent "holes" in main memory.

- a)pages

- b)partitions
- c)frames
- d)segments

7)Page fault occurs when

- a)the page is corrupted by application software
- b)the page is in main memory
- c)the page is not in main memory
- d)none of these

8)Overlay is

- a)a part of an operating system
- b)a specific memory allocation
- c)a single contiguous memory that was used in the olden days for running large programs by swapping
- d)none of the above

9)Concurrent processes are processes that

- a)do not overlap in time
- b)overlap in time
- c)are executed by a processor at the same time
- d)none of the above

10)The page replacement policy that sometimes leads to more page faults when the size of the memory is increased is

- a)FIFO
- b)LRU
- c)no such policy exists
- d)none of the above

11)Fragmentation is

- a)dividing the secondary memory into equal sized fragments
- b)dividing the main memory into equal-size fragments
- c)fragments of memory words used in a page
- d)fragments of memory words unused in a page

12)Critical region is

- a)a part of the operating system which is not allowed to be accessed by any process

b)a set of instruction that access common shared resources which exclude one another in time

c)the portion of the main memory which can be accessed only by one process at a time

d)none of these

13)Kernal is

a)considered as the critical part of the operating system

b)the software which monitors the operating system

c)the set of primitive functions upon which the reset of operating system function are built up.

d)none of these

14)Supervisor call

a)is a call made by the supervisor of the system

b)is a call with contro functions

c)are privileged calls that are used to perform resource management functions, which are controlled by the operating system

d)none of the above

15)Semaphores are used to solve the problem of

1.race condition

2.process synchronization

3.mutual exclusion

4.none of the above

a)1 and 2

b)2 and 3

c)All of the above

d)None of the above

16)Mutual exclusion problem occurs

a)between two disjoint processes that do not interact

b)among processes that share resources

c)among processes that do not use the same resource

d)none of the above

17)Sector interleaving in disks is done by

a)single user system

b)non-multiprogramming system

- c)non-multitasking system
- d)none of these

18)Dirty bit is used to show the

- a)page with corrupted data
- b)wrong page in the memory
- c)page is that modified after being loaded into cache memory
- d)page that is less frequently accessed

19)The first-fit, best-fit and the wroost-fit algorithm can be used for

- a)contiguous allocation of memory
- b)linked allocation of memory
- c)indexed allocation of memory
- d)all of the above

20)Memory protection is normally done by the

- a)processor and the associated hardware
- b)opearing system
- c)compiler
- d)user program

21)In a paged segmented scheme of memory management, the segment table itself must have a page table because

- a)the segment table is often too large to fit in one page
- b)each segment is spread over a number of page
- c)segment tables point to page tables and not to the physical location of the segment
- d)none of the above

22)Which of the following page replacement algorithm suffer from Belady's anomaly?

- a)Shortest job first
- b)Round robin
- c)First-come-first-serve
- d)Elevator

23)Thrashing

- a)reduces page I/O
- b)decreases the degree of multiprogramming

c)implies excessive page I/O

d)improves the system performance

24)Dirty bit for a page in a page table

a)helps avoid unnecessary writes on a paging device

b)helps maintain LRU information

c)allows only read on a page

d)none of these

25)When an interrupt occurs, an operating system

a)ignores the interrupt

b)always changes the stage of the interrupted process after processing the interrupt

b)always resumes execution of the interrupted process after processing the interrupt

d)may change the state of the interrupted process to “blocked” and schedule another process

26)DMA stands for

a)direct mode action

b)direct memory access

c)digital mode action

d)digital memory acceptor

27)Bootstrap loader is always stored in

A)cache

b)ROM

c)RAM

d)disk

28)A signal is a virtual interrupt which is created by which of the following

a)Hardware

b)OS

c)PCB

d)TLB

29)Process Control Block (PCB) of all running process reside in which of the following?

a)RAM

- b)Harddisk
- c)Cache
- d)None of these

30)LRU replaces the page that has spent the

- a)longest time in memory
- b)longest time in memory without being referenced**
- c)shortest time in memory
- d)shortest time in memory without being referenced

31)Scheduling strategies are commonly evaluated by the system's

- a)throughput
- b)mean response time
- c)variance of response times
- d)all of the above**

32)Spooling helps because

- a)it is a more method of accessing data
- b)print jobs go more smoothly with less stop and go
- c)the computer is released to do other things while still printing**
- d)none of these

33)An interrupt handler is a

- a)location in memory that keeps track of recently generated interrupts
- b)peripheral device
- c)utility program**
- d)special numeric code that indicates the priority of a request

34)When an OS spends much of its time paging, instead of executing application software, it is said to be

- a)thrashing**
- b)formatting
- c)spooling
- d)booting

35)Round-robin scheduling

- a)allows interactive tasks quicker access to the processor
- b)is quite complex to implement
- c)gives each task the same chance at the processor**

d)allows processor-bound tasks more time in the processor

36)The main function of the dispatcher is

a)swapping a process to the disk

b)assigning ready process to the CPU

c)suspending some of the processes when thr CPU load is high

d)none of these

37)Page fault frequency in an operating system is reduced when the

a)size of pages is reduced

b)processes tend to be I/O-bound

c)processes tend to be CPI-bound

d)locality of reference is applicable to the process

38)A page fault

a)is an error is a specific page

b)occurs when a program accesses a page of memory

c)is an access to a page not currently in memory

d)none of these

39)Which of the following policy often gives long average waiting time?

a)SJF

b)round robin

c)FCFS

d)all of the above

40)Where is hard disk information stored?

a)RAM

b)CMOS

c)SYSTEM.INI

d)BOOT.INI

41)Swapping is performed by

a)long term scheduler

b)mid term scheduler

c)short term scheduler

d)dispatcher

42)Which of the following is not a disk scheduling algorithm?

- a)FCFS
- b)LRU**
- c)SSJF
- d)SCAN

43)If a system contains CPU bound processes then which of the following scheduling algorithm produces maximum efficiency of the CPU:

- a)FIFO
- b)round robin
- c)SJF**
- d)priority

44)The time interval between the time of submission of a process to the time of completion of a process is known as which of the following?

- a)waiting time
- b)response time
- c)turn around time
- d)none of these

45)The data block of very large file in the Unix file system are allocated using

- a)contiguous allocation
- b)linked allocation
- c)indexed allocation
- d)an extension of indexed allocation**

46)Consider is an address of 16 bit, with 4 bit as segment number, then maximum possible segment size is.....

- a)16
- b)65536
- c)4096
- d)12

47)The cylinder skew problem is concern with which of the following

- a)Semaphore
- b)Thrashing
- c)Interleaving**
- d)Deadlock

48)Pre-emptive scheduling, is the strategy of temporarily suspending a running process

a)before the CPU time slice expires

b)to allow starving processes to run

c)when it request I/O

d)none of these

49)Disk scheduling involves deciding

a)which disk should be accessed next

b)the order in which disk access request must be serviced

c)the physical location where files should be accessed in the disk

d)none of the above

50)In Round Robin CPU scheduling, as the time quantum is increased, the average turn around time

a)increases

b)decreases

c)remains constant

d)varies irregularly

51)The size of the virtual memory depends on the size of the

a)data bus

b)main memory

c)address bus

d)none of these

52)In which of the following directory system, is it possible to have multiple complete paths for a file, starting from the root directory?

a)Single level directory

b)Two level directory

c)Three structured directory

d)Acyclic graph directory

53)Which of the following is the most suitable scheduling scheme in a real-time operating system?

a)round-robin

b)first-come-first-served

c)pre-emptive scheduling

d)random scheduling

54)'Aging' is

- a) keeping track of cache contents
- b) keeping track of what pages are currently residing in the memory
- c) keeping track of how many times a given page is referenced
- d) increasing the priority of jobs to ensure termination in a finite time

55) Which of the following scheduling algorithm gives minimum average waiting time?

- a) FCFS
- b) SJF
- c) Round-robin
- d) Priority

56) A memory page contains a heavily used variable that was initialized very early and is in constant use. When the page replacement algorithm used is

- a) LRU
- b) FIFO
- c) LFU
- d) None of these

57) Which of the following algorithm favours CPU bound processes?

1. round-robin
2. first-come-first-serve
3. multilevel feedback queues

- a) 1 only
- b) 2 only
- c) 1 and 2 only
- d) 1 and 3 only

58) Which of the following scheduler reduces the degree of multiprogramming?

- a) Long-term scheduler
- b) short-term scheduler
- c) mid-term scheduler
- d) none of these

59) Where does the swap space reside?

- a)RAM
- b)disk**
- c)ROM
- d)on-chip cache

60)The time complexity of Banker's algorithm to avoid deadlock having n processes and m resources is

- a) $O(m * n)$
- b) $O(m + n)$
- c) $o(m^2 * n)$
- d) $O(n^2 * m)$**

61)The optimal page replacement algorithm will select the page that

- a)has not been used for the longest time in the past
- b)will not be used for longest time in the future**
- c)has been used least number of times
- d)has been most number of times

62)A memory page containing a heavily used variable that was initialized very early and in constant used is removed when

- a)LRU page replacement algorithm is used
- b)FIFO page replacement algorithm is used**
- c)LFU page replacement algorithm is used
- d)none of these

63)Solution of external fragmentation is

- a)compaction
- b)segmentation
- c)both (a) and (c)**
- d)none of these

64)Executing more than one program concurrently by one user on more computer is known as

- a)multiprogramming
- b)time-sharing
- c)multitasking**
- d)multiprocessing

65)The simultaneous processing of two or more programs by multiple processors is

- a)multitasking
- b)multiprogramming
- c)time-sharing
- d)multiprocessing**

66)This occurs when several full-fledged processors work together on the same tasks, sharing memory.

- a)multitasking
- b)multiprogramming
- c)parallel processing**
- d)serial processing

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