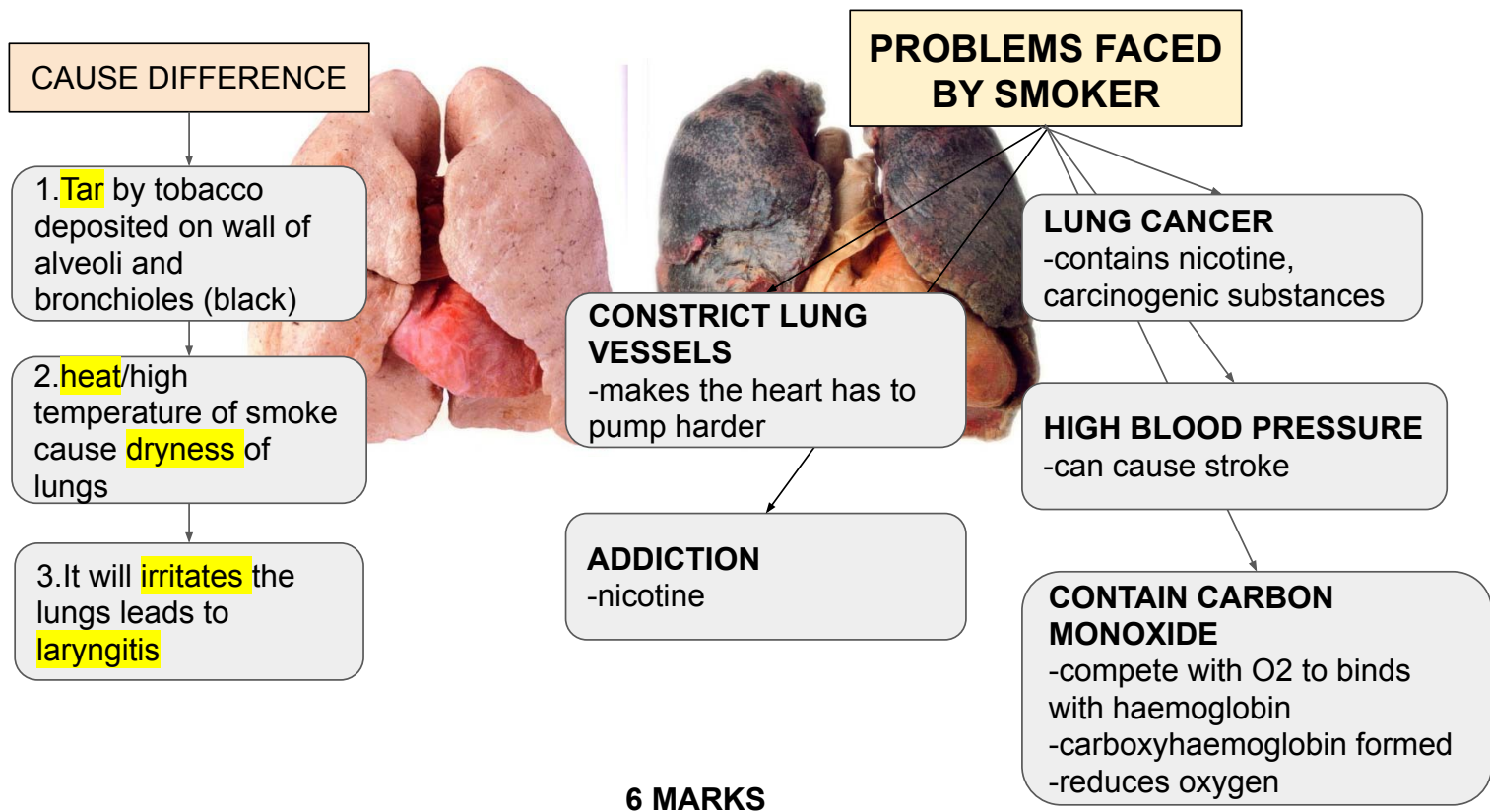
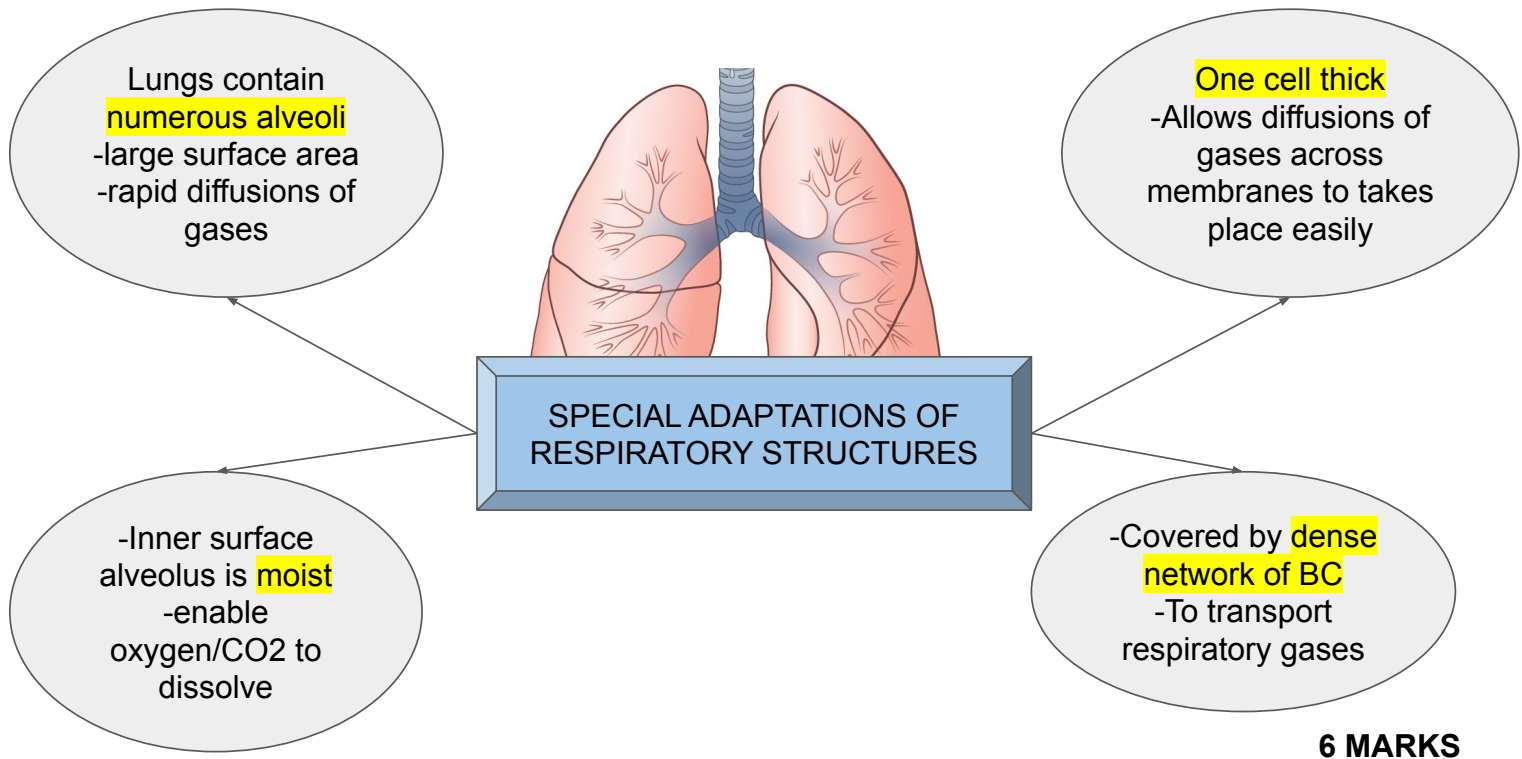
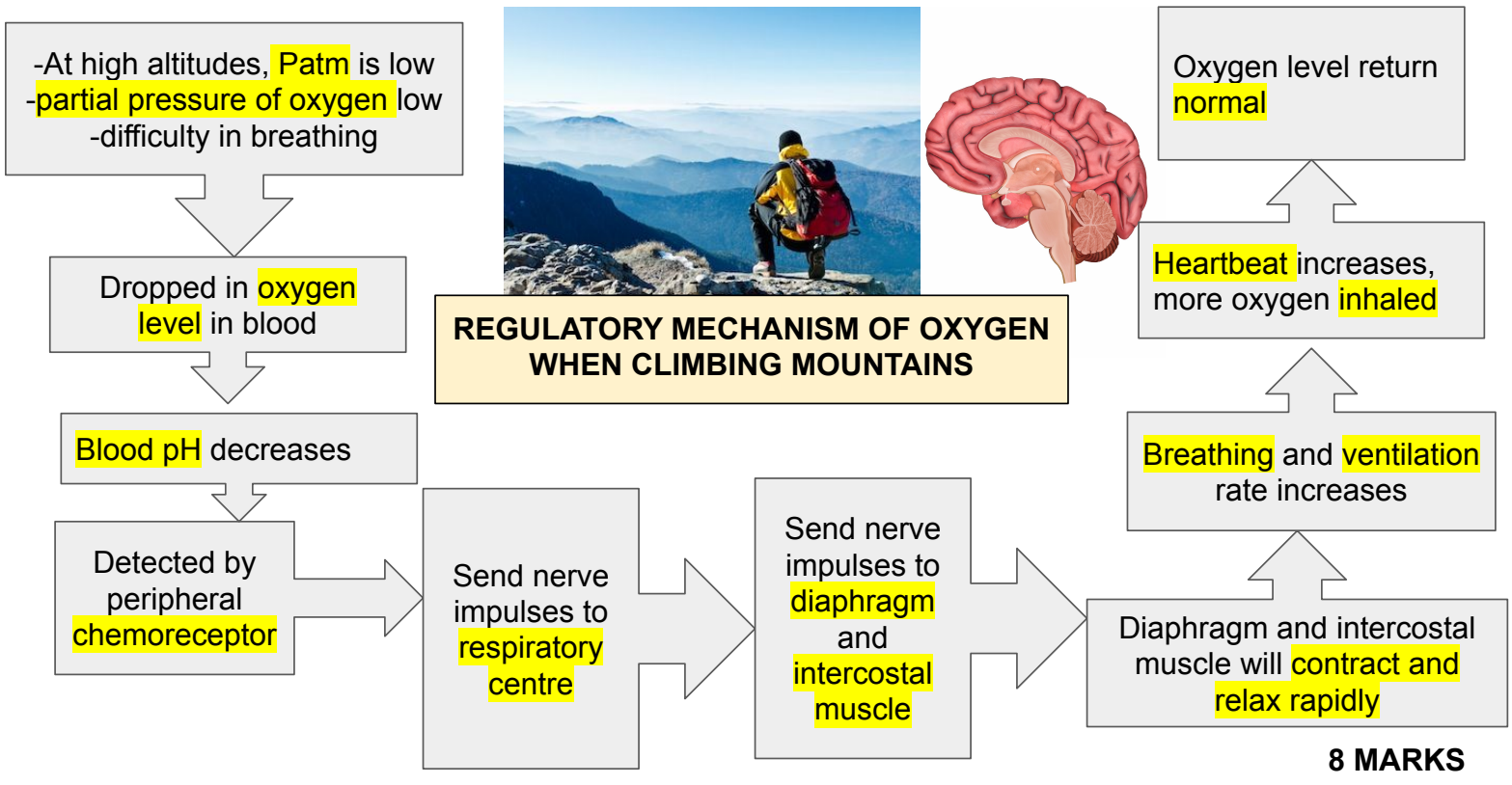


QUESTION 6





QUESTION 7

ADAPTATIONS TO STAY UPRIGHT & MAX RATE OF PHOTOSYNTHESIS

SUBMERGED PLANTS	FLOATING PLANT
<ul style="list-style-type: none"> • Thin, narrow, flexible leaves • Provide little resistance to water flow • Air sacs within leaves to keep afloat to the surface (max absorb sunlight) • Water buoyancy provide supports • Fibrous root • To trap air bubbles 	<ul style="list-style-type: none"> • Broad leaves, firm, flexible • To resist being torn by water resistance • Have aerenchyma tissue (spongy tissue, large air space btw cells) • Provide buoyancy to plant • Can float

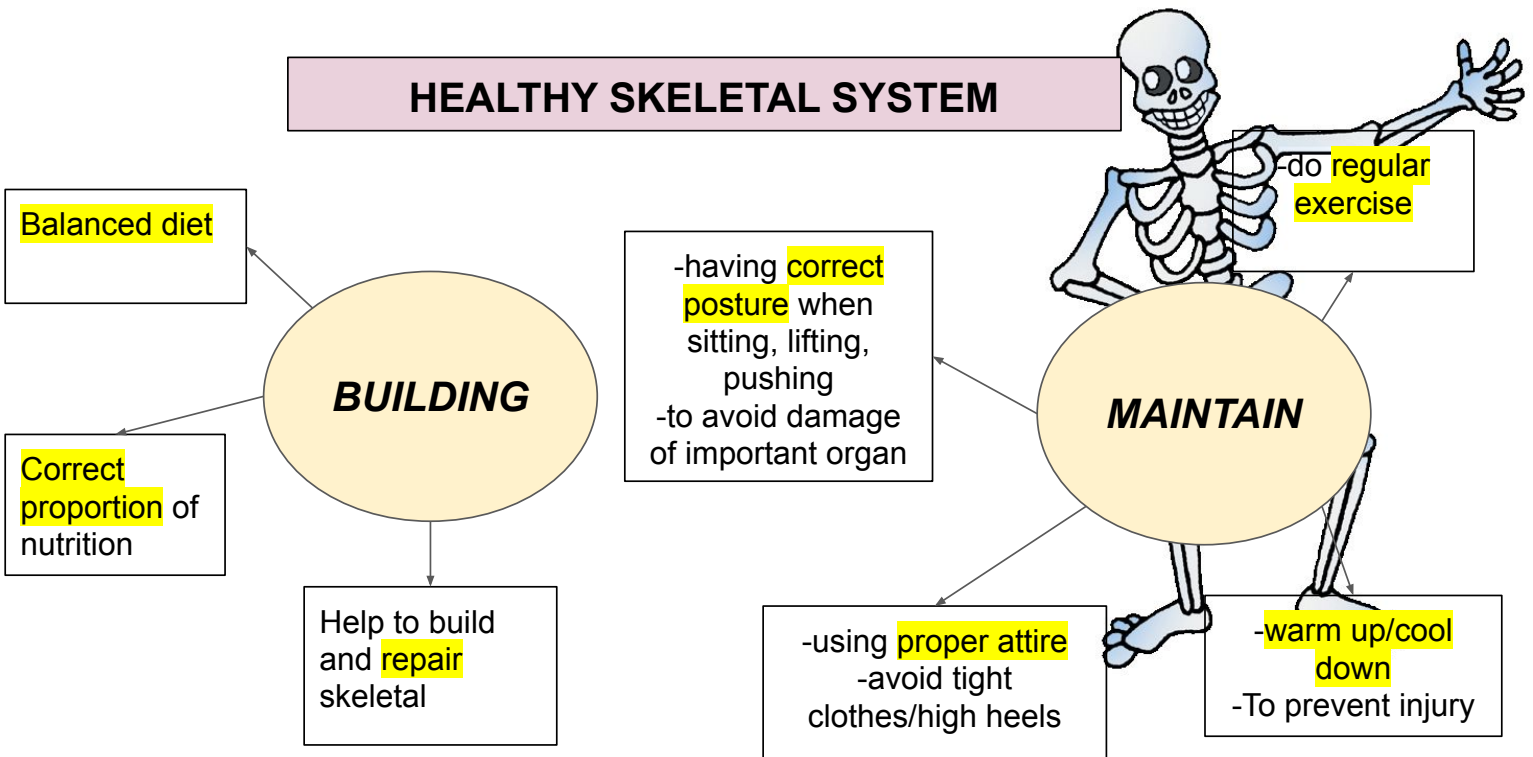


6 MARKS

EXPLAIN

	CAUSE	SYMPTOMS	WAYS TO AVOID
OSTEO-POROSIS	<ul style="list-style-type: none"> Ageing in older women Lack oestrogen Rate of calcium loss higher than rate pf calcium absorption Loss mass of bone 	<ul style="list-style-type: none"> Bone less density Bone porous, brittle Lighter Easily fractured 	<ul style="list-style-type: none"> Increase intake food rich calcium (milk) Do exercise
MUSCULAR DYSTROPHY	<ul style="list-style-type: none"> Genetic disease Mutated recessive gene at X chromosomes 	<ul style="list-style-type: none"> Reduce in muscle mass Body unable to build protein For muscle growth 	<ul style="list-style-type: none"> No treatment Only steroid injections
ARTHRITIS	<ul style="list-style-type: none"> Cartilage at the joints degenerates ageing/overweight 	<ul style="list-style-type: none"> Swollen joints Inflamed joints Pain during movements 	<ul style="list-style-type: none"> Surgery Treatment to build cartilage Avoid vigorous activities(hiking)

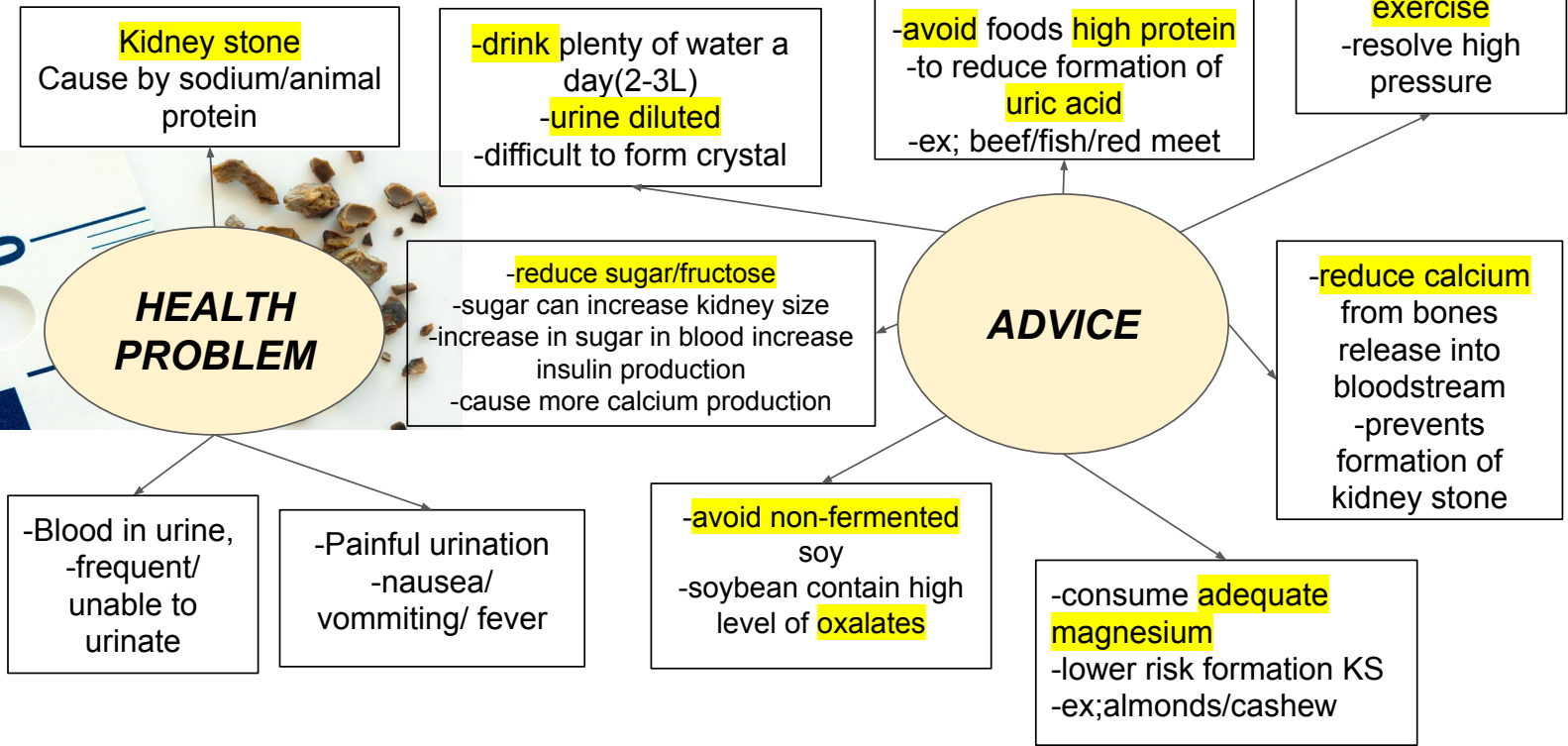
8 MARKS




6 MARKS

QUESTION 8

KIDNEY STONE (10 MARKS)



EFFECTS OF EATING HABITS (12 YEARS OLD BOY)

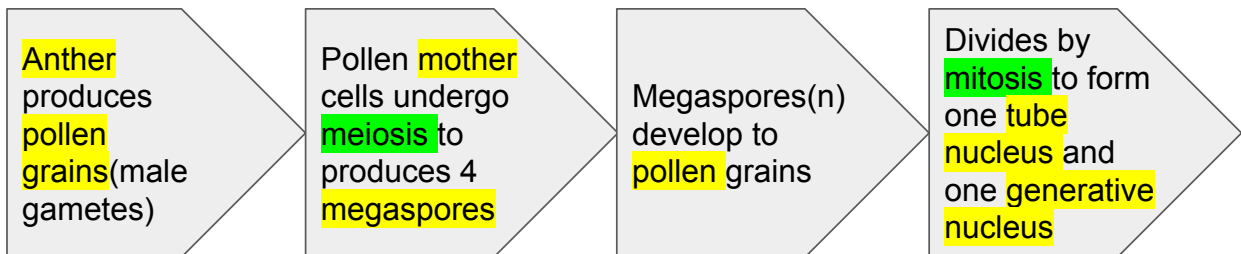
CARBONATED DRINK	FRIED RICE	BEEF BURGER
<ul style="list-style-type: none"> Contains excess sugar Leads to diabetes mellitus Raises blood sugar level 	<ul style="list-style-type: none"> High carbohydrates High fats High oil (cholesterol) Provide energy/insulation/protect internal organ Excess fats, cholesterol cause atherosclerosis/hypertension/heart attack/stroke Excess carb causes obesity/cardiovascular disease/high blood pressure/atherosclerosis/stroke/hypertension 	<ul style="list-style-type: none"> Bread contains carbohydrate Cheese contains fats Beef contains protein Salad contains dietary fibre/vitamin Excess carb cause obesity/diabetes mellitus/cardiovascular disease/high blood pressure/atherosclerosis/stroke/hypertension Excess fat causes atherosclerosis which leads to heart attacks and hypertension Excess protein causes gout/kidney failure Raise uric acid level in blood Excess fibre helps in peristalsis and prevents constipation Excess vitamin cause kidney damage

10 MARKS

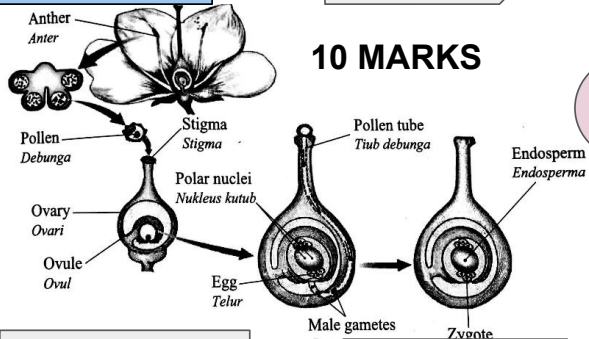
QUESTION 9

POLLINATION, GERMINATION, DOUBLE FERTILISATION

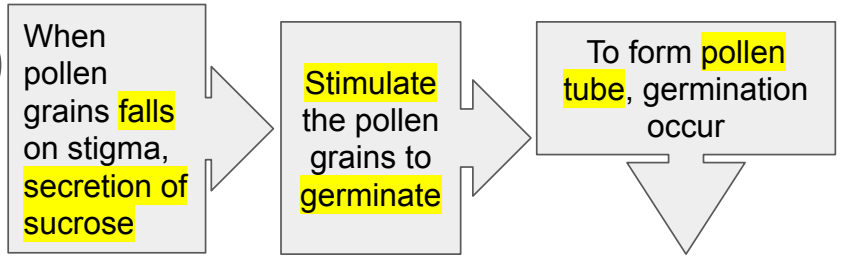
A



10 MARKS



B



-one fuses with egg cell to form diploid zygote
-one fuses with two polar nuclei to form triploid nucleus

-Tube nucleus disintegrates
-two male gametes enter embryo sac

DOUBLE FERTILISATION OCCUR

Two male gametes were driven by tube nucleus reaching micropyle and enter the ovule

Generative nucleus divide by mitosis to produce two male gametes

METHODS OF FAMILY PLANNING (10 MARKS)

CONDOM	IUD	SPERMICIDE	CALENDAR	DIAPHRAGM
<ul style="list-style-type: none"> Made of plastic/ latex Worn on penis To prevent sperm from entering vagina No fertilisation 	<ul style="list-style-type: none"> Intrauterine device is inserted into uterus by doctors Left in uterus for 2-5 years Irritates the endometrium Prevent thickening of endometrium wall No development of zygote to embryo 	<ul style="list-style-type: none"> Comes in cream or gel Kill sperm Sperm cannot reach egg 	<ul style="list-style-type: none"> Woman keep in track of days of menstrual cycle Avoid vaginal sex/ use condom during fertile time 	<ul style="list-style-type: none"> A piece of dome shaped silicon Inserted into vagina to cover cervix Prevent sperms entering the uterus

Thus, the most effective methods are _____ (3 methods)